Psychotherapy's Mysterious Efficacy Ceiling

Is Memory Reconsolidation the Breakthrough?

Bruce Ecker

Coherence Psychology Institute

I'm very happy to be here with you and to have this opportunity to share with you some perspectives on psychotherapy that I think are fascinating and exciting, with wonderful possibilities for how effective therapy can be.

Although my talk carries a very optimistic message, the context for what I want to describe is not so rosy. That context is the seriously disappointing results of psychotherapy efficacy studies to date. As briefly as possible, therefore, I must begin by reviewing some facts that most psychotherapists would truly rather not hear about.

Perhaps I should give a warning such as precedes certain TV shows: *This talk contains material of an explicit nature. Listener discretion is advised*. I apologize in advance for any panic attacks, fugue states, fits of rage or major depressions that might be triggered by the following quick but dark overview of where we stand as a field. We will very soon move through into the light. Good news will quickly follow the bad news.

A Capsule Summary of Efficacy Research: Two Facts

The efficacy research situation can be summed up by stating two facts. First, as all of you know, the entire 70-year history of psychotherapy efficacy studies has revealed, with stunning consistency, the existence of a glass ceiling. All studied forms of therapy score essentially equally, so far. A positive frame has been put on this finding by calling it the Dodo bird verdict, which implies that all have *won*, all have done *well*, and so "all must have prizes", as the Dodo bird declared in *Alice in Wonderland*.

There are 14 types of psychotherapy that have been studied, with no evidence yet of any significant difference in clinical efficacy.

Psychotherapy systems measured for efficacy in randomized controlled studies

Cognitive
Behavioral
Cognitive behavioral
Systematic desensitization
Psychodynamic
Short-term psychodynamic
Client-centered
Process experiential
Gestalt
Focusing
Supportive
Nondirective-supportive
Cathartic-emotive
Interpersonal

Now, the Dodo is very happy about this situation, but when we look a little more closely, we see there are some troubling indications. The equality of efficacy has been found to hold not only in comparing different modalities of therapy but also in comparing widely different levels of training of the therapist. According to a meta-analysis of 32 studies by Berman and Norton (1985), experienced therapists and paraprofessionals with little training have scored the same. What could be more disturbing to us psychotherapists than that? Of course, we're talking here about an average across the many psychotherapists in these studies, which are randomized controlled trials. There are individual therapists whose effectiveness is regularly higher than this.

As you know, the most widely entertained explanation for this uniformity of efficacy is the "nonspecific common factors" model, which attributes the efficacy of psychotherapy to certain general features of a safe, positive, empathic, attuned interaction between therapist and client. This model participates in the positive view of the glass ceiling, meaning that all have won and all have done well. An important feature of the nonspecific common factors model is its sweeping conclusion that specific factors—the particulars of clinical methodology or technique—have little or no influence on efficacy, because they certainly aren't observed to *make* any difference.

That model appears to be a logical explanation of the uniformity of efficacy, and it's very widely accepted. Interestingly, however, there is also a tie between the efficacy of psychotherapy and the efficacy of drugs. How can you explain *that* in terms of the nonspecific common factors of psychotherapy? Perhaps the cause of the glass ceiling might not be nonspecific common factors after all. Later in this talk I will suggest a very different explanation.

This article is an edited transcript of a 2006 keynote address given at the University of California, San Marcos, to psychologists and doctoral students at the 12th Biennial Conference of the Constructivist Psychology Network.

So that's the first of the two facts that sum up the situation: psychotherapies, paraprofessional counselors and drugs appear to be equally efficacious. The Dodo shouts, "All have won!"

The second fact is much less well known, and is discussed hardly at all, perhaps because of how disturbing and threatening it is. It is the fact that the shared level of efficacy the Dodo celebrates is equal to the efficacy of the placebo therapy given to control groups—therapy sessions in which only a vaguely supportive conversation happens. None of the therapies studied has done better than properly designed placebo controls to any significant degree.

This stunning fact can be taken to mean "All have lost!"

So, the first fact is "all have won" because they've tied and it's clear that therapy is much more effective than *no* therapy; and the second fact is "all have lost" because they've tied with placebos—they've failed to surpass the beneficial effects of merely having positive expectancy.

There is a bibliography of meta-analyses of outcome studies available on our website (http://www.coherencetherapy.org/files/dodo-bibliography.pdf). It is a fairly comprehensive listing of the extensive evidence that the field has not done better than placebos. One of the many examples is the meta-analysis of therapies for depression conducted by Robinson, Berman and Neimeyer. They reviewed 22 studies and concluded that "when the effects of psychotherapy were compared with those of placebo treatments, no reliable differences emerged."

Now, to be precise, some of the meta-analyses have found a quite small differential of one therapy over another, or over a placebo. The *largest* such differential is a 20% superiority, which is a very small margin. Let's think about it: in psychotherapy studies, the placebo effect causes an improvement that varies slightly between studies but tends to be about one standard deviation. One standard deviation is typically a 20 to 25% improvement in the mean value of some score, some measure of outcome. So, if a therapy surpasses a 20 to 25% placebo effect by at most 20%, that means *that* therapy achieved an improvement at most 4 or 5% better than the improvement due to placebos. That's a very small margin; and that represents the outer limit—the very best result across all of the research. Usually, there is little or no marginal superiority. But even the best result, a 4 or 5% margin, is arguably not clinically significant.

None of the therapies studied has done better than properly designed placebo controls to any significant degree.

Furthermore, in those meta-analyses that do note a small marginal difference in effect size, specific flaws in methodology are identified (such as researcher allegiance and faulty placebo design) that quite plausibly can account for the small differential. For instance, in an important recent meta-analysis, Baskin and colleagues sorted 21 efficacy studies according to whether or not the placebo treatment had what they call *structural equivalence* to the active treatment. A lack of structural equivalence means for example that, as compared to the active treatment, the placebo group had a smaller number or shorter duration of sessions, or it was a group treatment being compared to an active therapy of individual treatment.

What they found was that in the 13 studies that had a properly designed, structurally equivalent pla-

cebo, the placebo treatment was fully as effective as the active treatment. In contrast, in the eight studies that had a faulty placebo, the active treatments showed a modest superiority to the placebo treatments. The bottom line? Placebo design really affects the numbers, and poor placebo design makes therapies falsely appear to beat placebos in efficacy studies.

So, at this point in the history of efficacy research, it's accurate to say simply that no psychotherapy has surpassed placebos in efficacy to any clinically significant degree. Whenever some study has concluded otherwise, that study has failed to be replicated and/or has methodological flaws.

The fact that the glass ceiling on efficacy equals the efficacy of placebos changes the picture considerably. For one thing, it casts serious doubt on the Dodo's positive spin. Rather than regarding all therapies as having done equally well, perhaps we should see them as having done equally badly. Perhaps we should recall that the Dodo suggested the race in the first place as a way for all of the animals to dry off after Alice's tears had got them all soaking wet. They were all in quite a quandary about how to get dry again. This seems to mean that if the race itself stands for measuring the efficacy of psychotherapy, the motivating *purpose* of the race is to stop being "all wet".

So it seems to me that perhaps the question we need to ask is, why are different modalities of therapy equally *in*effective rather than equally effective? One could say that psychotherapy has a serious symptom of underachieving. I think we can do much better than that. Don't we want our field's methods to be *many* times more effective than placebos?

Two Crucial Questions

It seems to me that we need to be asking two crucial questions, based on the research to date:

First, *why* are so many therapies so ineffective that they add nothing to the effectiveness of placebos, as averaged across practitioners in efficacy studies? If apparently different systems of therapy so consistently prove to have the same degree of limitation, perhaps we should also ask, what is the *shared deep structure* of these therapies that is responsible for failing to surpass placebos? This question is not discussed in the literature. Later in this talk I will tell you what I think that shared deep structure is.

The second question we ought to be asking is, what methods and processes *can* reliably produce profound change? Apparently, if the most widely used methodologies are relying on the placebo effect for their efficacy, then as a field we know very little about methods and processes that *can* reliably be more effective than the mere expectancy due to a believable placebo. And in a minute I will begin addressing this question.

OK, so that's the end of the bad news! And I'm relieved to see that you are not turning into an angry mob, and that my head is still up here on my shoulders where it belongs, and that I will now get to turn from the bad news to the good news.

The Good News

I've been systematically looking into the two questions that I just posed for over 20 years, along with my collaborator and wife, Laurel Hulley. And we've identified what we believe is a paradigmatic shift that makes it possible for therapy to be decisively more effective than placebos are.

We don't yet have quantitative data on efficacy but, even so, as I will show, the potential for this approach to break the placebo barrier is clearly evident, both empirically and theoretically. So, I'm going to go out on a limb now and share with you very candidly our main findings and their radical implications. I expect that what I'm about to report might really appeal to some of you and could really annoy some of you! But our findings are what they are, and

I look forward to ongoing, frank conversations about them.

What we did was to bring constructivist thinking to bear on that second question: What methods and processes *can* reliably produce profound change? For many years, from 1986 to 1993, whenever the client-therapist interactions in our sessions did happen to result in definite, lasting change that dispelled clinical symptoms, we would study the dickens out of what had occurred. We looked to our clients' deep change events to *tell* us how change works and how therapy is most effectively conducted.

We would identify the details of what had happened, both externally, in the client-therapist interaction, and internally, in the client's thoughts and feelings, until there was no mystery left as to the specific steps that had produced the decisive change, and what that change process was. Initially, we didn't know how to get our clients to consistently have deep change events, but whenever one happened we put it under the microscope. So it was a reverse engineering process for designing a psychotherapy. Our goal was to identify the native, built-in processes and rules of transformational change, and then to develop methods based on how such change actually occurs. The aim was to assemble a therapy made up of *only* methods shaped and selected in that manner, methods that accurately utilize identified, built-in processes of transformational change.

Therapeutic methods not selected in by this process were discarded, even if they were deeply familiar, widely practiced, time-honored methods of the field, such as reframing, or offering interpretations, or accessing resources. The working assumption was that if we formed a therapy entirely in this way—entirely on terms dictated by observations of how the mind and brain actually undergo change—it would be an optimized therapy that could yield a marked increase in effectiveness. We found that distinct patterns and inherent rules emerged.

The First Rule: No Counteracting

The first pattern we noticed was that in client-therapist interactions that led directly to deep change, we had completely stopped trying to get *rid* of the client's symptoms. We had stopped doing what a therapist is supposed to try to do. Rather than doing something designed to *counteract* symptoms in order to prevent them and get them to stop, we had instead focused on finding how the person's depression, or panic attacks, or stormy relationship made sense to *have*, according to the existing world of meaning that he or she had learned or constructed earlier in life.

The first pattern we noticed was that in client-therapist interactions that led directly to deep change, we had completely stopped trying to get rid of the client's symptoms.

What I mean by counteracting symptoms is any communication or process that comes across to the client as intended to prevent the symptom from happening, and anything that comes across as an attempt to cause a more desired state to occur instead—such as teaching a relaxation technique to counteract anxiety, or building up hopeful thoughts to counteract depression.

At first it was quite sporadic that we would stop counteracting and instead search for how the symptom made sense to have. But as we kept noticing that powerful moments of change were strongly

correlated with making that shift in our approach, we began to cultivate our ability to remember to desist from counteractive methods and to instead look for how the symptom arose from the client's existing constructs and learnings. It took several years to fully reorient our thinking and behavior in this way and to let go of the *counteractive reflex,* which is very deep-rooted. If you are busy trying to counteract a symptom, trying to get rid of it or fix it, you cannot be looking for how it makes sense to have, which involves attending closely to the situation just as it is.

The Second Rule: Find the Coherence of Symptom Production

The second finding that struck us forcefully was the recognition that the hidden sense of having any given symptom always proved to involve some emotionally compelling *necessity*, some specific, urgent but unrecognized, adaptive purpose that in one way or another *required* producing the symptom. In a word, the symptom always had *coherence,* though it was a hidden coherence and had to be uncovered and brought into awareness. What we began to call the "emotional truth of the symptom" was always there to find if one looked skillfully—the emotional truth of how the symptom is quite necessary to have, according to some powerful cluster of deeply implicit personal constructs.

For example, a woman came for therapy because of panic attacks, which had been happening for many years. They baffled her because the panic seemed to have no content, and she had no memories of anything very frightening ever happening to her.

Now, why am I taking you through a case example? I'm illustrating our direct observations of the hidden *coherence* of symptom production. Why is that important? Because I will propose that coherence is the master key to a new level of clinical effectiveness.

I asked this woman to review a few specific instances of panic. In doing so she recognized that each of her panics had occurred when she was in a very large group of people, such as a big audience in a theater, or a big crowd. The first panic attack had happened in college in a huge stadium, at a football game.

Understood in terms of coherence, the fact that a large crowd was always involved in her panic was showing something about how the panic is in some way coherently necessary, but just how was still a mystery at this point. I proceeded to work to elicit the personal constructs requiring the panic in a crowd. We use a range of experiential methods that are designed to zero in on the specific constructs driving symptom production. It's a systematic and yet custom-tailored process with each client. The aim is to prompt the client to encounter those symptom-requiring constructs and to experience them directly, so that they come into awareness and become known in a very real and accurate way, as we'll see. Here is how it went with this woman and her panic attacks.

At one point in her third session, in describing her family of origin, she mentioned offhandedly how very, very "special" her parents regarded their family as being. The *family* was very special, and each family *member* was very special and exceptional. Hearing this, and always listening for coherence, I wondered if there was a connection between (a) this very necessary identity of specialness and superiority, and (b) always being in a crowd when she panics. I understood nothing at all definite yet, but somewhere in my mind my coherence detector started beeping.

The therapeutic challenge at such a moment, in this way of working, is to desist from the cognitive approach of offering an interpretation or hypothesis, and instead come up with an experiential way to have the client feel into this precise area and see for herself what is there. So I said to her, "When you see the crowd around you . . . and perhaps you could visualize a crowd as you answer this question: there you are amongst all these people, and you belong

to a family that is very, very special. How is that for you?"

She then said that her stomach knotted up as soon as she heard my question, and now she felt agitated and uncomfortable.

I said, "Something seems uncomfortable as you see all those people, while knowing that you belong to a very special family."

She was silent briefly and then, very quietly, she said, "I'm just one little person in the crowd. Nothing makes me stand out. I can't escape seeing that I'm insignificant, I'm *not* special."

I said, "And how does it feel to see that?"

She said, "It's really frightening." Then she paused and said, "Hnh—it's also a big relief."

I asked how it was a relief, and she thought a bit and then said, "It's a relief to finally know what it is that's so frightening. Now it's something definite."

And that was indeed the big fish. That was how her panic made sense and arose from specific constructs and a specific emotional necessity—the necessity of being very special, in order to keep her parents' love and keep her own worth and her fa-

miliar identity. Being in a crowd disconfirmed that construct of her identity and her worth, triggering massive fear. You see, in her family, to be ordinary was to be utterly worthless and almost nonexistent.

We then worked together to form the special kind of verbalization needed for integrating this discovered emotional truth into her world of explicit, conscious knowings. The phrasing we came to was this: "How Daddy feels is that if I'm not head and shoulders above everyone else, there's no point to my existing and I should just go away. That's what Daddy thinks, so it's true. In a crowd, seeing that I'm *not* special means it's all over for me, I'm just forgotten, a ghost, and that's totally terrifying." That is a cluster of several constructs, or knowings, that hang together coherently and necessarily generate intense fear in a big crowd.

As we developed this whole approach, we needed a term or phrase for referring to such a symptom-requiring bunch of constructs, so we coined the phrase *pro-symptom position*—where "pro-symptom" simply means constructs that require *having* the symptom, and "position" is meant to suggest that this cluster of constructs is an active stance, as in, "Hey there, what's your *position* on that?" Well, this is *her* position on *that*, though previously she didn't consciously know she held this position. What she *was*, of course, already aware of having was an *anti*-symptom position, a conscious attitude *against* having panic, hating it and wanting to get rid of it. However, a client's anti-symptom position has no control over the symptom because it is not the source of the symptom. It is the pro-symptom position that is the source.

If the therapy is to reliably have a high level of effectiveness, zeroing in efficiently on the constructs driving a particular symptom is essential.

I hope it's apparent that we were learning how to *learn from the client* how the symptom was necessary to have, with no interpreting or imposing any meaning from without. The distinction between *discovering* these pre-existing, life-shaping constructs or schemas versus *inventing new meanings* became very apparent and important to us. If the therapy is

to reliably have a high level of effectiveness, zeroing in efficiently on the constructs driving a particular symptom is essential—but there were no guidelines or methods for that back then, so we had to invent them. In fact, in the same year that I gave the first training workshop in these methods (in 1993, before we had published anything on this approach), an article by Epting, Probert and Pittman reviewed methods for eliciting personal constructs and concluded that none of them were designed to elicit constructs in specific domains of experience.

The Third Rule: Guide the Specific Process of Schema Nullification

There was one other fundamental observation that put our emerging framework on solid ground: repeatedly we saw that, as soon as a client had transformed the discovered, symptom-requiring constructs, so that there no longer existed any constructs according to which the symptom was necessary to have, the symptom ceased to occur immediately. As soon as the woman in our case vignette had transmuted her constructs defining specialness and ordinariness—so that being ordinary no longer meant being unlovable and worthless—being in a crowd stopped triggering panic attacks, without using any relaxation or self-calming techniques, or any other way of counteracting panic. The observation that schema nullification is followed immediately by lasting symptom cessation, with nothing else done to prevent the symptom, is a strong indication that the schema was the cause of the symptom.

Another key observation was that schema nullification occurred as an immediate result of a well-defined process, which I will describe later. This meant that a specific process, not a set of nonspecific factors, was the cause of decisive, lasting therapeutic change. To see what I mean in context, consider this sequence of observations that we have made with many clients:

The observation that schema nullification is followed immediately by lasting symptom cessation, with nothing else done to prevent the symptom, is a strong indication that the schema was the cause of the symptom.

First, the person's symptom, such as panic attacks, depression or compulsive eating, keeps happening undiminished, even though, session by session, empathy, a good alliance and the other nonspecific common factors are being delivered well. Then the client discovers specific personal constructs that make the symptom compellingly necessary to have. The client is now experiencing the symptom-necessitating emotional theme consciously, yet it remains compelling, and symptom production continues, despite the nonspecific common factors being very good. Then, some sessions later, through a specific process I'll soon describe, the client transforms those symptom-generating constructs, so that now the symptom is *not* necessary to have. Immediately the symptom ceases to occur, even though nothing at all was done to counteract or prevent the symptom itself in any way.

Observing that sequence was a strong indication to us that both symptom causation and symptom cessation are governed by implicit personal constructs that were learned adaptively in the course of life. The sequence I just described largely defines the methodology we developed, and we have observed its decisive effectiveness many hundreds of times

across an extremely wide range of behavioral, emotional, cognitive and somatic symptoms.

The principle of *symptom coherence* is the name we gave to this view of symptom production. Symptom coherence means that any given symptom is produced entirely because the person has at least one mental model or schema or construction of reality in which that symptom is compellingly necessary to have. And it means that a symptom ceases to occur as soon as there no longer exists any schema or construction in which the symptom is necessary to have, with nothing done to counteract or oppose the symptom itself.

The name of the whole methodology is Coherence Therapy. It consists of finding, and then fundamentally altering, or dissolving, the specific constructs that are coherently driving symptom production, often with an almost surgical accuracy, right from the first session. In developing this approach we've identified the native rules that govern how those constructs are efficiently found and brought into awareness, which is a shift from implicit knowledge to explicit knowledge, and how they then become transformed or dissolved. And we've assembled an array of versatile techniques to carry that out.

At first we wondered if this methodology would be teachable. I'm happy to report [in 2006] that after a decade of teaching and writing, there is a growing, worldwide community of therapists who are getting the same results I see in my office, and who are extremely pleased about having that kind of effectiveness.

The whole point, as I mentioned earlier, is to cooperate with the built-in rules of the brain and the mind for finding, accessing and transforming the personal constructs maintaining a symptom. If we've done what we set out to do, then this is the same methodology that anyone anywhere would come to by strictly following the brain's and the mind's own rules for fundamental, transformational change, as distinct from merely counteracting, that is, merely setting up preferred, opposing schemas and responses that compete against the symptom-producing ones.

It is the inherent rules for how constructs transform that I particularly want to bring to your attention today. We identified these rules phenomenologically, from our clinical observations, in the early 1990s, about 15 years ago. Then, just a few months ago, I found neuroscience research articles that provide strong, precise corroboration of these rules of change, thanks to the recent discovery of a special kind of neuroplasticity called memory reconsolidation.

But before getting into the rules governing construct transformation and the underlying neural process of such change, we must first dwell a bit more upon the concept of coherence.

Coherence and Brain Science

The concept of coherence embodies an understanding that is central to the constructivist paradigm: the view that whatever behaviors, emotions or thoughts arise for a person, they arise as an expression of the person's constructs that organize and model the world.

As viewed from outside, a person's behaviors, moods or thoughts may appear to be irrational or dysfunctional—a psychological "disorder"—when actually there is a hidden order generating them, for a very wide range of unwanted behaviors, moods and thoughts.

In the brain are several different representational systems, each with its own type of coherence. For example, the neocortex creates our coherent verbal narratives, which are stored in the *explicit* memory system of the neocortex. In contrast, our body's movements in space are modeled in a very different but still wonderfully coherent way, based in subcortical brain systems including the cerebellum, brain stem and hippocampus, which have *implicit* memory

systems for this type of coherent knowledge. Coherence, in other words, is a metatheoretical concept that refers to the capacity of each brain system to form a well-knit construction of the world and to generate responses adaptively on the basis of those constructions.

edge that she didn't know she knew. To me this is a wondrous thing: knowings that are so well-defined and so sophisticated require neither consciousness nor words to exist and to generate behaviors, moods and thoughts.

The coherence that is the ruling force behind a vast range of clinical symptoms is the coherence of the limbic system, which forms and holds a person's emotional memory, a vast library of implicit emotional learnings.

The coherence that is the ruling force behind a vast range of clinical symptoms is the coherence of the limbic system, which forms and holds a person's emotional memory, a vast library of implicit emotional learnings. The amygdala is one of the limbic system's components that are centrally involved in emotional memory and emotional responses. The limbic system is very often described as primitive, but that notion doesn't do justice to the sophisticated, complex emotional knowledge that the limbic system forms and uses, as revealed routinely in coherence therapy.

For example, consider the woman I mentioned earlier, who had panic attacks in crowds. The implicit emotional schema causing her panic involved her learned expectation of being devalued and emotionally abandoned by Daddy when she failed to distinguish herself above all others. Her concrete recognition of her insignificance in a large crowd did not go unnoticed by this schema in her limbic system. Those sophisticated implicit knowings sent her into panic in a crowd. None of those knowings had any conscious representation in her neocortex, and none of them existed in words, yet they were very well-defined, specific knowings that responded acutely to current perceptions of the situation. The schema consisted of life-organizing personal knowl-

The fact that the *un*conscious, *non*verbal, limbic knowings driving symptom production are found to be so well-defined is a point I want very much to emphasize, because this has exceedingly important implications for making therapy effective. The well-defined nature of those implicit constructs is what makes it possible for psychotherapy to be accurate—phenomenologically, intersubjectively accurate. The specificity of implicit emotional constructs is experienced directly and can be verbalized clearly.

Of course, usually therapy clients initially show a lack of accuracy and a lack of coherence in their conscious, narrative account of the symptoms or problems they are working on in therapy, or of what they experienced in childhood. However, according to the symptom coherence model, an unconscious coherence already exists in the implicit knowings driving symptom production. The limbic system has a well-knit set of knowings for things that the conscious neocortex cannot yet make sense of. These unconscious knowings, which comprise the emotional truth of the symptom, are the optimal guide for forming the needed conscious narrative that makes sense of the symptom and of what was experienced and suffered earlier in life.

In other words, I am suggesting that, as a rule, the most therapeutic, coherent narrative is formed

through the honest facing, verbalizing and declaring of what the subcortical brain already knows in implicit memory.

Enhancing the Effectiveness of Therapy

Now, if most symptoms addressed in therapy are caused by implicit emotional schemas in that way, how can that translate into a quantum leap of effectiveness in therapy, far above placebo levels? Heightened effectiveness requires a therapy that does two things:

First, it must efficiently find and identify the specific constructs requiring the production of a given symptom.

Second, it must efficiently induce a transformation of those constructs, changing or dissolving them so that there no longer exist any constructs that require the symptom, ending symptom production.

We developed coherence therapy to do exactly those two things. That first step is called the *retrieval* phase of the work, and the second step is the *transformation* phase.

In the example of the woman with panic attacks, we had a glimpse of how the retrieval process began, which is the *discovery* work. Discovery consists of eliciting a response from the constructs that require the symptom, a response that is noticed and experienced by the conscious personality. The constructs themselves then become apparent through a deepening elicitation of their responses. You can think of the discovery work as the neocortex learning from the subcortical limbic system how and why the symptom is actually very necessary to have. And, of course, the therapist listens in and learns it also.

The constructs begin coming to light often in the first or second session. The client is guided to subjectively indwell the material being discovered, such as in feeling quite *un*special in a crowd while belonging to a family of exceptionally special individuals. These are nonverbal constructs, so verbalizing them while feeling them is an important part of the discovery process. The constructs are then repeatedly felt and verbalized so that a stable, integrated awareness of them is established in day-to-day life. That integration work completes the retrieval process.

Then comes the second phase, which is to guide the transformation of those symptom-requiring constructs, so that the symptom is no longer an emotional necessity. The big question here is, how do constructs transform? Not just neocortical, conscious constructs such as "broccoli is good for me", but what is it that unlearns and dissolves the ingrained, emotionally intense constructs of the subcortical brain, the ones that drive responses such as panicking upon seeing a big crowd all around? How do *those* constructs transform?

A Changing View of Change

According to neuroscience throughout the 20th century, those constructs could not be shed. Researchers had concluded that once a conditioned response is formed in subcortical, long-term implicit emotional memory, it is indelible, unchangeable. The evidence for that indelibility came from many studies of animal learning, namely, the observations that a subsequent process of *extinction* learning only overrides the original conditioned response temporarily and does not alter or erase it. Even after complete and successful extinction, the original response was always easily re-evoked, showing that the initial implicit memory was still there and wasn't erased by the extinction training. The extinction procedure creates a separate, second learning that competes against the original conditioned response.

This meant in turn that the best you could possibly do to change or dispel a response driven by subcortical learnings was the creation of new, opposite learnings that counteract and override the unwanted response. That counteractive strategy and mechanism is the basis of behaviorism and of cognitive

behavioral therapy. The developers of those therapies recognized all along that extinction learning is fundamentally unreliable because the original learning persists, symptom relief is prone to relapse, and the counteractive measures have to be maintained. Those are significant weaknesses, but if the counteractive strategy is the best you can do, it's what you have to do.

But is it? As we were studying our clients' deep change events in the late 1980s and early 90s, we were struck by what appeared to be a true dissolving and nullification of implicit emotional constructs. Longstanding emotional constructions that had been powerfully real and compelling lost all of their realness and compellingness, without any counteractive learnings or techniques at all. And they couldn't be re-evoked, in sharp contrast to the situation after extinction. Symptoms based on the nullified emotional schemas simply ceased. For example, it had felt so very real to my woman client that being ordinary in a crowd was a terrifying annihilation of her worth, but after that construction was dissolved, it seemed almost absurd to her that feeling ordinary should be so scary. Nothing could re-evoke the former realness of it, and she no longer had panic attacks.

The fact that nothing could re-evoke the former realness of her pro-symptom position that ordinariness means worthlessness was a strong indication that this was a true dissolution or depotentiation of the original, implicit knowings. If it had just been a counteractive overriding of them—just an extinction—then re-evoking would have been fairly easy. According to neuroscience and memory theory at that time, it wasn't possible to dissolve the original learning. Yet by working backwards from observed depotentiation events in therapy to the phenomenology that brought them about, we identified a specific process not delineated in any other system of psychotherapy to our knowledge—a process that we regarded as being the native rules of the mind and brain for nullifying implicit constructs in long-term, subcortical memory. We described this process in our book *Depth Oriented Brief Therapy*, published in late 1995. Neuroscience researchers would soon independently identify the same process we had described.

Longstanding emotional constructions that had been powerfully real and compelling lost all of their realness and compellingness, without any counteractive learnings or techniques at all.

Corroboration by Brain Research

From 1997 to 2000, a few articles in neuroscience research journals reported strong evidence of a type of neuroplasticity, called memory reconsolidation, that *is* capable of revising and even erasing conditioned responses and implicit emotional memory after all. A century-long belief that conditioned emotional responses were indelible because the brain had no way to erase them was turning out to be incorrect.

This major reversal corroborated our clinical observations of lasting, thorough, swift depotentiation. Most importantly, the new research had identified the specific behavioral sequence required by the brain for launching the reconsolidation process, and this sequence matched in detail the process that we had identified.

The fact that the limbic system's learned, implicit emotional schemas are changeable after all means that counteracting isn't the best you can do. I can hardly imagine anything more important for psychotherapy than the news that our neurodynamics do allow for our emotional learnings from early in life to be dispelled at a fundamental level.

What I am particularly eager to share with you is that there are good reasons to believe that our coherence therapy methodology is successfully bringing about reconsolidation in people. We believe we've defined the therapeutic steps and conditions that subject a therapy client's symptom-requiring constructs to a reconsolidation that dissolves these constructs on both the neural level and the experiential, subjective level. I'm going to chalk out what these steps and conditions are. You'll see that the key steps of this process can and do sometimes occur in therapy sessions fortuitously and unknowingly, which brings about transformational change sporadically and unreliably. The idea now is to knowingly build these crucial steps into the process of therapy in order to produce lasting change far more reliably and to significantly increase the effectiveness of psychotherapy above Dodo-bird and placebo levels.

We therapists have for several years been hearing a great deal about what neuroscience implies for our work, but not this—not the alterability of long-term emotional memory.

Why it's called the *reconsolidation* of memory requires some explanation. The creation of a long-term memory of something that has been newly learned is termed the *consolidation* of the initial, short-term memory. Consolidation means the neural encoding of the learning becomes very durably locked through complex molecular processes. It had been believed that the locking was irreversible and that consolidation was a one-time process, but then researchers demonstrated that there is a natural neural mechanism of unlocking or deconsolidation that destabilizes the encoding for several hours, followed by a relocking or reconsolidation. During the time that a target learning is destabilized, it can be revised or erased, either by new learning or by chemical agents that selectively disrupt destabilized neural circuits. New learning can produce either a stronger, weaker, or modified response, or it can nullify the original response completely.

We therapists have for several years been hearing a great deal about what neuroscience implies for our work, but not this—not the alterability of long-term emotional memory. In fact, to my knowledge, our gathering here today is the first time that the discovery and implications of reconsolidation have been brought to the attention of psychologists and psychotherapists. Reconsolidation was discovered using specialized laboratory methods in animal studies, and the first controlled studies of it in humans were published in 2003 and 2005.

The Psychotherapy of Memory Reconsolidation

At the start of therapy, the schema or cluster of symptom-requiring constructs is completely implicit and outside of conscious awareness. In the case of the woman with panic attacks, the discovery work revealed first that she was panicking only in crowds. This led in turn to discovering that her pro-symptom position or schema consisted at its core of the construct—the implicit knowing—that being basically the same as everyone else means she is failing utterly to be what is valued by Daddy and is an unlovable nothing.

The discovery work guides the client's attention along the real linkage from the symptom "down" into the implicit constructs underlying and requiring it, creating accurate explicit knowledge of those constructs, until the entire pro-symptom construction is conscious and explicit. And by "conscious and explicit" I mean not just in terms of cognitive insight but full *experiential* awareness: a subjective, whole-body, feeling-knowing of the living emotional reality formed by these constructs, together with an accurate verbalization of them—an integrated verbal knowing and feeling-knowing. The fullness and depth of felt meaning is critically important for true accessing of the pro-symptom constructs.

Those pro-symptom constructs were the stuff that required and necessitated the client's panic when in a crowd. They were the potent emotional learnings causing all the trouble. The discovery and retrieval work is a movement *toward and into* these trouble-making constructs, not *away* from them. Now that these constructs have become explicit and known to both client and therapist, they are well set up as targets for profound change through the reconsolidation process.

Right at this point, where the core beliefs maintaining the problem have become apparent, many therapists feel the temptation to swing into action with counteractive methods particularly strongly. Counteracting means working to build up preferred beliefs and responses instead of the unwanted ones. The psychotherapy field equips therapists with so many methods for doing that. For example, reframing, positive thinking, relaxation practices, assertiveness techniques, and mindfulness techniques could all be used in this situation in an attempt to prevent the panic-inducing beliefs or constructs from prevailing. As a rule, such counteractive measures are no match for the deep-rooted emotional intensity of the pro-symptom schema, and they would be only mildly and temporarily effective. Counteractive methods set up an inner battle between new and old constructs, and it's the old ones, the pro-symptom ones, that will win, because pro-symptom constructs are very urgent and passionate and have all the emotional power and lightning speed of the limbic system behind them.

The reconsolidation process is fundamentally different. It allows the symptom-generating constructs to be deconsolidated, unlearned and depotentiated so thoroughly that they can no longer be triggered and activated, so no ongoing effort is needed to remain free of them. That's what I mean by transformational change. Here is how the reconsolidation process works.

After the pro-symptom schema has been retrieved into conscious experience, its neural unlocking or deconsolidation is brought about by two critical steps. First, the pro-symptom schema is re-evoked so that the person is feeling its beliefs and expectations and urges emotionally and somatically. Second, an additional experience is guided while these things are being felt, an experience of unmistakably knowing something that is fundamentally incompatible with the knowings in the pro-symptom schema. What I mean by fundamentally incompatible is that the pro-symptom constructs and this other knowing cannot possibly both be true. Both feel real, but both cannot possibly be true, and both are being experienced concurrently.

That *juxtaposition experience*, in which the target learning directly encounters something that is distinctly discrepant with it, is what emerged both from our clinical observations and then from brain research as being the critical condition that deconsolidates the target schema.

Now I hope to bring that abstract description to life by describing the juxtaposition experience that happened for the woman who had panic attacks prompted by the implicit knowing that if she was not exceptional, she was an outcast nothing. And I'm going to trust in your nuanced clinical understanding and sketch just the essential elements of how it went.

We had done the retrieval work and she was now, for the first time in her life, directly and explicitly aware of those terms defining her worth, or lack of it. Next, I had to guide her to find or create an experience of knowing something that was a decisive contradiction of the panic-generating knowings, in order to be able to then set up the needed juxtaposition experience. Finding a contradictory knowing can be done in a variety of ways, and in about half of all cases the client comes up with one spontaneously, but sometimes this step is a creative challenge.

What worked with this client, after a couple of sessions of searching and floundering, was a form of inner child work that I had invented out of desperation for a previous client. I guided her to visualize herself as a little girl and to visit with that little girl. Her child self showed up as being about six years old, and I guided a conversation between them which revealed that this little girl already knew from Daddy all about how other people were ordinary and worthless and should just go away. And she was already afraid that she too would be worthless and should go away, if *she* were ordinary in any way. Then, in order for the adult to have an experience of clear, contradictory knowledge, I asked the adult to simply express her pro-symptom position to this dear, scared little girl. I asked her to say to the girl in a matter-of-fact manner, "I agree with Daddy: if you're *not* better than everybody else, then you *are* just nothing and you *should* go away."

There was nothing new in those words at this point, because they were the words of her own core belief as we had previously discovered it. But can you guess what she experienced when she said those words to her little six-year-old self? Immediately she cried deeply in an intense knowing that it's *not true*—an intense knowing that this little girl is lovable just as she is, *without* having to be better than *any*body else. That was a vivid experience of a knowing that is fundamentally incompatible with the pro-symptom knowings. It was an intense feeling-knowing that her real self, her child self, *was* still worthy and lovable even when she was *not* remarkable.

Notice that this newly experienced knowing was not just an idea or piece of positive thinking. It was a living experience that was viscerally real to her, and it didn't come from me, it arose in her as her own lucid knowing.

The needed two ingredients were in hand, so it was now time to prompt her to attend to both of those two incompatible knowings at the same time, for a juxtaposition experience. I did that very simply, by reviewing both knowings and reflecting them back to her in a softly empathic manner. I said, "Right now it's so clear to you that little you *is* lovable and precious even if she *isn't* better than everybody else, and at the same time, *another* part of you really agrees with Daddy that if she isn't better than everybody else, she's a nothing and she should go away." That's it. That's the guiding of the juxtaposition experience. It took about 30 seconds for me to say that to her. The neural circuits encoding her father's definition of her worth were now rapidly deconsolidating, according to the findings of reconsolidation research.

I was then silent for about ten seconds, and then asked her, "*How is it* to be in touch with both of those? What you learned from your Dad feels so real, and what you just recognized also feels so real. Those are so different. How is that for you?" That empathic enquiry guided her a second time to hold and attend to both knowings at once, with both feeling real, and yet both could not be true. Repeating the juxtaposition experience just a few times carries out the unlearning that dissolves the target schema and re-encodes it according to the contradictory knowledge.

She cried again and then, in response to my question, "How is it to be in touch with both of those?" said, "Before you said that, I could get in touch with agreeing with Daddy, but now I can't. When I look at her—I mean, she's not a nothing! How could anyone think she's a nothing?" That was the first indication that a depotentiation of the pro-symptom constructs

was occurring. Those constructs defining herself as worthless if non-exceptional were no longer feeling real to her, though they had been compellingly real for decades until just moments earlier.

She cried again after saying that, followed by a silence. Then I gently repeated the juxtaposition experience once more by again softly saying the words of both knowings and commenting on the dilemma of how opposite they are. She again said that Daddy's viewpoint no longer felt true.

As a between-session task, I gave her an index card on which I had written both knowings, much as I had spoken them, for her to read daily, in order to sustain the juxtaposition for several days. I also asked her to go into a big crowd with the card and read it, and feel both knowings, both positions. I asked her if she would for a moment picture doing that, which I called a rehearsal, though emotionally and neurologically it was the real thing as she did the visualization for about 30 seconds.

She had no more panic attacks. Instead, being in a crowd now evoked healthy feelings of sadness and grieving for a childhood in which she felt always deeply insecure under her father's standards.

What I want you to notice is this: all I did was to keep her in front of the juxtaposition—in front of both of those incompatible knowings—without sending any message to her about which to choose, or which is "correct" or "true". I didn't use one against the other. In setting up a juxtaposition, you're just setting up the conditions for the built-in process of construct transformation to occur. You let the contradiction speak for itself, and you leave it to the brain and mind to do their own amazing work of transforming personal reality.

That's why this is not a counteractive process. There was no attempt to build up what was desirable in order to override, suppress or get away from the trouble-making, pro-symptom construction that she was either the best or she was nothing. Quite the opposite: in this *non*counteractive process, the client is guided to stay deeply *in* touch with the trouble-making, pro-symptom constructs, while also experiencing other, incompatible knowings. That's the big difference from counteractive methods, and it's a world of a difference. It yields a true transformation of constructs.

You let the contradiction speak for itself, and you leave it to the brain and mind to do their own amazing work of transforming personal reality.

Deliberately keeping the client in touch with the underlying negative learnings feels counterintuitive to most therapists. It's not what therapists tend to do, so when a juxtaposition experience does happen to occur in therapy, it is usually accidental and unnoticed. But juxtaposition experiences are the key to using memory reconsolidation in psychotherapy to dispel tenacious, problematic emotional learnings. I am suggesting that by understanding and cooperating with the brain's readiness to unlearn and dissolve potent, existing constructs through juxtaposition experiences, therapists' success rate in producing deep, lasting change can be greatly increased, and we can surpass the effectiveness of placebos at last. My experience in working this way for well over a decade now [in 2006] has convinced me that the native capacity to revise or dissolve constructs is always present, but it goes into action only under the special condition that two incompatible constructs are simultaneously being experienced as emotionally real.

Let's zoom out to a wide-angle view of what I've been describing. Here's the picture: we use the specific procedural sequence that reconsolidation researchers have identified as being required by the brain for deconsolidating and reconsolidating a target learning, and in response to that procedure we see the same distinctive markers that researchers observe and regard as signs of lasting depotentiation and elimination of the target learning—namely, we see that negative emotional states or behaviors can no longer be triggered by cues that had strongly and easily retriggered them for decades, that this cessation persists effortlessly and without any counteractive measures, and that it persists permanently.

The fact that we have that full correspondence of procedure and results between therapy and the lab studies is not in itself a rigorous proof or verification that we are getting the neural process of reconsolidation to occur in therapy, but I think it is evidence worth taking seriously—evidence suggesting that coherence therapy recruits the reconsolidation process. And *any* system of psychotherapy that regularly brings about juxtaposition experiences would likewise achieve profound, lasting change consistently, regardless of whether there is any conceptualization of juxtapositions or of memory reconsolidation.

A New Understanding of the Uniformity of Efficacies

I promised earlier that I would offer a new and different explanation for why all therapies so far studied are in a tie for efficacy: a tie with each other and with placebos. By now you've probably surmised what my explanation is.

I suggested that the question should be, why are different systems of therapy equally *in*effective? And I said that if apparently different systems of therapy so consistently prove to hit the same ceiling on their efficacy, perhaps we should look for a deep structure that they share, that is responsible for the limitation that they share.

I propose that the deep structure that all these therapies share is this:

1. They do not sufficiently guide therapy clients to access the actual cause of symptom production: coherent, subcortical, symptom-*requiring* emotional learnings or constructs.

2. They do not fulfill the brain's requirement for unlearning and dissolving those symptom-producing constructs: disconfirmation through vivid juxtaposition experiences.

Certainly there may be individual practitioners who do tend to fulfill those two critical conditions and whose effectiveness is therefore far above placebo levels. But the efficacy of a psychotherapy system is measured by randomized controlled trials, which average the results obtained by many therapists without identifying what was done differently by the small minority whose outcomes were exceptionally strong.

Let's look again at the list of therapies that tie with placebos. We could sort them into two groups. One group is *counteractive* by design, such as cognitive behavioral therapy. Counteractive therapies tend not to bring the work deeply into the subcortical material driving symptom production, and as a result of not directly accessing that material, they cannot create the viscerally felt juxtaposition experiences needed for changing those subcortical constructs.

The other subgroup of therapies isn't counteractive by design—client-centered therapy, Gestalt therapy and focusing, for example—but their methodologies do not explicitly guide and require practitioners to zero in on the specific subcortical coherence driving symptom production, or to create the juxtaposition experiences necessary for changing those subcortical constructs.

So, just in case I am not being blunt enough about

all this yet: I am predicting that there are two specific methodological features that enable a therapy to surpass placebo effectiveness in the hands of skilled practitioners. Those two features are (a) a central focus on experientially retrieving the coherent subcortical emotional learnings that are the direct cause of symptom production and (b) the use of experiential disconfirmation through juxtaposition as the process of change of those learnings.

I suggest that it is *only* within the universe of therapies that do *not* meet these two conditions that the nonspecific common factors model is correct. In other words, details of technique or methodology indeed do not influence the effectiveness of therapies that do *not* meet these two conditions, because the mild effectiveness of such therapies is due mainly to the client's expectation of improvement, which is the placebo effect, maintained by the therapist's good listening, empathy, a good working alliance, etc.

The other side of that coin is that within the universe of therapies that *do* meet the two conditions, the nonspecific common factors model should *not* prove to be correct. Details of technique and methodology *are* to be expected to strongly influence the effectiveness of therapies that meet the two conditions, because the heightened effectiveness of such therapies arises not from the nonspecific common factors but through facilitating specific processes that find the constructs causing symptom production and change them through memory reconsolidation. And that does indeed depend on methodology and on its skillful implementation.

Conclusion

In closing, I hope I've made plausible to you the idea that a major increase in the effectiveness of psychotherapy results from the two ingredients I've been describing: retrieving the learned, coherent, subcortical constructs maintaining symptoms, and then using the innate process of memory reconsolidation to unlearn and eliminate those constructs through juxtaposition experiences. I am convinced that this strategy for therapy is a master key that unlocks both neural circuits and the mysterious glass ceiling limiting the efficacy of psychotherapy. And I am hopeful that the ceiling on psychotherapy efficacy will soon become, like the indelibility of implicit memory, a construct that once had realness for us, but no longer does. Thank you.

Studies Referenced in the Talk

Baskin, T. W., Tierney, S. C., Minami, T., & Wampold, B. E. (2003). Establishing specificity in psychotherapy: A meta-analysis of structural equivalence of placebo controls. *Journal of Consulting and Clinical Psychololology, 71*, 973–979.

Berman, J. S., & Norton, N. C. (1985). Does professional training make a therapist more effective? *Psychological Bulletin, 98*, 401–407.

Epting, F. R., Probert, J. S., & Pittman, S. T. (1993). Alternative strategies for construct elicitation: Experimenting with experience. *International Journal of Personal Construct Psychology, 6*, 79–98.

Luborsky, L., Rosenthal, R., Diguer, L., Andrusyna, T. P., Berman, J. S., Levitt, J. T., . . . Krause, E. D. (2002). The Dodo bird verdict is alive and well—mostly. *Clinical Psychology: Science and Practice, 9*, 2–12.

Robinson, L. A., Berman, J. S., & Neimeyer, R. A. (1990). Psychotherapy for the treatment of depression: A comprehensive review of controlled outcome research. *Psychological Bulletin, 108*, 30–49.

For an online listing of articles reporting reconsolidation research findings that establish the specific process described in this article, see http://tiny.cc/7yutfx

Suggested Readings

Dahlitz, M., & Hall, G. (Eds.). (2015). *Memory reconsolidation in psychotherapy* [The Neuropsychotherapist special issue]. Park Ridge, Australia: Dahlitz Media.

Ecker, B. (2008, September). Unlocking the emo-

tional brain: Finding the neural key to transformation. *Psychotherapy Networker, 32*(5), 42–47, 60.

Ecker, B. (2011, January 13). Reconsolidation: A universal, integrative framework for highly effective psychotherapy [Web log post]. Available at http://tiny.cc/r3ttfx

Ecker, B. (2013, July). Nonspecific common factors theory meets memory reconsolidation: A game-changing encounter? *The Neuropsychotherapist, 2*, 134–137.

Ecker, B. (2015). Memory reconsolidation understood and misunderstood. *International Journal of Neuropsychotherapy, 3*, 2–46.

Ecker, B., Ticic, R., & Hulley, L. (2012). *Unlocking the emotional brain: Eliminating symptoms at their roots using memory reconsolidation.* New York, NY: Routledge.

Ecker, B., Ticic, R., & Hulley, L. (2013, April). A primer on memory reconsolidation and its psychotherapeutic use as a core process of profound change. *The Neuropsychotherapist, 1*, 82–99.

Bruce Ecker, MA, LMFT is co-originator of Coherence Therapy, codirector of the Coherence Psychology Institute, and coauthor of *Unlocking the Emotional Brain: Eliminating Symptoms at Their Roots Using Memory Reconsolidation*, the *Coherence Therapy Practice Manual and Training Guide*, and *Depth Oriented Brief Therapy*. He is in private practice in Oakland, California, gives clinical trainings internationally, and has taught graduate courses for many years. Clarifying how lasting, transformational change takes place is the theme of Bruce Ecker's clinical career. He has contributed extensive innovations in concepts and methods of experiential psychotherapy, and has driven the clinical field's recognition of how memory reconsolidation research translates into new capabilities of consistent therapeutic effectiveness and psychotherapy integration. For more information, visit www.CoherenceInstitute.org.