**Episode #51**

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

**Speaker 2** [00:00:04] I How are you?

**Speaker 1** [00:00:08] I'm awesome.

**Speaker 2** [00:00:09] I was thinking about the conversation we had at the breakfast table the other day with our beautiful children, who we love dearly. That's right. We were talking about…

**Speaker 1** [00:00:17] We have conversations every morning.

**Speaker 2** [00:00:19] I know. We were debating who's smarter than who and what's smarter. Do you remember that whole conversation? Smart. I don't think there's any widely, well, maybe there's a widely agreed upon definition of what it means to be smart, but I don t know. I mean, I just thought we should kick it around a bit because it was a fascinating conversation to see what our children thought about it. Yeah. So what does it mean to be smart? How do we become smarter?

**Speaker 1** [00:00:45] I mean, Smart's one of my pet peeves.

**Speaker 2** [00:00:50] Oh, just the word.

**Speaker 1** [00:00:53] It's just so wrong-headed. It's so unsmart.

**Speaker 2** [00:00:56] What does that even mean?

**Speaker 1** [00:00:58] Well, everybody wants to be smart, beautiful, happy, rich, famous, you know, everybody wants like roughly those things, strong, fit, whatever. So I don't begrudge that people want to be Smart. Like I think it's, but what I think, what I think is so disturbing, if I could use that word. about it is that I think people think that there's like this really deep scientific definition for what constitutes smart and while there is, it isn't what people think it is. It isn't IQ.

**Speaker 2** [00:01:38] Yeah, so I was just thinking,

**Speaker 1** [00:01:39] I just think it's IQ. It's definitely not IQ. In terms of what we actually mean when we say smart and what IQ actually measures, that's not smart. It's not your education. It's the number of degrees or letters after your name. None of that's correlated with smart. So it's not a lot of the things that people think it is. It's Not.

**Speaker 2** [00:02:06] OK, so let's unravel that just a little bit more. So IQ, people think IQ is an indication of smart. But what we have found sort of over time and in research is that IQ is more heavily correlated with socioeconomic status and other factors.

**Speaker 1** [00:02:26] Yeah, I mean, IQ is correlated with academic success, right? How well you do in school. It's a particular kind of smart. Yeah. But it's not correlated, it's barely coordinated with economic success. Right. Like mid-level. Thanks for watching! It's not at all correlated with extremely high financial success, for example.

**Speaker 2** [00:02:55] Interesting, interesting.

**Speaker 1** [00:02:57] And to be honest, the things that are more correlated with those kinds of success are adaptivity, emotional intelligence, networking ability, and metacognition. Right. You know, if, if when we say smart, like it just kind of depends what we mean by smart. Like, you know, when we see I want to be smart, what do we mean by that? You know? Do we want to have a lot of degrees? Well, that's not what makes you smart. Do we? Yeah. I mean, I hear people tell me all the time, well, you have degrees and you know, I'm not smart.

**Speaker 3** [00:03:40] That's not the...

**Speaker 1** [00:03:40] I was a high school dropout, and the degrees didn't make me smart. For sure. They probably dumbed me down a little bit.

**Speaker 2** [00:03:50] No.

**Speaker 1** [00:03:51] Yeah, for sure. For sure. I mean, it's like indoctrination. So, you know, the number of letters after your name doesn't make you smart, the how many years of education you have doesn't make you smart. What makes you smart is going to surprise people. It's none of those things.

**Speaker 2** [00:04:12] It's not the number of degrees, it's not your level of sort of economic success or any of that? No. Okay, so then what is it?

**Speaker 1** [00:04:20] Adaptivity your ability to adapt. Okay, that's when we say smart. That's what smart really is the ability to Understand the situation you're in and take action that is in alignment with that situation that succeeds Whatever whatever that situation calls for and whatever you're setting as the goal for what success looks like in that situation that you're which could be very locally temporal, right? Like the short time span local, or it could be long time span global, like what do I wanna do with my life in the markets or whatever it is that you're... So, given the situation, the complexities of the situation that you are in, and given the goals that you setting for yourself that you attempting to achieve, can you adapt? in such a way that you understand reality well enough of that situation and those goals to accomplish what you're trying to accomplish. That's smart.

**Speaker 2** [00:05:27] Yes, and the nice thing that

**Speaker 1** [00:05:28] So like, you know, auto mechanics are some of the smartest people in the world. They solve problems all day.

**Speaker 2** [00:05:34] Yeah, the nice thing about that definition, adaptivity, is that that means that we can compare, we can decide that we measure smart based on how well we're doing for ourselves. Meaning we don't have to compare ourselves to everyone else. Does that make sense? So a lot of times we're like, oh, you're smarter than me, you are smarter than, you're smart than me. Because we're looking at like intellectual, computational, analytical kind of capacity and stuff.

**Speaker 1** [00:06:00] which depending on the situation might be necessary, but that's not what makes smart. What makes smart is the ability to adapt. If you need to have analytical skills, you can adapt and build analytical skills. If you needed to have technical skills, you can adopt and build those technical skills.

**Speaker 2** [00:06:18] What you're saying means that I have some agency and control over how smart I am, right? Because I can build my own skills to see reality, to adapt, to move quickly when I need to move.

**Speaker 1** [00:06:32] Absolutely

**Speaker 2** [00:06:32] Right. So I have some control over my level of smartness, which most people, I don't think you're born with.

**Speaker 1** [00:06:38] Well, that's the other big misconception of smart is that people think you're born with a particular level of smart, and then you're stuck with it your whole life, right? And that literally couldn't be more far from the truth, A, that your level of smart is static, and B, that you're even smart when you're born, because the truth is you're actually pretty stupid.

**Speaker 3** [00:07:03] when you're born.

**Speaker 1** [00:07:03] No matter what. Like, when you're born, you don't even know how to fart. Right. I mean, we know that from being parents. You don't know how

**Speaker 2** [00:07:14] You know how to get gas out of it. Yeah.

**Speaker 1** [00:07:15] Yeah, like when little babies are born, you have to like stimulate them to get them to learn Yeah, how to fart and I don't say that to be like crude I'm saying like it's it's problematic if they don't if they learn pretty quickly how to like get the gas out Yeah, they're gonna be in pain. They're gonna cry They have to learn that and you have two kind of stimulate their you know, it's mine and tap them. Yeah

**Speaker 2** [00:07:43] how much time we spend in our lifetime burping children, you and I personally.

**Speaker 1** [00:07:47] Believe it or not, when you're born, right when you are born, they don't even know how to breathe. Yeah. Right? So that's how dumb we are. Yeah. So I think we'd be better off starting with the assumption that we're all pretty dumb and not being offended by that assumption, not seeing that as like a personal affront to ourselves. Like we're are all ridiculously dumb. Yes. and we have this remarkable adaptive ability. to become smarter and smarter and smart if we choose to.

**Speaker 2** [00:08:21] I think that's liberating.

**Speaker 1** [00:08:22] I think it's incredibly liberating.

**Speaker 2** [00:08:24] It's really good because then you're like I have some control

**Speaker 1** [00:08:27] You're a total...

**Speaker 2** [00:08:28] Over my own

**Speaker 1** [00:08:29] Agency, yeah

**Speaker 2** [00:08:30] status in that sense. And also it means that there's no cap. There's no limit on it. Oh, did I say cap?

**Speaker 1** [00:08:40] Yeah, cap in the new terminology means, I think, untrue, but no, no, like, stopping point. Yeah.

**Speaker 2** [00:08:46] Anyway, there's no limit. Your potential is set by you. It's not limited by some outside thing.

**Speaker 1** [00:08:53] Really? It's set by your adaptability. Building adaptability is the most important. In evolution, for example, one of the greatest scientific theories that's ever occurred, people think, they hear this term, survival of the fittest. And what Darwin was talking about when he talked about fitness, he wasn't talking about survival of strongest, or survival of, they sometimes say red. red in tooth and claw, like the most violent or the most, what he was talking about is the most adaptive. Right. The organism that is the most adaptive is the most fitted to their environment. That's what fitness is. So the ability to adapt to your environment is the, that sort of is the beginning at the, at the organismic level of, of intelligence.

**Speaker 2** [00:09:50] Because it ensures your survival.

**Speaker 1** [00:09:52] It ensures your survival and or thrival.

**Speaker 2** [00:09:55] even better.

**Speaker 1** [00:09:56] So this idea of fitness being like the strongest. Well, strongest for what? I mean, I've done mountaineering expeditions with bodybuilders who can bench way more than anybody. But you've, you know, take them up 4,000 feet, you know a hill. They're gasping for air in the first 10 minutes because they're trying to supply all that muscle with oxygen, right? And their D02 Max is terrible.

**Speaker 2** [00:10:26] I mean, you think like we were just in the Alps.

**Speaker 1** [00:10:29] By the way, sorry, I'm not criticizing bodybuilding, I am just saying the fitness for what, right? In a gym, if the goal and the situation is to lift as much weight above your chest as possible, then they have tremendous fitness for that. But if the goals is to hike as fast as you can up a steep incline, well, you're That's it for that.

**Speaker 2** [00:10:58] Well, we were in the Alps this summer, fortunately. That was fun. And one of the things I noticed was how many people who were probably in their 70s and 80s were just zipping up the mountain in front of me. And it was nothing. I thought, wow, look at how well-suited they are for this hike, meaning they're fitted to the environment of the hike, which actually was inspiring to me, because I'm not 70 or 80 yet. Right. But I thought, well, that means that there's hope for me. I could get better at this. I could increase my fittedness to the Alps and the concept of hiking.

**Speaker 1** [00:11:39] Yeah, I think it's really if we could change this mental model for society, that would be so, so liberating, right, because we're all so afraid of making mistake because school kind of trains us into that. We're so afraid of looking dumb in front of people. And if you just start with the basic assumption, which I did, because I dropped out of high school, so I started with the basic assumption. Well, you're definitely dumb. Right? That's like what I learned in high school was you're dumb. I started with that basic assumption so I've just never ever been worried about being looking dumb because I just got comfortable with it. And so now I just do things and I make mistakes and like I make the mistakes in front of people and I, you know, in clumsy around different but because of that I make progress, incremental progress which is kind of the evolutionary algorithm, right? Pray. And so... You know, in some ways, I know people when they hear your, if somebody says you're dumb, they're like, oh God, like that hurts my feelings. But if you could change your mental model to be like, we're all really dumb. And we have the opportunity to be incredibly smart.

**Speaker 2** [00:12:52] Right, because it doesn't have to be a permanent state. No, it's not a permanent. And you can literally be dumb in a moment about a thing.

**Speaker 1** [00:12:58] And you can be dumb in a situation and not be dumb in another situation, right? Like there's a million fields that I'm dumb in, you know? And then there's other fields that I've built some smarts in.

**Speaker 2** [00:13:09] I mean, as you know, I had an opposite experience than you did in school. So I graduated from high school. I went to college. All of that sort of in a more traditional way, Dean's List, all that stuff. And what's fascinating to me is I thought I was smart because I had accomplished all of those things. But I guess it was about two years, maybe three years into my undergraduate at Cornell when I met Jerry Ziegler, my advisor, where he was the first person I thought, I started to get smart after I met him because he was the first person that really said. it's more important for you to know what you don't know than to think about what you do know. And in papers, he is the first one to said to me when I was writing papers, he's like, acknowledge what you don't now in this paper. Acknowledge where it could go further. What are the limitations of what you've done? Your work, which was a completely new thing for me, because we all go, you know, I think a lot of people go through the system and they're like, oh, I'm so smart because I got to an Ivy League university. Well, the truth was I was lucky. for a lot of reasons. And then once I had professors that really sort of challenged that and were saying embrace being wrong because then you'll push your knowledge further, right? You can increase what you're doing and you can learn more and become smarter.

**Speaker 1** [00:14:27] Yeah, and to lord all that over, you know, like this notion that if you don't go to an Ivy League, or you don t graduate, or whatever, I mean, that's just absurd. I've met tons of stupid people in the Ivy League.

**Speaker 2** [00:14:41] Oh my god, and really smart people who have never even had the opportunity to be educated.

**Speaker 1** [00:14:47] Yeah, and all kinds of people, right? But every place is like that. You can go to a biker bar and meet stupid people and smart people. You can to an Ivy League and meet stupid people and smart People. It has more to do with their disposition to life and their disposition to learning and their disposition to growing and their metacognition and their training in adaptability. The best way to get smart is to train adaptability, to train your thinking to be adaptable. The amazing thing about smart, this kind of blows my mind. If you think about the things that everybody wants, everybody wants to be happy, they want to be smart, they want be beautiful, they want it be strong or fit, physically fit, they want them to be successful, maybe even famous or whatever. Some version of those things, I think those are all things that people want. Smart is of that list. Smart is the one that can really affect how you get all the rest of them.

**Speaker 2** [00:15:52] Okay, say more.

**Speaker 1** [00:15:53] 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. I mean, being smart, truly smart, not the definition that we talked about at the beginning, but being truly smart is critical to being happy.

**Speaker 2** [00:16:32] Right. Because you're, you're saying smart is adaptive.

**Speaker 1** [00:16:35] Smart is adaptability. Smart is adaptive. Getting smart, getting smart, not being smart, getting smart is critically important because you understand that you can get smart. You can practice being smart. You can literally train in it, just like you can practice, being strong. And the smarter you are, the smarter your practice being strong or fit. And the smart you are the more you can. define what success means to you. Is success having the most money in the world or is success having the most balance or the success, you know, you get to decide that because I know tons of people that are exorbitantly wealthy at a level far higher than me who are miserable.

**Speaker 2** [00:17:21] Yeah, that's true.

**Speaker 1** [00:17:22] And I know people that are poor, at a level far lower than me, and they're happy. Smart affects all those other things.

**Speaker 2** [00:17:33] So then how does a person who wants to be smarter and who says, oh, okay, smarter is meaning I have to be more adaptable, how does somebody become more adaptible?

**Speaker 1** [00:17:44] Train adaptive thinking. Train meta cognition and adaptive thinking, train awareness of adaptive thinking

**Speaker 2** [00:17:52] Meaning, understand, first of all, that you're building mental models about reality, seeking feedback from it, taking it in.

**Speaker 1** [00:18:01] The love reality loop, M equals IO, DSRP, the moves, like DSRP483, on a short list, that's it, do those things, that's the protocol.

**Speaker 2** [00:18:16] Well, OK, so let's give an example. And I'll embarrass myself with an example about my own learning curve, which will never end as long as I'm alive, hopefully. I remember a long time ago, I was very nervous in meetings. And I was never felt like I was quite up to speed, probably because of a lot of other things that I've resolved since. But, I mean, I think one of the things was... I used to kind of feel like if I didn't talk in a certain amount of time in a meeting, then I was gonna seem dumb. So I would just talk to talk. Rather than what I learned to do, which is take a step back, listen more, and only speak when I had something that was directly contributing to the topic at hand. And when I made that shift in my own thoughts of how I would appear smart, ironically, I actually was. I actually became smarter because I was listening more differently. I was checking my mental models about things as I was listening and speaking into things only with great, I mean, you remember me. Totally.

**Speaker 3** [00:19:24] 100%

**Speaker 2** [00:19:26] long time ago. But I think a lot of adaptability comes from awareness, just basic awareness.

**Speaker 1** [00:19:32] That's a great example. That's great example because that awareness just changed everything. I think lots of people, that's a very normative thing to feel when you're in meetings with people, is that you want to say something that gets you noticed or seems smart. Ironically, the best way to look stupid is to want to say something just to say something. That's like the clearest indication of stupidity, right? Yeah. And so... you know, if you really want to be smart, really delve into what's being said, you know, maybe do some, do your homework on before the meeting and, but really understand what's been said, listen more than you talk and, and you'll have a lot more to say that of value when you do that. And ironically, I mean, they've even done studies on this, like people who Talk less the general feeling of people that are interacting with them is that they are smarter than people that talk more.

**Speaker 2** [00:20:36] Oh, that's good.

**Speaker 3** [00:20:37] That's good.

**Speaker 2** [00:20:38] That's very good. I also think part of it is, like you were talking about earlier, being comfortable with the concept that smart varies a lot. So there are a lot of people in this world that know a lot more about things than I do in certain things, and there are things that I know that other people don't know and being comfortable that it's on a, it's, you know. it's on a continuum, so I can walk into a room and know, you know, I know what I know, but there are people that know other things I don't know, being open to.

**Speaker 3** [00:21:16] Totally.

**Speaker 2** [00:21:16] Hearing that and and not having to walk in thinking. Oh, I'm the expert and I know everything which I Think part of it is the death of smart is inflexibility

**Speaker 1** [00:21:26] Which is the opposite of adaptability.

**Speaker 2** [00:21:28] Yeah, and lack of awareness. Yeah, because it people I've met

**Speaker 1** [00:21:31] No, I have to say, like, you know, people say all the time, like, what's the PhD and all that. Like, to me, the greatest lesson that I learned in getting a PhD was simply, like you spend some number of years studying this one pretty small thing. And to the point where at the end of your PhD, you maybe legitimately, depending on what you studied, are like the world's or one of the world leading experts in that. very small thing right but in in doing that what you realize actually is like wow i know a lot about this very small things and all the other very small in the world there are people who know a lot that i don't know so all of a sudden you're looking around and you're going boy like you know i bet you there's somebody that understands you know glassware at a level that I can't even conceive of, you know, that they spend their whole life thinking about glassware. Or they spend they're whole life thinking about how this nozzle on the water bottle could be different. And they, I mean, they could fill a book on this nozzle. Somebody's doing that, right? Because it's gonna be the differentiator of these products or something. And you realize that everything's like that. Right. You realize that it everything has this very complex DSRP kind of structure that is possible. Yes. And then you're like, wow, there's a lot I don't know, so I better get better at asking questions than having so many answers. And I think what DSRP fundamentally does for you is make you really good at asking question.

**Speaker 2** [00:23:24] Not just asking questions, the right questions, but also for me personally, when I think back to a lot of things that I worked on, for me it was first understanding that I was building mental models of things and actually interrogating the veracity of my mental models using a stepwise process. I literally had it. I remember I forced it into my consciousness when I was starting to learn all of this. like what are the distinctions I'm making? How are they different than this other person's distinctions that they're making? Am I connecting things in a way that makes sense, or am I making spurious relationship? I would literally, it felt a little bit clunky in the beginning because I was kind of forcing myself to bring that unconscious to the conscious. But it made a big difference because then I was really understanding what I thought and really listening to what other people were thinking and then trying to see sort of the differences, but I don't know.

**Speaker 1** [00:24:22] We're all dumb.

**Speaker 2** [00:24:23] We are all dumb.

**Speaker 1** [00:24:24] And we all can be smart. Yeah, we have lots of potential. We can all get smart. The way to get smart is to practice. We know that from the research. We know what to practice, maybe summarize for folks like we call it the protocol. But. forgot how to spell protocol, but it's starting with the TQ gives you kind of a baseline. where your skills and strengths and weaknesses are. And then your, I would probably go to the moves. There's 60 moves, but I would start with the first five, the most important five ones. And this is what we talk about in yellow belt. This one is white belt. And then you go to kind of the DSRP, what we call DSRP 483, kind of going deeper into it. This is what we call blue belt. people kind of go bonkers around this three here and what that means. That's really understanding how these things interact. And people just go crazy when they get to this level. They, they just go like, Oh my God, how did I? That's happy mind, my happy mind blown emoji land. That's the path, the protocol that I would do is those things. And you know, once you're done with that, you can just practice, you can continue on with these 60 moves. and practice them because they're each one individually can be quite remarkable. That's how, you know, when we say get smart, the get part is really important because it's not be smart. I think that's the problem with the way we think about it is like we're either smart or we're not.

**Speaker 2** [00:26:16] Yeah, that's too binary.

**Speaker 1** [00:26:18] It's too binary, and we know that the brain is incredibly plastic, which is kind of a dumb word, because plastic a lot of times isn't very flexible. But we should say it's more like rubber. It's very elastic. The brain is amazing, and the human being is amazingly adaptive. And so this is just a process of learning to be more adaptive, because smart is adaptive. And when you teach, when you train your brain to be truly adaptive in its thinking, you train yourself to be able to kind of go into any situation and adapt to it, no matter what. No matter what's happening in that situation.

**Speaker 2** [00:27:02] I was talking to one of our favorite students, Tim. Hi, Tim, and he literally said, in a phone call with us, he said, learning systems thinking, DSRP, has completely changed everything. And he said I now walk into a room, and I am not nervous. I'm just not nervous, because I know that I can sort through and think through whatever I'm thinking and what other people are thinking.

**Speaker 1** [00:27:26] And his job involves walking into rooms full of interdisciplinary scientists from all these different disciplines. So, you know, for sure there's a lot of knowledge in the room that you don't have, but he was saying that he's not afraid of it. He's not a afraid of because, oh, okay, but they all have this similar structure underneath and so you can just ask questions and you can get intelligent answers from intelligent questions. I think this is so important today, especially with AI. I mean, AI is kind of showing us what's so powerful about being adaptive and what's about being smart, truly smart. You can get an answer to the wrong question. Yes. Right? That's right. You need to think about what are the questions. When we talk about prompt engineering, AI is going to give you whatever you prompt it. Right. And you can tell. If I put in the prompt just a little bit of, hey, I want to be assured on this, then AI is like, hey, you're a good person. You know? Don't feel bad, you're smart. That's your AI voice. That's my AI voice, right? It's like, AI is going to tell me what I want to hear, right. It's going to me what I want hear because it wants to please me. Yes. So the prompt matters if you want an unbiased answer. You've got to structure the prompt. The answer is only going to be good as the prompt, and the prompt is a form in a sense of a complex form of question. So learning how to be adaptive a lot is just asking the right questions. Learning to be smart, getting smart is a lot about asking the correct questions. Right. If you've ever worked for a really truly smart leader. What do they do? They just ask great questions. They just ask great question. They don't have all these opinions.

**Speaker 2** [00:29:36] They also don't always ask a lot.

**Speaker 1** [00:29:37] No, they just asked like the right question. Yeah. Question. I had this advisor that used to literally fall asleep, his name was John.

**Speaker 3** [00:29:44] I remember.

**Speaker 1** [00:29:45] If you fall asleep, it is an amazing mathematician.

**Speaker 3** [00:29:47] Yeah, super smart.

**Speaker 1** [00:29:48] super smart like in math and he would like fall asleep in the in the set in the like groups of people talking about their research. everybody be like, Oh, he's asleep. And, and then at the end, he would like wake up and ask like the most difficult, most like penetrating question ever. How does he do that? He's just like, was he faking it? Or was he asleep? And just like he had a question that he's like, I know what the question is.

**Speaker 2** [00:30:20] so I'm going to take a little nap. Yeah, he knew the question like two minutes in. Right. He's like, oh, I can take a nap. Wait till I'm done. That's funny. That's hilarious. No, I think that's good. I don't think a lot of people make that connection that the questions that you are asking actually will lead to your learning far more and getting smarter than thinking you have the answers.

**Speaker 1** [00:30:45] CODE.

**Speaker 2** [00:30:45] Because thinking of the answers is not smart.

**Speaker 1** [00:30:47] No, that's dumb.

**Speaker 2** [00:30:48] That's the inflexible.

**Speaker 1** [00:30:50] Starting with the assumption that you don't know shit is probably the first step in being smart

**Speaker 2** [00:30:56] Ironically.

**Speaker 1** [00:30:56] Absolutely. Yeah.

**Speaker 2** [00:30:58] No, I like that, which means there's hope for everybody.

**Speaker 1** [00:31:01] Absolutely, especially me, because I don't know shit.

**Speaker 2** [00:31:06] Neither do I.

**Speaker 1** [00:31:08] You don't know shit, that's a wrap.