

Treating Trauma Master Series

How to Work with Emotional and Procedural Memory in the Case of Preverbal Trauma

a Bonus Session with

Peter Levine, PhD and Ruth Buczynski, PhD

National Institute for the Clinical
Application of Behavioral Medicine





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How to Work with Emotional and Procedural Memory in the Case of Preverbal Trauma

Dr. Buczynski: When a person experiences trauma, it can have a lasting impact on many different types of memory.

For instance, it can disrupt the way they normally process information to form a semantic memory.

It can also shut down their access to episodic memory, and fragment the sequencing of events and experiences.

But trauma can also go deeper into the nervous system and trigger feelings and sensations from a person's emotional memory - often without context.

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One way we can see how this implicit kind of memory presents itself is when we're involved in an argument.

Dr. Levine: This I call **the veracity trap**.

Think about a situation where two people, say a couple, are arguing with each other, and the argument escalates and the anger escalates. Generally, it continues to escalate.

“A high arousal state is trying to tell us that there are threats, so we better believe it's real.”

Why?

Well, the more emotion there is, the more it seems true. That's how we're programmed. If we're in a state of high arousal, high emotion, it's telling us that there are threats, so we better believe it's real.

This thing just goes on and on and people don't come down from it until they realize "Wait a minute. What's happening here? We should take a couple of minutes to take a deep easy breath and then can get back to what was it? What do we need to communicate with each other?"

So, that's what happens, and it seems true. The more arousal there is, the more it seems true – because again, that's how we're programmed. In other words, the more our nervous systems are in a trauma state, the more we

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will perceive that there's threat all around us.

Dr. Buczynski: As Dr. Peter Levine said, our nervous system can keep us in “threat” mode. And this can extend to our bodies in ways that go beyond just hyperarousal.

You see, trauma also has a profound effect on procedural memory. A traumatic experience can lead to patterns or habits in the body that can turn maladaptive.

Now the thing to keep in mind is that these patterns often start as a necessary protective response to the trauma.

And in certain situations, those protective responses can be quite powerful.

Dr. Levine: Let's just say a person was mugged or raped. They saw the person come up to them and their first instinctive reaction would probably be to run – but before they were able to actually run, the person then grabbed them or whatever happened.

But their body, in that moment, was preparing themselves to flee or to fight. You have to appreciate how much charge, how much energy there is in a survival response.

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This is what allows an 80-pound mother to lift the car off a child that's trapped underneath the tire and pull the child out. It's what propels the gazelle and the cheetah in their survival dance at 70 miles an hour.

These are powerful, powerful instincts.

Dr. Buczynski: Peter made an interesting point that I think is helpful to keep in mind. There is a lot of energy connected to these responses. So, you can imagine what can happen when these instinctual actions are suddenly disrupted.

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But there's more to it. When a survival response is interrupted, it doesn't just dial back to zero. No, that energy is still there. But it often remains unprocessed, staying stuck in the person's body as a procedural memory.

Dr. Levine: If they stay incomplete, the body is always ready for being hit or ready to try to run, but we perceive that we cannot run.

So, when a person is able to complete their response – not only *wanting* to run but being *able* to run and

imagining that they could be running to a place that was safe, for example – now you're taking all of that energy that's locked in the procedural memory and depotentiating it and making it available, accessible to the person carrying on their life.

“The key here is in helping our clients complete these responses so that they return to neutral and end their control over the client’s life.”

Dr. Buczynski: The key here is in helping our clients complete these responses so the responses can return to neutral and end their control over the client’s life.

Dr. Levine: So, to work with procedural memories, that's not the whole thing, but a big part of it is in helping the person complete their response.

So, if you see a person's like this – I might first try to bring their awareness to it. Then, I'd be mirroring them and I'd have them kind of let that increase there, and there, and then let it go slowly, slowly, slowly, letting go.

Often, as the person gets out of that procedural memory – as they complete the procedural memory and then has that access to their own life energy – the person experiences a wave of sensation and trembling and warmth or pleasure.

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Dr. Buczynski: When the memory is able to complete itself, the body can start to break free from the painful patterns that formed after trauma.

Now, if you'll remember from our main session on traumatic memory and the nervous system, Peter Levine and Pat Ogden took us through some different ways to work with procedural memory.

But how do we work with procedural memory when the context of the trauma is unknown? As in preverbal trauma?

Preverbal trauma, as the name implies, usually happens before a person is old enough to cognitively process the experience.

Even though the client might not retain the context of this type of trauma, the trauma can live on inside their body as an emotional or procedural memory.

In this case study from Peter Levine, Peter gives us a deeper insight into how this memory forms and how to help release it.

Dr. Levine: I was asked to see a 14-month-old child called Baby Jack. He was brought in because he was having reflux and they were afraid the reflux was going into his lungs.

This is a young man who was, well, a baby who was born under extremely traumatic conditions, traumatic birth. He was an emergency C-section; he had the cord three times around his neck, and he was wedged up into the apex of the uterus.

So, even with the cesarean, they were unable to extricate him. They had to use suction to pull him out from the apex of the uterus. He never really bonded or attached with his mother.

She was clearly, in Winnicott's terms, a "good enough" mother. She cared, she loved him, but you could see they didn't have that intimate relation. But they came to see me because they wanted to do an endoscope – which when somebody was tremendously traumatized at birth, that's the last thing you want to do, because that's going to just add trauma onto trauma.

So, he came in with his mother and I have some beautiful Hopi rattles that some of my Hopi friends gave me.

"Can you bring me one of the rattles there?" I'm going to try something here that's never been done before – I put the rattle up and I said, "Hi Jack."

You could see, he was curious.

Dr. Buczynski: Baby Jack *was* curious. But as Peter would find out, his patient was being influenced by something much deeper than curiosity.

Dr. Levine: He reached out to take the rattle and then immediately pulled back his arm, and then his body collapsed.

He was telling me the whole story of his birth and of the procedures that he had to go to after the birth. He was telling me in that gesture, it was right there.

So, then I shake it again a little bit and he reaches out, and this time, he pushes it.

I say something, "Jack, that is great! That's great because, with all those tubes in you and all those things, you couldn't just push them away because you were so small."

Of course, he doesn't understand the words, but he understood that I got him and that we were working together.

So, this went on a couple of more times and then he reached it and then he saw – he called it an apple – a pomegranate on my table. *Apple, apple.*

I brought the pomegranate up and he reached for it and pulled back. Then again, pushed away, and then this time, took it.

So, that's the first step.

He was now able to do what he couldn't do then. That was completing the procedural memory.

Dr. Buczynski: Peter helped Baby Jack complete this one procedural memory.

But he wasn't finished.

In fact, it was only when Baby Jack and his mother got together again that the most powerful work began.

Dr. Levine: Then I had the mother sitting over on the side and he on his mother's lap. I could see him tightening in his middle back, so I put my hand to support his middle back.

All of a sudden, he pushed with his legs against his mother's legs and he propelled himself upwards. Then, I said, "Wow, Jack! That is really, really great. You really, really can push your way out this time."

We did this a couple more times, and then all of a sudden, he went and molded into his mother's arms and her chest. You could just see the tears coming down her face and she said, "Oh, I never . . ."

He was crying, he was sobbing and crying. *Birth cries.* She said, "I've never seen him cry and I've never seen tears come down his face."

They both had tears coming down their face.

And he just stayed there; he just stayed there, and stayed there, and stayed there until he had enough.

“When Jack was able to complete those procedural memories, then the bonding process could happen as it should organically.”

They were then able to bond because the connection was broken. It wasn't anybody's fault. It wasn't the mother's fault. It's just that their process got interrupted, and when Jack was able to complete those procedural memories, then the bonding process could happen as it should organically.

Dr. Buczynski: As we heard, trauma can affect explicit as well as implicit memory. And this is the case even when there's been preverbal trauma.

By working with emotional and body memory, we can help clients heal from the aftermath of a traumatic experience. And by doing so, we can open up new opportunities to help bring their nervous system out of a state of threat.



About the Speakers . . .

Peter A. Levine, PhD is the originator and developer of Somatic Experiencing® and the Director of The Somatic Experiencing Trauma Institute. He holds doctorate degrees both in Medical Biophysics and in Psychology. During his 35-year study of stress and trauma, Dr. Levine has contributed to a variety of scientific and popular publications.

Dr. Levine was a stress consultant for NASA during the development of the Space Shuttle, and has taught at treatment centers, hospitals, and pain clinics throughout the world, as well as at the Hopi Guidance Center in Arizona.

He is the author of *Freedom from Pain: Discover Your Body's Power to Overcome Physical Pain*; and his best-selling book, *Waking the Tiger: Healing Trauma*, is published in 22 languages.



Ruth Buczynski, PhD has been combining her commitment to mind/body medicine with a savvy

business model since 1989. As the founder and president of the *National Institute for the Clinical Application of Behavioral Medicine*, she's been a leader in bringing innovative training and professional development programs to thousands of health and mental health care practitioners throughout the world.

Ruth has successfully sponsored distance-learning programs, teleseminars, and annual conferences for over 20 years. Now she's expanded into the 'cloud,' where she's developed intelligent and thoughtfully researched webinars that continue to grow exponentially.

