**Episode #10**

**Speaker 1** [00:00:01] Welcome to the Cabrera Lab Podcast.

**Speaker 2** [00:00:06] How's it going?

**Speaker 1** [00:00:06] I'm good.

**Speaker 2** [00:00:09] I was thinking. We have been talking about a lot of things in sort of separate conversations and with different types of audiences that I think are all connected. And I wanna talk about them a lot, a lot more. So we've been talking a lot about whether or not a person's thinking abilities are sort of set from birth, whether or now we can get better at thinking, fixed versus. But so we've talked about that. Then we talked about fixed versus growth mindset. And we talk about the same thing, I think, but using different words a lot. So I wanted to kind of bring them all together in a conversation with you for everyone. So it reminded me of several years ago. Gosh. Several years ago, many years ago we were at a pretty small school district, K to 8 school. And I think we were doing an assembly. for students between kindergarten and third grade inside of their gym slash cafeteria space. And I remember we were talking to these kids which are who were all wonderful and are now probably in college by now.

**Speaker 3** [00:01:17] So probably adults.

**Speaker 2** [00:01:18] I know it's so scary. But anyway, I think we started out by asking them, what does it mean to think? How do you think? And one little girl raised her hand and she goes, oh, that's easy. Our brain just does it. And she's like, you know, like my heart just beats, my brain just thinks. And it was a really interesting answer for both of us, I think at that moment, he was like, oh. It gives us insight into the dominant way that people think, which is we either have a natural ability to think or we don't. We're either born dumb or smart or intelligent or not. We're lifelong learners or we're not. That is kind of static.

**Speaker 1** [00:02:03] Absolutely.

**Speaker 2** [00:02:04] or fixed.

**Speaker 1** [00:02:05] That's the dominant opinion. the brain, the intellect, intelligence, thinking, all the above.

**Speaker 2** [00:02:14] Well, and it's not just kids that believe that. Oh, for sure. So we corrected the kids in that assembly. We said, no, actually, your ability to think is something you can get better at. You can work at it just like you work at playing baseball or basketball or any of those things. So I wanted to talk about this idea of fixed mindset and why it sort of is dominating. . in the way that we think about a lot of things. Like we're either a natural, you know, we're born as a good athlete, we're a born as good thinker, we're borne into whatever set of skills we have. Like why do we think that? And then how do we, what do we do about that? How do we move us to a different place? Like what's the mental model we have to debunk?

**Speaker 1** [00:03:02] Yeah, I mean, I would say that it's, you know, one could say that it's because of the IQ test, you know, that gives people the impression that you have a certain IQ and that IQ really doesn't change. You say, you know, Einstein had an IQ of, you know, they don't say Einstein got a higher IQ over time or anything like that. Right. I would see that except for the fact that you actually hear these kinds of statements all the time. People say, Oh, I'm not good at math, as if that's set in stone. People say, you know, I notice young people saying all the time, oh, I just, I am not good at this sport. Right. You know, I'm good at chess. I'm no good at whatever. As if, as if, well, you just missed the birth lottery on chess, right? And you either got the chess gene or you didn't get the chess jean. or you got the basketball gene or didn't, or you've got the lacrosse gene, or you didn't. Or you got, you know, the intelligence gene, or you did not. And I think, I think it doesn't, it's not just limited to intelligence, or to thinking, or cognitive things. I think its limited, I think kind of a global way that we think about ourselves is like- It kind of permeates. Yeah, it kind of, permeates our, if we're not immediately good at something, which by the way, none of us are- Thank you for watching. I'll see you in the next video. really immediately good at anything. Very few of us, I guess there's the anomalies that have a sudden and immediate talent. But that is absolutely the anomaly, the rare case.

**Speaker 2** [00:04:48] Yeah, where people just sort of seem good at something from day one.

**Speaker 1** [00:04:52] The truth is, just like there's, you know, show me an overnight success and I'll show you somebody that's been working at it for a lot of years, the truth is you know the people that consistently work at things get better. And so I think the growth mindset is such important research that Carol Dweck did. It's such important, research mostly because it says something really basic. It's very basic. but it's really important, which is, you can get better at things. Right, and it's- And not just like, cognitive things, but all things.

**Speaker 2** [00:05:30] Right, and I mean, it is basic in concept, but it is something that nobody really realized, right? Like, Carol Dweck came up, came onto the scene and said, you know, because up to that point, the predominant thing was, you're either naturally good at something or you're not. And I think her work was sort of a step forward in saying, oh, well, actually we can characterize people this way or that way, and you can become this way.

**Speaker 1** [00:05:57] Yeah, I would say, I don't know if I'd go as far as to say nobody really realized. I think lots of people realized. I think what, you know, science, science is a really interesting thing. And I, the general public can sometimes get frustrated with science for good reason. One, it seems like we're changing our mind all the time. Yeah. Actually, what we're doing is learning. Um, and so yes, we are changing our, our mind because we're getting more and more data or more things are coming to light. And that's the whole point of science. The other thing that can be frustrating about science is you'll read, you know, I think sometimes the general public reads things like new scientific research proves you know broccoli is good for you or something like that right and you're like oh didn't we already know that you know yeah and so i think we can somewhat cherry pick things that that we sort of say yeah i think most people knew that already but science just showed it right with data and experimental or empirical evidence shows it And what we fail to see is all the things that we took as an assumption that science did not find the empirical data for, right? That makes sense. So there's these things that we think are absolutely going to be, we assume they're true and it turns out they're not true. So sometimes science kind of, science doesn't really prove anything, it just gets more and more sure, validating.

**Speaker 2** [00:07:33] It's better over time, more accurate, I guess you would say.

**Speaker 1** [00:07:36] Yeah, and so I guess that's all a long way of saying that what Carol Dweck did was take something that a lot of people felt like they knew, and now we really know it. Like now we have the empirical data that our basic common sense assumptions about some things turns out to be true. But a lot people didn't think that. A lot of people... like we started the podcast with, you know, the majority of people don't think that.

**Speaker 2** [00:08:08] Think what, what are you referring to?

**Speaker 1** [00:08:10] They don't think that you that you can grow and get better, right? They think like we were talking about, they think, oh, I was born a particular way and that's pretty much how I'm going to be. So I might as well find a career that fits what I'm.

**Speaker 3** [00:08:22] Right.

**Speaker 1** [00:08:22] Naturally good at it if I happen to not be naturally good at anything then I'll you know kind of navigate through life that way But in reality you can get good at almost anything

**Speaker 2** [00:08:33] With practice. Well, I think it's not just practice. I think its motivation to change, plus knowing what to practice, plus the attention and effort to actually work to get better at something. Carol Dweck's work talks a little bit about motivation, like how we can see the difference between a fixed mindset versus a growth mindset. has a lot to do with the level of motivation. that people have that fix mindsets, sort of because they're fixed, they believe they're in a good spot and they don't have an impetus or an awareness of a need to change.

**Speaker 1** [00:09:14] Yeah, I was watching the thing the other day on the, I'm not going to remember the coach's name, but I'm sure you can look it up or something on the internets. But it was saying that this, it was like famous lacrosse coach or lacrosSE coach player, pretty famous guy. And I guess he was running a camp for young people for like high schoolers. And he goes, you know, if I could guarantee you today. that you could get into a D1, a Division I lacrosse school and play in college. Which, how many of you would be interested in that? All the kids raise their hand, right? And he goes, all right, I'm gonna tell you exactly how. And they're all ears, right. And he says. a hundred shots a day into the net.

**Speaker 2** [00:10:04] every day.

**Speaker 1** [00:10:04] every day. That's all you got to do is shoot 100 shots. But here's the catch. You can't miss a day. Doesn't matter if it's raining, snowing, sleet, you're sick, you are tired, whatever, you can't miss a date. And so is it really about the 100 shots? Sure, shooting is a big part of the game, stick control, all that kind of stuff. But what What it's really about is the dedication that it would take to not miss a day. and the consistency that it would take to not miss a day, and that would be co-located with a bunch of other qualities and characteristics. It's an interesting story that makes it very clear that really anybody could probably do anything, and if you're willing to put that much dedication and discipline and practice and-

**Speaker 2** [00:11:04] Right, and it seems like what you said, discipline, like what that advice is actually testing is the dedication, the motivation, the discipline, the tenacity.

**Speaker 3** [00:11:14] The tenacity, yeah.

**Speaker 2** [00:11:16] the goal stay because that's what's gonna matter because everybody can develop their skills, but you can't develop character. You can't, I mean, like you can develop character, but people, you can change skills through practice, but character is something that actually takes a little bit more, what's the word? Character seems like it's behind the scenes, but it is something that can be developed, right? And it can be develop through some pretty specific things like you're saying, like discipline, motivation, tenacity.

**Speaker 1** [00:11:46] Challenge small wins over time, you know, that's how you develop it

**Speaker 2** [00:11:50] You know, I think about this whole idea of growth mindset and no challenge, no change, no discipline, no freedom, like all these kinds of things that we talk about. And, you know, I think if somebody came to us and said, well, how do I get better? How do I improve? You know? How do become more flexible?

**Speaker 3** [00:12:13] At what?

**Speaker 2** [00:12:13] Just in my approach to things, in my approach to life, in to my approach to work, in in my approach to my family, how do I build that kind of flexibility in the way that I think about things? How would we advise somebody to get better?

**Speaker 1** [00:12:30] Yeah, I mean, I think that's a good question because people want to get better at a lot of different things, right? You want to better at lacrosse, you want to be better at yoga, you wanna get better like, you know, your work or whatever it is that you're interested in, right, quilting or something, skateboarding, fashion, you know, whatever, it doesn't really matter, making coffee. And so there's a nearly infinite world of things that people want get better at. The question is, as a general question, how do you get better at anything? is very much related to thinking, right? Because, and I think this is a connection that a lot of people probably won't make right away, is that before you can do it, you have to think it, right. So if you're doing a weight training routine and you're kinda, you're feeling stuck, but you don't know how to get unstuck, well, the thing that's gonna get you unstuck is a different thought.

**Speaker 2** [00:13:32] Now that's interesting.

**Speaker 1** [00:13:33] Right? If you're feeling like you're not making the progress that you want to make in yoga, well, the thing that's going to get you unstuck from that path is thinking a different thought.

**Speaker 2** [00:13:45] Yeah, it's like when you say to me, and you said before to the kids, like, if you think you can't, then you can.

**Speaker 1** [00:13:51] Then you can't. Well, that's one aspect of it, like what you think is going to manifest in action and behavior. But I mean, if you can think differently about your routine, if you think differently the way you do tasks, the way your manage your day, the way you sleep, if can't think differently then you can really do much different. That's right. And in that sense there is no change. Thinking is the thing that drives the change. Thinking is that thing that changes the mental model so that you can see the possibility of something different. That you could even, that you could do it differently than the guy on the yoga tape tells you to do it.

**Speaker 3** [00:14:39] Uh.

**Speaker 1** [00:14:40] Thinking is the thing where you go, huh, my body doesn't like it the way he showed it. But maybe I could figure out a way to do it in a way that my body does, because my hip joint's a little different than somebody else's hip joint. Well, that thought, if you don't have that thought then you're just going to keep trying it the way that guy on the tape.

**Speaker 2** [00:15:03] Right, you're just going to keep doing it over and over, and you're going to get more frustrated because you're trying to do it in the way that somebody else, right? And so...

**Speaker 1** [00:15:11] If you can't see it, and by see it I mean see it with the mind, then you can not manifest it. So if you want to get better, getting better fundamentally is about change, change over time. Right. If you want get better you got to be able to think better because all of those changes have a parallel change in the mental model. all of those physical changes in the real world. at whatever of those infinite things that you want to get better at have a parallel change in the mental model that's in the mind before you see the change in the body or in the action or in the ability.

**Speaker 2** [00:15:52] Right, because it's the mental models that lead to the behavior, right? I think a lot of people miss that connection, like we think we have a mental model and it's just like a static thing, it's a mental motto. But every mental model you have, well, maybe not every, but your mental models are what shape your choices, they shape your decisions, they change your behaviors in certain situations, they can change how you think about yourself. So what you're saying is, if you can't be open to the fact... you can think differently about something to bring about the ability to change it, then you're sort of a non-starter. Exactly. I mean, I think about, you know, we tell our students a lot the story of my to-do list, my mental model of my do-list, right? So like, I was struggling because I had these to-dolists and, you now, I have a to-to-list every day and it can be long at points and. I was struggling feeling like I had the mental model that I was working really hard and not accomplishing much. But then when I sort of challenged the way I was thinking about it or had a different thought about it, right? I sort shifted my perspective on it and said, well, let's focus on the part of the list that I got done, right. And noticing that, and having the mental model that A, my list is long. And B, I should be. celebrating what I've done rather than what I haven't done, because then it encourages me to keep doing, right? Otherwise I feel discouraged or like I'm just not getting anywhere. And so it's like that shift in the mental model of like, instead of to do to like to done, then I'm like, oh, I'm making progress, right? And also changing my expectations of myself. Like nobody can have 22 things in one day. Like I'm, like, okay, pick the top three to five. Right. So that's what you're, is that what you were talking about, like thinking differently or changing the way I'm thinking to change my behavior and my, I don't know, the way I approach things.

**Speaker 1** [00:17:54] Yeah, so there's a couple of things in what you're saying that are pretty important. So you have a mental model of your to-do list. And your initial mental model is that you have so much to do and you're not getting enough done. So, you sort of have the ability to question that mental model and say, is that? you know, a good mental model or is it true or something. Then the problem is there's a lot of advice out there. True. Right, and that advice is somebody else's mental model that's gonna influence you. So, for example, there's whole world of advice out there about positive thinking versus negative thinking and again, I just fundamentally disagree with all that advice. all the positive and negative and all that, all those labels that we put on things. What I want to know is what's real. If I was you, I would want to what's really. Am I getting a lot done or am I not getting a lot done?

**Speaker 2** [00:19:03] Yeah, I like that. Yeah, that's better.

**Speaker 1** [00:19:06] So I don't really care if I can put a positive spin to make myself feel better. I feel like that's kind of a form of cheating. So what I want to do is understand am I getting a lot done or am I not getting a lot done and how do I determine what's a lot and who am I measuring against or what am I measure against and I want know the reality of my to-do list. Right. Right and so it's not about let's look at to done because I'm going to feel better. Right. It's let's at how much I have to do, how many hours worth of work that is. Let's look at what I got done and what I didn't get done, what I had planned for the day versus what I completed. And then maybe it's just a matter of adjusting my expectations, right? Because what I wanna do is plan for the day. you know, come somewhere near what my plan was. Because if I plan for the day that I'm gonna get 20 things done, and then I only end up getting 10 of those things done. What that is, is that's reality giving me feedback that I was 50% off, or 100% off. Yeah, that's right, that' right. So I wanna take that feedback and say, oh, okay, well tomorrow I'm not gonna set that trap for myself. I'm going to plan on getting ten things done.

**Speaker 2** [00:20:35] Because the reality is reality.

**Speaker 1** [00:20:37] because the reality is real.

**Speaker 2** [00:20:38] And I can trust the pattern of what I can get done realistically and what I can't. And I like the way you said that better. Like, what's real versus, and I didn't mean to imply, just put a positive smear on it, but I understand why it sounded that way. But I liked the idea of, okay, well, what is realistic? The word realistic is based in reality. Like what is real? What can I get done?

**Speaker 1** [00:21:02] Is my initial mental model, which is I'm like, not getting enough done, I'm a loser, you know, whatever. Yeah. Is that a reasonable mental model? Like you might be a loser. It's possible. You might be. Like it's entirely possible, I don't think you are either. I'm just saying, I am saying if I was a loser and if I were practicing the art of being a loser I would want to know.

**Speaker 2** [00:21:28] Well, yeah.

**Speaker 1** [00:21:29] I wanna know that, I wanna be the first one to know. Because if I don't know. there's a near guarantee that I will continue.

**Speaker 2** [00:21:39] I won't be changing it because I don't know.

**Speaker 1** [00:21:41] Exactly.

**Speaker 2** [00:21:42] Right.

**Speaker 1** [00:21:42] Exactly. So and I don't mean like, you know, if you don't get a lot done, you're not you're a loser. I'm just saying, I'm saying if that's your mental model, because you're you you built the mental model. And a lot of times, we are the most unkind to ourselves. That is true. Right. We are the Most Unkind to Ourselves. And that's another whole mental model of like, if you if if someone talked to you, yeah, like you talk to you. And I mean, you like All of us, right?

**Speaker 2** [00:22:11] Like our self-talk.

**Speaker 1** [00:22:12] Yeah, if somebody you love and you're watching and somebody else came up and talked to them the way that they talked to themselves, you'd be like, why the hell are you talking to her like that? You're not allowed to talk to her like, but because it's you, we think it's okay.

**Speaker 2** [00:22:36] Yeah, that's right.

**Speaker 1** [00:22:37] Right? That's right. So what we want to do is test those mental models. That's the key. And love reality. Yeah. And let the chips fall where they may. Let the chips follow where they. If you're not getting enough done, OK, what do we have to do? We have to distinguish what is enough, what is done, who are we measuring against, or what are we measuring against? Is a task a task? Is a task a task, a task right? It's because sometimes you have really big tasks. Sometimes you have very small tasks. I mean, going, picking up shoe polish is a little different than, I don't even have shoe polish, but I don' know why I said that.

**Speaker 2** [00:23:17] Because it's a simple task.

**Speaker 1** [00:23:18] Yeah, you know, picking up some thing at the store is a little different than running a whole project. Yes. And those could both be check marks on the same list.

**Speaker 2** [00:23:26] No, that's a good, that is a fair point too.

**Speaker 1** [00:23:29] So we have to make distinctions. We need to look at the relationships. We need the look at part-whole systems. We need take different perspectives so that we can assess the veracity, the validity, the reliability of the mental model that we have.

**Speaker 2** [00:23:45] Meaning the degree to which our mental model matches how things actually are in the world. So the reality is I have, at that time, I believed I could do far more than I should have to believe I can do as a human being with limitations. So the realty is there's a certain number of hours in the day that you can work.

**Speaker 1** [00:24:08] and I don't believe in beliefs. So, you know, whenever I have a belief, I don, I just, one belief I have is not to have beliefs because beliefs, you now, what are beliefs? Beliefs are just, beliefs are just really stubborn mental models.

**Speaker 2** [00:24:26] Okay, let's slow down for a second. I love that. Beliefs are really stubborn mental models. Yeah. Okay.

**Speaker 1** [00:24:31] That's all it is. A belief is just a mental model that you have sanctified or frozen in time, and you've decided that you're not going to allow that mental model to change. And I think those are the worst kind of mental models. A mental model, that is not changeable, is a really terrible mental model. That means that you've decided like, I'm not going learn when it comes to this thing.

**Speaker 2** [00:24:56] So what do you do about that?

**Speaker 1** [00:24:57] don't have beliefs.

**Speaker 2** [00:24:59] Well, how do you not have bully?

**Speaker 1** [00:25:00] Be agnostic to belief.

**Speaker 2** [00:25:01] But how, how do you do that? I mean, you just.

**Speaker 1** [00:25:03] You have mental models and you have mental models for the time that you have them and you're willing to change them. Nothing is permanent. You never dip your toe into the same river twice.

**Speaker 2** [00:25:19] I love that. I think that's amazing.

**Speaker 1** [00:25:22] It might look like the same river, but it's different water. Your mental models are fluid. They're moving, they're changing based on new information, based on changing contexts. That's why you have to have an ability with mental models like DSRP that lets you be fluid with the changing context, the changing situation, the new information. You know, a belief is just sort of saying. I'm going to stubbornly persist in this mental model, regardless of any incoming feedback or input from reality. I'm just gonna stay with this one because.

**Speaker 2** [00:26:03] Well, do we stay with them because we believe they're sort of part of our identity or who we are or like, why would we stay with them?

**Speaker 1** [00:26:09] Yeah, it could be identity, could be, yeah, you could be mistaking that with your self-concept or your self identity, which happens all the time, I mean, identity politics and identity, you know, identity is a big topic of conversation today. And identity is really important, but like everything else, it changes. You're not to be the same. Identity when you're 20 as you are when you are 25 or 30 or 35 or 40, you're not even going to be the same identity when you in different groups. That's right. It shifts. It shifts, right? Like if you go home to your family or versus, let's say you're at college and you go home on Thanksgiving or something, you are different with your family than you are with your friends. You're different with your mates.

**Speaker 2** [00:27:02] Yeah, because here you're a child and here you are a young adult trying to be independent.

**Speaker 1** [00:27:07] Or if you're a dad, you know, you're different when you're around your kids than you are when you are at work, than you're coaching, then you are whatever. your identity is itself fluid in the moment.

**Speaker 2** [00:27:23] That's right, it's always changing based on the relationship you have with everything else around you. Yeah. It's interesting, when you were talking about the never putting your toe in the river twice, I have this fleeting thought, which is...

**Speaker 1** [00:27:35] That's not me, by the way. That's, I think that's Heracles or something. Yeah. Some, some Greek dude, Heraclitus. Heracletus. Well, that was really good.

**Speaker 2** [00:27:46] It seems to me there are sort of naturally occurring, without you realizing it, kind of fast, reality-based feedback. Like, you put your hand on a hot stove and it's hot, and you push your hand off. That's sort of, I don't want to say automatic, but it's sort, you're not purposely seeking that feedback, the world is giving you that feedback. Versus, hey, I realize that I'm stubborn in this belief and I want to change that. That's more like. Don't you think that requires more awareness of it and a purposeful effort on my part to start to challenge that belief? Like we talk a lot about not creating echo chambers.

**Speaker 1** [00:28:23] Yes.

**Speaker 2** [00:28:24] To me, those two things are kind of different. I don't know what you think about it.

**Speaker 1** [00:28:28] In terms of feedback?

**Speaker 2** [00:28:29] Yeah, like one is you're gonna get feedback from the world.

**Speaker 1** [00:28:34] You're going to bump up against the world, or against the heat, or I guess.

**Speaker 2** [00:28:38] I guess you can choose to see it or not, but this one seems more purposeful. I know I want to get my mental model about X closer to the reality of X because something's not working.

**Speaker 1** [00:28:53] more conscious and less reactive. Yeah, yeah, I think so. I mean, it's the same feedback process, but you do have a little bit more consciousness there. You have to be introduced to the mental model that you could have a belief that is very permanent. And then when you change that, then you can be on the lookout for beliefs. That's interesting. Yeah, like, so for example, this might be a new mental model to you. This idea that beliefs might not be a terribly, a thing that you want a lot of. And so you, you might spend the day for the very first time thinking about, Oh, I didn't even notice that's a belief that I have, or, Oh, there's another one. And then, Oh wow. I have a lot of these things. So I have lot of things I call beliefs.

**Speaker 2** [00:29:53] So I'm thinking about an outcome of a mental model. Like, you get a result out in the real world that's not what you really want. Well, that's feedback that something about your mental model is wrong. But the point is, you have to be conscious enough to see that feedback that the world is giving you to then question your mental model, right?

**Speaker 1** [00:30:19] Yes. That's why metacognition is so important because metac cognition is going to make you a little bit more aware of things and have like a third eye that's looking at yourself and your own processing a little bit so that you can go, I sort of see this as being, Jean Goodall was this amazing scientist, poster child of science. And all she did really was just, she was spatially curious and she watched primates, was the founder of primatology and the whole discipline. But she just observed. She was this amazing observer. And some of the great scientists were just these amazing observers, like Darwin. And she observed. She observed. And just think of how much we know now about primates, of which we are one, and how much she taught us about ourselves from just taking the time to observe. Imagine if you just took a couple thousand brain cells, which is a tiny amount, and just made them observer of yourself.

**Speaker 2** [00:31:41] third eye, I think.

**Speaker 1** [00:31:42] Yeah of yourself and just just sort of say hey you guys you're gonna your job from now on Is just pay attention to this thing Yeah, it doesn't cost you hardly anything, right? You've got 90 billion of these things. So it doesn' cost you anything to take a few hundred thousand of them and throw them on observation. Yeah. And you're gonna learn a lot about yourself and you're going to learn a lot about how you take feedback, right. Cause if you have a belief that is stubborn. and you've got your identity wrapped up in it, and maybe even your ego and your hubris and all kinds of things wrapped up in that belief being right. then when you get feedback from reality, from the world, you might notice that it's feedback, but you're gonna respond very differently to it. You're gonna push it away, you're going to have 17 reasons why it's wrong, you're go have all kinds of deflecting.

**Speaker 2** [00:32:49] because it's challenging.

**Speaker 1** [00:32:49] Yeah, you're gonna build a castle around this belief and it's gonna have a moat and it''s gonna have a drawbridge and like it's going to be hard at alligators.

**Speaker 3** [00:32:57] Cheers!

**Speaker 1** [00:32:58] You know, you're like, this is my belief. I've got to protect this thing. Yeah. You know? So any feedback that's incoming, we're going to fight. We're going fight back. Judo it, OK? Curly chop it away. I'm like, you know, tear down the walls.

**Speaker 2** [00:33:16] Yeah, and I think, I think that's right. Like that whole, I mean, I don't love the concept of like this third eye on my shoulder looking around, but you know, they say, head on a swivel. Like, I dunno, is that a military thing? Yes.

**Speaker 1** [00:33:29] Special Forces.

**Speaker 2** [00:33:30] I mean, I guess to me that's kind of the point is, I don't wanna say force yourself, but purposely try to see more. Purposely try to and take in the feedback that the world's giving you or that people are giving you and allow it in so that you can. Like you said, tear down that wall. Maybe consider that that mental model could be adjusted to better fit the reality.

**Speaker 1** [00:33:56] Why don't you like the eyeball?

**Speaker 2** [00:33:59] It's a little creepy for me, something.

**Speaker 1** [00:34:00] It doesn't have to be over here, it could be like here.

**Speaker 2** [00:34:03] That's even creepier.

**Speaker 1** [00:34:04] Well you can have it wherever you want, it can be inside your head.

**Speaker 2** [00:34:08] Okay.

**Speaker 1** [00:34:09] Let's think of like there's a couple hundred thousand neurons that are looking at your other neurons.

**Speaker 2** [00:34:15] I can handle that.

**Speaker 1** [00:34:16] It's like an audience of neurons and like you go up and you go grab a group of them in section D And you go hey section D you guys watch everybody else

**Speaker 2** [00:34:26] and tell us what's happened.

**Speaker 1** [00:34:27] and tell us what's going on.

**Speaker 2** [00:34:29] There was something about the little, it's like alien-ish, you know, like the little thing on my shoulder is like, and then when it starts to bite my face or, you know.

**Speaker 1** [00:34:38] That's, yeah.

**Speaker 2** [00:34:39] You made me think of alien life, what?

**Speaker 1** [00:34:41] Yeah, it's just part of the audience looking at the audience. the matter.

**Speaker 2** [00:34:48] the meta.

**Speaker 1** [00:34:48] The meta audience. The meta-audience. Interesting. You could have them in a little box in the stadium.

**Speaker 2** [00:34:56] that I kind of like.

**Speaker 1** [00:34:57] And they're like, their job is to kind of be like, oh, how are the other crowd, how's the rest of the crowd interacting with each other? And how's rest of crowd perceiving the game? And then they report back to you. Yeah, they're just doing marketing studies.

**Speaker 2** [00:35:13] on your life.

**Speaker 1** [00:35:13] on your life and your processing.

**Speaker 2** [00:35:17] That's actually kind of funny. I can picture that now. As funny as it is, I mean, the point stands, right? Like, you should be looking around, searching out for that sort of feedback, and not doing the karate chop away. Yeah. I like the idea. I do think that it's a really fascinating idea that stubborn beliefs are just like these mental models that we have to be willing to sort of examine and sort of crack open. Like, I hadn't thought about that.

**Speaker 1** [00:35:46] Well, all beliefs are stubborn. They're stubborn mental models. So a belief is a stubborn mental model. All it is is a mental model that is stubborn.

**Speaker 2** [00:35:59] Yeah, I get that, but can't you have beliefs that are actually good, like positive? Like your belief to be ethical, that's a belief. Is that stubborn?

**Speaker 1** [00:36:10] I don't think of it as a belief. I think of my form of ethics comes from watching nature, and to me it is what nature has shown me is the case.

**Speaker 2** [00:36:25] I don't know what you mean.

**Speaker 1** [00:36:26] Uh, well, nature, nature kind of works in ecologies, right? So, so, um, there's a So in the northern Natal, the tribes people there, they have a greeting, right? And they say, hey, how you doing? What's up? But they say it a little differently. Then they say salubona, right, and the reply is secona. And what that means is... I see you.

**Speaker 2** [00:37:04] The greeting is I.

**Speaker 1** [00:37:05] I see you and the reply is therefore I exist. Oh, I like that. So it's a very nice greeting, right? Um, and, and it's agreeing that I think is, is baked into, into nature, which is not, not in the sense that everything in nature isn't, you know, pretty metal and pretty, uh, pretty, you can, nature can be quite harsh, but Nature understands that everything relies on everything else, that everything is interconnected and that your identity is intertwined with the other, and that we exist in, the identity exists in the other and vice versa. Another way of saying that is there is no us without them and there's no them without us, and them is us over here looking at you and you're them, right? So, so Um, so that's an example of an ethic that is the identity other distinction ethic Yeah, the the part whole system ethic is is the idea that we are all part of something No man is an island as they say um and uh That we are part of some wider context Right, we can't divorce ourselves from our context. So that's a ethic that I think you know, plays out in science all the time when we divorce our data from, when we surgically remove these studies or these variables from their context. I think that's unethical because the findings are wrong.

**Speaker 2** [00:38:44] Right, because those things exist in that reality, that context, you can't divorce it.

**Speaker 1** [00:38:50] Um, and, and we're all together in an ecology and interconnected, right? So that's the relationship ethic. The fact that relationship is made up of action, reaction, Newton's law, um, you know, and DSRP that are as relationship and action reaction is that our actions have consequences. So that an ethic that you can live by. And that's, that's what I see in nature and perspective is point in view That's all for now, thanks for watching, and I'll see you in the next one. You know, you can see things a certain way, but some, some other organism in the ecology is seeing that thing differently. And who's right? But, you know, there's no right, wrong, whatever. There's, there is difference.

**Speaker 2** [00:39:37] And that's real.

**Speaker 1** [00:39:38] And that's real. So those are real ethics that have real manifestations. But I don't believe in those things. If you showed me nature acting in a completely different way than those things, and again, nature can be, can appear incredibly violent. you know, unfriendly and unkind.

**Speaker 2** [00:40:11] Yes. Do you remember mutual obama?

**Speaker 1** [00:40:14] Yeah, there's a there's I think it's an Instagram. There's a thing nature is metal. Oh, really, which is like, you know, really hardcore stuff.

**Speaker 2** [00:40:21] Your example is much more modern than mine.

**Speaker 1** [00:40:23] Yeah, yeah, it's basically mutual.

**Speaker 2** [00:40:26] You know how I was like, from the 70s.

**Speaker 1** [00:40:27] Yeah, that's a goal.

**Speaker 2** [00:40:28] It was shocking to watch a lion eat a baby animal and the guy being like this is how nature works. Some things are prey, some things are predator and it's just the way it is, right? Don't judge it.

**Speaker 1** [00:40:42] Well, again, because we're focusing in on a particular identity, right, which is the lion and the antelope, and we're not seeing that these two species are actually in a codependent dance that one cannot exist without the other. So to look at that at this level and divorce it or decontextualize it from the fact That's it. You know, wolves and elk help each other in Yellowstone. And lions and antelope, you know, they help each other, they're coexisting, they are co-evolving. You know that interconnection is part of the fabric of nature. Right. And it's part of fabric of my mental models. Yeah. And if tomorrow that wasn't part of the fabric, I would change that mental model.

**Speaker 2** [00:41:38] which is why it's an ethic and not a belief.

**Speaker 1** [00:41:40] It's a mental model about how things manifest in ethical ways.

**Speaker 2** [00:41:47] The whole idea of sort of this, I think you called it sort of the manifestation of ethics inside of nature. I mean I think that that's something that is not obvious until you hear it. And so I was thinking about the us them thing, like the identity other, right? How the lion, not the lion. The wolf and the, what was the other one? Elk. The wolf and the elk kind of need each other, and there's this sort of... symbiotic or codependent.

**Speaker 3** [00:42:20] Yes.

**Speaker 2** [00:42:20] They rely on each other. And then you were talking about us needs them, and them needs us, and they're interchangeable. I mean, I don't know. I find that kind of fascinating, because I had never thought about anything at that level until a while ago.

**Speaker 1** [00:42:37] One of my favorite biologists, her name is Lynn Margulis, she was married to Carl Sagan. And Lynn Margulis unfortunately passed, but she was really instrumental in... So let me back up. So there's a thing in biology called a symbiont. Symbiont is an organism that is symbiotic, right? So you take something like lichen, lichen like you see on the rocks. lichen is an algae and a fungi together that literally are kind of inseparable. They live together and they help each other in different ways. The algae produces, through photosynthesis, essentially food for the fungus, and the fungus produces kind of a carapace of protection, like a house, for the algae, right? It's a win-win situation, right. And as a result of that remarkable symbiotic relationship. Lichen are found all over the planet. They're found on the highest mountains, you know, like really inhospitable environments. One place they're not found is in polluted places like cities.

**Speaker 2** [00:43:57] That's interesting.

**Speaker 1** [00:43:57] So that's very interesting that they can live in such harsh environments, but they can't live in in polluted cities, but in any case

**Speaker 2** [00:44:06] More on that later.

**Speaker 1** [00:44:07] More on that later. So we used to think that like there was this whole biological, you know, world and then there were the symbiotes. There was symbiosis and it was a small group of little critters and things like that that were symbiotic. What Lynn Margulis taught us is that symbiosis is not the exception, that it's the norm.

**Speaker 2** [00:44:36] I love that.

**Speaker 1** [00:44:37] Yeah, that symbiosis is really something that pervades. and that we are all in these symbiotic relationships, these interconnected, win-win kinds of relationships. That is life on the planet. There's a great saying that life, actually Lynn Margulis said this, she said life did not overcome the planet through war, but through networking. And that's a form of symbiosis of interconnectedness and ecology. So, I mean, in other words, life. grabbed onto this planet and made the planet its home. Yes. And it wasn't easy in the beginning. Right. Right? It wasn't easier to homestead this planet.

**Speaker 2** [00:45:27] And it did it through relationships, connections.

**Speaker 1** [00:45:29] And it did it through networking, through essentially, you know, interconnection and symbiosis, right? And so that is an ethic. That's a form of ethic that we need each other, that, you know, when we look at these, what appear to be, you know, the lion eats the thing, and that doesn't sit well with us when we look at it. but if we take a different view because. Evolution is taking a species level view. They're not taking an individual level view, it's not taking and individual level of view, it's looking at the species level.

**Speaker 2** [00:46:09] like the whole system.

**Speaker 1** [00:46:10] The whole system

**Speaker 2** [00:46:11] The connections and the parts and yeah.

**Speaker 1** [00:46:14] So, I think when we take a different view, we see different things, you know, when we change the way we look at things, the things we look at change, and so perspective becomes very important.

**Speaker 2** [00:46:26] So what you're getting at, which I think is interesting, is we talked a lot about mind and nature and the relationship between the two, right? I can't remember who it was. Bateson. Yeah, who said we are of nature, that nature's in us and we're in nature, and that there's this sort of. co-location.

**Speaker 1** [00:46:51] Oh, are you talking about Carl Sagan who said we are stardust? Oh yeah, which is nice. Lin-Margolis is the husband.

**Speaker 2** [00:46:59] Yeah, and I guess I think a lot of times people, humans, create kind of false divides in things, right? That we divorce things that are actually not divorced. Yes. And I don't know why we do that. Maybe it's ease or.

**Speaker 1** [00:47:21] Well, because our basic structuring, which this is what DSRP kind of tells us, we want to distinguish things. That's what we do. We distinguish things, but we also lump or group things. We systematize them. And just like in calculus, you have sort of integration and differentiation. So differentiation and integration. And that kind of idea of separating and also clumping, and that is universal. That things are constantly separating, right? But they're also constantly lumping together, right, to survive. And they're separating to identify, to distinguish.

**Speaker 3** [00:48:08] and then roll it.

**Speaker 1** [00:48:09] and then they're clumping together or relating and then, and so that is a fundamental thing that our mind does. Now the question is, our mind can sort of rampantly do this. Yeah. So what we have to do is figure out when we're doing it, when we are distinguishing things and when we clumping grouping things, which sounds like a very simple thing, right? We distinguish something from something else, this from that. and we lump things together, we group things together. And there's an old saying in science actually that there's two kinds of scientists, splitters and lumpers, right? So the splitters are the ones who split stuff up and the lumpers are the lump stuff together. And what we need in this new world that we live in, and really what we've always needed is what I call splumpers. Right. You know, people that are kind of amphibious.

**Speaker 2** [00:49:05] They can do both.

**Speaker 1** [00:49:05] fluid ability to do both.

**Speaker 2** [00:49:07] Right. So they can go, they can integrate stuff together and then they can deconstruct parts and they can go back and forth.

**Speaker 1** [00:49:14] That's right. But here's the crux. Because your mind is so capable of doing this, the question is, when you're doing it, is nature doing it? And by nature, again, remember, I use the word nature to, I think this probably confuses people, but I use the word Nature for everything. You know, it just means like, this is nature, human nature, and all kinds of, everything's major.

**Speaker 2** [00:49:42] I mean, like reality.

**Speaker 1** [00:49:43] Reality. Nature is reality, right? So the question is, when we're doing it, is nature also doing it? When we're making distinctions, is the office that we work at also having those distinctions? Or are they figments of our hallucinations? We're getting experience now with AI and its hallucinations. Well, the brain hallucinates all the time, right. we make distinctions where there aren't any. we fail to see distinctions where there are, we make groupings where there aren't any, and we fail the see groupings when there are. So what we wanna do is make sure that the distinctions we're making and the groupings we're are groupings nature's making, that reality's making. And if we get in alignment on that, then the things we do, the actions we take, the predictions we make, will work out the way we plan them to.

**Speaker 2** [00:50:41] Yeah, so let's pull on that balloon string a minute, because to me, I mean, I kind of get it abstractly, but let's just give an example of a groupings example. So you're saying if we're grouping something together in our mind, then there should be a corollary grouping in reality or in nature.

**Speaker 1** [00:51:03] Let's say that you're working on some really important thing, like to fight against terrorism. And you've decided that this group of guys, this cell, is a cell. And you think that this other one, let's use these, you know, you think these guys are separate from these guys.

**Speaker 2** [00:51:25] separate potential terrorist groups.

**Speaker 1** [00:51:26] Yep, this is a terrorist cell and this is the terrorist cell, but you've kind of said they're separate.

**Speaker 2** [00:51:34] So you've made the grouping.

**Speaker 1** [00:51:36] You've made the groupings. What would be very important to know is if that's true. I see. Because if they're not separate, then they're communicating. Is there any channel? In other words, are they separate and there's a relationship? Is there a relationship, or is there no relationship at all? In which case, they're are not able to coordinate. Or are they actually the same group in different places?

**Speaker 2** [00:52:03] Right, and the reason that matters is because if it actually exists like this and you act as if it exists this way, then what you do will work.

**Speaker 1** [00:52:12] will work.

**Speaker 2** [00:52:13] But if it's actually existing like this in reality, but you're acting...

**Speaker 1** [00:52:16] And you're acting like it's this, what you do might not work, or if it exists like this, and you think this doesn't exist, then...

**Speaker 2** [00:52:27] because the way you approach it is going to be totally different.

**Speaker 1** [00:52:29] Yeah.

**Speaker 2** [00:52:30] Which is why you're saying, which is why what you just said is, if it exists in our minds in one way and in reality another way, then there's a problem.

**Speaker 1** [00:52:40] So what we want to do is understand what our mind says is real, and then we want to test that in reality. We want to say, how could we know whether these guys are talking? How could we know whether they are, you know, somehow actually one large group in two places, or there's two separate groups? What are the ways that I can test to find out if my hypothesis is accurate?

**Speaker 2** [00:53:11] So you would look for evidence of this relationship.

**Speaker 1** [00:53:14] You look for evidence of that relationship.

**Speaker 2** [00:53:16] And then you would decide, is it there or is it not there?

**Speaker 1** [00:53:19] Or you would look for evidence of similarities of these identities with similarities of these identities or something like that. You would look at all kinds of things like that to test whether your model was right. Over time, you would get clear on, oh, actually this one is over here and they are separate and they're not communicating.

**Speaker 2** [00:53:41] And now you can attack that problem as it is in the world. You can attack it as, oh, I have two different cells. I need to deal with them. I know they don't communicate.

**Speaker 1** [00:53:51] They're not communicating, which means I could do something here that wouldn't get over to here, you know, and vice versa. I could play them off of each other. I can do all kinds of things.

**Speaker 2** [00:54:03] So when you say mind and nature, what you really mean is mental model and reality.

**Speaker 1** [00:54:09] Yeah, it might have nature, mental model, and reality. And so DSRP, what DSRP does is it is a bridge because DSRP is an organizing, they're patterns of organization that are equally happening in matter, physical matter, as they are in the mind. Right. And so what we're just trying to do is increase the probability that the way we're grouping things over here is the way they're grouped. The way we're distinguishing over here is the way they're distinguished. The perspectives that we're taking over here are the perspectives that are being taken over here. The relationships that are happening over here, are the relationships that actually are at play over here.

**Speaker 2** [00:54:53] I remember a long time ago when we were starting out, you and I, I used to tell myself the way I could understand that, because at first that was hard for me to understand when I was learning all of this, and that was a long ago, was there's like the verb to DSRP. The way you think is the verb. I'm distinguishing, I'm systematizing, I am relating, and I'm taking perspectives. That's the verb part. And then there's the noun part, like this thing is a distinction. and it is a system. It is a relationship, and it can be a perspective point or a view. That's right. So to me, in the early days, that's how I sort of came to understand that concept generally was.

**Speaker 1** [00:55:31] Mound burp.

**Speaker 2** [00:55:32] Yeah, like the thinking and the existing, or existence, I should say.

**Speaker 1** [00:55:37] Yeah, there's the verb of making distinctions, and then there's the noun of a distinction, and the noun is verbing.

**Speaker 2** [00:55:49] Oh, now you do that. The noun is moving.

**Speaker 1** [00:55:54] Well, that's what we were talking about earlier, which is that you never put your toe in the same river twice, meaning the noun isn't going to stay. It's not this static thing. It's changing. It's growth mindset, right? That's a callback, but, you know, it's changing over time. Everything's changing overtime.

**Speaker 2** [00:56:14] Meaning things in existence or nature or reality, they're verbing themselves. They're distinguishing themselves from other stuff. They're constantly moving. So there's the, I get what you mean by now, it's verbing.

**Speaker 1** [00:56:28] Like your elbow is exchanging electrons with the table and, you know, like your liver is not the same liver every month.

**Speaker 2** [00:56:37] No, I get that. I get it now. The noun is verbing. That's interesting. But you understand in the very beginning that that can make sense. Yes. There's the verb to DSRP, to distinguish, to systematize, to relate, to take perspectives. And then there's the noun, which is stuff is a distinction, a system, a relationship, and actually the elements, an identity and an other.

**Speaker 3** [00:56:58] Yeah.

**Speaker 2** [00:56:59] a point and a view, a part and a whole. And to me, that was sort of the way I started to understand the whole mind nature thing when we started with all of this. I think that's been a lot for today.

**Speaker 1** [00:57:11] Well, are we done?

**Speaker 2** [00:57:12] My head actually hurts a little bit.

**Speaker 1** [00:57:16] People say that in our trainings.

**Speaker 2** [00:57:17] It doesn't happen to me often but the noun verbing thing and then like no that was good. That was that was a lot but

**Speaker 1** [00:57:24] You know in the gym when you work out and your muscle kind of hurts?

**Speaker 2** [00:57:28] Yeah, it does. It does happen. It does. But that's how you build them up.

**Speaker 1** [00:57:31] That's how you build the muscle, that's how you get swole in the head.

**Speaker 2** [00:57:36] I don't think people want to be swollen.

**Speaker 1** [00:57:37] You do want to be swole in the head.

**Speaker 2** [00:57:39] Maybe.

**Speaker 1** [00:57:40] Not like head swelling, you don't want to have intracranial pressure, but you do want to build that muscle.

**Speaker 2** [00:57:51] You want to flex those muscles.

**Speaker 1** [00:57:52] Lose it or lose it.

**Speaker 2** [00:57:53] All right, and that that's a wrap.