

Retraining the Brain and Healing the Body

Guest: Ben Ahrens

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[00:00:09] Jaï Bristow

Hello, and welcome to this conference. My name is Jaï Bristow, and I'm one of your hosts. Today I am very pleased to be welcoming Ben Ahrens. Welcome, Ben.

Ben Ahrens

Thank you so much for having me, Jaï. I am really excited to be here.

Jaï Bristow

I'm really excited to have you here. You are a chronic illness recovery expert, a TEDx speaker, a neuroplasticity coach, and the CEO of re-origin.

You have a really interesting story yourself. Do you want to start by telling us a bit about your story? In terms of trauma, and how it led to the work you do today.

Ben Ahrens

My story goes back to when I was very young, and always interested in the human body, the human being, and how we function and work. Later in college, I studied biomechanics, and was a personal trainer, and physical therapist assistant, and was always really fascinated by this notion that we could, through our own actions, make some very concrete changes to the way that we feel, and the way that we function.

Then in my mid-twenties, I got really sick with something that turned out to be a combination of many different factors. One of the main diagnoses I received was Chronic Neurologic Lyme disease. But for anyone who knows anything about Lyme disease, it's really just a catch-all umbrella type of term for a syndrome that occurs when a bunch of different things, what they call a perfect storm, has happened.

[00:01:42] Ben Ahrens

In my case, this landed me bedbound for about 3 years, during which time I was trying to navigate all of the medical routes, conventional at first, and then functional and biological, and trying everything under the sun to support my physical body, and kill pathogens, and everything.

I found that I was able to make some headway. But whenever I encountered any sort of stress, even worry, or thoughts, I would instantly be catapulted back into that place of excruciating symptoms. For me, it was things like migrating aches and pains, extreme anxiety, heart palpitations, depression, things that were even showing up on physical scans, I had multiple brain lesions in the prefrontal cortex. I had bone-on-bone arthritis in the elbows and knees, there was real erosion of tissue going on.

I had lost about 40 to 50 pounds of lean body mass during this time. It was incredibly frightening, and at the same time I came face to face with the limitations of my mechanistic way of thinking. Where I had previously learned that you could do a lot of changes through the body, and through understanding how it works mechanically. There was something going on here that was beyond what meets the eye, that was beyond just the mechanics.

That caused me to do a deep dive into what I've since learned to be the control center for the body, the immune system, and all cells and systems in the body, which is really the brain. That led me up the chain to how we can impact, or affect changes in our own brain, and how in turn those changes can, on a fundamental level, change the way our body self-regulates and self-manages so that it can do a better job to self-heal.

Jaï Bristow

Fascinating. There's a lot I can relate to in terms of having spent most of my 20s bed-bound with chronic illness as well. I had slightly different symptoms and illnesses to the ones you were diagnosed with. They tested me for Lyme many times, but instead came up with the umbrella term of chronic fatigue, or postviral fatigue, and then more and more diagnoses on top of that.

That feeling of trying to understand it, and not knowing what's causing it, and how to recover from it. It's really interesting hearing how, for you, what was most supportive was going via the brain. You're now a neuroplasticity coach. Do you want to explain a bit what that means, and what that is exactly?

Ben Ahrens

When I was trying to recover, this analogy came to mind once, I imagined myself as a diver trying to get to the surface. Imagine that the surface is where the light is shining, that's where life is happening, and that's ultimately where you want to be. But I felt like a diver with this weight belt around my waist. When you have a belt around your waist, you'll reach some form of equilibrium, let's say it's like 50ft below the surface where you really want to be.

I found, and a lot of people with things like chronic fatigue and chronic conditions find as well, that on occasion, you might be able to make it to the surface, or toward the surface, but it seems to require a lot of effort. I could kick and struggle and maybe get to the top for a little bit, and that

would be the one day out of the month that I would be able to get out and see a friend, and they'd be like, "Oh, well, you look fine, you're out and about."

[00:05:36] Ben Ahrens

Unbeknownst to them of course, it took a herculean effort to get me to that place. Then the moment you stop struggling, your natural inclination is to sink all the way back down to that equilibrium point where the weights are pulling you down. Over and over again, this happened, I would struggle to mount some effort to make some headway, and every once in a while, I could actually do it. But it would usually result in me having to spend the next month or two in bed, recovering from that few hours of outing.

I really started to question, "Okay, what is the weight? What is the weight belt in this analogy?" And I started to learn that ultimately, it's neural pathways in the brain that can learn to maintain a certain equilibrium, a certain new homeostasis in the body. Essentially, what can happen is, we've all heard of this thing called the allostatic load, or the total load of stress that can build up on the nervous system. This stress can come from a lot of different places.

When we talk about stress now, we're really referring to a very broad spectrum of contributors. Psychological and emotional stress can be one, childhood trauma can be another. There's a lot of research showing that the ACEs, or adverse childhood experiences have a direct correlation with our ability to combat stress, and even illness in the future.

But essentially, as human beings, as we go through life, we all get exposed to a lot of different things. Some psychological and emotional types of traumas, some can be physical pathogens. But over time, this total load can start to accumulate, and then we can get an exposure to an acute illness, injury, or traumatic event. A lot of times, in our conventional thinking, we think that's the cause, when in reality, it may just be more like the straw that broke the camel's back.

In retrospect, for me, sure, it was always puzzling how a healthy 25-year-old could be completely taken down by a little tiny tick bite. Meanwhile, you have to consider that in some regions of where I live, in the Northeast, as many as 80% of people, if you pull them off the street and test them for Lyme, they would actually test positive. Yet far less than 2% get actually sick from it and exhibit symptoms.

It's not just what's coming at us from the environment, it's also how and why our brain and body respond to those things. Clearly, in my case, there was something going on that was causing my body and my brain to respond a certain way to this, that not everyone was responding.

Starting to uncover, okay, there's a few different elements, a few different factors here, there's the Lyme, or the acute infection, which may be served as that catalyst that straw that broke the camel's back. But why did the camel's back break in the first place? Why was it carrying this heavy load? What was that belt around the waist? That's where we get into the trauma element, the total accumulation of all of this stress that can build up in the nervous system.

[00:09:03] Ben Ahrens

My mission from then became to really start to understand what was contributing to that load. Most importantly, what can I do to perforate the bucket to start to allow that load to come back down? So that my system will not continue to be overly, or so vividly, reactive to things in the environment.

Because at the time, the Lyme was like the catalyst, but once that catalyst happened, all of a sudden, as you probably know yourself, I became extremely sensitive to everything from light, and sound, to foods, and chemicals, and wifi, and emotions. Everything just seemed like it was amplified, and it left me feeling tired, and wired, and exhausted, and not able to sleep. It was just a vicious cycle in every way.

The one thing that really started to speak to me, and give me some degree of comfort, was speaking to some of these doctors who had studied the brain, and who had studied biological medicine, and whose philosophy was that your body is really a self-healing system, and it will resume that self-healing capacity, that equilibrium, whenever the conditions permit it.

Therefore, our role in our healing, whether it's recovering from anxiety, or depression, or particular trauma, or an infection, our role starts to shift, and we can start to alleviate a great deal of what might sometimes feel like a burden to try and figure out every single thing, and chase every single symptom. Our role shifts from, rather than being the doer of the health, and trying to make the health happen, our role is now more like a farmer.

Our role is to till the soil, and to set the right conditions. When we create the conditions for those seeds to grow, or in this case, for the body to achieve its homeostasis, then the natural self-healing processes can reoccur. This is where we get into a little bit of, okay, well, what is that process of cultivation? What is that farming? What is it that really regulates the stress mechanisms, and even the immune function, and inflammatory mechanisms in the body? And most importantly, how can we? How can I? How can you influence those mechanisms through your own thoughts and actions?

Jaï Bristow

Absolutely, and thank you so much for sharing all of that. That redefining of stress is so important because often people think stress is just, "Oh, I've got lots on at work, and lots on at home." And we think of stress in a very specific way, when people talk about having too much stress on the nervous system, people look around and like, "No, I'm just doing a normal amount."

Talking about stress is that accumulation of all that stuff of traumas, of all the other things you included in that, is really important. That there's all these different factors that can activate and stress our nervous system.

I interviewed Tracey Reed on trauma and chronic illness. Who brought in some really interesting elements like mast cell activation syndrome, and treating it with diet, which people might find interesting. I recommend people check out that talk. I also really appreciate how you talk about the catalyst, or the straw that broke the camel's back, or in French we say, la goutte qui a fait déborder le vase, which is the drop of water that made the vase overflow. It's that thing that's too much.

[00:12:47] Jaï Bristow

Often we think that that's the cause, but actually we see that there's all these different things. I think that with healing, sometimes it's the same. We have different things that can support the healing, and then sometimes different experts will say, "Oh, no, my thing is the magic wand." But actually, it's that that was one amongst many different things that supported it. I really like this idea and this image you're giving of cultivating the ground to support healing, to support self-healing, as opposed to efforting and trying to do more, to do the healing, which can actually end up stressing the nervous system even more and perpetuating ill health.

I could so relate to the example you gave of really putting in all the effort and forcing yourself to go see a friend, and them being like, "You look fine." That's the thing with a lot of these invisible disabilities, being like, you're fine, and then you go home and you're wiped out for a week as you try and recover, because that was an extra load that your system couldn't handle, because it was already completely dysregulated and dealing with so much.

Ben Ahrens

Exactly. The counterpart to that analogy was then I started to think, okay, well, if I'm that diver with a weight belt that's just constantly pulling me down, and to get to, or stay, on the surface level, while possible, requires just full out ongoing effort, what might an alternative be? What if, imagine for a moment that you could drop those weights, and as Dr David Hawkins says so elegantly, float to the surface in virtue of your own buoyancy.

You can start to imagine a scenario in which you can actually start to regain your health, or orient yourself in that direction. And much like a sailboat raising the sail, it's not a game of effort, or pushing. It's much more allowing you to reach that new set point. This is where we get into understanding some of the neurological wiring that would keep us from achieving that set point. Then how we can start to cultivate our neurology, our brains, and our nervous systems in a way that allows us, not through effort, or force, or exertion, but through relaxation, to settle into a new state of health and well-being?

Jaï Bristow

Absolutely. I really think that's such a beautiful analogy you're giving, of dropping the weights and floating to the surface, instead of trying to effort, and swim to the surface. Let's get into it, how do we do that?

Ben Ahrens

How do we do it? First, there's a few important things to understand. Number one, with the bullet, is that the brain's first order of business is survival. Even if you feel like you are tired, and wired, or anxious, or stressed, or get triggered by the littlest things. Unsettling and undesired as that may be, understand that your brain has not turned on you, your nervous system hasn't turned on you. It's still very much working for you. It's working in your favor, and it's doing what it thinks essentially is the best thing for you, which is, when in doubt, err on the side of caution and just emit this protective response.

[00:16:17] Ben Ahrens

If you think of the brain, and particularly there's a region of the brain called the limbic system, which is responsible for threat detection and response. It's always taking in inputs, and based on a decision, whether it deems something to be safe or unsafe, it delivers what it would deem as an appropriate output. For example, these inputs can come through the senses from our physical environment, like the temperature of the room, the light, things that we see in the environment, whether we see a truck hurtling towards us, or whether we see a meadow.

These will change the way the brain processes information, and change our body's response. Those pathways that bring information into the senses I just mentioned from the environment are called exteroception. Now, the brain also takes senses from our internal environment, through a pathway called interoception. These are things like the internal feeling of the body, if we have aches or pains, if we have certain symptoms, if we're feeling pleasant or unpleasant, the brain will zoom in on these sensations, and based on previous experience, it will determine whether it thinks that those sensations are threatening or benign.

If it determines that the sensations are benign, that's to say, oh, it's just a sensation, it doesn't really have much meaning. It will allow us to stay in homeostasis and avail a lot of the body's resources for all the things that we want it to be available for. For energy, for thinking, for cognition, for getting work done, for creativity, for digestion, wound healing, procreation, all of these essential long-term functions.

But if for a moment, let's imagine that your brain perceives something from the environment, and this can be the external environment, or it can be a subtle message from your inner environment, such as a weird feeling. Now, the feeling in and of itself might not be dangerous, but if your brain has created that association and classifies the discomfort as danger, now, all of a sudden, it's going to mount what we know as the fight or flight response, and it's going to divert all of those resources that would normally be used for maintaining healthy functions, and creativity, and doing the things we want.

It will divert that energy in the body toward protection. Inflammation, immune responses, mounting this fight or flight response, and it results in feelings of agitation, sometimes elevated heart rate, increased cortisol levels. If it stays elevated in that state, then it can leave us feeling really drained and tired, and it can even leave us with our defense system, our immune system, not able to function at its full capacity.

It can leave us actually being more susceptible to pathogens and things from the environment. The interesting part, I mentioned that the brain's number one, first order of business is your safety, it's to look out for you and ensure your survival. The brain's second order of business is efficiency. It always wants to learn from the past in order to protect us in the future. It does this by creating shortcuts.

I mentioned that based on all the information that comes in through the senses, the brain has to make a decision, is this safe or is this unsafe? And if you went through a period of time in your life when you experienced a lot of stress, or stressful events, then the brain might make an association with that stress, and the danger that it feels with anything else that came up, that you experienced during that same time.

[00:20:13] Ben Ahrens

Let me give you an example here of a study that was done to make it a bit more tangible, and then we can get into how we can start to decouple these responses, and remain more free and neutral, regardless of what may be happening in the environment.

There's a really interesting study I came across that was done a few years ago at University of Ohio, where essentially they induced a mild to moderate trauma response in their senior students. Very nice study, I know. But what they did was, essentially, they took a group of students and they had them defend their thesis, and they subjected them to a really challenging thesis defense. The professors who were on the review board that they went before were really bombarding them with difficult questions, grilling them, giving them a really hard time. Basically a mild to moderate traumatic experience.

Here's the interesting part. After they did this, they divided these students into two categories. One group, they told them to continue to dwell on, or ruminate on what had just happened, and they brought them into the lab and they measured their blood, and they found that there was a steady and increasing amount of C-reactive protein, which is a measure of inflammation in the blood.

The second group, they asked this right after the harsh thesis defense. They asked them to simply withdraw their attention from what they had just experienced and place it on anything else. They didn't even ask them to imagine that they were on a beach in Hawaii or something. They just said, place it anywhere else. The advice that they gave them was, imagine yourself wandering up and down grocery store aisles, so something super mundane. What they found is, when they measured their blood, they had a steep and steady reduction in C-reactive protein. Inflammation in the body started to come down just because they were no longer dwelling on the thing that caused them stress moments ago.

Now, here's the most fascinating part. About a month later, they brought these subjects back into the lab and they measured them again, and they asked them to recall vividly the scenario of their thesis defense. What they found was that those that had ruminated or dwelled on it right after immediately had the visceral response. Their inflammation levels went back up, their heart started racing. They got all of the physical symptoms of being back in that stressful time.

This is what we would know, or think of, as a trauma response. Information has happened, or an event has happened that has changed the nervous system to now change how it functions in the present, and in the future, based on a past event.

The other group, however, that had removed their attention from it was able to recall still in high detail every aspect of the stressful event. It had no physiologic impact on them. Their heart stayed calm, their inflammatory markers stayed settled, their emotions, their mind, and everything stayed at ease. They were still able to see the same information, it just didn't induce that physiologic response that's so uncomfortable.

This really shows that second priority of the brain, to create these shortcuts. It's really based out of protection. You could think of it as like this benevolent force that's doing, with the utmost love

and care for you, what it thinks is best. But sometimes there's a point at which those learned responses no longer serve us.

[00:24:14] Ben Ahrens

Certainly when we find ourselves in the throes of trauma, ongoing anxiety, depression, or chronic illness, that's where we really need, and want our body's full resources available to settle down, to heal, to restore, to detoxify. In those scenarios, having these types of trauma responses that keep us in an elevated state, can be very detrimental to our physical bodies and physical health.

Jaï Bristow

Absolutely. It's really interesting, this focus on the brain, because I've done a lot of chronic illness healing, and often through healing trauma. A lot of the time the focus is very much on the body as opposed to the brain. The mind-body connection in different ways, but how the mind impacts the body, I find it a really interesting approach.

It's interesting the way that study talks about how trauma responses are created. Something I've learned a lot through hosting these different conferences is how often trauma is created not so much by the events themselves, but what happens immediately after the event. That really reinforces that if people are being stressed, and left in a room to dwell and freak out about what just happened, then that creates a trauma.

That creates a trauma, which then creates a trauma response later on. Whereas the people that had a more holding environment, and were made to have their nervous system reset immediately afterwards could recount the event without having a trauma response.

Ben Ahrens

Exactly. Now, here's the good news for anyone listening and being like, ah oh what if my brain, what if my nervous system, made that association and formed that trauma response? What do I do now? Well, the good news is that the same way that the brain can learn to overprotect us when it's not essential to do so. It can also unlearn, it can decouple those responses. This has really formed the cornerstone of my research and work.

Currently, we've had now thousands of people go through a brain retraining program called re-origin. We're working with different universities to do some clinical studies around this, because it's really fascinating. More and more, the more people and patients I speak with, the more doctors I speak with, people are really recognizing this neurological learning component as a critical missing link for a lot of healing from chronic conditions.

There's something that has changed subtly in the brain when our new default response is one of fight or flight. That didn't just happen overnight, although, like we spoke about, there can be this catalytic event, but rather it happened usually over a lifetime of buildup, and then the catalytic event happens.

[00:27:18] Ben Ahrens

Fortunately, we can start to unravel that, and unlink that through a process known as essentially reprocessing. We can start to go back and effectively through gradually exposing ourselves to small doses of the trauma, or the stressor. If we do so in the right way, we can effectively inoculate ourselves from it, much in the same way that if you take a vaccine, you expose yourself to a small amount of a substance to, over the long run, reduce your body's reactivity to that thing.

Jaï Bristow

So that I understand correctly, this brain retraining that you're talking about, it's not so much about... It sounds like the main focus is to not go straight into fight-flight trauma response reaction every time something unpleasant, but not that major, happens. Am I understanding that correctly?

Ben Ahrens

Yeah. I'll give you an example of what the principles, the basic steps are, and how someone can do this, because you said something interesting before as well. Which is you mentioned that it sounded like a mind or mental technique.

There are what we refer to as top-down techniques, and there are bottom-up techniques. Bottom-up is through the body, so things that are more somatic based, like breathing, or shaking, or tapping. Then there are what we would call top-down, which might involve something like visualization, or affirmation, or even cognitive reappraisal, reframing something, looking at it in a different light.

What we have found is that when it comes to these types of responses, much like with anxiety or anything else, you can't think your way out of it. Try as hard as you can. There's a great saying that, never in the history of being told to calm down, did anyone actually ever calm down.

Jaï Bristow

Exactly.

Ben Ahrens

It's much more of a mind and a body practice, because these experiences that we're having are full mind, body, and environmental experiences. In order to send a new message back to the nervous system, back to the limbic system, that new message being one of safety, one of ease, we actually come at it from both ways. We use the top-down and we also use the bottom-up.

I'll just give you a quick example. Basically, there are three things that you want to do. Number 1 is start to cultivate some awareness of the patterns that are taking place. As I mentioned, the brain is always making associations between two things. A pattern could simply be like, oh, okay, I notice that when I think this thought, my heart starts to palpitate, I start to get these palpitations, my palms start to sweat. When I anticipate a negative outcome or anticipate something, I start to have this reaction.

[00:30:33] Ben Ahrens

It can also be a more physical link, like when I eat this food, or when I'm around this chemical, I start to have these symptoms. Number 1 thing is to identify, okay, there are these links, there are these patterns.

Number 2 is now we need some means of interrupting them. We need some way to like create, what Viktor Frankl refers to as, the space between stimulus and response.

Number 3 is we need to rehearse a new response. The key is we need to do this repetitively, I said rehearse, not to just do it once. It is, I will say, awesome that we have the ability through, say, changing your breath, changing your posture, shaking your limbs out. It's awesome that we have the ability to change how we feel in real-time.

If anyone, I'm sure most people listening have encountered this, but if you were to pause and just take, five or ten really slow, deep, deliberate breaths, you would probably find that you feel a little bit different. Maybe not every time, but certainly sometimes it's possible.

I think what's even more important and impressive is to do something with repetition, such that we no longer need to default to a technique, but rather that desired state becomes our new default. That is the power, and the difference between using a one-off technique, and conditioning it through what we call self-directed neuroplasticity.

That's a lot of theory, let me give you a concrete example. I'll make it a really simple one. This is one that I used myself when I was starting to make a recovery. I realized those three things. Number 1, awareness of some patterns, or things that are happening in your body. Number 2, interruption. And number 3, replacement.

I noticed that I was very sensitive to a lot of things like light and sound in the room. I noticed that when I started to get back to work, one of the things that seemed to trigger a trauma response, panic, anxiety, palpitations, sweaty palms, was the ringing phone in my office. The phone would ring, and all of a sudden I would realize that my whole system was becoming dysregulated. I would feel these visceral, panicky feelings.

Then my thoughts would start to chime in, and I would start to anticipate a negative outcome. Maybe there was a customer service question on the phone that I didn't know how to deal with. Maybe I was going to get yelled at. All of these things that the mind just creates.

It would start to create those narratives to explain the physical sensations. I decided, all right, let me try as an experiment, I had made some great headway with this neurological conditioning stuff. I was like, all right, let's see what it would look like here. I made a simple rule for myself, I told myself that the next time the phone rings, rather than answering it in that panicked state, which would usually not make it the best, and confirm the panic. I'm going to take a pause, I'm going to take a deep breath, I'm going to push myself back from my chair, put a smile on my face, and then I'm going to pick up the phone.

[00:33:53] Ben Ahrens

I started to make that a practice. Every time the phone rang, it became like this opportunity, almost like a game, like, oh yes, okay, another chance to practice the new response. Fortunately, or I'd say for better or for worse, I got 40 or 50 phone calls a day in my work. I was in sales at the time, so I had 40 or 50 opportunities every day to practice that new response of relaxation.

The interesting thing happened around a week and a half in. At first it was really hard, really hard to overcome that, I had to actually remind myself, I forgot to do it a ton of times. But more often than not, I started to practice it. After about a week and a half, what I noticed happened was something fascinating, was that the phone rang one day and all of a sudden, without any thought or effort, I started to relax, a smile came to my face, my breath started to deepen, and I felt this incredible sense of relaxation now triggered by the ring phone.

There you have an example of something in the environment that is ultimately benign, but based on past experience, it was having a very real impact on my physiology. Then based on a new conditioned experience that I wanted to have, one that I chose, because it's more advantageous to have, I was able to condition that in.

What we find is this same principle can work for people, whether they are reacting to their own reactions, that's to say, they might be reacting to their own sense, felt sense of physical discomfort. They might be reacting to certain things in the environments, like foods or chemicals. They might be reacting to stressful memories, or thoughts, or experiences. But through relatively straightforward techniques like this, when done repeatedly, it becomes entirely possible to change forever the way you feel and function in the presence of the things that previously made you feel very uncomfortable.

Jaï Bristow

Super interesting. There's three things that really stick out for me in what you've just shared. One is, I'm really glad you brought in the piece that you can't think your way out of trauma. You can't also just not think about it, it's don't think about a pink elephant, everyone starts thinking about a pink elephant thing.

When you were sharing about the study earlier, and you were saying one group was asked to dwell on it, and go over it, and basically build up a trauma response, and the other one was just told not to think about it, there was that questioning around that... But what I'm hearing is that it's actually, yeah...

Which brings me to the second really important thing, which is it's not just about... It's that third element you brought in, that you're bringing in a new piece, a rewiring, a new option, rather than just trying to remove things, which can be really difficult, if you don't give your body a new way of responding. I think that that's really important.

I also really appreciate how you say it's really hard at the beginning, and it requires practice, it requires doing it many, many times before. If we think about, we're talking about pathways, if we think about a path in a forest, the first time you walk somewhere, it's not going to create a path. It's the fact of walking back and forth, again and again in the same direction, that it's going to start to forge a path in the forest.

[00:37:28] Jaï Bristow

I think that example you gave with the phone makes a lot of sense, but it feels like it's a very... Okay, phone rings, I relax... It feels like it's an obvious one. But as you said, sometimes it's a lot more subtle, you can have reactions to food, you can have reactions to your own reactions a lot of the time. My question is a) how does it work with these more subtle patternings? And b) how does it then help actually heal chronic illness?

Ben Ahrens

Great questions, especially because more often than not, people don't know what's triggering them, we just don't know. We just feel anxious, we just feel exhausted, we feel tired and wired. It's not so easy to relate it back to, okay, this happened, and then this is the result.

More often than not, what's happening is that the brain and body are reacting to sensations in the body. This is where we get into what we call a classic vicious cycle. We might feel a little bit of discomfort somewhere, we might feel a symptom, a symptom of, let's say, pain in the right hand. And all of a sudden, the brain interprets that sensation as a threat.

Based on that association, as it being threatening, it catalyzes the fight or flight response, it catalyzes inflammatory processes, and it basically sends us into that whole cascade of hormones and physiology that keep us in that elevated state, not optimal for healing.

Then the question arises, okay, well, what do we do in those instances? Where we can't really say, okay, this is the thing that I can identify or put my finger on. The key is that this still works and at re-origin, we have a program, or a protocol, that has basically a four-step process that people can practice in two different ways. One of them is to practice it in real time, in those instances where you happen to notice that you're feeling triggered.

But the other way is that we can practice this in a dedicated way, the same way that we practice exercise, the same way that we might go to the gym for 15 or 20 minutes and practice a series of exercises. We can actually just get into the felt sense of whatever we're experiencing. And through repetition, practice, essentially withdrawing the bulk of our awareness from the sensations that are causing discomfort.

We're most of the time unaware that our focus has gone there, unless we start to create a practice around it. Then we realize, okay, it doesn't necessarily matter so much what caused it, but what we can identify is where our focus is going. We practice shifting gears again and again. We practice zooming out and then replacing our focus on what I call something that's pleasant in the present. It can be anything that gives us a more relaxed, at ease and pleasant feeling.

This is where we have a toolkit, or a variety of these different bottom-up types of exercises that can help a lot of people, because for some people, simply understanding that discomfort does not equal danger can help. That alone that understanding can start to, okay, reduce some of that anxiety around it.

[00:41:14] Ben Ahrens

But furthermore, we want to go into creating a positive experience, and this is where we get to that saying, you can't think your way out of it. This is where we have found the incorporation of breathing, and posture changes, and progressive muscle relaxation. We have a whole series, these different toolkits in a way, that people can test out to see what works best for them, because everyone's nervous system is slightly unique, and so it's very helpful to custom tailor these exercises.

Basically, a practice would look just dedicating a few minutes out of the day, 5, 10, 15 minutes, to bringing your awareness to whatever is true for you in that moment. However you're feeling, it's not about denying it, or ignoring it, or saying, I'm not going to pay attention to, these symptoms aren't real or they aren't happening.

It's actually much more about taking a moment to expose ourselves to them. Whereas our natural tendency, the tendency of any biological or living creature on the planet, is to be biased against discomfort. That's very understandable. We want to avoid things that don't feel good. For most of us, most of the time, this is happening on a very subtle and very subconscious level.

It translates into very subtle muscle tension. If we don't feel good, if we don't feel at ease, whether mentally, emotionally, or physically, we might mount tension in the system. Might be a slight elevated heart rate that might catalyze some excess cortisol in the system. We want to take an inventory of just how we're feeling, bring that to the surface, then not denying, or ignoring that, we want to start to create a bit of a practice around seeing how we can relax our bodies in the face of the discomfort.

By doing that through these various techniques and ways, we start to form a new association in the brain. The brain starts to slowly but surely learn that discomfort does not equal danger because we're giving it a new message. We're saying to it that by relaxing our muscles, by taking a breath, by putting a smile on your face, by going for a walk, we're disarming that threat response.

When we start to do this repeatedly, and there is a fair bit of nuance here, for this reason we have a 28-day program that walks people through all the steps. But essentially, when we start to do this repeatedly, our default state starts to transition to one that no longer sees so many threats, and so many obstacles, and instead sees potentially just challenges, or even opportunities to practice strengthening our ability to shift gears.

The more reliably, and the more time we're able to spend in that downshifted state, the less reactive the brain and body becomes. To the second part of your question now how? This is all well and good. How does this actually translate into, in my case, healing of the physical body? Because I mentioned I had tissue damage, I had ostensibly brain damage that was visible on brain scans. I had all these things, many of which were thought to be not intractable, not able to recover from.

They all resolved over time, to the point where several years after implementing this regularly, I went back for clinical testing, spinal taps, EKGs, and brain scans, and they found no sign of any of the damage that they had seen before.

[00:44:57] Ben Ahrens

At that point, actually, I mentioned in the TED talk I gave that NYU Langone quietly removed me from a study that they were doing because it didn't really fit the parameters. But it just shows that these shifts, subtle as they may seem, can have a really far reaching impact on even our physical body.

While there are still a lot of pathways here that are unclear because we're talking about nonlinear processes, in the most basic sense, what we believe is happening is that by downshifting the nervous system from chronic elevated fight or flight, into a state of relaxation, pleasant in the present, realizing that discomfort does not equal danger. And ultimately, the ability to be with uncomfortable thoughts, feelings, or sensations, to be with those, and to not react with excess cortisol inflammation. We are placing the body in a situation, or a place that's more advantageous for natural healing to occur.

This goes back to what we said first, your role in your healing is not to make the healing happen. That's not actually even how healing works. If anyone has ever had a bruise, or a wound, or cut on their finger, and that wound is now gone, you didn't do the healing. Even if you dressed the wound, and you cleaned it, and you took care of it, you set the stage, you optimized the conditions, but the healing actually took place on its own. It's a really important distinction here.

I think something that's a common misconception when people think about mind-body medicine, or mind-body approaches, like neuroplasticity, or brain retraining, they think that we're using our mind to make the healing. I fix the tissue in my elbow by thinking it so, it's not the case. It's more that we are using our mind and our body to create a certain environment. In that environment, the body's resources are stacked in the favor of self-healing and self-managing.

Jaï Bristow

Fantastic. I really get now what you meant by the bottom-up and top-down approach, and the two simultaneously, and how the examples you were giving of some of the practices of, when we notice that our minds are spinning out and having the anxious thoughts, using our body to smile, to relax, to do muscle relaxation, that kind of thing.

And then vice versa. How by rewiring our stress response, and trauma response, that then also enables the body to heal. That moving the attention away from what can cause a panic response.

The way you talked about uncomfortable thoughts, feelings and sensations. It's that holistic approach that's looking not just at the mental, and mental health, and mind, and cognitive response, but the emotional response, and the physical sensations, and all of it together, and creating a harmony where they all support each other, as opposed to that separation.

What I really love about this approach is that it can both help heal existing trauma, whether chronic illness or anxiety. Or in my case, I once was attacked by someone trying to mug me with a knife when I was traveling, it was a big t trauma, perhaps as one would call it, or an obvious trauma. I remember in the days following that, taking time for myself, being in bed surrounded by pillows, surrounded by my comfort foods, and replaying the events, and consciously relaxing my body as I thought back over the events. Now I can talk about it, and think about it, without having a physiological response.

[00:49:02] Jaï Bristow

It's that both playing together, the top-down and bottom-up. It feels like it's great for healing, but it also feels like it's really good at anticipating. It's rewiring, so that if we notice, oh, whenever the phone rings that I'm starting to have... Or whenever I do this thing, or I walk into that room, then I'm in a state of stress, it's like, oh, okay, that's interesting, maybe the trauma hasn't happened yet, but it's starting to happen.

Now we're basically out of time. But I had one last question for you, which was just briefly, a lot of the practices you're talking about sound similar to things like mindfulness, or breath work, or that kind of thing. How does neuroplasticity differ from those exercises and practices?

Ben Ahrens

Practices like mindfulness, meditation, breath work, these can be really wonderful and very helpful practices. They can help to calm the nervous system, and start to reduce that total, what we refer to as the allostatic stress load, that we experience that can make us more vigilant.

Where they differ a little bit from scientific conditioning, or what we're referring to as neuroplasticity, or brain retraining exercises, is if you think of mindfulness, breath work, or meditation as being aimed at calming the system down once it's elevated. Neuroplasticity training is really aimed at preventing the arousal of the nervous system in the first place. Very much in alignment with what you were just saying about anticipation.

The brain doesn't just respond to what's happening right now. It responds to what we anticipate will happen. What we anticipate will happen is based on these past experiences. So by de-linking the past experience, or the anticipated experience from the physical response, we can actually, like I said, inoculate ourselves from certain events, places, stressful circumstances, or even environmental triggers.

The example you gave was a great one with your own experience. If there was a particular part of town, I'm from New York, let's just say, for argument's sake, I got mugged on 34th street. Every time I go back to 34th Street, I get a knot in the pit of my stomach, my heart starts racing. I could use meditation, I could use mindfulness, I could use breath work every time to calm it down.

But I can also now use brain retraining to go back and reprocess the event that took place in that location, so that now I can walk through that location, and no longer feel that response arise in the first place. It's like taking a walk upstream and making a little subtle change at an upstream level, such that it changes the downstream function of the system. We might not need to rely on so many techniques and tactics in the future.

Jaï Bristow

I love that, brilliant. Ben, thank you so much for your time today and for all this great knowledge you've shared, and your own story. I really appreciate it. How can people find out more about you and your work?

[00:52:20] Ben Ahrens

My pleasure Jaï, thanks so much for having me on. People can find out more by going to re-origin.com. There, as I mentioned, we have a 28-day program that really teaches you the new nuances of doing this brain retraining for whether you're struggling with chronic anxiety, depression, Lyme disease, long Covid or any other similar type of inflammatory-based condition. They can follow us all over social media, and YouTube, and all the rest.

Jaï Bristow

Amazing. Thank you so, so much.