**Episode #52**

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

**Speaker 2** [00:00:06] How are ya?

**Speaker 1** [00:00:07] I'm awesome.

**Speaker 2** [00:00:08] Okay, we have a really interesting thing today. What is it? We posted a quote about critical thinking that has gotten quite a bunch of attention.

**Speaker 1** [00:00:20] He had a nerve!

**Speaker 2** [00:00:20] Yeah.

**Speaker 1** [00:00:21] It was like a landmine.

**Speaker 2** [00:00:23] Well, I think we should investigate it and think about and process, using our big system syncing brains, what people are saying.

**Speaker 1** [00:00:34] I thought I thought what I was saying was like just drop dead obvious. I didn't think it was that all controversial Well, but it turns out Yeah, but you know, who knows? Anything can be controversial and emotional

**Speaker 2** [00:00:48] So let's start with the quote, just so we have this. We're talking about the same thing. We don't have distinction errors, right? So the quote was, critical thinking is just a form of bias. Why start every situation with a negative filter?

**Speaker 1** [00:01:03] So we just posted it thinking, yeah, Derek said this. people went apeshit.

**Speaker 2** [00:01:10] people when they've shit. But what's interesting, I wanna actually slow down the conversation. I wanna talk through.

**Speaker 1** [00:01:18] Which is a really important point. Yes, of course. Slow down the conversation. The problem, a lot of the time, especially in this supercharged political, emotional environment, is we go too fast. That is true. If we could just slow down the conversations and pause a little bit. Slowly. maybe we can start to understand each other a little bit more and understand what people are saying and understand whether or not what's being said is all the things I was accused of.

**Speaker 2** [00:01:54] You did get a wide range of accusations and reactions.

**Speaker 1** [00:01:57] A lot of ad hominins, which means attacks on the person, a lot of red herrings, which means like bringing in things that are unrelated, a lot of like indirect ad homonyms, like you'd have to be crazy to think this.

**Speaker 3** [00:02:12] Hang on.

**Speaker 1** [00:02:13] Are you joking? Yeah. Are you stupid? I mean, there's a lot.

**Speaker 2** [00:02:22] I think a lot of, that's why I say, when I say slow down, I sort of, I always pull my hands apart. Like, let's really deconstruct what people are saying. Let's first deconstruct, what you were saying, how people reacted to it.

**Speaker 1** [00:02:34] A lot of straw men.

**Speaker 2** [00:02:35] A lot of strong men. Yes.

**Speaker 1** [00:02:37] Yeah, straw manning is a really good technique if you want to be unfair to someone.

**Speaker 2** [00:02:44] Do we need to process emotions? No, I just...

**Speaker 1** [00:02:46] No, I just think, I think the bigger, the bigger issue, I actually think the bigger issue is not what I said, because what I said is just factual. I mean, it's just literally, it is like saying, you know, the sky is blue, you know, or the sky reflects blue light. What I said is statistically factual. Whether or not anybody understands that or not, we can get to that. But I think bigger problem is the way we argue.

**Speaker 2** [00:03:14] I totally agree with that.

**Speaker 1** [00:03:16] Like, because we're going to run into people say things and we want to debate. We want to engage. That's great engagement. But the way we argue is so absurd. It's so polarized. We polarize everything, even things that aren't really, polarization isn't necessary. And we don't listen to each other. We use straw men. We use ad hominem attacks. We use red herrings. We use all these. sort of rhetorical tactics rather than engaging the debate.

**Speaker 2** [00:03:52] The substance.

**Speaker 1** [00:03:52] The substance of the debate.

**Speaker 2** [00:03:55] That's a good way to think about it.

**Speaker 1** [00:03:57] So I hope, you know, we can get into what I said and what I meant and blah, blah, blah, and why it's just drop dead basic in terms of being the case. But I think the bigger meta and wider issue is like, let's not engage the way we engage. Let's be fair in the way engage with each other. And that fairness comes from here. Right. It's it comes from you want to be fair because it's part of your own personal internal ethic to be Fair, not I'm going to be Fair because that person is being Fair. Like, no, I'm gonna be Fair because Fairness is an ethic that I abide by. Yes. And whether or not the other person is Fair, I am going to remain Fair.

**Speaker 2** [00:04:49] Well, I think the other part that's missing is the ethic of just being curious and not believing you're right all of the time, and not needing to feel like you're right all the time. You know, because if, so for example, if somebody reads a quote, they should be curious, well, what does that actually mean? And what is the perspective that the person that's saying it is coming from, rather than just, I need to fight, fight, fight, you know, for the sake of fighting.

**Speaker 1** [00:05:13] And that a lot of times, I mean, one thing that I would say is, when I start something, I usually think about, is it even possible to determine whether there's a statistically or scientifically valid answer to this debate? And if the answer is no, then for all intents and purposes, everything that's going to be said is opinion. Right. At which point I don't, those are the ones I sort of back out of because I'm like, I don t really care about my own opinion. I don't care about. I don't really care about opinions. I think everybody's got opinions. You know, opinions are so available that they have effectively very little value.

**Speaker 2** [00:05:55] Right, because they're not really based on anything.

**Speaker 1** [00:05:57] It's not based on anything. It's just sort of like your opinion. Great. It is your opinion, it's my opinion. I don't care about my own opinion. I don t care about your opinion I don' t care about any opinions. Right. So the question is, in this particular debate, is there any way to establish whether or not what is being said has validity or reliability? Can we be scientists about the thing? And if we can't be scientists That's about the thing. then it's just like party tricks. Like we're just having fun. We're just playing beer pong or whatever. Like, you know what I mean? Like it's, it's a game. Yeah. And if it's game, then let's just have fun with it. Right. But if there's some way to determine whether there's any validity somewhere. Yes. Like in the case of is critical thinking a bias? Yeah, there, there are ways to determine. You can look at, and we'll get into what some of the arguments were, Bye. You know, there are ways to determine whether it is or not scientifically valid, historically valid ways.

**Speaker 2** [00:06:59] it would be good to say out loud to everyone who's listening. Part of the problem is, there are a couple parts to that. One is, you and I have traced it all the way back to Aristotle and the binary logic that most of us are trailing.

**Speaker 1** [00:07:12] Bivalent logic, binary, bivalent, same thing. Black and white.

**Speaker 2** [00:07:16] But I would also say, dare I say, in the last five to 10 years, we've been moving more and more to highly polarized binary political and social debates as a norm, which I think are moving us away from taking the time to really stop and understand and opposing or an alternative perspective.

**Speaker 1** [00:07:42] Yeah, I don't even think, I think for a lot of people, when they approach some arena where some things are being said, they're not even approaching with the mindset of understanding. They're approaching with a mindset of, I'm going to figure out who agrees with me and then side with them. Yes. And I'm gonna figure out if they agree with me, and then go against them, if they don't. Right. It's it's more It's like, it's like we've said the quiet part out loud. I had a student say to me the other day, the quiet apart out loud, and it was effectively like, when someone disagrees with me, I just cancel them. When someone disagree with me I just unlike them, unfollow them, unfriend them, unwhatever. And, you know, when we get back to complex adaptive systems and stuff, like the action itself of unfriending one person. because they disagree with you, that in and of itself is not a huge deal. Right. But if that's your operative mechanism, the sum total of doing that over and over again is that you create an echo chamber. Yes. And then it actually increases the amount of emotion and stress you feel when your ideas are challenged because you're living in a bubble. Yes. Right, you're in a living in bubble where your ideas never challenged. Your identity, and especially if we connect our identity to our ideas, oh boy. Then it becomes really difficult, right? When our identity and our ideas are enmeshed. Yes. Conflated. You combine these things of like, identity and ideas are conflated. This is why we talk about the importance of having the concept of a mental model. A mental model is something that you have. It's not something that your are. Yes, people refuse that. You are not the same as your mental model, which means like I can have a totally stupid idea and you can say your idea is stupid And that absolutely means nothing to me. It doesn't say anything about that. I'm stupid I have tons of stupid ideas

**Speaker 2** [00:09:50] Yeah, but the problem is with this generation that our students are in, they're not separated.

**Speaker 1** [00:09:58] I would say that, and I agree with that, but I mean, look at what's happening in the polarization of our country. Yeah. Like, that's not just our students' generation. That's like, grown adults, you know, people our age, everybody seems to be taking things very personally and seeing that the ideas that they have or don't have are part of identity.

**Speaker 2** [00:10:22] Yes, that's true. But imagine in middle school and high school, that is the context in which you are forming your own... That's when we normally form a lot of our identity as adolescents. Imagine that that's the outside context of your adolescence. That's going to change how you...

**Speaker 1** [00:10:40] I agree.

**Speaker 2** [00:10:41] few things, how you process it.

**Speaker 1** [00:10:42] Yes, some people have grown up in nothing but echo chambers and polarization. Yes, you're right about that.

**Speaker 2** [00:10:48] That's completely normative in this generation.

**Speaker 1** [00:10:51] Yeah, like in many ways, they don't even, you know, we're very good mimics us. We're like minor birds, right? Yeah. And humans were very good. And like, like what you're saying, I think is, imagine if you grew up and you never saw anything but echo chambers and polarization, you don't have a good role model to say, Oh, you not called the B. and still like each other. We should. We shouldn't have a varanical disease and still like each other. We can, we can, we can have these debates and not have our identity be affected so much, not have our emotional system be, you know, excited, so much triggered, triggered so much and come with understanding and stop creating these echo chambers of agreement, you know, like

**Speaker 2** [00:11:44] We need to actively work on that as a society, as a...

**Speaker 1** [00:11:47] I mean, I'm what I'm not even talking about, like, really controversial ideas. I mean I'm talking about things that like nobody really cares about, right? Like, you have been critical thinking.

**Speaker 2** [00:11:59] Well, yeah, let's get back to that.

**Speaker 1** [00:12:00] You know, like, I'm talking about, like some backwater, like thing.

**Speaker 2** [00:12:06] No, I think people care.

**Speaker 1** [00:12:07] Maybe they do, like 1950s called, and they want their thinking method back. Yes, yes. Critical thinking has been around for a long time. We know a lot. Critical thinking's been around longer than the fields of neuroscience and cognitive science. Yes. We know lot more today about thinking than we did 20 years ago, 40 years ago 50 years ago 100 years ago. You know, we know a long more today. We should update our model. Critical thinking is biased.

**Speaker 2** [00:12:38] Okay, so let's slow down.

**Speaker 1** [00:12:40] historically, linguistically, scientifically, you name it. Doesn't matter what perspective you look at it.

**Speaker 2** [00:12:46] Well, and it's not just a semantic debate.

**Speaker 1** [00:12:48] It's not semantic.

**Speaker 2** [00:12:49] It's not just a semantic doing.

**Speaker 1** [00:12:50] No, it's definitely not. There are parts of it that are semantic, but it's about the historical analysis of those semantics that matter. Say more. Yeah, so semantic just means like words, right? So if it's a semantic debate, then we're just arguing about the meaning of a word. Yes. Right? And we shouldn't engage too far in semantic debates, although there are some semantic debates that are important because the way we use words is important. But for example, If I say, well, a word has been used in a pejorative way for 100 years, and then I go, but there's nothing pejoritive about that word. Well, you might be right that semantically, there's in a dictionary definition that there's nothing pejortive or negative about that word, but its use pattern historically is relevant. And if you look at the statistics of the way it's been used, Historically, we can determine how it's being used. For example, if the word critical has 10 different meanings to it in the dictionary. Yes. One of which means important, that's a critical step in the process. That means it's an important step in the process, well, we can look at the semantic usage patterns across history and determine whether that's the usage that has been used. If you do, it isn't, that's not the usage. So you're making kind of a manipulative tactic to say, well, there's this one definition of critical, which is it means just important. So all it's saying is important thinking, which why do we need that modifier? First of all, nobody's historically using it that way, but by history, I mean from the beginning of when we have data. to now. So I'm not, I'm not saying like super long ago past history. I'm saying like, how has this term been used for the entire life of the term?

**Speaker 2** [00:14:56] Right. Well, and to be clear, the word critical, to mean urgent or important, has been used, but in other contexts, like a, you're in critical condition, medically. Sure. Right, so we don't want to confuse that.

**Speaker 1** [00:15:08] Sure, sure. But we're talking about critical thinking, and when critical thinking is used, we're taking about judgment, evaluation, evaluative, skepticism, approaching with judgment, evaluation, and skepticism at the very least. From the start. From the Start. Yes. And that's the key, start. From The Start. I'm not saying I'm against skepticism. If you have a person or people who have a pattern of behavior that leads you to conclude that the next behavior is probabilistically going to be X, then approaching with skepticism is very important. Yes. But that's not starting with skeptism. That's approaching a situation that already has an established pattern. Yes. So critical thinking is approaching any situation Skepticism, judgment, evaluation, something of that magnitude, something of order. At the beginning of the process, I'm saying that's a bias. You would be better to neutrally observe and love reality, as we call it, than walk in with a critical mindset. When you look at the full cross-section of all the people talking, I mean, some of them were world-renowned scholars. and some of them were just wingbat crazy people. And like, you know, it's a pretty interesting group of people. Are you sure they're not the same? No.

**Speaker 3** [00:16:41] I'm just kidding.

**Speaker 1** [00:16:42] It's an interesting mix. I kind of liked it in a weird sort of way. It's a great mix. Like you had some pretty serious people in there and then you had.

**Speaker 2** [00:16:52] I would say people who are looking for a fight online.

**Speaker 1** [00:16:55] Or looking to be right, and they're young, you know, just kind of winged out.

**Speaker 2** [00:16:59] Yeah, but okay, but what I'm trying to get at is there was this idea that the problem is it's from the start, that there are valid modes of inquiry that eventually land in judgment that they were saying that's critical thinking, where you start inquiry, you're suspending the judgment, and then because you've landed in a judgment, that's critical thinking.

**Speaker 1** [00:17:20] Yeah, my issue is not with critical thinking, by the way. I don't, first of all, I want to say this very clearly, and I'm sure all of this will be taken out of context, but anybody who's advocating for thinking is a friend in my book, right? Like, because there's not enough thinking in the world, and anybody that's advocating for thinking is like, yeah, you're spot on. That's the thing that we need more of. Yes. So within that circle of agreement, I'm simply saying, If we have the choice to train people in thinking, we should push up against our most popular thinking framework. And that's important, right? Because when you're the most popular thing, then there's a right to criticize. There's a write to push up against it, right, because it's having an effect.

**Speaker 2** [00:18:12] It's having an effect and it's widely misunderstood.

**Speaker 1** [00:18:14] widely misunderstood that this is a thing that is creating, that not only is it popular, which means that it's being utilized a lot, but it's damaging. Yes, it's damaging because embedded in this thing called critical thinking is an unrecognized systemic, meaning it's in the system whether or not you are personally culpable for it. If you use this way of thinking, you will be doing it. There's a bias towards negativity, skepticism, whatever words you want to use. Skepticism, I agree with one of the points, which is not all skepticism is necessarily negative. Thanks for watching! in the sense that if I have someone come to a house and they're gonna do like some kind of analysis or some kind thinking about the house. Yes. If I have a historian and a house inspector, they're going to have very different approaches to thinking about house. That is right. Is the house inspector negative? No, it's not negative in the. emotional sense of like you're being negative you know it's more negative like he's not looking for positive things on purpose on purpose like he is not he's he's looking for all of the things that are right about the house yeah he's mostly looking for the two or three things that are wrong about the House and in that sense that is negative yes it's not negative like you know This house sucks. It's negative like this needs to be fixed this isn't quite right it's not up to snuff it's not up the standard etc. so in that sense it is negative.

**Speaker 2** [00:20:10] but it's purposeful.

**Speaker 1** [00:20:11] The historian is going to describe the house, and describe the history of the house and describe the evolution of the House and describe it's just going to be very descriptive, right? And that those are two different approaches to the house. All I'm saying is there is room for inspectors in the world. There are times when inspectors are necessary, but you don't hire an inspector for everything. Thank you very much for watching.

**Speaker 2** [00:20:38] Yes, I like that.

**Speaker 1** [00:20:39] And so that shouldn't be our only and most popular way and framework of thinking in the same way that you wouldn't hire an inspector for everything.

**Speaker 2** [00:20:49] I think that's a great way to think about it.

**Speaker 1** [00:20:51] That's it. That's what that's what I'm saying is like, it's not saying critical things about the skepticism is wildly important if you have a pattern of behavior that that indicates that you're going to have an issue, or if there's going to be significant costs associated with an issue that you don't find, then yes, there's a time and a place for a skeptical inquiry. But that's a method? And it's a bias. You're particular, you're taking a particular perspective and processing information from that perspective, which is the very definition of a bias

**Speaker 2** [00:21:32] Yes, and I think people who read the quote were not understanding that distinction. I think the people who were at the quote thought you were saying, throw it away, it's terrible, it is always negative, they jumped into that assumption.

**Speaker 4** [00:21:46] He jumped to assumptions, which my mother used to say makes an ass out of you and me. No, I think just you. It just makes out of... Just you. Just you!

**Speaker 2** [00:21:53] No, I mean, I think it makes sense that because of this sort of polarized binary mindset that we all have, that people are like, oh, he's saying we need to get rid of it, it's terrible, and it's so popular that people reacted. But what you're saying is just recognize it for what it is and use it when it's appropriate, but don't use it for everything.

**Speaker 1** [00:22:14] DSRP, the P in DSRP is about perspectives. I'm not against perspectives, I'm for recognizing when we have them, which is always by the way. And in the case of critical thinking, we have one. It's baked into the framework itself. And what people are saying is it's not. And that is more dangerous than the framework. Having a framework that has a perspective, a bias baked into it and not even recognizing it, that's the thing that I care about, not recognizing it. Once you recognize it, then you're like, oh, now I see what this would be good for, right? Now I see the times and places where this particular perspective on things would be a useful perspective to have. But it's not universally applied.

**Speaker 2** [00:23:09] No, and in a strange way, you're almost elevating it as an important and necessary part.

**Speaker 1** [00:23:14] Yeah, differentiating it for its value. It has tremendous value if applied correctly. But it has negative value if applied wantonly or universally. The problem with it is we're teaching it as if it should be applied universally.

**Speaker 2** [00:23:34] Yeah, especially in education.

**Speaker 1** [00:23:35] Yeah, and we do this with doctoral students, by the way. We do this doctoral students the world over. We teach them critical, critical, thinking, and they end up being very negative people.

**Speaker 2** [00:23:46] And also sort of narrow minded.

**Speaker 1** [00:23:48] narrow-minded, they criticize everything, it's like this little, imagine you know at times where we're just growing a little seedling and there's little sprouts coming through the soil like this and you're like oh let's prune it and you know like that's critical thinking like let's, and there's a time where you're, like no now's the time to be like oh that's, that has some real potential, let's see where that goes, that idea has some really potential to grow and become something different than what it is today. Let's see where that goes.

**Speaker 3** [00:24:19] Yeah.

**Speaker 1** [00:24:20] And then when it gets big and, and influential, you know, okay, now maybe we got to prune it back a little bit. Maybe we can be critical about that, you know, fine. That thing can handle that criticality. Right. Being critical about everything all the time, that is not okay.

**Speaker 2** [00:24:40] No, I mean, also, you think about your analogy to a house inspector. That idea, once it's mature, like a house, probably has strengths and weaknesses, right? And we want to know. We want to have the ability to discern between them and actively act upon mitigating the weaknesses and increasing the strengths like any other thing.

**Speaker 1** [00:25:02] I mean, imagine if your little kid came to you with a little idea and he's like, Hey, I made this, I'm making duct tape wallets or something like that. And, you know, like, and, and you're like, well, duct tape wallet, is anybody really gonna like a duct tape? Well, I, you know, is there any evidence for that? And the kids like.

**Speaker 5** [00:25:19] Maybe I don't want to be an entrepreneur.

**Speaker 1** [00:25:22] That is not what we want to do. We don't want to come with this skepticism right off the bat. We want to comes with openness right off of the bat

**Speaker 2** [00:25:30] And if we're constantly skeptical, we're never going to be able to expand our thinking, expand our knowledge. We're always just gonna be getting narrow and narrow and narrow, and less and less curious, right? And we're gonna believe more and more that we're right.

**Speaker 1** [00:25:44] It was funny though, because in this debate, I'd be like, Look, I will accept any definition you want. You tell me that one of one of them was like, you're being unfair to the definition. And I go, Okay, you tell me the definition, so they send me an image of the dictionary definition of critical thinking. And it says like, judgmental, evaluational, you know, skeptical. what are you having trouble with? If you have evaluation, then somebody's choosing what the value is. If you haven't judgment, then somebody is the judge and is judging it on some standard.

**Speaker 2** [00:26:26] Well, I reread the whole thing.

**Speaker 1** [00:26:29] The whole thread all of it. Oh my goodness

**Speaker 2** [00:26:31] And it was kind of funny.

**Speaker 1** [00:26:32] There were actually two huge threads because it got posted in two places.

**Speaker 2** [00:26:36] Well, it's interesting, A, because people get so invested, like we were talking about, and B, there were a couple of times where it was interesting that people were responding to your comment about bias in what I would perceive to be fairly biased ways.

**Speaker 4** [00:26:53] So, yeah.

**Speaker 2** [00:26:54] It's kind of ironic that they're.

**Speaker 4** [00:26:56] Like that I was a dumb shit.

**Speaker 2** [00:27:00] No.

**Speaker 5** [00:27:01] I love those ones.

**Speaker 2** [00:27:01] No, no, no. Just that their comments themselves were coming from an obvious bias that they probably didn't see, which is the point of seeing the bias of critical thinking. So it was, I don't know, it just seemed like a funny circular thing. I mean, I'm also thinking about why people are so reactive and why people so entrenched around this idea.

**Speaker 4** [00:27:25] of critical thinking.

**Speaker 2** [00:27:26] Like, why did it become so emotional?

**Speaker 1** [00:27:28] Because it's a tribe. All these things are tribes. This happens a lot around all these different frameworks and stuff. They're just little tribes, and I'm not terribly tribal.

**Speaker 2** [00:27:40] you know, you're a systems thinking expert, you're part of that field.

**Speaker 1** [00:27:44] Yeah, but I'm kind of like Groucho Marx like I don't really actually want to be a part of any club that would accept me as a member

**Speaker 2** [00:27:50] As you know yourself well.

**Speaker 1** [00:27:55] I'm not really invested in any of these different tribes, and I think people learn things and it's great that they learn something, and then once they've learned it, they'll defend it and they see it everywhere and all that kind of stuff. It's like, well, I don't know. Learning is easy. You can unlearn stuff, you can learn stuff like thoughts are easy, thoughts are. Dispensable thoughts are like a dime a dozen. You can have them so easily if you learn to think and you can un-have them and have them and you have such a flexible brain that I just don't put that much weight in. I mean, thoughts are so powerful because they change our actions. They change our behaviors. They change your emotions. They change everything, right? The decisions we make, all of those things derive from thoughts. Yeah. It's also very easy to change a thought. especially if you understand like the code of how thoughts change.

**Speaker 2** [00:28:56] Yes, it's easy to say that, and people hear that sentence. It's very easy to change the thought. But if you're not aware of your thinking in and of itself, and you're just dealing with what's happening at the surface level, which is everything I'm interacting with, interacting with the things I'm experiencing, a lot of people don't trace it back to, Oh, there was a mental model I had about that or a bias I had that changed. or that influenced what happened here between you and me or me and my boss, right? So I think when you get that pushback on the bias part of critical thinking, it's because a lot of people, and we talk about this all the time, are not aware.

**Speaker 1** [00:29:37] Yeah. Awareness is critical. They're not reflective. Metacognition.

**Speaker 2** [00:29:39] Yeah, they don't kind of understand that they can challenge...

**Speaker 1** [00:29:41] when you're in a tribe, everything's about being the strengths of that tribe, but it takes getting out of the tribe and looking back on the tribe from up higher up, you know, where you're looking down and you're seeing the village or whatever it is, to see some of the warts and, you know, to some of that weaknesses of that tried, you now, because when you are in it, you don't see that. I mean, systems thinking has a similar problem. Right? I mean, there's a handful, when I say a handful I mean there's hundreds, but really there's probably 18 different systems thinking frameworks. and different people are just hell bent on being in those tribes. This episode is sponsored by Training Camp, the ultimate online spot for building the mental fitness that drives personal and professional change and success. At Training Camp you'll have access to the science and practice of thinking with personalized thinking assessments, tiered training, and best of all, practice that improves skill. Go to CabreraLab.org to learn more. And now, back to the episode. And yet, if you take a step back on all of them and just say, do any of those frameworks have any scientific validity to them? Or are they just like one cult leader's opinion on how the tribe should be run, right? I say that, those are strong words, but I mean.

**Speaker 2** [00:31:15] You need to be careful

**Speaker 1** [00:31:17] Well, I'm using a metaphor like, you know, like you have some like person that starts a little town out in the West and they're like,

**Speaker 2** [00:31:24] You're saying they believe it so fervently.

**Speaker 1** [00:31:26] They believe it fervently and then people collect around them, right? And the question is, is any of it scientifically valid or grounded? And the truth is, of all those dozens of frameworks, and I'm talking a lot of them, there's really two that have any validity to it. Okay. Nobody in those tribes where there's no validity wants to hear that. So if you go in and say there's no scientific validity to all the things that you live your life by, they'll lose their shit.

**Speaker 2** [00:32:00] people in that tribe are not willing to challenge the limited and important use of critical thinking because they're so in love with it, they wanna apply it to everything. Is that what you're saying?

**Speaker 5** [00:32:11] Yeah, or, or it's just like-

**Speaker 1** [00:32:12] Hey, there's this really power. There's this really big and powerful thinking framework that that everybody adores and nobody questions, you know, and so why would we give up power?

**Speaker 2** [00:32:23] I see.

**Speaker 1** [00:32:24] Well, the reason you give up power is to adopt something that's better than that thing, you know, like to innovate and invent and make the world a better place.

**Speaker 2** [00:32:36] That should be the goal.

**Speaker 1** [00:32:37] That should be the goal, you know? It's like, if there's something cooler and something better, adopt it, like immediately.

**Speaker 2** [00:32:46] Well, is systems thinking critical thinking? Is critical thinking systems thinking? How are those two things related? How are they different? You know, how do they react?

**Speaker 1** [00:32:54] Again, systems thinking has many different frameworks and some actually validated protocols and they're not the same. There's a lot of bullshit in systems thinking. I mean, if the average person goes in Google systems thinking, 90% of what they're going get exposed to is bullshit.

**Speaker 2** [00:33:16] So part of the debate, and I used debate loosely because it wasn't really a debate. A debate is usually about the substance of the argument. I was just thinking, it's interesting. You're an expert in systems thinking. You're expert in thinking.

**Speaker 1** [00:33:33] That's another one like appeals appeals to authority is another bullshit, rhetorical technique. Same right? Like people go, Oh, I taught critical thinking for 30 years, who gives a shit that just could mean that you're fucking even more steeped in bullshit than anybody else. I mean, right? Like, I mean appeals to authority is a form of argumentative technique that, you know, who cares? plenty of authorities and experts have been proven wrong. So me being an expert in systems thinking, I don't know if that's a good thing or a bad thing. It could be a terrible thing. It could mean that I'm Steve. I happen to be trying to tear down the edifice of BS that has in it. And in that sense, I'm not the most popular. But I just think appeals to authority. when you're making appeals to authority arguments. When you're making attacking arguments at hominins, when you're strong man arguments, when you making all these types of arguments, it means your argument is weak and you're resorting to dirty tricks. So just pay attention, if you're doing any of those things, then you probably have a shitty argument. If you stick with the argument.

**Speaker 2** [00:34:56] Well, you're

**Speaker 1** [00:34:56] systems thinking. I mean, critical thinking is biased. Here's how, semantically, historically, scientifically, in practice, in theory, you know, go down the list and come up with validatable, you know arguments that can be validated.

**Speaker 2** [00:35:16] I think it is that it's a shitty argument. It's a weak argument. But I also think sometimes it's just a massive blind spot for people. They can't entertain any other thing. Like they can't accept anything other than that critical thinking is the best way to think about everything. So they have this blind spot, which is ironically this huge bias towards this biased way of thinking, right? So that's why they feel like you're attacking them and their core belief about something. And that's what they fight. with such high stakes and such low stakes. Who cares? Yeah, it's a low stake.

**Speaker 1** [00:35:49] I mean, why do I care whether they what they feel about what I'm not doing? I agree. I just don't understand that, like, if they if they feel that they're being attacked by a kookaburra, but they're not, yeah, why why do we care about that? Like, that just seems like a red herring that that someone feels that way. I agree because they're not actually if they're being attacked by a kookaburra.

**Speaker 2** [00:36:13] then you care.

**Speaker 1** [00:36:14] then I care, and then I will fight off the kookaburra. But if not, why do I care? I don't understand this kind of form of reasoning. I felt like you were attacking my, and you're like, OK. I said critical thinking is a form of bias. deal with what I said. Right. Not all the bullshit that you made up that I said

**Speaker 2** [00:36:41] Right, you didn't say critical thinking is useless. You didn't say critical is the ultimate way of thinking.

**Speaker 1** [00:36:46] I didn't say it was a Nazi. I didn' say it it was Mussolini. I didn''t say it Hitler. I didn's say any of that.

**Speaker 2** [00:36:54] Then you actually have said in the course of this conversation that it's a very reasonable way to think about certain types of things at certain moments, that it is useful.

**Speaker 1** [00:37:02] If you have a person that screwed you over five times, be critical on that sixth time.

**Speaker 2** [00:37:10] In which case, it's reasonable, and it's useful, which is ironically, you weren't ever saying it wasn't valuable. You were just saying it's not unbiased, and that it's used in certain types of things.

**Speaker 1** [00:37:22] Well, again, like, I don't think there's any I mean, that gets into a different thing, which is if I have a if I have a framework, if I have a model that accounts for an infinite number of possible perspectives, and I can put anything in that in the perspective, meaning I could look at something from the perspective of a frog, or cost or structurally. or economically or from the perspective of my wife or from perspective of children or from a perspective of Republicans or Democrats or whatever, right? If I have a model that allows me to do that, then I have model already that allows me to throw skepticism as a perspective, which means I don't need critical thinking.

**Speaker 2** [00:38:06] Right because you can

**Speaker 1** [00:38:06] Because I can do with DSRP, everything that critical thinking can do, and I can do way more stuff that critical thing can't do. So this is kind of an Occam's razor, which is a scientific litmus test idea. It's like if I have two theories, and one of them can do everything the other one can do and simpler, and it can do other stuff that this one can't then then this one wins yes and it's just like a It's like a UFC fight, like it just wins. It wins. It gets to be the winner.

**Speaker 2** [00:38:43] and it doesn't go to decision.

**Speaker 1** [00:38:44] It doesn't go to decision like somebody wins the fight, you know, like.

**Speaker 4** [00:38:49] crazy.

**Speaker 1** [00:38:49] It just, I just think it's very simple, like, you know, if we have a theory that allows us to launch rockets to the moon and not get them back, and we have another theory that allows us to launched rockets to moon and get them, go with the second one.

**Speaker 2** [00:39:05] Right, because that's the winning one. Well, I don't know. It's been, it has certainly been interesting to witness the whole debate and all of the reactions to it, some of which were unexpected.

**Speaker 1** [00:39:16] It just seems like the climate that we're in, and that's why I say, like, who gives a shit about critical thinking or systems thinking or any of that? Like, I think the more important, the more important thing is, like how do we argue and how, how do we take accountability for our own biases, our own? limitations, our own emotions that we have, our own assumptions, that voice in our head that says that somebody is saying something that they're not, or it means something that it doesn't, or they intended something that you have no possible way of knowing. Right. If we don't start with a basic principle of fairness, if we don t start with the basic principle of like, I'm going to do the right thing, even if the other person doesn't. Yeah. I'm not gonna use straw man because. I don't really believe in doing strawman. I'm not going to use ad hominem because I don' really believe in that. I'm going to to use these things in these ways, right? So if somebody legitimately believes that the, I mean, one of the things was it could just mean critical, could just me an important. Yes, I remember. Well, if that's true, then, then it's a it's not saying anything critical thinking important thinking just not saying anything yeah it's just saying thinking is important right right which okay yes thinking is important so if that's true then the whole need for the critical thinking edifice disappears which is fine and then but but we can test whether that's true. We have tested whether that's true. You can look at... semantic and historical analysis of how critical thinking has been used over the years. And you just put it into AI, like, you know, has, has his critical thinking historically and semantically been used to mean important thinking or to mean skeptical, judgmental and evaluative thinking. Right. And you can see that. Yeah. 95% of the time, it's critical. You know, critical thinking means evaluative, judgmental, and or skeptical. That's right. Which is what people mean. The bias is like baked into those terms. So you're like, so the way I define critical thinking is these things. And these things have bias baked into them. But critical thinking itself is not biased.

**Speaker 2** [00:41:55] Yeah, that doesn't make any sense.

**Speaker 1** [00:41:56] but if you're not trying to make sense of it, if what you're trying to do is win or, you know, reinforce your echo chambers.

**Speaker 3** [00:42:06] Thank you for watching!

**Speaker 1** [00:42:06] or be personally offended, then you're not going to hear those things, if that's what you're coming, or be right.

**Speaker 2** [00:42:14] Yeah, and that's true of all things.

**Speaker 1** [00:42:16] I really don't care if I'm right, if I mean like, I mean honestly, if critical thinking isn't a bias, it doesn't really affect me at all as a person. I'm just not seeing an argument or any valid data that says that that's the case. But show me, like for example,

**Speaker 2** [00:42:36] Yeah, did anybody say any have any sort of validated rebuttal?

**Speaker 1** [00:42:40] I didn't get anything in there. I mean, the biggest thing is that it's like it's objective analysis. If you're defining critical thinking as objective analysis, first of all, ironically, objective is kind of a bias. Yeah, objectives. Right, so then you're just getting the hidden bias. There's this thing that happens in cognition and it's hard to describe, but it's like, okay, it's a have your cake and eat it too kind of thing. It's like okay, you can switch your definition there, but that's gonna... change things downstream so you can't have things downstream the way you want them and change it there right so these little things kind of perturbed so okay you can call critical thinking objective analysis which by the way is just analytical thinking yeah with the addition of objective which is an unrecognized bias when we say we're being objective we're saying we have an unrecognized bias, because none of us are objective, truly. The best way, the closest we can get to objectivity is to recognize our own subjectivity.

**Speaker 2** [00:43:52] Exactly.

**Speaker 1** [00:43:53] is to be aware and metacognitive of our own subjectivity. Yeah. To say that critical thinking is not biased because it's objective analysis and it's not skepticism, not evaluation, not judgment, not negativity, none of those things. It's just objective analysis. You're kind of like, okay, I'll buy that definition. But objective analysis, really? That's pretty biased. Yeah. if you actually believe. that you, of all people, are doing an objective analysis, like you're Freud on the couch doing an object analysis of this person, I mean. And you're the only person. And you are the only that's doing the objective analysis and you're only person that's not subjective. Yeah. I mean, come on. That's a bit of a struggle. That's like even worse. So that now you've dug your hole even deeper, right? So I would have just stuck with, yeah, it's about skepticism, evaluation, judgment. And sometimes those are really, really important skills to apply and sometimes they're not. Yes. Like that just seems like a much more reasonable approach to it.

**Speaker 2** [00:44:58] Yeah, you can think of a lot of situations and times when you need inquiry, but you specifically do not want it to be critical and narrowing and biased. Think of all of exploring ideas, all of that sort of coming to understand things. You don't understand things by being critical at the get-go. You understand them by exploring them, following them where they lead, not having a bias, opening up your mind to where it can go.

**Speaker 1** [00:45:28] I mean, if you come home and then the you know, there's there's couch fluff everywhere, and your dogs are all sitting there with a strange look on their face. The first thing you should say is, what happened here?

**Speaker 2** [00:45:47] They all go with that guy.

**Speaker 1** [00:45:48] then they all like point. It was this one. You know? And then if they say nothing, then you might pull out the skeptical part. Right, then you're like, wait a minute, something happened, who did it? Obviously. Somebody did it, something did it. You know, but, you know, I always go back to the, you know the investigator of like a crime. You know, when you come onto the scene, your job is just taking information. Yes. Like you're not even sure yet it's a murder. Right. It could have been anything.

**Speaker 2** [00:46:29] because there's a dead body, but you-

**Speaker 1** [00:46:30] So let's not start with skepticism, let's start with openness and understand the system. is before you. Understand the situation that is before you, right? And be adaptable in your thinking to the situation on the ground. And that is what causes us to thrive as human beings, is that we're adaptable to our situation, to our environment. And I think skepticism is a form of in lack of adaptability. if you enter with that.

**Speaker 2** [00:47:11] Yes, I think that's right.

**Speaker 1** [00:47:12] Right? If you enter with anything, there's lack of adaptability.

**Speaker 2** [00:47:16] I agree. And back to your couch story. Yeah, I would bet you it was Benny.

**Speaker 1** [00:47:21] new puppy. It's definitely Benny.

**Speaker 2** [00:47:23] It's always been.

**Speaker 1** [00:47:24] He's a terrorist

**Speaker 2** [00:47:24] Benny is a terrorist right now because he's a puppy and he's chewing everything.

**Speaker 5** [00:47:29] He's very cute, but he's, uh, he's dastardly. Well, I hope this did what you wanted it to do. Did it work?

**Speaker 2** [00:47:38] All of us are, well, I'm not as much, but most people are on social media. And a lot of people are more interested in the comments than the thing that's being posted, right? So for me, reading all of the comments and stuff, it's true though, but like I was reading the comments and there were just so many, for lack of a better word, like subtle counterpoints that you found across the comments that to me were very interesting as a window into. the way people respond to things, the way people think about these things. And very few of them were on the substance of the quote. To me, it was interesting.

**Speaker 1** [00:48:16] It's a wacky world we live in.

**Speaker 2** [00:48:18] Yes, so the short answer is yes, we did, but I wanted to talk about the whole.

**Speaker 1** [00:48:21] I mean, we did a, I think many moons ago, we did another podcast on critical thinking.

**Speaker 2** [00:48:27] That was Many Moons.

**Speaker 1** [00:48:29] clip was from that. Yes. And so maybe we'll do another one if people, you know, people seem to need to debate it and understand it better. Again, for the record, not against critical thinking. Just think it has a place. A time and a place in particular a time. Yeah. The time comes after a pattern of abuse or a pattern of behavior. requires the reaction of skepticism.

**Speaker 2** [00:49:05] I think that's right.

**Speaker 1** [00:49:06] I wouldn't wield it as, you know, your only tool. I would wield it, it's a very specialized tool. Yeah. And I would wheel that then. Yes. And there are better tools to utilize all the time. Well, again, there's so many of these different types of thinking, they're all that your brain doesn't know that there's just one type of thinking. which is what our brains do, just like there's one type of, you know, the way your heart beats, right? I mean, there's different rhythms and things like that, but, you now, your brain works in a particular way to organize information and make meaning. And what DSRP does is it makes it clear what that way is, how it organizes information to make meaning, and that's... that gives you all the tools you need to approach any situation openly. Yes. And love reality openly. The other thing is, if we're gonna do, I mean, the thing we have to do is get people to understand the importance of scientific validity. Yeah. Right? And I'm not saying that there's not things that you can't have lesser evidence on that are very powerful, like I'm saying the sprout, there's There's things that don't have a lot of scientific validity, but they have a little bit, and we should give them some time to build them. But if something's been around for a long time, like critical thinking, and no one's shown that it exists, or that it's this, or that is that, or that has effect, if something has been around for a longer time, like critical systems thinking, which completely has no research behind it, There's no, there's a lot of papers. There's a lotta circular citations, but there's no valid sample-based empirical studies that show this thing exists. It's just a person's opinion. Right. Right? Yeah. Well, if you wanna follow a person opinion, great, follow it. But know that it's a person' opinion. Right. Right? Differentiating. It's a cult that you're following. It's not a, it's not. it's not a validated thing in science, like whether it's existence studies or effectiveness studies or in the mind or in nature or whatever. I think we really got to look at that with all these different types of thinking, because a lot of them amount to very little. If you look underneath all of these thinkings end up being the same thing, underneath. they're just different variations of the same patterns, right, thinking like a scientist, analytical thinking, synthetic thinking, holistic thinking, you know, design thinking, systems thinking, critical thinking, creative thinking. They're all versions of the Same Thing, and people get really confused by them, and how they're different, but they're really the same thing, manifesting in different ways.

**Speaker 2** [00:52:15] people land, like you said, in these tribes in a certain type of thinking. And a lot of them sort of prefer one over others. They're not completely ascribed to it. Like, the critical thinking seems a little bit more tribal. Yeah. You know, people really, but I think it would be interesting to do that across the 38 types and talk about it. was.

**Speaker 1** [00:52:33] Well, the old saying of like when you're a hammer, everything looks like a nail. It turns out to be pretty, you know, apropos, like, you know, we invest in learning these things and then we have to do something. We got to get a return on that investment. And that return on investment is we go out in the world and make everything a nail because we bought a hammer. Yes. And if you realize that learning and mental model building and ideas are just so easy. Right, which is what DSRP does for you is you realize like, I can change my mind so easily. Yeah. I can't change what I think so easily, I can be wrong and admit it so easily there's no cost to it. We think there's such a high cost of being wrong. There's not, no. That's how learning happens. Yeah. Once I realized that it's like, oh, okay, if this is wrong, then what's better? Try something else. Try something else.

**Speaker 2** [00:53:33] Yeah, be open to other things. Yeah.

**Speaker 1** [00:53:36] I think, maybe, that that... It is a wrap.