

SANDTRAY SUITE

MODULE 2: NEUROCEPTION OF SAFETY

As we talk about the neuroscience of sandtray and why sandtray is so important, we really need to talk about Stephen Porges' Polyvagal Theory. So, to talk about what the Polyvagal Theory is, let's talk a little bit about what the Vagus nerve is. Now the Vagus nerve is one of the biggest nerves that runs up from our body to our skull brain. So, it carries a lot of information. Eighty percent comes up from our body into our skull brain. And, so again, this is why it's very important that we talk about it in terms of trauma. It's also, if you want to think about the Vagus nerve. They call it the Vagus nerve based on the word vagabond, meaning it goes everywhere in the body.

So what Stephen Porges says here is that there are three different states that we as human beings are in. So, when I was in school, we were only taught that there was FIGHT or FLIGHT, that was it. But, now we know that there's actually more than just FIGHT or FLIGHT. So, it's helpful to think about these in terms of a stoplight analogy. When we are in red, when we have something that happens to us, and we are all of the sudden it becomes too much for our bodies and brains to process, we will go into red, which is FREEZE mode. Now you will see this in animals, you see like a deer in the headlights. Sometimes rabbits will do this—possums. And, it's a way, a method, of the body to protect itself, in that the body gets the message that there is no hope, so we're just going to shut down.

Now the other way that the body can go into red is from disassociation, because oftentimes if the brain did not disassociate, the body and the brain would literally would not be able to handle the terror that happens with some of our clients when they have this trauma. So, instead of something to be ashamed of from disassociation, oftentimes it's helpful to clients to kind of shift that and say, "You know, you're body and your brain is really smart, and they are doing this as a way to protect you." So,

again, so we have FREEZE here. We also have FIGHT or FLIGHT, which is what would be likened to the yellow here. And this is what we call Hyperarousal. Now red would be Hypoarousal meaning you go dorsal, below the level of the diaphragm, you just shut down. So hyperarousal is when the body and the brain perceives there is hope that maybe we can get ourselves out of this mess. So, your body either gets ready to, of course, run away or fight.

Then the third state that we could be in is the green, here with the stoplight. And this is Optimal Arousal. This is the zone of social engagement. This is when all of our brain gets accessed to all of the oxygen, so all eight cylinders are clicking. So then you're able to really be able to learn. You're able to focus. You're able to attend to information within the environment. So this, you need to know, that our system, our whole body is always working towards the latest state of being. When I say that I mean the latest evolutionary wise, or you as a person, the latest one to come on-line, which for us would be green—the zone of Social Engagement. So, the brain is always working on that growing edge. It's always working toward integration, trying to get here. Now as you think about why this is, it really makes sense in terms of evolutionary perspective, because if we are in a Social Engagement, if we have oxygen that is able to go to our whole brain, then we are more likely to be able to run away from the predators, to develop protection, all these things that help us survive and procreate. And again, so our bodies, our brains, are always working towards Social Engagement. Now what keeps us from getting there, is when our body perceives that we are not safe then it will not allow us again to come up to the plate, so to speak.

So, this term, Neuroception of Safety is super, super important when you are talking about why sandtray is effective and when you're working with kids or adults in the sandtray who have been through trauma. So this is a phrase that Stephen Porges coined. Neuroception of Safety says we are wired to detect safety, danger, or threat, even below the level of consciousness. So, my nervous system is constantly wondering “Are you safe? Are you safe? Are you safe? Are you safe?” constantly scanning the environment. So, when we are in the green zone, again, we have complete access. The yellow zone, what happens is, our nervous system dampens what we can take in. So, we often, it's difficult to regulate

ourselves internally and externally until our sense of safety is restored. Now what happens, is that if we have someone next to us who has a nervous system that is in the green zone already, what happens is that we will often start matching nervous systems with them if the other person can stay grounded and stay even long enough. This is where we as therapists have to be in session because oftentimes our kids, especially, and even adults, they will stay in this yellow zone because they've had trauma happen to them so much that their little bodies are not able to calm, like their heart rates are really high. They are constantly in a state of being revved up. So, they will often get sick more often. And even if you have a kid who has been through multiple traumas, and maybe their A score, which is *Adverse Childhood Experience*. If you guys aren't familiar with A scores, definitely look it up. It's fascinating stuff. Maybe their A score is high. Then what happens is, their bodies are experiencing trauma all the time. They are in that red or yellow zone all the time. So, it's like you have a car that you are running wide open for years and years and years. Well, it's going to break down earlier. So then you get high blood pressure. You get diabetes. You get early death, all this kind of stuff when you're not able to be in the green zone and have positive neuroception of safety over a long period of time.

Just briefly here, when we are in the red zone we are going dorsal, is what we talked about, the old myelinated part of the ANS and again, below the diaphragm, go into the FREEZE, so we will become numb. We become passive. And again, it's impossible for this highly dependent neocortex, this thinking part of our brain, that requires a lot of oxygen, it will even be able to come on-line here. And, so again, this is why you literally get people who can't move, or maybe we make bad decisions when we are in the red zone or sometimes even in the yellow zone. So, when we are working with a client, one of the reasons why it is so important that we do our own work, is because we have to be in the green zone so that if they are in the yellow or the red, we can meet them and really invite them into our window of tolerance.

When you are working with a adult or a kid in the sandtray and something gets triggered for them, they are, maybe their implicit memory gets triggered for them or something like that, then all the sudden, they may start getting revved up or something, if you were there with them, you're

remaining calm, you're providing that neuroception of safety, then they are much quicker to come into that green zone than they would be otherwise. That's the reason it is different when you are sitting there with a client than them just playing in the sand by themselves. You get clients and parents who ask you, "Well, they can play in sand at their house, why do I need to pay you so much money for you to come . . ."

One of the big differences is this neuroception of safety. And this is true for adults as well as kids. So, again, this is why it's very very important you guys do your own sandtray and a lot of self care so that we can always have our green zone available for our clients.