The Extraordinary Mind

Where Science Meets Creativity

Episode 342

Dr. Jill Bolte Taylor 00:00

The power of the human is in our adaptability and our flexibility and our creativity. And because we have those tools and we're wired for that, when we re when we go into that part of who we are, we will adapt.

Susan Magsamen 00:17

And I think that was the moment for me when I realized words are important, they're functional, but the way we share ourselves is through so many different things.

Ivy Ross 00:26

Yeah, and you didn't have to be good at it. You know, so many of us were shut down as kids because we come in, our little souls want to express.

Tony Martignetti 00:35

We tend to think we know our minds, we trust our thoughts, our memories, and the stories we tell ourselves about who we are, but what happens when those familiar ways of understanding the world suddenly disappear? And what if art and creativity can help us discover possibilities we never knew were there? Today, three remarkable voices help us explore a deceptively simple question. What does it mean to To live more fully. Around every campfire, stories have helped us make sense of the world and ourselves. They remind us that change often begins with a moment of curiosity, courage, or connection. I'm Tony Martignetti. Welcome to the Virtual Campfire. The fire is lit. Let's gather where stories spark transformation. Today is a different kind of gathering. I'm bringing together moments from two separate conversations. One from Dr. Jill Bolte Taylor, a neuroanatomist whose own stroke transformed her understanding of consciousness, and another with Susan Magsamen and Ivy Ross, the co-authors of Your Brain on Art. Susan studies the relationship between the arts, health, and learning. Ivy brings a designer's eye to curiosity and creative expression. They were not sitting together for one interview, but what surprised me was was how closely their insights spoke to one another. And in the second conversation, they actually brought up Jill by name. We'll come back to that moment, but first, let's return to Jill's extraordinary experience.

Dr. Jill Bolte Taylor 02:23

So at the age of 37, I was teaching and performing research at Harvard Medical School. I was in Boston, love Boston. And I was at the Harvard School for Dental Medicine. So I was teaching head and neck. Brain is my thing. I mean, it was, you know, to me, it's just so absolutely beautiful. And I woke up one morning and over the course of four hours, I watched my own brain through the eyes of a brain anatomist. I watched my brain circuits go offline. One at a time because of a major explosion of arteriovenous malformation in the left hemisphere of my brain. So after that four hours, I could not walk, talk, read, write, or recall any of my life. My whole left hemisphere was swimming in a pool of blood. And I have to say, it was really, through the eyes of the scientists, a fascinating experience to be able to watch. My cells go offline circuit by circuit, ability by ability, and then wake up later that afternoon in this condition of really completely vegetative and paralyzed on on the right side of my body, paresis. I just felt like a ton of lead in the bed with no organic mass in my brain capable of processing information about the external world that would allow me to communicate with it. And this is one of the things about the brain is that the right hemisphere has is running a movie of time. Yeah. The left hemisphere has skill

sets that allow us to communicate that to the external world. So what I lost was all those skills in that left hemisphere that allow me as a this organic mass to organize information in a form of language so that I can communicate it to the external world. And and language is enormously complex and important in our society. So what I lost were the skills of that left hemisphere, but I witnessed the entire experience through the ongoing consciousness of my right hemisphere.

Tony Martignetti 04:35

Imagine being present for an experience, but losing the familiar tools you use to describe it. Jill's story invites us to separate awareness from the words and labels we usually depend on. She then describes what that change felt like from the inside.

Dr. Jill Bolte Taylor 04:52

Well, I couldn't interact with the things around me in a left brain way. So

Tony Martignetti 04:57

In a left brain way.

Dr. Jill Bolte Taylor 04:58

if you consider that you are these two magnificent hemispheres, and they simply process the same information in different ways. I'm sitting here in my space, and the air temperature is being processed by both my right hemisphere and my left hemisphere. But my right hemisphere, it's right here right now in the present moment. That's all I had when I lost my left hemisphere. Because the left hemisphere actually has a group of cells that has the ability to step out of the consciousness experience of the present moment. How on earth does this even happen? They step out of the present moment and compare the present moment stimulation to everything I've ever experienced in my past. I mean, this is phenomenal. So the left hemisphere, because of these cells in the left emotional limbic tissue of that hemisphere. Step out of the consciousness of the present moment, they compare that data to anything in my past, and they say, give me a reason to push it away and say, no, that's a danger or that's a threat. And because of those cells operating like that, I don't have to reinvent the wheel in every present moment as to whether or not I'm safe or not. Yeah. Because I have this backlog of data for that group of cells to compare the present moment to. So what I lost was linearity across time, because and part of linearity across time comes my ego, my my identification of self as Jill Bolte Taylor. So that group of cells went offline. Linearity across time went offline. Rational thinking and language went offline. The group of cells that define the boundaries of where I begin and where I end as this organic thing. went offline. And so in the absence of that form of thinking, that filtering system of information coming in, in the absence of that, what I gained was this release of inhibition, because that usually dominates in our human brains, at least in Western culture, as that goes offline, it removes its inhibition off of the experience of the present moment of my right hemisphere.

Tony Martignetti 07:14

Jill's account is deeply personal, and the way she interprets different brain functions is her perspective on an extraordinary neurological event. What I take from it is a broader human question. If words are only one way of understanding experience, what else might help us express what we feel? That question brings us to Susan Magsamen and Ivy Ross.

Susan Magsamen 07:42

You know, you can't ever predict your your path, right? I think it's how you meet moments and how you meet the things that are in in front of you or happening around you. And for me, I was born, I'm a twin. I was born in relationship. I really my sister says I kicked her going out and I said she pushed me. And that's true. And but you know, I think that relationships have always been fundamental, cellular for me. And so the work in Also finding,

sharing, and celebrating your voice has also been really important to me. You know, identity and building that and finding the ways to do that. I come from a family of makers and doers and ritualistically, right, in a way where that's how we lived our daily lives and still do. You know, we were very much, you know, gardens and cooking and handwork and singing. And my mother wrote poetry and my dad was really sort of hands-on, right? A doer. with horses and things like that. And so I think I came into this just thinking this is the way it goes. This is what life is. A rich life is in the doing and creative expression. Also, you know, I think that there are these pivotal moments that happen where life changes. And for me, that was when I was 12, my twin sister had a farming accident and really almost lost her leg. And it was a trauma where she shut down and she wasn't able to talk about it. In those days The word trauma didn't even exist, right? We was just move on, keep moving. You know, there were a lot of things like that. My mother lost a sister, come on, keep moving. But there was this residual generational trauma that many people had that we just kept moving. And as a result, you know, sometimes, you know, people didn't do well for years and sometimes for the rest of their lives. But my mother suggested my sister that she start to draw and When she started to draw symbols and metaphors and narratives started to come up for my sister that were stuck inside of her. So it helped my sister, but it also helped me reconnect to my sister, where there was like this severing of telepathy and knowing of each other. And I think that was the moment for me when I realized words are important, they're functional, but the way we share ourselves is through so many different things. And that just became a life course for me.

Tony Martignetti 10:04

A child who couldn't easily speak about a painful experience found another language through drawing. That is an important reminder, expression is not limited to explanation, and for Ivy Ross, creative exploration began not with a crisis, but with an everyday invitation to notice the world differently.

Ivy Ross 10:27

Yeah, who calls herself the child of wonder because I don't know how for me life is about curiosity and paying attention to what gets my attention. But I think that's because my dad, I grew up also in a house of slightly different, my mother didn't knit, but my dad was a designer. He worked for Raymond Loewy, the famous industrial designer of the fifties. And so the house was filled with ideas and objects that were both from the present and the future and materials. And He would I realized he taught me what I can now call the flow state when I was probably four years old. You know, he or he would say, Ivy, you know, look at the way that lamp is connected to the light, light shade. What else can be done that way? And he basically taught me how to look at everything and extrapolate it. I think that's the right word. You know, pull it apart and then apply it to other things. So I just became this child of wonder that would look at everything and make up stories about, you know. What how did it get its shape? And what else can I do with that shape? And so it kind of gave me this creative aesthetic outlook on life. And creativity is just a set of possibilities.

Tony Martignetti 11:39

Two very different beginnings, one rooted in healing and reconnection, the other in wonder and possibility. Yet Susan and Ivy found that the scientist and the artist had something essential in common.

Ivy Ross 11:55

Well one thing I'll but one thing I do want to say before Susan starts is that we're both everything, but people brand us as, you know, me the artist and Susan the scientist at its simplest level. And you would think those two were so different, but we realize working together, we both ask questions. And that's the curiosity piece. A scientist and an artist both are in the business of asking questions for kind of different reasons. So that was a lovely thing we discovered working together.

Tony Martignetti 12:26

I love that. Curiosity doesn't belong to one discipline. It is the willingness to ask a question before we know the answer. And then in our original conversation, something happened that brought these two interviews directly together.

Ivy Ross 12:42

Susan and I often talk, it was like we're both into textiles and I had a four-harness loom as a kid, and there's the warp and the weft, you know, the horizontal and the vertical. We realize at the end we were weaving this cloth together out of information, strands of information that came from all different angles. You know, it's like looking at a prism. It's like all different facets of this thing we call art that really is about creative expression that really is critical for our health and well-being, especially now with these, you know, I don't think we realize we, you know, we have micro traumas every day. There's big traumas and there's micro traumas. And it just keeps getting without it getting expressed, because we've been taught to hold our emotions. And you know, there's a there's a great quote in the book that Jill Bolte Taylor, I'm paraphrasing, but you know, we think we're thinking beings that learned how to feel and we're actually feeling beings that have learned how to think. And you know, that was a huge moment for us of like, you know, it just totally twists your perspective. If you walk around life understanding that, that we are first and foremost designed and wired to be feeling beings who have recently learned to think, it you come at life from a different place.

Tony Martignetti 13:59

When Ivy mentioned Jill, I could hardly believe the timing. I'd only recently spoken with Jill myself. Here's my reaction from that original conversation. The irony, sorry, Susan, I'm just gonna say that, you know, the it's so iron ironic that you mentioned Jill. Jill is she literally is gonna be her episode's gonna be released. You know, in a few days from now that we're recording. And that conversation was one of my favorite conversations of this year. So probably seconded by, you know, or probably now going to be replaced by this conversations. That was a genuine moment of recognition. We hadn't planned a joint conversation, but the connection was already there. Jill exploring how our experience changes when familiar ways of thinking are disrupted. And Susan and Ivy. Asking what happens when we make room for feeling, imagination, and creative expression. So what do we actually do with that insight? One place to begin is surprisingly simple. Stop expecting ourselves to operate like machines. Jill learned this in the demanding process of recovery.

Dr. Jill Bolte Taylor 15:09

Yeah. A thousand times a day. You know, people would say to me, Jill, you know, how did you recover? How did you recover? Because I could not walk, talk, read, write, or recall any of my life. This was a severe neurological trauma. And it was, well, you start where you are and you don't compare yourself to where you've been. And you look at what's next? What is the very next step, not what is five steps down the road. And then you're either willing to take that step. Or not. And you know, sometimes we just get tired and it's no, it's time to go to sleep. And the beauty of sleep is that it's a rejuvenator. And boy, you know, my mom used to always say, you know, just wait till tomorrow. Go get a good night's sleep and look at it with fresh eyes. And boy, isn't it true? The power of sleep and the ability of the brain to shift its perspective from I cannot to yeah, I can.

Tony Martignetti 16:07

That distinction stays with me. Keep going, but don't confuse rest with surrender. The next step matters more than the fifth step you cannot yet see. Susan and Ivy approached the same principle through creative work and the value of leaving room for uncertainty.

Susan Magsamen 16:25

The other thing that I think is worth saying about that is Ivy and I both had lots of dreams and aha's in the not getting it right. Like, ne, you know, like it required that kind of, you know, marinating that I think ambiguity is

something that you have to have a tolerance for ambiguity if you're really going to be creative, because you can't know. And it drives you to want to understand, but you have to you can't just get the answer. You can't say, here's the answer, let's move on. So that requires patience also, that I think we definitely felt throughout the book. and each of the voices in the book was also, as you said, was also really important. Like Maria Rosario Jackson is passionate about she was the former head of the NEA and amazing person. And, you know, she talked about equity and diversity and the fact that, you know, in a culture kitchen that gets created that allows people to just find their voice. We don't have a lot of room for that in society, right? We think people should know what they're doing and do it. And that moved us into and all the inequities that come from that. But then that moved us into like default mode network. And if you never take a pause and you never really know yourself, how do you bring your best self forward if you really don't know what that even is? And and I think we've started to really honor this idea of having those moments in between the notes and and how that really plays out. So there's been a lot of learning and incorporating that in our own lives and remembering it with we have grandchildren, remembering it with our grandchildren that it isn't about booking every minute of the day either.

Ivy Ross 18:02

And I think that's exactly unfortunately right now in companies, you know, we've been operating like machines since the Industrial Revolution. Yeah. For optimization and efficiency, and really not honored the way our brains function best, which is to have those moments of pause. Yeah. And plan pause to make the connections that only our brain can do so that we can be that much more creative as we apply our brain. But we are so in this other mode. And I think. No, that's where a lot of the burnout and breakouts breakdowns are happening is if we we just have to understand how we're wired to do our best work and then honor that in how we proceed.

Tony Martignetti 18:44

There's a practical tension here. We fill our days with tasks because being busy feels productive. Yet the space between those tasks may be exactly where new connections can form. I found myself reflecting on how I experience that through art. This one of the biggest takeaways that I, you know, that I take from the from what you wrote is the sense of like, you know, that's where the arts can come in and gives us a chance to. To get out of our normal functioning and allow us to explore a different path. And even nature as being a pathway of, okay, this is different. This is not me steering at my computer screen and allows me to connect with something different. I'm a big fan of intentional pauses, not just because it's like, okay, I'm relaxing. I don't relax very well, personally, but when I do it with intention, I'm realizing that this is where I'm gonna do my best thinking. And then when I come back in, I can do it well. I'm a huge museum nerd, so I love going to museums and allowing museums to be the place where I can explore, think about things and just lose myself.

Ivy Ross 19:54

Great. Well, two things about what you said. First of all, nature is the most neuroaesthetic place there is because, you know, it elevens our sensory systems. it has smell, sight, sound, color, temperature. It's why when we get out in nature, all of a sudden we feel alive, because all those sensory systems are being ignited. And, you know, your example about a museum, I mean, doctors are writing prescriptions for people to go to museums because standing in front of A new experience, a painter that you actually may not even understand and want to think about what is that? What is he trying to say? That is really good for your brain to make these new connections.

Susan Magsamen 20:35

I think that we also intuitively, when we do that, we know it's feeding us. And that was another thing that I think the book did was we assembled this narrative and people said, I see myself in this. I've known this, but it wasn't societally valued. And so people didn't do it, weren't doing it, even though they felt good when they went. They were like, this is not important. It's a nice to have. and then putting the brain research and neurophysiology.

biology around it sort of to help it make sense, like, why this is working. And I think sometimes the why is something that really gives us like exercise or nutrition or sleep. When we understand the why of that, we actually add it to have more value. And then I think Ivy said this before and maybe it's worth I use sharing more of this, but that people need permission. And I think that they didn't feel like any there was any permission granted. And not that we gave them permission, but the content gave people permission to start to do work, even if they weren't seeing themselves as artists or craftspeople. And, you know, the doing is very different than the imagining.

Tony Martignetti 21:47

And here's the part I hope everyone hears. You don't have to call yourself an artist to benefit from making something. You don't have to be accomplished and you don't have to turn it into a career.

Ivy Ross 22:00

Yeah. And then we're shut down because someone tells us that we're not good at it or we decide we're not gonna make a living at it. And it we don't realize how it imperative it is for our health and wellness. So we just put park it aside.

Tony Martignetti 22:15

That gives us a useful starting point. Take a walk and notice what you normally miss. Draw something without deciding whether it is good. Listen to music with your full attention. Give yourself permission to pause. None of these actions needs to produce an achievement. They can simply be ways of reconnecting with the experience of being alive. Jill offers one final perspective on why these small choices matter. Expression when the world around us feels uncertain.

Dr. Jill Bolte Taylor 22:48

The power of the human is in our adaptability and our flexibility and our creativity. And because we have those tools and we're wired for that, when we real when we go into that part of who we are, we will adapt. We will figure it out. Is it going to be great? It's going to be what it is. So, how do I use me as an instrument of what I'm going to say the present moment adaptability? with my concern and love for humanity, but I'm not gonna let the power of the fear negate the power of my ability to adapt.

Tony Martignetti 23:30

Adaptability is not the absence of fear, it is our ability to respond without letting fear make every decision for us. And when Susan and Ivy talk about creative expression, they extend that possibility beyond the individual to community.

Ivy Ross 23:47

And I think that is the next phase of because it's happening all over the world actually now. And Susan can talk about that, but getting these coalitions together and keep connecting with each other and keep amplifying and giving permission to express and to create.

Tony Martignetti 24:05

Three voices, two conversations, and one invitation. Pay attention to the life happening inside you and around you. Jill reminds us that the brain and our experience of the world are far more complex than our everyday habits suggest. Susan shows us that art can give expression to what words cannot always carry. And Ivy reminds us that curiosity and creativity are practices, not prizes. Reserved for the talented. This week I invite you to try three things. First, make a little room to pause without feeling you must earn it. Second, express something creatively, even if nobody else ever sees it. And third, use that experience to connect with yourself, with another person, or

with the world around you. You might be surprised by what opens up. Thank you to Dr. Jill Bolte Taylor, Susan Magsamen, and Ivy Ross for sharing the experiences and ideas that made this special gathering possible. You can explore Jill's books My Stroke of Insight and Whole Brain Living and Susan and Ivy's book, Your Brain on Art, by checking out the show notes for this episode on TonyMSpeaks.com and find out even more about our guests from today's episode there. Thank you for gathering with us around the virtual campfire. If this episode sparked a new perspective, share it with someone who could use a moment of curiosity or connection. This podcast is proudly produced by It All Works. Until next time, keep your fire burning.