

The Garrison Institute Presents: The Common Good Podcast Transcript

Dan Siegel: The Mind Beyond the Brain and Quantum Social Change (Episode 5)

[Please note: Although the transcript is largely accurate, in some cases it may be incomplete or inaccurate due to inaudible passages or transcription software errors.]

[00:00:00] **Dan Siegel:** The mind is an emergent property of energy flow, and that flow's location can be in the head, so we can have neuroscientists studying that, and that's fantastic, but it can be fully embodied and the cutting edge of mental health work is embodied work. But I think the next phase for not only mental health, but also for our planet.

Is to realize that the human mind is fully relational. There are relational fields of energy sharing that is as much a source of mind as what happens in your head or in your body.

[00:00:44] **Jonathan FP Rose:** Welcome to the Garrison Institute, presents the Common Good. I'm your host, Jonathan Rose, co-founder of the Garrison Institute. We'd love to hear your thoughts about the podcast. Please send us a note at podcast@garrisoninstitute.org and let us know what you think. Today I have the pleasure of speaking with Dr.

Dan Siegel. As a psychiatrist, educator and bestselling author, Dr. Siegel's Research has bridged the neurosciences, mindfulness traditions, and compassionate social action. His book, interconnected explores how the integration of mind. Self and society can help us move from me to we revealing how our deepest wellbeing emerges through connection.

His most recent book, personality and Wholeness in Therapy, weaves together Neurobiology, contemporary Psychology, and Deep Wisdom.

Welcome, Dan.

[00:01:55] **Dan Siegel:** Jonathan, thank you for having me. It's an honor to be here and it's wonderful to be connected with you in all these different ways, and today in particular. Great.

[00:02:05] **Jonathan FP Rose:** So I wanna begin at the beginning, you know, that's the way the Bible started in the beginning, and so I wanna start at the beginning of Dan Siegel.

Tell us a little bit about growing up and what were you thinking about then?

[00:02:17] **Dan Siegel:** Well, first of all, it's so interesting you bring up that name because clearly who we are begins way before these bodies were born. We're related deeply to all of our ancestors and all the beginning of life. But if you're talking about this body called Dan,

[00:02:32] **Jonathan FP Rose:** so wait, wait, wait.

Is there any ancestor story you wanna tell us that you feel comes through you?

[00:02:37] **Dan Siegel:** You know, there might be the story of becoming mammals 220 million years ago when as we were born, we needed one another. And then maybe 50 million years ago when we became primates and we started developing these social hierarchies that allowed us to live within these groups in large ways and were in many ways.

Cooperating with the people in the ingroup and keeping people in the outgroup out. And then, you know, maybe less than half a million years ago, this current incarnation as homo sapien sapiens. So it's a really interesting question. You know, sometimes I use the A BCD acronym, A body called Dan, because you know who we are is so much more than these bodies in this present moment.

So. I would just say we're connected to all of our ancestors beginning way back. So if we wanna have more immediate history, I would start with turning into mammals 220 million years ago and needing each other at birth primates 50 million years ago, where we get to be very, not only collaborative. But we can be very competitive with the outgroup being excluded and the ingroup being included.

And then, you know, as human beings, we are now at about less than half a million years ago, so it's pretty recent history, you know, where we developed these incredibly complex ways of connecting with each other. And unfortunately. While we kept the wonderful attachment knees as mammals, we also kept the ingroup outgroup distinction as primates.

And then we developed something that's very unusual and you don't see it in primates and it's called aloe parenting, and it's where. We as a, a human species and there are a few others that do this, but we're one of the few that basically have more than the mother being the attachment figure. And this becomes an incredibly important way of responding to your question, you know, the history anyway that I feel is.

That this Allo parenting basically meant we had to look to the mind of the person we were choosing to be the additional attachment figure. What was their intention? Where were they focusing their attention? What were they aware of? So even if you just keep those three things in mind, and now coming to more recent history for this body called Dan, my immediate ancestors, like in the last.

200 years, you know, had a history of being in the Jewish tradition. So they were considered by the mainstream to be an outgroup and subhuman. So they were forced to live in Steads and as they were basically continuing their ingroup representation, you know, but living in this village, and so my great-grandfather.

So my father's mother, her dad was murdered in front of her pregnant mom where she was in the womb. And so there was likely, you know, uh, an effect on the, her growing eggs. So a female fetus in the womb can have an impact of the experience her mother carrying her is having, whether it's a famine or in this case a murder, in a setting of being marginalized.

I'm sure epigenetically in terms of the molecules sitting on top of the, the genes that control things like your vigilance for danger. You know, they were, I'm sure, affected and so my father and his two siblings had very intense ways of being in the world with, you know, either with withdrawing or intensely getting emotionally dysregulated.

And that's basically was my growing up in my family. So to get to your question, how maybe other people might have responded, it was a really painful family situation that I could never speak about. 'cause my mom asked me never to be public about it because many of her friends were therapists and some of them were my students.

And so one time I tried to mention something and she said, oh, my friend talked about you talked about our family. Please don't do that 'cause it embarrasses me. So I didn't. But she

recently passed and had a wonderful life and she was 95 and a half when she passed. But she told me, okay, all my friends are gone and now I'm about to go.

So have at it. You can say whatever you want. So now I'm free to say to your question things I wouldn't have been able to say, you know, a couple years ago that it was really painful. No one saw the inner life of the mind. There was a lot of individuality that was being perpetrated, not just from the culture, of course, growing up in the United States, but also in my particular nuclear family.

There was a lot of paranoia and worry for lots of different reasons, but the outcome for me as a kid was to be in a very hostile, um, disconnected in a way, mindless family growing up. So as I grew up, I was kind of confused. Like I, I knew there was an internal subjective life I was having, but it was never.

Any focus in my family. And so friends became incredibly important to share that inner life that I had and that they had. And it was almost like living a double life, like the mindlessness of my family home environment and the hostility and unpredictability there, and then finding friends that were like anchors in the storm.

[00:07:46] **Jonathan FP Rose:** So you grew up in that background and then life took you into your education. You focused on becoming a doctor, but somewhere along the way In quite unusual, because we don't typically think of the descendants of ETT Jews and horses. You had an interesting encounter with a horse.

[00:08:05] **Dan Siegel:** Yes, I did. I never thought this incident would have the positive side that it seems to have had.

But basically when I was in college, I was fascinated with life. You know, what is life? What's this field of connections of relationships among living things? I was a biochemistry major, so I was interested in molecules, but I was also interested in how people made meaning in their lives. I worked on a suicide prevention service, and one of the things I did, just to expand my understanding of our human condition was I took a, of course, in anthropology on film ethnography, studying different cultures and expressing that through film.

So my teacher asked me to go to Mexico, and I went down to work for the World Health Organization studying medical systems in an area below Mexico City, where they were gonna expand a dam, like they were gonna expand it. And so they wanted to know how, when the dam was first built. Did it affect the healthcare systems and then with the expansion, what would likely be the outcome?

And so they could either prepare for it or prevent the dam from being expanded. Anyway, so that was what the World Health Organization part of the United Nations wanted to be done, and so I signed on to do that. So part of my job was to study the three levels that were pretty clear. There was the Eros who were like part of the cultural way of giving health.

They were the barefoot doctors who were kind of like the first aid responders who were community members, who were trained, but weren't really on the spiritual side of things so much. And then they were the more classically trained. Western in quotes, physicians, you know, who were there. And so I was studying everybody there.

And one of my assignments, uh, in living in this village was to go up to the d We were in, um, Veracruz when we go the state of Oaxaca. And I was supposed to meet with the queen of the mushrooms, you know, which was really fascinating for me. I had a relative who was an active drug addict who was really in a lot of trouble with his addiction.

So I, I myself, had developed this kind of allergy to using any kind of substances that altered your state of mind. But this was part of my job, so I was gonna go see this queen of the mushrooms, you know? So we get on these horses and I love riding horses. I had ridden when I was a kid in camp and I just really found it fun.

Connecting with the horses was really deeply meaningful for me. So I'm living with this family and the young boy who's about 13 or 14, he takes us to the ranch where we're gonna borrow the horses, the two of them. My, my World Health Organization colleague, the young boy. And, uh, myself, we get on the horses and I got on this little horse.

They had two really big horses. I was fine with that. So mine was really young and we started out and at a full gallop, the saddle of my horse got loose. I forgot what every rider nose, which I either didn't know or didn't remember anyway, or no one told me that after you ride for a minute or two, you get off and you tighten the saddle because the horse has intentionally bloated.

Their bellies so that they won't be so tight and be uncomfortable. So you need to do that. It's just part of the, but I didn't do it and no one told me to do it. So the, the saddle went to the horse's belly and my feet stayed in the stirrups and at a full gallop on a young horse through a stone ridden path for, they tell me about a hundred yards, a football field length.

My head was dragged upside down, you know, along this thing at a full gallop. My colleague and the young boy told me later that they thought I had died, or certainly I would've broken my neck. But you know, my neck wasn't broken fortunately, but I smashed all my face. I broke my nose, lost all my teeth, and the bigger thing than just those bone things was I lost my identity, meaning I, I had no idea who I was.

I didn't really have many words for anything. I couldn't name things and I certainly couldn't name who I was or, but I had a feeling like. There was something missing. So I just say, you know, who am I? Who am I? And it lasted for about 24 hours and I was wide awake, fully aware, but had no identity. And I was actually pretty happy.

I was laughing, giggling with all these broken bones. So when my identity slowly came back and I could make the decision to come back to the United States, they wanted to gimme gold teeth, which I thought was a nice gesture on their part. But I thought I'd come back to the United States, get white teeth.

I, I, uh, there was a almost like, it was so peaceful being in pure awareness without many words or without an identity that when it came back, that peacefulness kind of stayed on some level. But when the identity of Dan came back, it never had the, I don't know how to say this, never had like the assumption that it was absolutely solid ground or true.

So it always felt like a little joke when people would call me, Dan. Because I, I would kind of go, okay, well I know that's the name that was given to this body, but there's so much more to just that identity. So anyway, I never really thought about it much. I recovered from the injuries and got my fake teeth put in and all that kind of stuff.

So I remember it every day when I have to do special cleaning around fake teeth. But, um, you know, it's been a long, long time, but when I first met Jack Kornfield, when he had asked me to teach at a. Uh, meeting on, um, spirituality and mindfulness and with Houston Smith, the religion scholar. We, we decided to have lunch 'cause I ne didn't know him.

I never met him before. So at lunch he said, where, where'd you learn about mindfulness? I said, I don't know anything about mindfulness. He goes, no, no, you know something about it. I said, I really don't, I mean, I've never studied it. I don't know anything about Buddhism. I don't meditate. This is like over 20 years ago.

And, and he goes, well, you must know about it from somewhere. So then for some reason, for the first time, like in 30 years or something, I brought up the accident and then we, it parted ways. We had to go do some stuff and he calls me up and he says, I can't stop thinking about what you said. I said, what?

And he goes About the horse accident. I said, why are you thinking about that? He goes, do you realize. You got by accident where people will spend decades trying to achieve. I said, why would someone to break their face meditating? I don't, what are you talking about? He goes, oh my God, no. Lose your identity.

I go, well, why would someone wanna do that? And he's laughing his head off. And then as he began to describe the story of Buddhism to me on the phone, I started feeling this incredible comfort and a sense of belonging. And I expressed that to him and he said, welcome to the family.

It started a close friendship and we started teaching together and it, it, it was hilarious because, I mean, literally I got it falling off a horse, that feeling, but now I understand, you know, identity and all that kind of stuff from a different angle and upside down.

[00:14:50] **Jonathan FP Rose:** The fantastic story, and this really takes us into.

The nature of self. And so by the way, you, part of your work is as a psychiatrist and a lot of the work of a psychiatrist is helping people wrestle with their constructed self and how that constructed self works in the world. But in western culture, we think ourselves are very, very solid. But what you are suggesting is that our self.

Is actually not a singular thing, but it's in a relational unfolding. It's the collaboration and integration of all these different forces, and so you have called that combination of the individuality, which is me and the social broad realm, which is we. You combine those and you call that we, yeah. The audience, by the way, MUE is Mwee.

[00:15:38] **Dan Siegel:** MWE. Exactly. Yeah. I think what happened in the MUI story is after that accident, becoming a physician in medical school, dropping out of school. 'cause I didn't really like. The lack of empathy or ended up calling this phrase mindset to see the mind. I finished medical school, came into pediatrics and then went to psychiatry.

So, and then my journey to be a therapist. This question of who are you? I never really thought about the accident directly, but the idea of who people are and their identity really became central. Thinking about why people were experiencing so much chaos and rigidity that we call mental suffering. And so this question of, first of all, what is the mind that became super interesting and also, I gotta say, kind of embarrassing that in my field, psychiatry, which is the

branch of medicine, dealing with the psyche, which in Webster's would be where we talk about the synonyms of the spirit, the soul, the intellect, the mind.

Psychiatrists, you know, alongside of other mental health professionals like psychologists, anyone dealing with mental health. I started discovering a strange finding that no one was defining what the mind was. So this was just perplexing to me. And so, you know, I wanted to fit in to the flow of things and just kind of went along with it.

But it was a nagging absence in the field at least, of mental health and education as well. Many my. Relatives are educators. And I would ask them, you know, anyone tell you what the mind is that you're educating? No, no, no. So the first thing was to say is the mind, what Hippocrates said 2,500 years ago in a book about epilepsy, where he said, the mind is only, and I underscore that word, only the activity of the brain.

And in medicine that's been a 2,500 year belief. And then in, in neuroscience more recently. That's basically what said, and then psychology said, of course, the mind is just brain activity in certain branches of psychology. So if it's just brain activity, then why do we have even a separate word? Why not just say, you know, have you lost your brain activity?

You're saying you lost your mind, or you know, what's on your brain activity, you know? Because it turns out that subjective experience, the inner felt sense of being alive, while it may be related to brain activity, it's not the same, and it's not limited by the skull as a boundary. It's throughout your whole body.

And then what I began to feel, because I got very interested in relationships, attachment relationships in particular. I became a researcher in that area that you could feel the subjective, if you will, field relational field between a caregiver, an attachment figure, a father, mother, other caregivers, and a baby.

You could come into a room and I was doing home observations. You could sense it. You could almost feel the relational field I was doing. School observation. You could feel it in the different classrooms, I would observe. And some of them were, had this positive feeling of belonging and robustness, and some of them were depleting and it kind of sucked the energy out of the kids and you could feel the difference.

So I just became fascinated with relational fields, kind of like Michael Faraday talking about electromagnetic fields. And people thought he was nuts. I would talk about these fields and people just think I was crazy. And so, you know, I just kept it to myself. But I work with my patients, my clients, you know, with this notion.

And the first big task in my professional journey was to say, should I stay in this field of psychiatry when they seem to have lost their mind? And Caroline, who you know, is my partner, my life partner, my work partner, Caroline, well, she had been meditating for years, and she just said, look, you dropped outta medical school and then you came back and you stayed.

You dropped outta pediatrics, you know, and now you're in psychiatry. You think of dropping out that she goes, instead of, you know, changing fields, why don't you think about changing the field? And I thought, oh wow, that's so interesting. It's why, you know, partners can really make such a big difference in your life.

I thought, okay, okay, then I won't drop out of psychiatry. Even though they're, they're not talking about the mind is, maybe I can scientifically take my background as a scientist and ask. Is the mind only the activity in the brain that Hippocrates has said and neuroscientists say all the time. I said, could it be more?

And if it's more, what would it be? And so that. It was a long, long journey to write my first book, the Developing Mind, and that helped with patience because I could start talking about, uh, a definition of mind that I had offered in 92 that looked at the mind as both fully embodied, not just up in your head and also fully relational.

So it was both the me of the inner, but it wasn't just in your head, it was your whole body, and it was the we of the relational. So we became a word. That could just take that definition of the mind and allow people to, to gr it, to feel it in a simple three letter word and whatever the language is.

People kind of prefer the we simplicity that we say can't seem to find in other languages. Just the, the idea of integration is that you link differentiated aspects together and you don't lose the essence. So ME. And we both have an first letter and the E So in English, it's kind of fun to say, me and we, my, uh, copy editor wrote to me once, this is grammatically incorrect.

It should be me and us, or it should be I and we, so you can't say we. And I wrote back to her and I said, thank you very much for the grammatical correction. This is grammatically incorrect. I agree with you. But you can't combine, you know, buying we, what are you gonna say? Or are you gonna say, me and us must, I mean, that's not so fun.

So, and it doesn't have the essence. So ME and WE combined is we.

[00:21:31] **Jonathan FP Rose:** You refer to the nature of the mind. How do you define the mind?

[00:21:34] **Dan Siegel:** Well, you know, descriptions of the mind include subjective experience and consciousness that lets you know you're having subjective experience and then information processing, which is basically taking energy patterns and making symbolic value out of 'em.

Those have been described forever in the field of psychiatry, psychology. What the definition that came up in this group I was running in back in 1992 was beyond those three descriptions. 'cause they're really not definitions, they're descriptions, and it goes like this. The mine can be defined as fourth facet of the mine as an emergent self-organizing.

And those are two mathematical properties. So they're not just soft, gooey statements, emergent self-organizing and body meaning. It's not just in the skull, it's fully in the body. And relational process that regulates the flow of energy and information, because some people think information is primary.

Some people think energy is primary. If you say them together, you get the, everybody at that level happy. So it's a concis meaning it, it meets the criteria for lots of different pursuits of knowledge view. And it also, it, it basically says. That there's a mathematical set of properties that were discovered in the eighties called emergence from complex systems, and it's where the elements bump into each other and something arises from that interaction.

It's not from any of the single elements, so it's kind of like synergy that Buckminster Fuller talked about in the seventies. So emergence is a scientifically established property of complex systems. We can talk about what a complex system is if you want, but these systems that are capable of being chaotic, that are open and that are non-linear, meaning a small input, leads to large and relatively difficult, if not impossible to predict outcomes.

Those complex systems felt to me. When I was reading about this in the nineties, like what human minds actually are a part of. And so then I started thinking, well, in this group I was trying to get together about say, what's the relationship with the mind and the brain? You could say that the mind in all its facets actually.

Was an emergent property of energy flow. And once you started talking like that, you can go to physics, which studies energy, and you could go to mathematics, which studies complex systems, and then you could say, wow, maybe this is a working definition. I mean, it's from 33 years ago, but it's held up over all this third of a century.

You know, you can say that the mind is an emergent property of energy flow and that flow's location can be in the head. So we can have neuroscientists studying that and that's fantastic. But it can be fully embodied in the cutting edge of, of mental health work is embodied work and stuff. But I think the next phase for not only mental health, but also for our planet is to realize that the human mind is fully relational.

There are relational fields of energy sharing. That is as much a source of mind as what happens in your head or in your body.

[00:24:31] **Jonathan FP Rose:** So I wanna expand this, which is, 'cause remember we started this with you talking about your own lineage, which is to say that it's also flows through time. So it's not just this slice of time and we is not just the identity of this time. But it has all the past influences that come through it. All the past evolutions.

And all the future potentials are also captured in the MUI completely. But every indigenous culture talks about its lineage and its ancestors and all those as though they're present and in fact they are present. And even just at the DNA level, they're present in us.

[00:25:13] **Dan Siegel:** Absolutely. Here's what really affected me was as all this stuff was arising, I started getting invited to conferences.

I never thought I'd be invited to. 'cause in my family, no one ever. Talked about religion or spirituality or the meaning of life or anything like that. So people started asking me like Jack Kornfield did to speak at spiritual gatherings, like with this one with Houston Smith on religion and mindfulness and stuff.

So I was asked to go to a conference. With 150 physicists in Tuscany of all places in those days, I could eat gluten. So all the pizza and the pasta was there and it was amazing. And the con, the topic was science and spirituality. And I said, why are you inviting me? I don't know anything about spirituality.

I know a little bit about science. You know, I'm trained that way. But I said, come, come. You'll see. Anyway, I had a week to live in this old monastery, and I could ask the physicist two questions. What is energy and what is time? Because we had the time and the energy to look at those questions. And so to relate to your issue.

And the indigenous teachings. The indigenous wisdom. So it turns out, and many people don't realize this, and I once was at the Wisdom 2.0 conference that I know Garrison co-sponsors with Soren, and there were 3000 mostly techies in the room. And I said, how many of you don't know that physics has demonstrated there are two realms of our one reality?

So 30 people in a room of 3000 raise their hand. So if you do the math, that's 1%. That means that 99% of even techies are totally unfamiliar with the idea that there are two realms. So I'm at this physics meeting in Italy and I'm saying, what is time? They say, well, here are some papers on time. And they send me all these papers and they go, Isaac Newton 350 years ago.

Studied large objects like planets and moons and apples falling from trees or like your body. These large objects are larger than an atom and there's certain Newtonian properties that come from that level of analysis. And Isaac Newton didn't know there was gonna be another level of analysis, but a hundred years ago, you know, we developed the technology just to study those smaller things.

So we would call them micro for smaller states like an electron or a photon. They're smaller than an atom. And it turns out that the properties that could be studied empirically and the equations that would describe the way they function, uh, were completely different from the Newtonian equations. And so one of the things we knew that it's kind of like walking on land.

You know how to walk on land or jumping into a, a pond, you know how to swim in the pond. They're just different properties that you use to swim versus walk. They're very, very different. No one freaks out and goes, oh my God, I live in one reality and I can walk on the trail, or I can swim in the pond. Ah, but it's the same thing in what physics has demonstrated.

So in the Newtonian macro, large state realm, we have something called the arrow of time, and that phrase means. In this realm of walking on the land, you know, in this realm of large objects, we have something called the second law of thermodynamics, which means things tend to fall apart. They tend to move towards entropy, which roughly means randomness.

And we know that in these bodies were born into, they're Newtonian bodies. And you know, we get about a hundred years to live in them. They start to fall apart, you know, even if you don't fall off a horse. But it turns out at the micro state level. While we have the time variable in the equations, for example, if you're in a Newtonian car and you wanna stop the car at a red light, my father was a mechanical engineer who designed cars.

You've gotta stop that car so you won't be one with everything in the intersection. And time is a variable. There are noun like entities in that Newtonian macro state world and in the equally valid realm of the micro state, that is pure energy. Units of probability there. There. We'll get that in a second.

Basically, there is no variable of time because the second law of thermodynamics does not apply to the quantum is what it's called, realm of micro states. And so what these physicists told me blew my mind because it's timeless and it can get you to start thinking about something called a space time continuum and a space time block.

Because at that time they were saying, look, there's no variable of time. So everything is verb like processes that are massively connected. And it's hard for us in Newtonian bodies to think this way, but they said everything's really connected. And then, you know, in 2022, this would be years after that meeting in physics.

But the Nobel Prize was given for what the physicist also told me. It was a hypothesis back then and now been given the Nobel Prize 'cause it's been established as reality, which is called non-locality. And what that means is that if you couple up, let's say two electrons. Here together, and then you separate them out by a foot or 10 feet, or 10 miles or 10,000 miles.

You know, Australia and the United States, they still have a relationality to each other if they've been coupled or entangled. And Newtonian, what we call spatial separation in quotes, does not impede quantum relationality. So those two findings, that there's no variable of time and also that what we think of as spatial separation has now been proven.

This is what the Nobel Prize was given before, you know, to exist. We don't want to, you know, jump to conclusions that the mind is absolutely a part of that energy flow. But if the mind is in fact an emergent property of energy, and if it's true that certain. Energy couplings can occur and Newtonian separation doesn't impede their relationality, then, you know, it's reasonable to at least consider from a scientific point of view.

This, and I was teaching with Antonio Demasio at a meeting on consciousness and, uh, someone had just presented on the quantum aspects of microtubules in the brain, and he, Antonio says to me, before we get up, Dan, Dan, when we get up on the stage, just remind me to bring up my thoughts about the quantum issues of brain function.

He's a big neuroscientist. So I'm up there and I said, oh, Antonio, you wanted me to remind you to, you know, talk about? And he goes, yes. He talks to the guy who just gave his talk. You're too humble. The only future for the understanding how this brain functions is to look at the quantum aspects where different areas basically can communicate with each other without having direct synaptic connections.

So for those who are naysayers about looking at physics and energy, and even in terms of neuroscience along the mind. You know, Antonio Desi was taking, as a conservative, neuroscientist, was saying the conservative physics of quantum physics. And the physicists that I work with say when they go to parties, they're very lonely.

'cause what they're discovering isn't consistent with what we usually talk about, but is so. Resonant and conciliatory with indigenous teachings and contemplative teachings, for example, in Buddhism, that it's an exciting thing. It's like being a kid in a candy store to just look at these very, very disciplined ways, contemplative trainings, indigenous teachings and physics, you know, and see that they actually overlap in deep ways.

[00:32:35] **Jonathan FP Rose:** You recently taught a class with Karen O'Brien on quantum social fields. So what the quantum social field?

[00:32:42] **Dan Siegel:** Yeah. Well, Karen O'Brien is a wonderful researcher in Oslo and in Norway, and, and she was a part of a committee that won the Nobel Prize for climate protection for what the UN was helping us try to do.

And so we met because she, she had written this beautiful book called You Matter More Than You Think About a movement she's a part of called Quantum Social Change. In that book, you matter more than you think. Karen O'Brien beautifully, carefully, as a very established scientist says, let's just see if social change might in fact be inspired by and guided by the lessons from quantum physics.

And she carefully, conservatively. Explores that, so I highly recommend that book. So I read the book, I reached out to her and we started a friendship and a professional relationship and we said, Hey, we should teach together. So I was there for the Human Rights Foundation and we did this whole two days on exactly what you're talking about.

And in particular, we were looking at how this personality system I had been working on with four colleagues could be applied to working with burnout. In climate activists. So it was very practical teaching skills of working with burnout. But in the embedded in that, 'cause Karen brings this in her wonderful work and her website and whole journey is something you can get connected to quantum social change.

We talked about this issue that. If people do the deep inner work, so part of it will be contemplative inner reflection. And now using the field I work in, which is called interpersonal neurobiology, you could then apply the IPNB interpersonal neurobiologist. Faster way of saying it, you can apply the IPNB lens.

It's a saying for a given individual in a given Newtonian body, what it, what are the ways in which, how the brain evolved. We have a deep structure in the brain that's pretty much formed before birth called the brain stem. So it's like the core part. And so it creates what's called temperament. And in that temperament, what you have is basically something that is activated in response to the difference between being.

Kind of at one with the womb and coming out now into the world where you're separated and there's this issue that you and I have talked about. Agency bonding uncertainty may be particularly sensitive. Agency meeting your embodied needs. If that's frustrated, you tend toward anger. Bonding is your relational needs that's frustrated.

You get separation distress and sadness. And the CABC is certainly the need for predictability and safety. And if that's not met, you get anxiety and fear anyway. It turns out that the humans are roughly divided into the groups that are particularly sensitive in one of those three areas. So it's been this incredibly exciting new thing.

And so what we did was we applied the idea of social quantum change to the individual's journey and the need to go inward to say, what is my temperament? How did it form the foundation of my particular personality? Which in a way becomes a kind of filter of energy flow that. Will make me prone to burning out if I'm a political activist or a climate activist.

And so to free me up to access what I call the plane of possibility, which is deeper beneath these filters, getting access to what Arthur Zions beautifully calls the formless source of all form or the sea of potential. And in this graph, it's a plane. So we call it the plane of possibility. It looks like awareness comes from that.

So what Karen and I did was we helped the participants. To drop beneath the kind of plateaus, which are filters of temperament and personality into this plane where your ability, we think in a quantum way, get access to the freedom of your mind to envision where to go, in this case with climate activism, and also to relate to each other so people could feel as they were doing the wheel of awareness practice and going through these personality patterns and finding where they were located.

They could be very kind to their own bodily life, because as long as you have a body, you have a temperament of personality. But the idea of freeing yourself up to have this quantum social

change is to go beneath your personality to the awareness where we all find each other because Jonathan, your plane of possibility and my plane of possibility are the same.

[00:37:17] **Jonathan FP Rose:** So Dan, so I just wanna tie this back to quantum theory again, which is go to the Newtonian world, like think of a game of billiards and you hit a ball and the ball hits another ball and it follows the trajectory and, and that's very predictable and calculatable. But what Heisenberg discovered when you're looking at the microscopic world of energy, of the parts of atoms is we don't really know where they are.

There are realms of potential where they are. They're likely, like electrons are kinda likely to be in these cells that they circulate in, but even the act of knowing where something is or seeing where something is affects it. But anyway, everything is interdependent. Everything is continually affecting everything.

So they're in relational fields. Not specific places. They don't have definitive futures. They have potential futures. And what you're saying is that when you can drop your thinking out of the Newtonian action reaction world and into the quantum world. You can enter into the realm of possibilities and if you can dissolve the self, which is always trying to concretize and fix things in a way as a survival mechanism in the world into that state, that goes back to the original horse accident and what Arthur zz just repeat again.

What did he call it?

[00:38:33] **Dan Siegel:** He calls it both the sea of potential and the formless source of all form. Right?

[00:38:39] **Jonathan FP Rose:** So if you can go into the formless source of all form. Then you can imagine new forms and you are in a realm of the pure state of potential and opportunity. And so because you have dissolved the rigidity and the fixedness of yourself, and from there you can then act.

And if you are a social activist, and if we want to. As Karen's book, subtitle is Quantum Change For a Thriving World. If you wanna create a thriving world, you can imagine it and reimagine the relationships that need to take us there from this pure plane of possibility, then you can from this fixed world of rigid constructs.

[00:39:23] **Dan Siegel:** Exactly. I couldn't say it more eloquently than you just did, and I would just build on that and say. Number one, it's beautiful to hear you describe, I think, where we need to go like that, but also that generator of diversity, right? This form a source of all form. Is also a portal, I think, through which integration naturally arises.

So integration is this linking of differentiated parts, and I think it's the fundamental way that mathematics tells us. Optimizes self-organization. So the P of possibility, this formless source of all form, the quantum vacuum, these are all the same thing. The generator of diversity. What it means then is if you can do an inner practice, which I think is what a lot of mindfulness practices ultimately help you do, certainly the wheel of awareness does it as one example to get to that plane of possibility, the hub of the wheel.

What then happens is your constructed separate self. We can talk about that neurologically and stuff like that, but if you think about the brain more as a conduit of energy rather than a creator

of it. It can, in its conation, in, it's letting energy flow through it. It can inform these constructed views of a separate self, especially in a culture of individualism.

And if your family reinforces that your school teachers reinforce that, your peers and social media reinforce it. So it's basically perpetrating a lie that the brain believes is ultimate truth. And so when you allow people to do all sorts of practice, being in nature, being groups, drumming music, embodying this release from the lie of the separate self, what happens, I think from a scientific point of view is exactly what you're saying that.

You access this form, the source of all form, the P of possibility, and it is the portal through which integration is gonna rise, which is a source of wellbeing, but also it's where hope comes from because hope can be described as basically seeing other options beyond what you had available to you in your mind beforehand.

'cause when you're hopeless, you said there's no other options. I can't do anything. So in, in many ways this inner journey towards the plaintiff possibility, the form, the source of all form, the source of awareness is a journey to hope. And it's where we find each other. So in our communities, whether it's at the Garrison Institute or the Mine Side Institute, or all these different ways, we have these communities of people who can really get to know each other if we're doing the inner work.

Of getting beneath temperament and personality, getting beneath the constructed mistaken identity as you are just your body, which is I think where this whole conversation is letting us play with in a beautiful way. Then I think there's incredible hope for us to have what Joanna Macy would talk to you and to me about.

I was able to be with her on the last day she was speaking before she passed, and it was a joyful being together because her whole work on the great turning. Was the idea that, and she used this phrase exactly in her work, you know, the quantum change in consciousness. And what Joanna and I used to always talk about was that this is what literally the quantum change in consciousness is to go beneath it and realize that you know, we are who we actually are extends beyond time in these bodies.

That we are our ancestors, we are our descendants. Of course, as you pointed out, indigenous teachings across the globe have known this for thousands of years, but the Newtonian, materialistic, individualistic modern view in the Dalai Lama, Tomi, don't call it Western 'cause it's all of the world now, so let's just call it modern.

Modern conceptualizations of individualism are basically choking us because they're having living us a lie. And it's not only a lie, it's a lethal lie. And when people drop into the plane of possibility and start to live with all whatever your practice is, indigenous, contemplative, whatever, being in nature, doing the wheel, doing meditation, whatever it is this way that we realize we're not just a me in a body.

We don't want to forget that we have a me. We are also a, we as you beautifully pointed out, across time and across skin envelopes and species. We, you know, not just, it's our whole human family for sure. It's our whole human family across all generations for sure. And it's across all species. And Joanna Mesa used to have these things called them, count the council of all beings.

And I remember when we went to dinner recently, we were talking about the council. And you know how, I know it may not be happening much anymore, but it's a beautiful way of. Literally letting us realize that we, who we are, the we of it all, and she loved the word we, the we of it all is to go across species.

It's a moment to make sure, and I said this to Joanna and I and I, I said it recently down in Australia to say, this moment of disorganization and distress and the chaos and JI'S arising, it may actually be, as some of our garrison fellows have come to call it a poly opportunity, not just a poly crisis.

And we can see this moment of disorganization as an opportunity to realize just what you're saying. I think our species is so capable. If we can embrace a new way of seeing beyond the individualism that has its own unfortunate hedonic treadmill, you get on to get, try to get more and more, and you feel less and less.

As you do that instead, this opening up of identity, whether we're looking through the lens of, you know, as Karen O'Brien has said, quantum social change or deep contemplative views or indigenous wisdom. It is time for this exciting moment and we can channel all these things we're talking about. And it's better together.

You know, we gotta do this together and have a bring it on attitude. So certainly we can get into a threat mindset state and freak out with everything going on. But it's also a moment to turn that activated state into a challenge mindset and say, you know, it's better together. Yes. And bring it on so that you wake up every morning.

And I said this with Joanne and I was dancing around her porch there, uh, with her. When I've said to her, I said, look, what if we wake up every morning and we see the difficulty facing us and think of that difficulty, not as a threat, but as a challenge for sure, but as a dance partner, and then we wake up with a whole different attitudes.

Okay, what's the music of today? And come on, let's dance

[00:46:12] **Jonathan FP Rose:** Dan. That's a beautiful way for us to end our conversation and it's been such a joy dancing with you, and we invite our audience to take these lessons and dance with the challenges.

[00:46:25] **Dan Siegel:** Let's do it together. This is great.