

Unraveling the Mystery of Memory in the Treatment of Trauma Memory Reconsolidation - An Interview with Bruce Ecker

Diane: Welcome, everybody. Thank you for joining us. We have a really special treat for you today. Bruce Ecker is here to talk to us about memory and memory reconsolidation, which is one of my favorite topics. I think this is really fascinating and I had the pleasure of hearing Bruce live at the Psychotherapy Networker conference in March. He's amazing. You're in for a really big treat. I really love his orientation to permanent transformational change. We all want that and he knows how to do it, so we're going to dive in real quick here.

[00:00:30] I want to tell you a little bit about Bruce. He's the co-originator of coherence therapy. He's also the co-director of Coherence Psychology Institute. He's the coauthor of *Unlocking the Emotional Brain: Eliminating Symptoms at Their Roots Using Memory Reconsolidation*. He also wrote the *Coherence Therapy Practice Manual & Training Guide* and also, the *Depth Oriented Brief Therapy: How to Be Brief When You Were Trained to Be Deep and Vice Versa*. He has contributed numerous innovations in experiential psychotherapy. I'm a big fan. He's led the clinical field's emerging awareness of what memory reconsolidation research means for psychotherapy. That's what we're diving into today. Our topic and title for today is *How Our Best Sessions Produce Transformational Change: Understanding Memory Consolidation For Consistent Therapeutic Effectiveness*. I'm so excited to have you, Bruce. Thank you so much for joining us. I'm going to turn this over to you to explain all the magic. Thank you.

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Bruce Ecker: Okay. Thank you, Diane. I'm very happy to have this opportunity to communicate with your circle because memory research over the last 20 years has revealed something that is of the utmost importance to psychotherapy. We now know that the brain possesses an innate natural process known as memory reconsolidation that has the remarkable ability to permanently nullify and eliminate a targeted, specific piece of emotional learning or conditioning. My colleagues and I in the Coherent Psychology Institute have mapped out how an understanding of memory reconsolidation gives therapists unprecedented control over consistently producing transformational change, meaning decisive, lasting freedom from an unwanted acquired pattern.

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As I'll explain, there is now good reason to trust that memory reconsolidation is the

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- [00:02:30] core mechanism operating whenever transformational change happens in therapy of any type. We are sure that memory reconsolidation is going to become one of the main organizing principles of the psychotherapy field, whether it takes the field five years or 50 years to fully recognize the power and versatility of memory reconsolidation for psychotherapy.
- [00:03:00] Now, probably all counselors and therapists sometimes have sessions that do produce transformational change. There are distinctive markers that define transformational change and make it very clear whether or not transformational change has, in fact, happened. I'll put the slides on the screen now and we will take
- [00:03:30] a look at what those markers of transformational change are. Okay.
- [00:04:00] This is what they are. There is a complete disappearance of persistent symptoms of behavior, emotion, thought, or somatic distress. There is also disappearance of the underlying emotional activation or the stressed ego state driving those symptoms. Then those changes persist effortlessly and permanently. Those are the three markers of transformational change in therapy. I often call it profound change. For example, panic attacks stop. Depression is gone. Compulsive behavior falls away. Post-traumatic symptoms no longer get triggered and a new quality of well being is felt.
- [00:04:30] This is therapy at its most effective best, but transformational change is not really the norm or the expected outcome in the therapy field overall. Much of what therapists do is incremental change, degrees of symptom relief through methods that attempt to counteract symptoms or regulate the underlying emotional reactions. The last two or three decades have seen the emergence of various
- [00:05:00] systems of experiential therapy that do tend to produce transformational change. At this point, they are in use all around the world.
- [00:05:30] Now, if you are seeing transformational change regularly in your sessions with many kinds of clients, then you really don't need to learn about memory reconsolidation. Let's not try to fix what isn't broken. Even though we have so many therapies of transformational change, we are still in a big quandary because these therapies that do guide transformational change have very different ways of conceptualizing it. This fragmented situation has kept our field in something of an awkward muddle regarding the key question, how does transformational change take place? What

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- [00:06:00] has to happen in a therapy session to bring it about? That is, arguably, the single most important question for our field to answer. We've not had any bedrock definitive answers that are independent of each particular school's methods and theoretical model.
- [00:06:30] What if the brain could speak for itself? What would the brain tell us to do to bring about transformational change? What would that description look like? What are the brain's own rules for transformational change? If we had that fundamental transtheoretical information, guiding therapeutic breakthroughs would be much more reliable and frequent in our sessions, not to mention how it would create a unified understanding of different therapeutic systems. Remarkably, all of that is exactly what our new knowledge of memory reconsolidation gives us. We now do know the brain's own rules for our transformational change.
- [00:07:00] Here's one way to begin to understand what memory reconsolidation is and does. We already know that any new learning creates new neural circuits in the brain. In that sense, any new learning rewires the brain. That new learning and new wiring
- [00:07:30] does not necessarily unwire the existing underlying old learning that's driving unwanted responses. Normally, new learning and its new circuitry set up separately from existing old learning and the new learning competes with the old learning. That's what's happening as a rule when we do therapy by working to build up preferred behaviors or states of mind that are intended to prevail over or, at least, regulate the client's unwanted behavior or state of mind. Working in that way to build up preferred patterns is what we call counteracting. As a rule, it produces
- [00:08:00] incremental change that flickers and is susceptible to relapse because life finds a way to retrigger the potent old learning, which easily brushes aside the new learning and then you're back to square one.
- [00:08:30] For transformational change to occur, we need the new learning to not just create its own new circuits, but actually land directly on the circuits of the old learning maintaining the problem and unwire and rewire those circuits. Then the result is transformational change because the old learning is profoundly unlearned and erased right down to its neural circuits, so it cannot retrigger. This change persists then without further efforts of any kind. That's the neural picture of
- [00:09:00] transformational change, where new learning updates and replaces the neural circuits of old learning.

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- [00:09:30] Memory reconsolidation is precisely the brain's built in process for getting that to happen. In fact, memory reconsolidation is the only known type of neuroplasticity that can do that according to current neuroscience. We now know the brain's rules and the brain's process for nullifying an existing piece of learning. This knowledge is completely non-theoretical and independent of the various rules of psychotherapy.
- [00:10:00] In a couple of minutes, we'll get into a case example that I'll use to delineate for you exactly what the client's brain needs us to do so that new learning in therapy will be put not into its own separate circuits in a competitive manner, but right onto and into old learning creating transformational change. First, in order to see how pervasively we can use memory reconsolidation in therapy, it helps to understand how pervasively our clients' problems are driven and maintained by emotional learnings because that's what memory reconsolidation does. It allows a specific
- [00:10:30] emotional learning to be nullified.
- [00:11:00] Here's a simple example of an emotional learning. Now, such learnings don't exist in words or in awareness, so they're often called implicit learnings or implicit knowledge. We learn many, many life-shaping things with no awareness of doing so, but after such implicit learnings are brought into explicit awareness and are felt emotionally and are put into words, they sound like this example. If I feel sad or hurt or scared, I'll be attacked and humiliated, so I've got to keep my feelings pushed away.
- [00:11:30] That expectation of a specific form of suffering together with that tactic for avoiding that suffering is an emotional learning. As a rule, emotional learnings found in therapy have that structure, knowledge of a problem, which is some specific suffering and one's vulnerability to it, plus knowledge of a solution, which is how to avoid or end that suffering. It's a set of very specific, well-defined knowings, even
- [00:12:00] though it's outside of awareness and doesn't exist in words before being verbalized. You can call that packet of acquired knowledge an implicit schema, a core belief, a mental model, an ego state apart, emotional conditioning, a complex, whatever you call it. It's learned. It's stored in memory on neural circuits and it's what generates so many of the behaviors, moods, emotions, thoughts, and body symptoms that
- [00:12:30] show up on the surface and that people see therapists to try to get rid of.

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- [00:13:00] This slide lists many such symptoms that we've seen ended by using the memory reconsolidation process to unlearn and dissolve specific emotional learnings. Think of the symptoms that are generated by our earlier example of the emotional learning. If I feel sad or hurt or scared, I'll be attacked and humiliated, so I've got to keep my feelings pushed away. A person with that schema feels social anxiety and avoids intimacy because intimacy is the worst danger zone for having vulnerable feelings that become visible, so he or she also feels very alone in life and might be depressed over that aloneness and also baffled by having all of these symptoms because he or she isn't aware of having that schema, that emotional learning.
- [00:13:30] What we've observed thousands of times is that as soon as the emotional learning underlying a given symptom is dissolved and no longer exists, the symptom simply stops and disappears. When a symptom disappears immediately after a specific negative emotional learning has dissolved, that's a strong indication that the cause of the symptom was that piece of emotional learning. The observed broad effectiveness of using memory reconsolidation in therapy indicates that in the great majority of cases, the root cause of our client's symptoms is memory, emotional learnings in implicit memory.
- [00:14:00]
- [00:14:30] Okay. Now, let's bring these abstractions to life with a case example. I'm going to use this case example to spell out the specific concrete steps of the process that triggers memory reconsolidation and nullifies the target learning. A woman I'll call Adrienne described having panic attacks since her early teens. They always baffled her. She was finally coming for therapy at age 34 because both the frequency and the intensity of her panicking had increased greatly right after starting at a new job recently. It was now almost daily that she went into full panic. Her panics ended permanently after five sessions because I focused on doing what her brain required for unlearning what she had learned that was generating panic.
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- [00:15:30] There are three steps in the memory reconsolidation process that erases an emotional learning. I'll describe how each step unfolded for Adrienne. The first step is the reactivation of the emotional learning underlying the symptom as a conscious emotional experience of that learning. Now, in session one, Adrienne described her panic attacks, but she sure didn't describe the emotional learning underlying her panic attacks because it was completely implicit, totally outside of awareness, and unknown to her conscious mind, so I, too, had no idea what it was. In order to do

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- [00:16:00] step one, conscious reactivation, first, I had to guide her to find the implicit learning or schema underneath the panic and then guide her into direct subjective experience and awareness of that schema. That's deep experiential work in a core unresolved area of emotional vulnerability.
- [00:16:30] Now, I use coherence therapy with most of my clients and its first phase is designed exactly to do the step of finding and creating direct experience of the emotional learning underlying a given symptom. With Adrienne, this discovery phase took two sessions and what she became aware of was this. At her new job, for the first time in her life, she has people under her and she is responsible for making decisions that directly affect those people. That situation is igniting an emotional learning from childhood into sheer terror. We put that learning into words in this way. I am a
- [00:17:00] harmful, dangerous person and if I do anything that directly disturbs someone, it could gravely harm them or even kill them, so I've got to stay off to the side and never have any direct effect on anyone.
- [00:17:30] That had been completely unconscious. She learned it in her family in childhood. She was an only child and the family was organized totally around her mother's extreme physical and emotional fragility. Little Adrienne received clear, forceful warnings frequently from both parents that if she did anything that upset her mother, it could make mom collapse or even die. She once found mom collapsed on the floor in great pain and believed she had caused it. Actually, it turned out to be appendicitis.
- [00:18:00] In her primary attachment relationships, she learned that it was urgent to stay off to the side and never have any direct effect. Her new job had suddenly ruled out that safety strategy and thrust her into having very direct, overt effects on several people. This was sending her into raw panic. Now we had the target learning that would be reactivated consciously for step one. She's now feeling and knowing that
- [00:18:30] schema consciously for the first time, but her awareness of it hasn't dispelled it at all. It still feels compellingly real and true for her at this point.
- [00:19:00] What did nullify that schema came next in step number two of the process. Let's see what step two is. Step two is the creation of an experience that sharply contradicts what the reactivated target schema expects about how the world functions. In other words, while the emotional reactivation of the target schema is

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- [00:19:30] occurring from step one, step two is an additional concurrent experience that makes it vividly apparent that the world does not function as the schema expects. Now there is a juxtaposition of two experiences at once and they contradict each other. They both feel real, but they cannot possibly both be true. This is similar to cognitive dissonance, but this is fully experiential, visceral.
- [00:20:00] Step one plus step two is called the juxtaposition experience in coherence therapy. It's what we consolidation researchers call a mismatch experience or a prediction error experience. It's this juxtaposition of the target learning with a strongly contradictory experience that is the key to transformational change because when the brain registers this mismatch or juxtaposition, the neural encoding of the target learning undergoes a rapid change from a locked, consolidated stable state to an unlocked, deconsolidated labile state. That is the launch of the memory reconsolidation process. Then there is a time window of several hours when the unlocked target learning is open to being re-encoded and replaced by new learning. The window then closes when the neural circuits automatically reconsolidate into a stable state in their revised form.
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- [00:21:00] For step two, I had to guide Adrienne into some experience that would strongly contradict her schema. Coherence therapy provides many different ways to do that step. The method I used with Adrienne was having life between sessions create the needed contradictory experience. Here's how I set that up to happen. I wrote the words of her schema on an index card, handed her the card, and suggested that she read it every day and have the card in front of her during her weekly telephone talk with mom. That's a mindfulness practice focused on this schema. At a minimum, that use of the index card would promote integration of her newly conscious schema into everyday awareness. With integrated awareness of that schema, she would now recognize and register any sharply contradictory experience created by daily life between sessions, which often happens. That's what I was especially angling for in the phone talk with her mother.
- [00:21:30]
- [00:22:00] In her next session, she said she had not had any panic attacks at work for nearly a week. When she described what happened during her phone talk with mom, I saw that she was describing a juxtaposition experience. Mom became tense and with her tone of voice and phrasing, had sent Adrienne the oh so familiar implicit message you're upsetting me. You're harming me. You're dangerous to me. That's

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- [00:22:30] exactly what strongly triggers the target schema. Normally, Adrienne would just absorb that implicit message from mom with no metacognitive awareness of that message or of the schema and ego state that it was triggering her into. Like a reflex, she would shut down and withdraw into harmlessness. This time, because she had her eyes on the index card, she was explicitly aware that mom was sending her the message you are being harmful and dangerous to me. She was explicitly aware the schema and ego state that she was now subjectively experiencing.
- [00:23:00]
- [00:23:30] That conscious reactivation of the target schema fulfilled step number one. When she explained to me what happened next, I saw that it fulfilled step number two, the experiencing of a contradictory knowing in juxtaposition with the target schema. She explained that she became lucidly aware that actually, she was being very gentle and caring in how she was speaking to mom. Yet, mom was signaling to her that she's being dangerously harmful. She told me it felt very peculiar to suddenly see this big discrepancy. She said to me, "I realized it's that I've always been given the message that I'm dangerous, not that I actually do anything harmful." Right there is the contradictory knowing that she experienced concurrently with the target schema creating the needed juxtaposition experience.
- [00:24:00]
- [00:24:30] Heres a slide that maps out that juxtaposition. On the left is the target learning verbalized as mom always warning me about her fragility means I'm lethally dangerous and must stay mute and peripheral. On the right, is the contrary knowing that lit up for her while talking to mom with her eyes on the index card verbalized as mom warns me about her fragility even though I am actually gentle, caring, and not a danger to her. You can see that a juxtaposition experience is a fundamental disconfirmation of the target learning. In this case, it's a disconfirmation of what mom's behavior means about Adrienne. Disconfirmation is a strong degree of mismatch or prediction error, so as soon as that juxtaposition first occurs, the target schema's neural circuits rapidly deconsolidate and become open to revision by the new meaning of mom's behavior.
- [00:25:00]
- [00:25:30] That revision happens next in step three of the process through just a few repetitions of the same juxtaposition. That's step three and that installs the contradictory knowing to replace and eliminate the target learning. Adrienne fulfilled step three because right after the phone talk with her mother, she focused attention repeatedly on her fascinating new learning I'm not harmful like I've

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- [00:26:00] believed all along. I'm gentle and caring. I've only been told I'm harmful. During the next week, all of the markers of transformation then became apparent. She had no more panics without any effort to avoid panic and no more ego state of feeling she'll harm others if she expresses herself to them in a direct manner. Those markers indicate that her lifelong potent schema had dissolved and no longer existed. Then follow up at six months and two years showed the shift had held with no effort and no relapses after 20 years of panic attacks.
- [00:26:30] She also described several somatic markers. Her posture opened up. Her face opened up noticeably enough for a female friend to ask if she'd had any work done. Her handwriting changed. As we know, the body doesn't lie. I think it's worth mentioning, too, that by laying bare the coherent emotional learning that was generating her panic attacks, it became clear to Adrienne that her emotional learning and memory system was not malfunctioning or dysfunctioning in generating panic at work. According to what she had learned in life, that situation at work was extremely dangerous and terrifying. Her emotional learning and memory system was doing its adaptive, self-protective job properly, just as evolution had designed it and set it up to do. Emotional learnings are supposed to be very durable and tenacious. They don't fade out over time and they aren't supposed to. The job of therapy was to decommission that specific piece of emotional learning.
- [00:27:00]
- [00:27:30]
- [00:28:00] Now, the markers of transformational change that I've defined here are the same markers that neuroscientists use as confirmation that reconsolidation and erasure of the target learning have happened because the brain has no other known process that can produce those markers. That's why when those markers result from any therapy sessions, it's valid now to infer that memory reconsolidation and erasure must have taken place, so the three steps required for that to happen must have taken place, too. Of course, with some clients, complications develop, such as resistance of various kinds. That requires extra steps and extra sessions, but this core process of three steps remains the same for dissolving the target emotional learning.
- [00:28:30]
- [00:29:00] Those three steps define a sequence of subjective experiences, not techniques. That's important to understand about this process. The brain doesn't care what techniques we use to create those subjective experiences. I was using coherence therapy in that example, but many different systems of psychotherapy can be used

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to create that crucial sequence of experiences. Coherence therapy by design closely follows and explicitly calls for those three steps, so it can have a very high consistency in producing transformational change.

[00:29:30] Let's go back to our slides. Other systems of therapy that bring about transformational change do not identify those steps in how they describe themselves, but they have methodologies that make it likely for those critical three steps to take place in one way or another, whether or not the therapist recognizes the steps or conceptualizes the process in this way.

[00:30:00] My main message here has two main parts. First, what you gain by understanding and conceptualizing change in this way is that then you're viewing the process of change in the same way as your client's brain does. Then you'll have breakthrough sessions much more often because you will spot the opportunities within your preferred methods for facilitating these critical experiences that are what the brain needs for transformational change.

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Second, we now have good reason to believe that it is always the same core process that is responsible for transformational change. That means memory reconsolidation can serve as a powerful framework of psychotherapy integration. Case examples from nine different therapy systems have now been published showing unambiguously that the steps of this process are embedded in the therapy process, even though eight of those nine therapies do not identify or label those steps in how they describe themselves. In our book, *Unlocking the Emotional Brain*, there are case examples from five different therapies, AEDP, coherence therapy, emotion-focused therapy, EMDR, and IPNB, interpersonal neurobiology. Then in the book *Memory Reconsolidation in Psychotherapy*, four other therapy systems likewise have been shown to have the critical sequence embedded in their methods, Alexander Technique, neurolinguistic programming, progressive counting, and tapping.

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[00:32:00] What has seemed to be a very fragmented field of psychotherapy can be unified very usefully, as well as very satisfyingly, by understanding therapeutic action in terms of memory reconsolidation. Psychotherapy integration can go to a whole new level by organizing around the memory reconsolidation process. We think this knowledge of the brain's own rules for guiding transformational change is a huge,

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- [00:32:30] historic, field-changing development. It was 2004 that researchers discovered these rules for neural unlocking and erasure after a century where researchers thought the brain lacked any process for erasing ingrained emotional learnings.
- [00:33:00] I was just riveted by that discovery when I encountered it in 2005 and I've been teaching and writing about it ever since. I was riveted because of the huge ramifications for psychotherapy and because our 1995 book *Depth Oriented Brief Therapy* had identified the same sequence of steps as in the therapeutic reconsolidation process based on our observations of transformational change in our own therapy sessions. Then our book *Unlocking the Emotional Brain* came out in 2012, comprehensively mapping out how memory reconsolidation research findings translate into versatile clinical practice. My colleagues and I now predict that in the future, we won't have competing therapy systems that therapists choose between because therapists will learn this universal, innate process of the brain and will draw upon the various therapies as a rich repertoire of different ways to facilitate this core process with a given client.
- [00:33:30]
- [00:34:00] Now, I have one more case example for you that I think will be pretty interesting. In this next case example, the problem is anger. The client here is a woman in her early 50s and I'll call her Morena. She described a feeling of angry resentment that she said had frequently gripped her and ruled her behavior for as long as she could remember. For example, over the years, her simmering angry mood had activated often toward her husband, sometimes for prolonged periods. They've been married 28 years and her anger was a big factor in the chronic tension between them. What I'll do once again is describe how the steps of the memory reconsolidation process unfolded and freed Morena from the grip of that anger.
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- [00:35:00] This slide again shows the three steps of the schema nullification process. I'm going to embellish this slide by including in it some obvious things that were covered in our first case example earlier, namely, there are three things you first need to find out before you can guide these three steps of the core process. Those things are you need to know specifically what are the unwanted behaviors, emotions, thoughts, or body sensations that the client wants ended? You then need to find out the makeup of the emotional learning or schema underlying and driving those unwanted features. You need to then find out how to put the client in touch with vividly real-feeling personal knowledge that contradicts what that schema knows.
- [00:35:30]

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- [00:36:00] I covered each of those setup steps or prep steps in the previous case example of Adrienne's panic attacks. Now I'm just making these prep steps explicit parts of the map. I also covered the very last step where we look for the markers of transformational change as verification that schema erasure or nullification has occurred. That's step V for verification. That's the process fully spelled out as a general map for therapists for using memory reconsolidation to dispel any unwanted pattern that's based in emotional learning. We call it the therapeutic reconsolidation process.
- [00:36:30]
- [00:37:00] Okay. Let's walk through how those steps unfolded with Morena. Prep step A, symptom identification, was straightforward up to a point. Her reaction of anger and resentment was easy for her to name, but it had happened in so many different situations across the decades that she could not define what happens that triggers that anger. She did say that the anger went all the way back to her childhood, so as I began prep step B, the discovery work, I knew we were looking for something that she had learned at a young age, as is so often the case.
- [00:37:30] Now, in step B, I was searching for the emotional learning that was driving this angry resentment in so many different situations for a lifetime. What had she learned and how had she learned it? In order to guide her attention and awareness into that area of implicit learning, whatever it was, I said to her, "Just see what comes to mind when I ask you this question. In your whole life, what is it that you resent the most?"
- [00:38:00] What sprang up in response to that was something she was already well aware of. It was her childhood trauma of being sexually molested by her grandfather on a number of different occasions starting at age 6. She had already had extensive therapy for that long ago and, of course, obviously, it makes sense that a person feel angry resentment about suffering such an ordeal of violation and betrayal. Yet, not every person who has suffered sexual molestation in childhood has this kind of dominant mood of angry resentment for the next four decades as Morena had. That means there was something unique and specific to her emotional learnings that was generating that anger and was critical to bringing to awareness here.
- [00:38:30]
- The unique specificity of each person's emotional learnings is a major emphasis in

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- [00:39:00] coherence therapy, so next I asked her gently, "What is it that you suffered in that ordeal that you resent more than anything else about it?" That question put her attention onto her implicit knowledge to an entirely new degree. Her previous therapy had not zeroed in in that way. What is it that you suffered in that ordeal that you resent more than anything else about it? As she sat there looking into that, her eyes were blinking and then she said, "It feels like even more than resenting my grandfather, I resent the whole world or life itself."
- [00:39:30] Next I asked, "What can you see about why you resent life itself?" in order to just continue this flow from implicit knowing into explicit knowing and what came into awareness next was something that had never before entered her conscious thinking as an adult. She said, "It's that the world is just too unfair to make this happen to me and to no one else." That really surprised me. She then explained
- [00:40:00] that when this ordeal began as a little girl, she just took it to be something that was happening only to her and not to anyone else in the world. That was just how it seemed. Such a thing seemed not to exist anywhere else. She had never heard of it. Certainly, no one ever spoke of it, yet, it was happening to her and it was huge. It just filled her world, so in all innocence, she construed that it was happening only to her.
- [00:40:30]
- [00:41:00] That attribution of meaning, that single implicit construct that it was happening only to her led her in turn to view the world as monstrously and unforgivably cruel and unfair, so she was indeed profoundly angry and resentful at life. That was the emotional learning I was looking for. This horrible ordeal happened only to me and that means the world is unforgivably cruel and unfair.
- [00:41:30] Now, hearing this from her, I immediately understood that forever after, whenever anything felt unfair and arbitrary, of course, it retriggered that same deep anger and resentment, but without awareness of the source of that anger. Arbitrarily unfair things happen fairly often in life and in a marriage, so she was often swept up into that resentful anger throughout her life. Now, for the very first time, her emotional learning that the world had been brutally unfair to her alone had come into her conscious foreground awareness. She was now both feeling and verbalizing that model of the world.
- Step B is done and she's fully aware of the discovered target schema. At this point,

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- [00:42:00] that schema still feels real and true to her. We've learned that it's not explicit awareness. It's not integrated awareness that dissolves emotional schemas by itself. It's juxtaposition experiences and that had not happened yet. Steps one, two, and three had not happened yet. She felt my empathy. She felt safe with me. She trusted me and we had a good working alliance, but no matter how good the client-therapist relationship factors are, schemas don't dissolve until juxtaposition experiences happen. That's what we've observed again and again.
- [00:42:30]
- I think it's probably very clear to you that in this case, a positive experience of empathy from a therapist could not possibly disconfirm a target schema that's all about how brutally, cruelly unfair life is because of what happened to her at 6.
- [00:43:00] Disconfirmation is going to have to be found elsewhere than in the client-therapist relationship for this schema. That's what needs to happen next, finding a disconfirmation of that schema. Step B has revealed this anger-generating schema's specific makeup, so now that makes it possible to do step C and find some strong knowing that can disconfirm and nullify this schema.
- [00:43:30] Now, before I describe how I carried out step C with her, I want to briefly mention something that I feel is very important. The sexual molestation by her grandfather was traumatic, obviously. It was both acute incident trauma and complex attachment trauma all at once. Yet, what has Morena identified as being the worst of it? The worst of it she said is not the physical sensations and perceptions and emotions in the ordeal and not even the personal betrayal by her grandfather. The worst of it is what that ordeal means about the kind of world it is and the cruel, unjust character of life itself. Her attributed meanings are the worst of it and are what's been making her so prone to seethe with anger and resentment whenever anything unfair happens to her.
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- [00:44:30]
- I think it's vitally important for therapists to understand that traumatic memory is made up of not only the original raw data of perceptions and sensations and emotions, but just as importantly and, in many cases, more importantly, it's also made up of the meanings and models formed and learned in those traumatic ordeals. Put in terms of the science of learning and memory, traumatic memory is made up of both the episodic memory of the event particulars, plus what researchers call semantic memory consisting of meanings, models, beliefs, rules, and strategies that formed based on the event particulars. Okay. That's what I
- [00:45:00]

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wanted to point out about traumatic memory and we're now back to Morena's unfolding therapeutic reconsolidation process.

- [00:45:30] It's time to work on finding a vivid contradictory knowing, mainly a vivid knowing that the world is not so cruelly unfair as she took it to be. That is step C and I used a different method for this step than I did with Adrienne for her panic attacks. It turns out that in at least half of all cases, the client already possesses vivid contradictory knowledge, but it has never juxtaposed with the target learning because the target learning has been fully implicit and unconscious and so has been sealed off from encountering any contradictory knowledge.
- [00:46:00]
- [00:46:30] As soon as I learned what Morena's symptom-generating schema was, it happened only to me, immediately I figured that it's a pretty sure thing that her conscious adult understandings included the vivid knowledge that it didn't happen only to her. Right away, my plan was to guide her into accessing the contrary knowing that I figured she already possessed. Arriving at that plan for how to access specific contradictory knowledge completed prep step C, so now steps A, B, and C were done and I could move right into guiding the core transformation sequence, steps one, two, and three.
- [00:47:00] Morena was still sitting there in a state of conscious reactivation of it happened only to me. She's directly feeling and verbalizing the subjective realness of it happened only to me, so step one, target schema reactivation was already in effect. For step two, I needed to evoke the contradictory knowing that I was sure she already possessed, the knowledge it didn't happen only to me. It happened to many, many other children, too. Life did not single me out for this.
- [00:47:30] In order to elicit that contrary knowing so that it would really light up as her own lucid knowing, what I did was very simple and easy. I simply asked her to assert the target learning out loud. You'll see why in a moment. I said simply, "Please say it to me. It happened only to me." She said out loud, "It happened only to me," and again, it simply felt true.
- [00:48:00] Now, here comes the key moment. I asked her to please say it again. Can you sense what's going to happen now? When she said it this time, it was heard by her entire adult knowledge network too. Immediately her facial expression changed into a

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- [00:48:30] look of puzzlement. If contradictory knowledge is already there in the client's possession, simply asserting the target learning tends to evoke that contradictory knowledge. That happens because the brain has a built in detector of any mismatch between whatever item is the focus of attention and everything else that one knows about the world. Just like in those moments when an acquaintance shows up with a changed hair style or a shaved mustache and you feel that something's different before you can identify cognitively what's different. That's your brain's mismatch detector operating.
- [00:49:00] The puzzled look on Morena's face meant that she was now feeling the first sensation of mismatch, so I invited her to say another repetition of it happened only to me. This time, her contradictory knowledge really lit up and her eyes began darting around the room and she realized front and center that it most certainly had not happened only to her. This is the moment that to the client feels like wait a minute. Hold everything. On her face now was a look of real surprise and after a few
- [00:49:30] seconds, she softly said, "Oh, my God. I really thought it happened just to me, but it happens everywhere. It's a part of life everywhere. It's an ugly part of life, but it keeps happening to girls and boys, too, all the time, everywhere. I wasn't singled out." That was step two and those were the initial moments of juxtaposition, step one plus step two. She's now experiencing the target learning and the contrary
- [00:50:00] knowing both at once. Neural circuits of the target learning are now unlocking, deconsolidating, destabilizing according to reconsolidation research.
- [00:50:30] We hovered right there for several minutes. She kept giving amazed attention to this fresh realization which repeated the juxtaposition each time. In addition, with empathy, I explicitly reviewed both her old belief and her new realization in order to repeat the juxtaposition experience a couple more times just by empathically reviewing it. That accomplished step three of the process. If the process was successful, in those few minutes, her childhood learning that she had been cruelly
- [00:51:00] singled out by life had been unlearned, dissolved, and erased. Erasure means that it happened only to me would no longer feel real or true in any part of herself or in any memory network. Without that construct that life had singled her out for such suffering, there would be no view of life as being hideously unfair to her and in turn, no more generating of angry resentment over that. The dissolution would ripple through that whole linkage. That's how emotional unlearning operates.

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- [00:51:30] I was very eager to hear what she would report in her next session, which was one month later. I started that session by asking whether she had noticed any subsequent effects of the previous session's work. This was now my pursuit of step V, verification. Here is what she said and these are her exact words. "I've been angry and resentful my whole life. It's like something has just turned to dust. It's not alive anymore. Before, something felt like cords and cables strangling me. I feel so freed up."
- [00:52:00]
- [00:52:30] Over the next couple of months, she described a new ease and friendliness and warmth between her and her husband. Eight months later, they had a particularly stressful month of not being emotionally in sync very well with each other during struggles with the extended family. However, Morena said, "It was rough, but I haven't felt any resentment towards him," so I grabbed this opportunity to elicit more follow up. I said to her, "Can I check with you about the work we did on that core belief it happened only to me? I'm wondering whether or not the shift that you initially described has held." She said, and again, these are her exact words, "My resentment had been relentless. Even with all these troubles, that anger is not taking over." Then a few moments later, she said, "Most of the time, I'm in a wonderful, energized, peaceful state. That's the way I would describe it even with all these troubles." I had no idea she was now feeling wonderful most of the time. Clients come in and sit down and talk about the problems.
- [00:53:00]
- [00:53:30] I asked because I wanted to do step V and know whether the markers of transformational change were well-established and holding from that previous work and they sure were. Now, Morena had erased what she had learned from certain events and experiences, but this did not impair her episodic memory, her autobiographical memory of those events and experiences. She still remembers what she experienced and suffered with her grandfather. The event memory is what it is. It's not erased. What's erased by the memory reconsolidation process are the schemas, the meanings and models and personal rules that people form and learn from the events. When meanings and models change, then emotions and behaviors change in turn because emotions and behaviors arise from and express meanings and models.
- [00:54:00]
- I'll sum up now and finish by saying this. I've been describing how we approach psychotherapy through an understanding of emotional learning and unlearning. I've

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- [00:54:30] described the structure and operation of emotional learnings and how profound unlearning takes place through the memory reconsolidation process. We call this overall paradigm the emotional coherence framework. If you find this framework useful and appealing, it is fully spelled out in our book *Unlocking the Emotional Brain*. If coherence therapy interests you, the website coherencetherapy.org has many learning resources, including videos and the *Coherence Therapy Practice Manual*. Thank you.
- [00:55:00]
- Diane: Bruce, thank you. That was really elucidating and so clarifying for how all these different therapeutic wisdoms can come together and be synthesized with a common goal, lasting transformational change. You've made it very precise and clear and understandable for all of our therapists out there and me, too, on how
- [00:55:30] we've been doing somewhat similar things, but without near the precision or without really understanding the unlearning process, I think, as clearly as you've elucidated it. In the DARE model, it basically means dynamic attached repatterning experience. A lot of times, we use these emotional corrective experiences against the original painful experience, but so often, that's just arising in the session and maybe we're not getting completely to the targeted schema so beautifully as you described in working with the panic in the first example and then working with anger and resentment related to sexual abuse so beautifully in the second example.
- [00:56:00]
- [00:56:30] I love it that you've brought so much clarity and commonality to so many bodies of work out there and yet, it's a very unique contribution of really precisely understanding the neuroscience, the neuroplasticity, so much that's exploded in the last 10 years and really seeing how we can create effective and lasting transformational change. Really so beautiful. I was so excited to hear you at the Networker and it's even more so nice to have this one-on-one time with you today. Really feels like a big blessing to all of us.
- [00:57:00] I wanted to mention, too, I think this understanding of really getting clear on the target schema and if that takes some time to unearth, that you really made that clear in the second example that may take some time to really get clear exactly what that is because the client's not going to come in and just say it. It's an implicit memory, but it's guiding so much of the meanings and models and, like you said, those shuffle right into the emotional experiences and behaviors. I think this is a huge contribution and I'm just so happy we're able to share this with our whole

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Therapy Mastermind Circle, so thank you, thank you, thank you. Really, really beautiful.

Bruce Ecker: Thank you. You're welcome. Thank you.

Diane: Really beautiful. I want to make sure that our folks have some time to ask some questions. We're going to transfer you over into our participants being able to ask you what's been on their mind. I'm sure that you've planted a lot of seeds for many deep thoughts about people's personal experience, as well as their professional experience. It just speaks so loudly of how the brain works and how we can work with the design and how we are really designed to be transformative, to transform our lives and to heal, so I find it a very hopeful and empowering message to all of us as therapists in a really practical way and then what we can share with our clients.

[00:57:30]

Bruce Ecker: Yes, it is great.

Diane: I'm going to turn you over, so thanks so much.

Bruce Ecker: So...