Dr. Buczynski: How do we calm the fearful brain?

As we know, trauma can keep patients stuck long after the tragic event.

Here, Dr. Bessel van der Kolk sheds a light on the unique factors that can keep traumatized patients stuck.

Dr. Van der Kolk: I consider myself a neuroscientist and a brain person, and we have learned so much from neuroimaging and quantitative EEGs that I see this very much – you can see it in the brain.

You can see different areas of the brain that do not come online; you can see that the focusing capacity of the brain doesn’t work; you can see that the filtering system of the brain doesn’t work.

You also get to see that you’re dealing with very difficult issues... you see very dramatic brain changes in chronic trauma where large parts of the capacity to sense oneself gets damaged – you no longer know what you feel.

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Parts of the brain that have to do with knowing who you are get damaged, so you have no narrative of the self – who I am and what it stands for.

It’s all something you see with these brain images, and trauma affects the brain and causes serious damage.

Most traumatized people do get stuck. They get stuck in the position of being unable to know what they know or feel what they feel – these areas of the brain that have to do with knowing and feeling get so damaged.

Over the years – I started off as a psychotherapist only and then I became a psychopharmacologist – and it increasingly became clear that there is enough brain damage to need to do something to really start reorganizing these brain patterns that keep people stuck on a frozen past.

The big issue here for me is neurofeedback – applied neuroscience. When we see what is damaged in the brain, we can actually play computer games with people’s own brains and help to begin to reset those
changes.

I still hear a number of my psychological colleagues say, “Oh, my method can solve all these things,” and I say, “Well, you’d better prove that because the damage is so profound.”

We do studies, and what I can also tell you, from a clinical practice, is that people may be agitated, unable to relate to people. There’s one videotape of a patient of mine that I show, and she says, “You know, I feel attached to people now.”

When you’re not afraid, you can relate to people differently. As long as your brain is geared to being scared that somebody is going to hurt you, you are always on the defensive.

But once you feel safe inside, you can approach people differently. She says, “Before the neurofeedback, I was always looking around – who was going to hurt me? I knew consciously that nobody was going to hurt me, but my whole system was set for danger.”

When people’s system is set to always meet danger, then they’re always agitated and frantic, and they start doing things to calm themselves down – they dissociate, they take drugs, they numb themselves out with videogames.

So many global behaviors can be understood as ways people use to deal with their hyperactive alarm system.

You calm down the fear system, and then people can talk with you.

A great example is our director of training; we do neurofeedback together, train ourselves, experiment – the third day that we’re doing this, doing this in a group of people, and he says, “I’ve just thought, an interesting thing happened here ... mostly you don’t know much about my own personal history, but you probably know me as a little bit of an uptight guy, and I’ve done every therapy in the book.”

He was a wonderful therapist. And he says, “I’m always a little scared. I’m always a little fearful of other human beings and I don’t take pleasure in being in therapy – and it’s gone. I’ve trained myself – as the intuitive part of your brain sends signals to your amygdala, you become calmer – and I look at people differently.”

This was about seven years ago, and since that time our friendship has blossomed because he’s much more open. He’s much more spontaneous. He argues, and if I do something he doesn’t like, he says, “Hey, I didn’t
like that.” And before, he’d just sit without doing something.

**Dr. Buczynski:** That’s a really amazing story. Bessel, how many sessions had he had?

**Dr. Van der Kolk:** Just three sessions. It’s very unpredictable.

The research we do right now is on tremendously damaged kids. I wouldn’t even want to say, the trauma is so bad. In a typical school-class, people have seen their mom being murdered; they have seen their dad being shot in drug deals or hauled off to jail; they have been raped, they have been abused, they have been from foster home to foster home – their grades are all over the place.

These kids have clearly developmental trauma disorder, which we talked about before, and you get all these stupid diagnoses that totally don’t capture what’s going on with them. They usually get very heavily drugged and hence become unable to learn how to be able to function.

We do neurofeedback with them, and they start being able to just – amazingly – start engaging.

Therapists are all into their relationship - and into relationship won’t cure it, but when you have a fear-driven way, people terrify you. I don’t know if you have talked to Ruth, but Ruth and Paul Frewen did this amazing piece of research – they show a handsome, dark-eyed stranger to a bunch of traumatized...

**Dr. Buczynski:** Are you talking about Ruth Lanius?

**Dr. Van der Kolk:** Yes. In the back of their brain, the periaqueductal gray lights up.

So, a lovely, God-driven person like you may become a traumatic trigger for them. You may say, “Oh that must hurt. Oh, I’ll be here for you...” and that’s what they heard when they were being seduced, so anybody who’s nice to them automatically becomes a trigger.

Now that’s very deep – what they call the cockroach part of the brain lights up when you do this brain scan.

The question is: how do we calm that very deep, primitive survival brain down so people can wake up to the present?

**Dr. Buczynski:** As Bessel said, we can help clients get unstuck once we’re able to reach that deep fearful part of the brain.
Now, I just want to go back to something Bessel mentioned earlier – about traumatized patients losing connection to their feelings. Dr. Joan Borysenko and Bill O’Hanlon had some interesting thoughts on this idea.

**Mr. O’Hanlon:** There’s this guy named James Pennebaker who was at the University of Texas I think, at Austin - he’s moved since then - but he started doing a very simple experiment. He had people who were traumatized write for 15 minutes a day, for three or four days - Julia Cameron calls it free-writing; you don’t lift your pen from the page; you just write, write, write. Don’t censor, don’t worry about grammar or anything like that - and in a private place so no one will see it, so you don’t censor yourself or worry about someone seeing it. Do it for three or four days.

At the end of that time, he found that people were way less traumatized and they got some insight on what they were feeling, and that the story had changed and the pronouns had changed.

He went on to write another book called *The Secret Life of Pronouns* based on his noticing that, when they did the research on this writing, that pronouns shifted for people.

So, a very simple ritual, a writing ritual - and you can find out about this in the book *Writing Yourself Open*. It’s powerful stuff. That research has been replicated about a thousand times because you can do it within a semester and graduate students can get out of their dissertation a lot quicker because it’s pretty quick research to do - it’s only three or four days, then you do the analysis afterward. And they’ve done it with rape victims; they’ve done it with people who have had car accidents, people who have postpartum depression - and interesting stuff. Very simple technique, the writing ritual.

**Dr. Borysenko:** A number of years ago, when I used to work with Herb Benson - we were studying meditation, we were studying the relaxation response, we were studying how to calm people down - I went off to a week-long workshop with this really interesting German guy whose name was Wolfgang Luthe. And he was a physician who used something called autogenic training.

Some of you will remember it; you start with a series of formulas: “My right arm is heavy. My left arm is heavy. Both arms are heavy,” then you do it with your legs - there are like six different standard formulas. And there’s a huge volume of research that Luthe wrote with the actual founder of autogenic training, whose name I have unfortunately long since forgotten. But what he found is, as you get deeper and deeper, you calm down the conscious mind, the knowing mind, the thinking mind. All trauma comes up, and it comes up in a symbolic way, and the autonomic nervous system gets triggered and different things happen.
And then he invites people to actually do art - and this he calls this autogenic abreaction and art therapy. And it was quite amazing to watch in the workshop the kinds of breakthroughs that came through, because this was entirely nonverbal, and what you could see in people was tremendous differences in what was going on in their autonomic nervous system. It was almost like a Peter Levine kind of thing where you saw the whole body and body language shifting.

And the whole movement of biofeedback came out of that, in a way; people like Elmer Green said, “There’s got to be a faster way. It takes like a year or something to become an expert in the autogenic training.” And now neurofeedback is kind of the leading edge, taking something like that so that you can make what is implicit explicit in a system that doesn’t necessarily have words to it - but abreaction.

**Dr. Buczynski:** Joan mentioned autogenic training and Elmer Green. Elmer was a pioneer who integrated autogenic training with his biofeedback work at the Menninger Foundation. He would use imagery to help patients self-regulate their body temperature and other involuntary functions.

In the next video, we’ll learn how to install positive neural circuitry in the brain.