

# Disrupt Yourself Podcast

## EPISODE 292: DAVID EPSTEIN

Welcome back to the Disrupt Yourself podcast, where we provide strategies and advice on how to climb the S Curve of learning in your professional and personal life, disrupting who you are now to slingshot into who you want to be. I'm your host, Whitney Johnson. Today, I'm thrilled to talk with David Epstein, an investigative journalist and author who built his career covering sports and quickly became obsessed with how extraordinary people succeed. Are they born this way? Is it their upbringing? A lot of hard work? There's some modern thinking about this, spearheaded by Malcolm Gladwell and the thesis of 10,000 hours of narrow, rigorous work. You don't become Yo-Yo Ma or Serena Williams unless you've been practicing nonstop since the womb. But David discovered a different paradigm that the most successful professionals and entrepreneurs were not narrowly focused on practice but had spent long portions of childhood sampling and exploring. By combining skills from many arenas, they became far more adaptable in the long run than those who stay narrow and sometimes burn out. David has written a book about this titled *Range: Why Generalists Triumph in a Specialized World*. His thesis has huge ramifications for education and career training. And as you'll hear, he even has gone toe to toe with Gladwell on the topic. This conversation got me thinking. I know you'll find it as fascinating as I did.

**Whitney Johnson:** So, David, for you, share with us a formative story, something that shaped who you are.

**David Epstein:** Yeah. Just a warning. It's going to be a little bit of a sad one, but in my sort of academic background and early in my work life, I was on the path to be a scientist, in environmental sciences, a Geological scientist, particularly. I was literally living in a tent in the Arctic, studying the carbon cycle. And I was also a competitive runner in the half mile. And one of my training partners actually dropped dead at the end of a race, like a few steps after a mile race, just kind of put his hands on his hips and collapsed and died. This was a young guy who was one of the top-ranked people in his age group in the country, first in a family of Jamaican immigrants who's going to go to college, all these things. And so, it sort of threw me for a loop, to put it mildly. And as I was reading news coverage

of this happening, it would say, well, he had a heart attack. And I sort of realized I didn't even know what that meant for, for a young person who was in that kind of shape.

**David Epstein:** And so, I started to want to sort of merge my interests in sports and science and and see if I could get some answers maybe. Eventually, I had his family actually sign a waiver allowing me to gather his medical records. And it turned out that he had this condition caused by a single genetic mutation. It's usually the cause of when you hear of a young athlete kind of dying unexpectedly, it's usually this, it's often missed or misdiagnosed. And I started to think, you know, there were things that could be done. And I had this, this overlap of interest in sports and science, and could I use those in sort of a novel way to work on something I thought was important? And long story short, I ended up becoming the science writer at *Sports Illustrated* and doing exactly that. And it was this sort of overlapping areas of interest that I think carved some territory for me where I could, I could make an impact. So, I think without that, I would not have gotten into science writing at all. So, that, that certainly was formative for my career.

**Whitney Johnson:** And what a gift you were able to give to his family by studying this and analyzing it and trying to come up with some answers.

**David Epstein:** Maybe. I don't know. I feel, you know, when I look back at it in retrospect, I've never felt as mission-driven in our work as I did then. You know, I also something that worked out well for my career, obviously was tragic for his family. And it was, it was a mixed bag. I feel good about the work that was done. That condition, whenever an athlete drops dead now is always mentioned, it's no longer obscure. So, I think that's a lot of great stuff has happened. You know, at the same time, I have a lot of mixed feelings about it, I guess, but.

**Whitney Johnson:** So, you have this experience that is tragic. Your fellow runner dies, but you think I need to get some answers. And you decide you want to become a scientist. And so, you go down this path of becoming a science writer for *Sports Illustrated*. Fast forward a few years, and you start your brain starts getting intrigued by this idea of, of *Range*. Can you tell us how this book came about, or it's building on the story that you just told us, but how did the book come about, and what is the actual thesis?

**David Epstein:** Yeah, and you know, in that fast forwarding, if you'll allow me. One thing I sort of realized when I got to *Sports Illustrated* is that you know, so, I entered *Sports Illustrated* as a temp fact checker. Doing work for people that were five, six years younger than me doing, doing sort of their chore like work, I guess. But pretty soon realized that my science background, where I was probably shaping up to be, you know, kind of a pretty typical scientist, I would say. You take those typical science skills, and you bring them over to a sports magazine. It's like suddenly you're a Nobel laureate. You know, it's like taking something that's like very common in one area and bringing it over to this other area where it's seen as an invention or unique. And once I realized that, that I could kind of just compete on my own ground, if I could do quality work, I didn't really have to compete with anybody because I had my own territory. That's when I realized I could this, like science writing could be a whole endeavor, not just an article or series of articles about sudden cardiac death and athletes. But I could take this lens to everything in sports. And so that sort of helped me go from being five, six years behind kind of my peers to being the youngest senior writer at *Sports Illustrated*. Pretty quickly once I realized that.

**David Epstein:** And once I got that freedom. I started exploring questions that were that I had just accumulated in my mind from my own viewing of sports, my own participation in sports. I was a college runner. And so, that led me to write this book about genetics and athleticism in which I stridently criticized the research underlying the so-called 10,000 hours rule, criticizing the 10,000 hours rule got me invited to something called the MIT Sloan Sports Analytics Conference, like a data analytics conference for sports, co-founded by the guy who's now the president of the Philadelphia 76ers. And I was invited to debate Malcolm Gladwell about, you know, athletic development. And this is on YouTube. And so, of course, he obviously he's, he's clever. And I didn't want to get embarrassed on stage. So, I was reading through his work, trying to anticipate what he might argue. I saw he'd written about the importance of a head start and so-called deliberate practice for athletes. So, I went and looked at the research and saw that, in fact, the typical path for athletes to become elite was to have this sampling period early on and actually delay specializing until later than peers who plateaued at lower levels.

**David Epstein:** And so, I brought that up in the debate. And when we're walking off stage, he sort of said, you know, that that doesn't really fit with what I thought. Like, do you want to come run with me tomorrow? The debate was in Boston. He said when we were both going back to New York. And he's, he's a very competitive runner, too. So, he said, let's run together and talk about it. And so, it became like a topic of our conversation and sort of private argumentation while we were running. And that evolved into looking at this trade-off between kind of specialization and diversification in other areas, like just in our conversations in sports. And that sort of became the seed of *Range* was kind of like reading so that I could, like have conversations with Malcolm when we were running and argue with him. And that became the seed of the book *Range*, basically. So, it was like the first book led to that debate which led to these other conversations outside of sports. So, that was the genesis.

**Whitney Johnson:** Couple of thoughts. One is that in our framework and for our listeners, we've got our framework of personal disruption and we talk about seven accelerants that allow you to move up the S Curve. And the second accelerant is play to your distinctive strengths, something that you do well that others around you do not, and that's how you differentiate yourself. So, going back to the comment that you made of you were a science writer in a field of sportswriters, you were able to differentiate yourself in a very meaningful way. So, that's very powerful.

**David Epstein:** Yeah. And sometimes I think, I think that's a great way to frame it. You know, sometimes I think you can do that either by getting good at things that the people around you aren't good at, or just by taking skills that are common in one area, just like bringing them somewhere else where they're uncommon and all of a sudden, you're special. So, I think there are a lot of ways to accomplish that if you're attuned to it.

**Whitney Johnson:** Right. And that's something that you talk about in your book over and over and over again, which is fantastic. All right. So, you were preparing to have this debate with Malcolm Gladwell, and then you out of those conversations sprung the topic of this book. How did you get the title? Was it a tough, tough job? So, many people struggle to get the title of a book. How did you come up with the title?

**David Epstein:** Initially, the working title. Both of my books look quite different from the proposals, by the way, because I guess at what I'm going to find and it turns out like my intuition I guess, isn't the best or something. And so, since Malcolm, I started talking about it in the sports context, we called it the Roger versus Tiger problem, basically, which ended up being the title of the intro because Roger Federer had this diversified early path. Tiger Woods had the typical, you know, the like stereotypical 10,000 hours thing. But it turns out that the Roger path is the typical one, even though we focus, even tennis enthusiasts like, usually don't know that about him, even though the science says that's a typical one. And so, initially in writing the book, I was thinking about these frames, these analogies to Roger and Tiger, like, when is it better to be a Roger and when is it better to be a Tiger outside of the sports world? And so, I kept thinking of the project in my head as Roger versus Tiger. There's no sports really after the introduction, but those were just these analogies for me to think about other domains, you know, arts, music, science, all these things. But then when it came to actually giving it a title, you know, the publisher said, we don't want people to think this is like a biography of these two athletes or something like that. So, I hadn't really even thought ahead to what a title might be. And so, then it was just sort of doing a little back and forth with my editor, Courtney Young, at Riverhead. After my own heart, she was on path to be an engineer, just like I was a scientist and got into writing. So, we're sort of very similar mentality. And then it was just sort of batting back and forth like what words might kind of capture this, this sort of broader idea of, of having a larger toolkit and a larger background of experiences than you have to. And it was just sort of in that like throwing words back and forth that it came up.

**Whitney Johnson:** Would you give the, you've kind of danced around it, but can you just talk people through. For at a very high level, what is the thesis of this book for everybody who's not yet familiar with your work?

**David Epstein:** To me the theme that runs through. You know, literally every chapter of the book is that, like sometimes the things you can do to get a head start or make the most immediate progress can actually undermine your long-term development. Whether that is picking a course of study, picking a career, literally how you learn basic skills like math, amassing the tool kit that you bring to creative problem solving, all those things like the thing that you can do that's the fastest, which is often just like picking something and sticking with it and drilling down and becoming increasingly narrow over time can give you an apparent head start in certain ways, whether that's in sports or in your career or your major or whatever it is, but ultimately will curtail your ultimate development going longer. And then and I think an important part of the thesis is that that becomes increasingly true in a world where work is

constantly changing and requiring you to do what psychologists call transfer, which is basically means taking your knowledge and skills and applying it to problems that are a little bit different than you've ever seen before. You have to be able to transfer to new things. And so, so maybe an easier way to give this gift, give that thesis would be that in a dynamic work world, breadth of experience and breadth of skills is an asset, not a liability.

**Whitney Johnson:** So, David, do you have a story where you had a skill when you were really young, you had a head start on it, and because you went narrow too fast, your development was curtailed. Where there's another part of your life where you did have the breath and so your development soared. Do you have a personal example?

**David Epstein:** Yeah. I mean, let me give you one that I sort of mentioned. I think it's I've been thinking about a lot lately, which is, again, when I was training to be a scientist, right? So, I started in grad school in geological sciences and, you know, wanted to, you know, like a lot of people who were doing that, and it was competitive. And I wanted to get through it quickly and do well and all these things. And so, I jumped into learning like very didactic information about the carbon cycle in the Arctic where I was studying and all these things and, you know, did a good job. I got my master's thesis through and like really good time. And only much later as a journalist writing about poor scientific practices. Basically, did I start to say, Gosh, some of these things I'm reporting on feel very familiar. I think I've done some of these things, these sort of inappropriate statistical analysis. And so years. So, I did these I did these inappropriate analysis and research methods was rewarded for it with like an Ivy League master's degree. You know that I'm not planning to give back, even though I now know that my research is not true. And I now realize in retrospect that I only learned to. To understand the methods of science and data analysis. A decade at least after I was, I was awarded. And by the way, the master's thesis is still in a peer reviewed journal. Maybe I should contact them or something. It's not like it's. It's not like I did anything egregious. I did what most of science does, which I just did some retrospective data mining, essentially, which is what most of science actually is now.

**David Epstein:** So, most of published research is probably not true. Well, almost certainly. And so, I think that is kind of crazy, right? I was going to quote unquote elite institution or whatever, and I was rushed into learning so much, so much of like the narrow, specific minutia about my field of study so that I could get like as narrowly specialized as quickly as possible. Because if you're going to go on to a PhD, you're being pushed to basically study something that nobody else ever has, sometimes for good reason, because it's like not very interesting sometimes. Sometimes not always, but. We skipped over the whole part of How are you supposed to learn how to think about this stuff? You know, the stuff I learned was the stuff I could most easily access with digital tools. Whereas the frames for thinking and understanding how you can draw true conclusions. I was never taught until much, much later. And obviously I think that's the way that most scientists are, are being educated, where they're being rushed into this, learning this like really narrow minutia without really understanding how methods are supposed to work. So, that kind of like boggles my mind a little bit in retrospect. So, yeah. So that was a case where like a very clear case, I think, where all of that time should have been spent, like understanding the broader concepts and how to think and then the minutia stuff like is much easier to learn and access on your own. You know, a lot of it goes in one ear and out the other anyway until you actually need it. And that's the kind of stuff that you could actually learn later.

**Whitney Johnson:** It's such a great example. So, when you think about that and understanding that, knowing what you know now, what advice would you give to people who realize, Oops, I've gotten too narrow, I need the breadth. What advice are counsel would you provide?

**David Epstein:** Yeah, I mean, I think it sort of depends on where they are, what field they're in, where they are in their career, things like that. I mean, so, for someone like me, for example, who, you know, I'm on the one hand I am like well into my career and have established myself in certain areas. On the other hand, I still very much like, don't know what I want to be when I grow up. And so, I think for someone in my position, there are a few things to do. One is I keep something I call a book of small experiments where in going through some of the research that went into *Range*, I started to realize that you, you kind of progressively become more and more narrow just by momentum unless you sort of push back against that in certain ways, explicitly or implicitly as time goes on. And especially if you become really competent in something, then you tend to just like do the equivalent of like lifting the same weights the same number of times every day once you get good at it. Which, it will stop you from getting worse, but it doesn't help you get the adaptation that you need to get better. And so, you actually need to seek out things where you feel incompetent, like just like you would in a weight room.

**David Epstein:** You need to, like, seek out something a little harder or different than you've done before. And not only does that help you progress in your skills, but it also combats your sort of decline of an important personality trait associated with creativity. So, the so-called Big five personality traits for people aren't familiar. Openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism. And openness to experience is the one by far that's the most associated with creativity. And it declines, you know, over the course of your life, particularly in middle age. But there's some really fascinating research that shows if you just force yourself to do new stuff, you can stem that decline of openness to experience, even if you don't get good at the new stuff. Just by being forced to do that stuff, you can hold on to that personality trait that's associated with creativity, and that's really important to me. So, I've started like forcing myself to do things that I'm incompetent at, which is doesn't always feel great. This actually I have right next to me. This is my current book of small experiments. It's *Alice in Wonderland's Curiouser and Curiouser* and oh, sorry. I guess people won't be able to see this. But anyway, it's Alice looking behind a curtain, and it says curiouser and curiouser.

**Whitney Johnson:** But I need you to pause right there so I can. So, I can observe. So, in our work, we use the S Curve. And you're probably familiar with the S Curve popularized by Everett Rogers, look at how groups change over time. Malcolm Gladwell popularized it with *The Tipping Point*. Well, I reimagined it to think about the S Curve of learning and how you and I as individuals, we grow and develop. So, you've got the launch point, the sweet spot, and mastery. And at the launch point, this is the place where growth is happening, but it feels slow. And so, it's uncomfortable and it's gangly and it's awkward, etc... And so, when I read your book and now as I hear you talking, I find myself thinking in praise of the launch point of being in that place of just discomfort. And as you described, we the more the older we get, the more we can insulate ourselves from ever doing anything new. Which is one of the gifts of the pandemic because it forces us to do new things.

**David Epstein:** Yeah, I love that. In praise of the of the launch point. I mean, I think there's so much to be gained by taking advantage of the early part of the learning curve in different things. Right. And then overlapping them in ways that that make you unique. Some people call that skill stacking, but except it is kind of uncomfortable, right? Like, yeah, when by definition, when I was talking to the economist, Russ Roberts, he can talk about this. I called it like a rut of competence because you get into it, This is really funny and like, excuse this digression, but I remember for my first book when I was reading all this literature on speed typing, like how people get faster typing. It, basically everyone gets to like 50 to 80 words a minute just by doing their daily stuff, you know, whatever, typing, emails and stuff. You can actually get like twice as fast as that. But you have to do things like follow a metronome, even if you're making lots of mistakes, which is super uncomfortable, and you tick it up just a little bit each day and you know, a year later you're way faster. And I love that analogy because it's a lot of skills to me. If you look at research on skill acquisition, look that way, where just by kind of doing it even sort of mindlessly, you'll get good.

**Whitney Johnson:** Incrementally better.

**David Epstein:** Incrementally better, but then you'll stop at a certain point. That's quite good. There's a ton of room left to grow, but you'll just like settle there, you'll plateau there unless you start doing different stuff, but the different stuff. So, So, Russ called this the hammock of competence. He said it's so comfortable that you don't want to get out and try something else. But I mean, some of those experiments, like the thing I call the book of small experiments, I just I put down something I want to learn or explore or whatever, and I force myself at least every other month to find a way to explore that. And one of the best things for *Range* was I took a well, I was having I was in a writing rut. I don't know. I was working at ProPublica at the time, this place that does all investigative stuff. And so, I was doing more traditional. I was like reporting about drug cartels and stuff. And again, because I realized I had sort of my learning curve had kind of flattened out at *Sports Illustrated*, I needed to go somewhere else to learn from different kinds of people and. So, when I was doing the writing, I was doing there was like very heavy on quotes because, you know, you want things in other voices, if you can, for investigative. Your lawyers certainly want it in other people's voices if you can. And I was writing *Range* at the time, and it was just not I didn't know what was wrong, but I guess I had good enough taste to know that something was wrong.

**David Epstein:** Like, it just wasn't working. And so, I thought it was a structure issue. So, I said, Well, I'm going to take a beginner's online fiction writing course. Just see if it'll give me some new structural ideas. And I take this course. So, this is one, one of the things for my book of small experiments. How am I going to get out of whatever

writing but I'm in? And in that course, there were two assignments. One, you had to write a short story with only dialog and one with no dialog. And I realized my one with no dialog was way better and way easier to read. And I, I think I had been overusing quotes in my book manuscript because I was, I was mostly doing investigative writing, but reading stuff that, quote heavy is tiring at the length of a book. And also, I was kind of using quotes to sort of like paper over stuff I didn't really understand well enough. And so, I went back and changed every single page of the manuscript I had to that point. It was cool, but also a little frightening that I didn't realize what was wrong until I sort of took this class and the light bulb came on that like, Oh, I should be doing more narration and less dialog. But the difficult thing is like, you don't sometimes you don't know where those where those little mini revelations are going to come from.

**Whitney Johnson:** Right. Unless you unless you're in the habit and the discipline of jumping to new launch points which, which you are. So, on that. So, one of the things that I'd love for you to tell one of the stories from the book, because as I think about I think sometimes because we have this notion of the early start or the head start so ingrained in our psyche, I think for our career and for our life, when we're slow to move off the launch point, we can get very discouraged. And I think listening to or reading I actually listen to your book, the Figlie Del Coro, that was really interesting to me. And so, I would love it if you could just talk about that story for just a minute of how they were in many respects at the launch point for a very long time. But then they became absolute masters. So. So, tell us that story.

**David Epstein:** Yeah, the Figlie Del Coro that that means you know, in Italian daughters of the choir basically. And this was a group of young women in 17th and 18th century Venice. Well, to go back a step, I guess Venice had a very vibrant sex industry at the time, and that led to a lot of children that couldn't be taken care of. And particularly baby girls would be dropped in the canals. Sometimes they couldn't be taken care of. And in response to that, Venice started these incredibly progressive social service organizations, basically called Ospedale or hospitals that would like literally had the biggest one was called Ospedale della Pietà, the Hospital of Mercy, basically. And it literally had like a thing like you put your carry on in the airport, you know, in that thing, the sizer to tell you if you can carry it on and they literally had one like that where you put a baby in and if it fit, they would take it the baby in and raise it, no questions asked. And they wanted in those institutions, the girls would sort of learn skills. The institutions themselves were sort of fully functioning mini economies, and they would take donations and they started taking donations of instruments that people would leave because Venice at the time was like the center of musical innovation. I mean, like the modern piano had just been invented there. Like it was it was where it was at. And so, when there were donated instruments, the girls would sort of get incentivized to learn new stuff, like they could get out of some of their chores. Sometimes they even get paid for like learning new things. So, literally, they just like incentivized via cash to learn new things. And so, they would try to because of that, they would try to learn as many of the instruments as they could, and then started playing concerts.

**David Epstein:** And the governors of these institutions realized that people were starting to pour money in because they were these, these girls and women were so good at the instruments. So, then they got more and more and more. And basically, these girls and women would learn all of the instruments like they would switch during performances and over the course of their careers. And they became that that made them into such an incredible kind of musical laboratory that composers started kind of fighting to be able to compose for them because they could do anything and allow you to create. And so, Vivaldi, for example, you know, the Figlie were probably the first people to play the Four Seasons. Vivaldi became like their dedicated composer for a while, when I was going through some of the historical documents, I would find like receipts for reimbursement from Vivaldi, where he would buy some of the girls instruments and things like that. And Mozart, when visited, I think they didn't become as famous in modern history textbooks for a few reasons, one of which is that they were orphans, right? They didn't have a lot of families protecting their records. Two, Napoleon's troops threw a lot of their records out the window. And also, most of them stayed in the institutions there, their entire life and didn't really travel. But it was just really interesting that their approach. Was literally trying to learn every single instrument. And that's what turned them into, you know, sort of the first celebrity virtuosos, really, who the greatest composers in the world would vie to compose for. I just thought it was such a fascinating story.

**Whitney Johnson:** It's such a great story. And some of the research and I won't ask you to recall it, but you said too many lessons at a young age may not be helpful. The modest investment in a third instrument, this isn't for the Figlie

Del Coro, but other research that you cited, the modest investment in a third investment paid off handsomely for the exceptional children.

**David Epstein:** Yeah, that was from that was from modern music research that found that that students at world class music academies who were deemed exceptional by their instructors tended to have a very similar development to kind of that pattern I described with athletes where early on they'd have a bit of a sampling period where they would try different instruments, they would spend some of their time in like lightly structured or, you know, the 10,000 hours focused on so-called deliberate practice where it's like effortful, all cognitively engaged. Someone's telling you whenever you make errors and things like that. So, they would sample more instruments and they would tend to have some of this unstructured time too before they focused in. And that turns out to be true even of musicians, typically of musicians. Obviously, there's tons of variation in individual development, but. Like even Yo-Yo Ma, for example, famously precocious, actually went through a few instruments and then stepped away from music for a little while until he found cello and kind of exploded. He went through that those stages much faster than a typical person, But he still had that kind of sampling period. And so, that conclusion about too many lessons early on was from modern research on at music academies.

**Whitney Johnson:** Yeah, and I think about actually my myself because as a very young child I displayed aptitude as a pianist and I studied music in college and my mother was like, Let's just do piano. But it was very much let's double down on piano. And then I reflect on some of my college peers who had grown up in a household where their father was a middle school music teacher. They played lots and lots of interests. They played the bass, they played the piano, they played the drums, etc. And now one of them is a professor at Eastman School of Music in Rochester. And so, it's a great case study of exactly what you talked about.

**David Epstein:** That's really interesting. And I think there are multiple things going on. You know, we have to speculate a little bit about some of the mechanisms of what's going on here. But I think there are a few issues. You know, there's first of all, this research in psychology that I think can kind of be. And I'm going to steal this phrase from a woman named Dedre Gentner, a psychologist who said, you know, you summarize this this classic finding as breadth of training predicts breadth of transfer. Meaning that the sort of variety of ways you have to do things or solve problems in your training predicts your ability to then solve new problems, essentially, because when you do this, the variety of stuff, you're forced to build these kinds of generalizable models. They become more flexible for future problem solving. And I think that's some of what's going on in why sport diversification works. Why instrument diversification works. I think some of it also is the issue of match quality, which comes up a lot in *Range*, which is essentially a term that economists sometimes use to describe the degree of fit between someone's interests and abilities and whatever it is they're doing.

**David Epstein:** And I think that kind of applies to instruments like, you know, like it did for Yo-Yo Ma. But even in the book *Battle Hymn of the Tiger Mother*, when it was the first page was excerpted in *The Wall Street Journal*, is their most commented upon article in the history of *The Wall Street Journal*. And that page, the author recounts assigning her daughter violin and having her do like five, 6 hours of deliberate practice a day. And I think that really seeped into the public consciousness. What didn't, I think, is the part later in the book where the author, to her credit, recounts that her daughter says, you picked it, not me, and quits. Right. Which is which is kind of in line with the research also, because if you spend some time, again, to get to this short term, long term trade off, if you give people some time for sampling early on, the chances that they're going to find high match quality is much, much better. And when people get high match quality, they display all of these qualities like perseverance, sense of fulfillment that they might not have if they have lesser match quality.

**Whitney Johnson:** Okay. So, you talked about the sampling period. Is there an ideal or optimal age range for the sampling?

**David Epstein:** Yeah. To give you a semi unsatisfactory answer here, because I think the reality is. That the optimal is not only not known in a lot of areas and differs by area, but we don't really know because most of the systems that we're all embedded in are not oriented toward optimal development. They're oriented toward getting things done on certain timelines. Right? So, if we look at like in the sports literature, for example, if you look at, say, athletes who get Division 1 scholarships versus those who are aiming for that but end up at like the intramural level at those same institutions. The Division one scholarship athletes will typically have narrowed down to a single sport like at like 15

and a half or so, whereas the athletes who plateau at lower levels will tend to have narrowed down by before 14, you know, at like 13 basically. So, you might say, okay, well, optimal is 15 and a half, but I don't know that we really know because that's also just before people start getting recruited. And so, the narrowing, I think, isn't necessarily done for optimal development. It's done because you're on a timeline if you're trying to get a scholarship, whereas other research like that looked at like the German national soccer program, for example, when they won the World Cup, it included some of the athletes who were on the World Cup winning team up until age 22. The highest-level athletes were still spending more time in like lightly structured activity and other physical activities. Sometimes those are other sports. Sometimes it was dancing, martial arts, rock climbing, whatever.

**David Epstein:** And so, they weren't on the same sort of timeline college system that Americans were. And so, I think what's optimal is, is kind of hard to say because that's not how the systems work. Like when I spent some time with, I cut this stuff from the book, but I spent some time with the physiologist for Cirque du Soleil because they have incredible data like their performers wear biometric vests and all this stuff. And they were reading some of this research and said, okay, well, we're going to take our performers and have them learn the basics of several other performers disciplines, not because they were going to perform those, but because there were this research suggested there are benefits to that, and it cut their injury rates by a third. Right. Doing that. And that's a serious commitment for them to take time away from someone training in their main discipline. And these were performers who were way into their careers, like deep into their careers, and they were still getting benefits from that. So, I don't know what's optimal. I think what's optimal is has to be like titrated to what system you're being crammed into. Like Norway, which I think is quite clearly right now the greatest sports country in the world. They don't even allow scorekeeping or ranking before age 12, which would be like nuts in the United States. Right. And they're doing the best right now. But again, I think I think the optimal is often in conflict with the systems that people have to prepare for.

**Whitney Johnson:** All right. So, let's generalize, though. You can probably argue that you want to not stop sampling before 12.

**David Epstein:** Yeah. Yeah, I think so. I mean, I think there are always edge cases for everything. So, in human development is very broadly variable, but I think that's the case. I mean, I think overall you mentioned the afterword of the book, which I wrote a little bit more with my parenting hat on, because between the time that I wrote the original manuscript and the time I wrote that afterword, I became a parent. And I think both of my books sort of inform how I think about parenting. The first one was about first book was about genetics and in reading, lots of behavioral genetics research. One of the things. That dawned on me was that we don't like. You can certainly ruin a kid with deprivation, no question. But above a sort of a certain level of enrichment, parents are not manufacturing their child's skills, abilities and interests and personality the way that they think they are. And at first, I was kind of found that kind of depressing. And then I sort of said, well, maybe I don't want to micromanage anyone. Maybe that's kind of liberating. I don't have to, like, be nuts. And really, I think the best you can do is help them figure out who they are and so that they can progress toward good match quality. And so, I think one of the most important things a parent can do, not just a parent, actually anyone, because this is very similar to that Harvard research in *Range* called *The Dark Horse Project*. It's about how people find fulfillment in their work. And basically, what those people do is they say they focus on like short term planning and acquiring like a roster of experiences.

**David Epstein:** So, they don't set out to say like, I'm going to be a generalist. They set out in search of good match quality, say like instead of looking at who's younger than them and ahead of them or whatever they say, like, Here's why I am right now. Here are my skills and interest. Here, are the opportunities in front of me. I'm going to try this one, and maybe a year from now I'll change because I will have learned something about myself, or my options will have changed. And they're very self-reflective, so called self-regulatory learning about what met my expectations, what didn't, what was I bad at? I thought I'd be good at What was I interested in that I thought would be boring. And they pivot. They keep pivoting based on that knowledge. And I view my role as a parent like things might expose my kid to are always going to be limited by geography, by all sorts of things. But to expose, set up a variety of opportunities, and really try to help him become a self-regulatory learner like that to reflect on what did you learn about yourself and the opportunities available to you and how are you going to use that for your next pivot? And I'm not going to predetermine what those pivots are, but I do think that an important role for a parent is to try to help the kid get the most amount of signal about where they fit from each of those experiences, if that makes sense.

**Whitney Johnson:** So good. Yeah. As you were talking and I was, you saw me kind of Googling for a second, I was looking up a quote that I found when my kids were probably eight or ten, and it's from Abigail Adams, who was the wife of John Adams, one of the early presidents of the United States. And she said this, "Oh, blindness to the future kindly given. That each may fill the circle marked by heaven." Isn't that good? It's good that we don't know exactly what our kids are going to do or be, because we would try to legislate it too much. And it's good that we're blind to their strengths.

**David Epstein:** Yeah, it's also. Also keeps it interesting, I think sort of I mean, harrowing maybe at times also. But interesting.

**Whitney Johnson:** You made a statement; I think it was in the last chapter of the book that I want to quote. And here is a statement which I just love. Don't feel left behind.

**David Epstein:** When I write my book, some sort of writing something about something I'm curious about investigating or something. An area of research I think has been mis portrayed. And so, at the very end, I know that I'm not the best at writing, like what should your practical kind of takeaway be? And so, I decided to tack on at the end just sort of some of how I was thinking about it and what were some of the themes and I think Don't feel Behind was one of them. Because I think our intuition is to see, like if two people are separated by X amount on Y skill and we're looking at both of them at the same time. I think our intuition is that we are looking at a point on parallel lines and they will always of development, and they will always be separated by that same amount. So, whoever is ahead right now will always be ahead. And there is very, very few things in, in literature on skill development where that is true. Like development just is not linear. There's like dips and plateaus and hot streaks and all these sorts of things. And so, but that's, that's not so easy for our intuition. And so, I think feeling behind like. You don't you don't know what the trajectory is.

**David Epstein:** And so, I think the focus on feeling behind can lead people to do things that actually can get them behind. To do things that are sort of quick fixes instead of building up a tool kit. And, you know, for the future, like the like again like that *Dark Horse Project* at Harvard that focused on people that found good match quality with their work. It became called *The Dark Horse Project*. It wasn't called that at first. It was called that because these people who came in, not all of them, some of them had followed like a more traditional linear kind of, I don't know, traditional, but more linear career path. But the large majority of them had not they had done something and said, Well, that wasn't what I thought it was. And so, they go this other direction, and they would say like, well, and then I kind of came out of nowhere, which of course what dark horse means. So, don't tell people to do what I did because I kind of followed this winding path. But they almost all think that they all think that they're an exception. And so, they go through this period where they're really heavily invested in learning about where they fit, and that looks behind until, you know, it's really not because once they get a fit, their growth rates are really fast.

**David Epstein:** It was like the exact same finding as one of the work by an economist that I wrote about in *Range*, where he looked at differences in higher ed systems based on timing of specialization and saw that those that force earlier specialization, the graduates do jump out to an income lead. They're hired more quickly, and they have more domain specific skills, whereas those who kind of sample and specialize later, they don't have it a little harder for them to get hired early on. They don't have as high of an income, but they end up with better match quality fits. Their growth rates are faster, so by six years out they fly past the early specialists. Meanwhile, the early specialists start quitting their career tracks in much higher numbers, basically because they were made to choose so early that they more often made poor choices without really knowing who they are. And so, I think if people could jettison the idea of of feeling behind by looking around at like there's always someone who's looks ahead to you in whatever you're doing, then they could more focus on what is the actual way that they can get like a lot of signals about their own development.

**Whitney Johnson:** As I said in praise of the launch point, having two college age children. Okay. I want to just for the record, I said don't feel left behind. So, you made the statement. Don't feel. No, don't feel behind. Right. That's the actual statement.

**David Epstein:** Yeah. Think about yourself yesterday, like there's so much. We're I think we're in a golden age of like the ability to make comparisons that are bad for you, unfortunately.

**Whitney Johnson:** So, speaking of don't feel behind Frances Hesselbein, tell us her story. And when she actually moved into her sweet spot, she was not 20 years old. So, talk to us about it.

**David Epstein:** Yeah, and she's kind of became like a bit of like a personal role model for me also. So, Frances did a lot of volunteering in her community. She took her first professional job at the age of 54 after having done things in like her husband's, like photography and film business and just odd jobs. But first, professional job at age 54 goes on to become the CEO of the Girl Scouts, which she saved. She tripled minority membership. She added 130,000 volunteers. These are people she paid in a sense of mission. Turn the cookie business into a third of \$1,000,000,000 in a year, that kept growing from there. Totally transformed the organization from one that was basically preparing girls for life at home to one those preparing them for careers in business and math and science. I have. She gave me a badge that came out of her tenure. That's binary code for girls that were learning about computers and things like that. And it's interesting because her credentials, you know, you wouldn't have thought like previous her predecessors, as CEO, were a woman who had started the Women's Coast Guard Reserve in World War II. A woman who was a psychologist and a university dean at a major university research university. Frances had one semester of junior college education. She'd had to drop out to take care of her family and had been the head of one of several hundred heads of like a regional Girl Scout organization.

**David Epstein:** And I actually think that this played to her strength in a number of ways. She seemed to be throughout her career. She has these phrases. I love. One of them that stuck with me is called "You have to carry a big basket to bring something home." She said, like anything that you do, anything you expose yourself to, if your mind is like very wide open to it, you will bring you will take something from it. And she would say this often when people were doing things and saying like, Well, what am I getting out of this? She'd say, like, if you're attuned to getting something out of it, you'll get something out of it. I think she was kind of hyper aware that she herself couldn't contain all the knowledge it would take to fix the Girl Scouts. It was totally in a tailspin at the time, like existential crisis for the organization. So, one of the things she did when she came in. She took the sort of normal org chart and ripped it up and created what she called circular management, which is basically you think of like people as beads on concentric circles. Everyone has multiple contacts at both adjacent levels of the organization.

**David Epstein:** And the goal of that, she didn't use this terminology, but it says some of the research is differentiating the chain of communication from the chain of command. So that information would start flowing, that she could get feedback quickly and understand how her decisions were rippling through the organization. And that's sort of what led to them having all these realizations like that. They were heavily invested in campsites that were great for nostalgia, but nobody was using anymore, and they were big money drains and all this stuff. And so, I sort of think. First of all, her life path, which again, like these dark horses, was very based on short term planning. Like the first thing I when I sat down the first time I talked to her, I think I think I was like a little nervous because there was like some general like waiting at the door. So, I knew my time was going to be short for her because she teaches at West Point also. And so, I was like, Well, you know what? I'd ask something like, What prepares you for leadership or something? And she was like, Oh, don't ask me that. Like, I had no idea what I was getting prepared for, I was doing what was needed at the time.

**David Epstein:** Like I looked for what was needed in my community, and I did that at the time and learned from it. And so, her whole career, like all of her leadership positions, I mean, she led like United Way campaigns, She led the Girl Scouts. She runs a leadership institute. Basically, all of those roles she actually turned down before like rethinking it and then deciding to do it because she saw a need. And so, it's just this her whole life was this series of short-term pivots of what's needed right in front of me and what can I learn something from? And that that amounted to this like incredible, incredible career that's still going. She's 106. So, as she says, who knows what's next? And I just thought it was so interesting that she was so focused on what's needed right now as opposed to like my ten-year goal, my ten year goal. And yet that amounted to her becoming like this incredible visionary leader where, you know, Peter Drucker, I think one of the most well-known management scholars, called her the greatest CEO in America, and said she should take over GM when that CEO resigned. And so, I think she's I think her story should be better known, but she's not much of a self-promoter.

**Whitney Johnson:** It's so encouraging, isn't it, to hear those kinds of stories.

**David Epstein:** It's amazing. It's amazing. And I mean, beyond. She's just like when I was around her. Sometimes she's like, I went to get lunch with her. She just sort of, like, makes you. She says, "Leadership is not a matter of what to do, and it's a matter of how to be." And I really get that when you hang around with her. Like I went to lunch with her one day and someone was being a person in front of us in line was kind of being rude to the server. And so, Frances, after that goes up and of course just like starts praising the server and telling her all this stuff and going like, gosh, it's got to be like, so stressful. It's like lunch rush and all this stuff and it's like all the other people around. Like, know, what's going on. Like Frances is basically like sub-tweeting the other customer. But like, not only does it make that server's day, but other it makes everyone in line behave better. And so, just being around her, you're always like kind of just want to be a little bit better, treat people a little bit better because she just lives that way.

**Whitney Johnson:** How has your research disrupted you and who you are. How are you different because of this work that you've done?

**David Epstein:** I think I'm a little bit, for one, a little bit less, like self-conscious about my own zigzags. Not that I'm not, because. I am again in this phase where I'm not exactly sure what I'm going to do next. And all of my, when I was like 16, I had it all figured out. I was going to the Air Force Academy to be a test pilot, an astronaut. Of course, I did none of that stuff right. And I've gotten almost linearly less knowing where I'm going over the course of my life. And I still find it unsettling when I'm between things, you know, you feel like you're like an old turntable. It's like being cross-faded and you're like, not sure which side you're on yet. And but reading the work of Herminia Ibarra, a London business school professor that's in the book. That that her book, *Working Identity*, really resonated with me. Where she said when people change careers or big projects like their work is part of their identity. So, you don't just run into a phone booth as Clark Kent and like rip off your suit and come out as Superman. Identity changes one small piece at a time. And so, you're always going to have sort of feet in multiple worlds, and that will feel unsettling. And it does. But I think I've gotten a little more comfortable with that.

**David Epstein:** And so, I feel a little less rushed to pick my next project, and I feel a little more systematic about how I evaluate what's going on next and understanding like, what about previous projects did and didn't meet my expectations? What do I think I need to work on? What are things I found that I'm interested in that I didn't think before. And so, I think I'm more systematic about looking for better projects. I mean, I think one reason why I'm not right now working on another book is because I'm sort of more comfortable being in an exploratory phase. Which, by the way, there was this pretty seminal research that came out to recently for me to put in *Range* about hot streaks at work. It turns out most people only ever have one, but they can be long. Some people will have two, but they're reliably preceded by these periods of exploration this so-called explore-exploit tradeoff. Which is like you have to sort of do some looking around and experimenting before you find the thing that you should really dive in on. So, I think I'm more attuned to looking around for a project as opposed to just kind of like doing lots of low-value stuff in because I have like a need to feel like I'm doing something. So, definitely that.

**Whitney Johnson:** So, one of the things I hear you saying, and I love Herminia's work is this idea of the match quality. And also, one of the things that we sometimes see at the launch point, and I think this is where people end up, like you said, quitting jobs early is that uncertainty is so uncomfortable. It just is so uncomfortable to not know what you're going to do. You become hasty and you commit to something that's not really what you want to do. And then a year or two or five or ten years later, you're like, oops, you know, and you got pretty competent. So, now it's hard to you've got the sunk cost. And so, that what I hear you saying is this book and your research is giving you permission to just explore.

**David Epstein:** Definitely. And I think and, and you know, I think jumping into things is okay. And so, you know, like. As Herminia said, you have to act and then think. The way that we gain insight into ourselves is by doing things and then learning about ourselves, like by observing ourselves. And so, I think it's I think it's okay to jump into things that might not be perfect. In fact, earlier in your career, early in your career, I think people shouldn't even worry about it being too perfect, like jump in and you're going to learn something. The issue is you have to be willing to pivot based on that. One other thing that I didn't mention that that helped push me sort of over the line to do *Range* was I started to have some interaction with scholars from the Pat Tillman Foundation. So Pat Tillman was an NFL player who left in the middle of his career to join the military, was killed in Afghanistan, and the foundation gives sizable grants to soldiers, military spouses, and veterans for career development and sometimes career switching. The first time I had I had a college track training partner who became a Tillman scholar and invited me

to speak to, like, a tiny group. And I talked a little bit about some of the things Malcolm and I had been, you know, discussing about how like, well, actually, you know, some of this delayed specialization often leads to the highest performance. And they were like, this was like 15 veterans.

**David Epstein:** It was like such catharsis. They were all coming, Oh, I felt so behind. You know, there'd be some guy who, like, was in Harvard grad school and was on SEAL Team six, would come up and be like, Oh, I thought I was so far behind, I'd never. I'm like, Wow, if these people feel that way, there must be a lot of people who feel like they're desperately behind. And of course, they do what I described before, which is they have these inimitable experiences and so they are behind for a little while until they're really not because they're so unique. But I ended up being on the final selection committee for several years of the Tillman Foundation. It's incredibly like I'm totally the clown. It's like three-star generals and whatever and me, and it's incredibly competitive, like a 2%-win rate for the scholarships. And one of the things I've noticed because this is it's basically an admissions committee, is that when I get someone's like package their application package, the first thing you see is like the resume. And even knowing what I know, my first reflex is this person looks a little bit scattered. A lot of the people who win and what happens is the scattered people, the zigzagers end up occupying both tails of the score distribution from the admissions committee, the ones that are just scattered and kind of like, don't explain it. They don't end up with such great scores.

**David Epstein:** The ones that that get the scholarship are primarily people who just to make up an example, someone goes to high school or college, and they don't like their work after that. And so, they join the service, and they end up in like some remote valley administering health care or whatever. And they learn about problems they didn't understand before. They learn they're good in certain leadership situations they'd never experienced. You know, they, they, they learn about themselves. And they come home, and they want to use some of the things they've learned and tackle problems that they didn't know about before. And so, they explain these zigzags as like a series of pivots in response to their lived experience. And it's like a light goes on in the committee every time. It's like, Oh, that's how we want people to develop, not just staying the course despite what they've learned. And so, those applications that raise an eyebrow again, even for me, I mean, I'm like human. Just because I wrote this book doesn't mean I don't have the same instincts. It's like a light goes on and these people take something that can be seen as a liability if they don't explain it and turn it into these incredibly powerful narratives that make them look like real learners and smart pivoters. And so, I think retelling your story to yourself a lot for people that have a zigzag, diverse background is very important for yourself and for when you're presenting it to others.

**Whitney Johnson:** All right. So, I want to I want to just really underscore that for everybody who's listening is this idea of you have this breadth of experience and you can look scattered, and you might be, but if you're not, the key is to be able to describe these series of pivots as a response to what was happening. And in the words of Frances Hesselbein, I'm paraphrasing, Where am I needed now?

**David Epstein:** Yeah, yeah, absolutely. And it makes such a big impression when that's done well. You know, and I've seen this happen like every time in the committee, it can really be a huge asset if you can explain that. And you look like a learner. And I really think. You know, especially early in a career, you're going to get something out of everything, right? You're going to learn things about yourself and about the world from everything. And so, it should not be hard to take lessons from what you're doing and have it inform your future moves.

**Whitney Johnson:** Okay. I have an idea for you. So, you know what? When I was reading your book, I thought of Power Rangers. Like you could have an award for Power Rangers.

**David Epstein:** I've never gotten that.

**Whitney Johnson:** You've never gotten that. But the thing you could do that could be really fun is because you've done all of this research. If you ever wanted to do something where you're giving back or some type of charity or whatever, you could have people. Because one of the challenges is that when you look at your history, it's sometimes very difficult to construct a narrative. But you or I listening to it can immediately see it like, Oh, wow, that's a that's amazing what you just did. And so, you could potentially do something where you could talk to people and give them, listen to their story, what they've done, and in 15 minutes, repeat back to them why their narrative is actually

incredible and not something to be ashamed of. Because sometimes I think people feel shame when they've bounced around. They've pinballs.

**David Epstein:** Oh, absolutely.

**Whitney Johnson:** You're able to reconstruct it, reframe it.

**David Epstein:** I mean, again, like that, that dark horse project again, that was like literally studying people who did end up being I mean, the dependent variable was fulfillment, but a lot of them were also like very successful in conventional ways. And they would come in and say, Don't tell people to do what I did because I'm this outlier. Right? And most of them thought that they were outliers. So, even these people that were really, really successful were very self-conscious about it. And I think one of the messages that came through to me from that research is that this is, you know, at least in our current age of work, this is the norm, not the exception. And just like with the Tiger Woods story and all these things, we keep focusing on the exception. And not that those exceptions don't exist, but I think it's important for people to know what's the norm and what's the exception. And to go to that point about telling narrative, if someone really can't construct that, like if they're really not taking lessons, then, you know, that's maybe something important for the people that are going to work with them to know. Another. Bit of research that came out too recently for me to put in *Range*. Updated some of the sports data showing again that there's like this tension between short and long term development.

**David Epstein:** And they also tied it to some research in Germany that looked at Nobel laureates and showed a similar pattern where they tend to progress more slowly early in their career scientists than their peers. So, they get tenure later and stuff like that. And because they're more interdisciplinary early on. And so, I think there's a lot of you know, a lot of this research finds that people just like, look like they're behind early on when they're developing this broad tool kit. And I only made sort of a small note of this in *Range*, but there was some suggestive, not dispositive but suggestive research that women, particularly in science, are more have more desire, express more desire to be interdisciplinary early on, but tend to be discouraged because they're told like they won't be taken seriously. So, that's a problem, right? Like when? Like specialization, obviously has no, like we need to break up the world into disciplines because to make it comprehensible. But somebody has to put the world back together again at the end of the day. And so, we need interdisciplinary people. And I think when specialization is being done for its own sake, because people like won't take you seriously, that's a that's a problem. I'm not saying we have to force everyone to be interdisciplinary or broaden their skills, but I think we should try not to stifle those things.

**David Epstein:** I've talked about. I've talked with Adam Grant about this. There's a point in *Range* where I sort of excerpt the work of a woman named Abby Griffin and her colleagues. She studies, she and her colleagues study serial innovators, people who make like repeated creative contributions or organizations. And I just took out these quotes from her work of describing who these people are. And it's like they're systems thinkers. They read more and more widely than their peers. They have a need to learn outside of their domain. They have a need to communicate with people outside of their domain. They have a broader network than their peers. They appear to flit among ideas was one of them, which doesn't normally sound like a compliment, right? They connect disparate pieces of information in new ways. They repurpose old things. It's all this like rangy stuff. And in her work, she sort of says, like, dear organizations, if you force people to be too narrow or define jobs too narrowly, you'll just make sure that you select these people out or force them to go to other places, to other organizations to accumulate this kind of breadth. And when I talked to Adam about it, we were I think this was a while ago, but we were talking about, do we think you can create those people? And I think the answer is not really sure, but that you can definitely stifle them.

**David Epstein:** And so, I think at the very least, we should not like poison the ground for these the people that we know become the most important innovators. And I think that's like a message for the managers, like the people who control those systems. I was really fascinated by the work on desirable difficulties, which are findings in cognitive psychology of strategies that make learning feel sometimes less fluent and more frustrating, but that make the knowledge both stickier and more flexible later on. So, one of the desirable difficulties I talk about, for example, is called interleaving, and so, there's plenty on that in chapter four. But another study that came out too recently for me to put in *Range* I thought was a great example where it was, I think it was sixth grade math classrooms were randomized to different types of math learning. Some of them got what's called blocked practice, which is like where

you get problem type A A A A A, B B B B B and so on. The other classes got interleaved, which is like if you took all the problem types and threw them in a hat and drew them out at random.

**David Epstein:** And in that situation, the students tend to progress more slowly early on. They can be more frustrated; they can rate their teachers lower. But instead of learning how to just execute procedures over and over, they're learning how to match a strategy to a type of problem. So, they're learning this like generalizable models. And when everyone got the same test later on where they had to do transfer, right. Solve new problems, the interleaving group like, blew the block practice group out of the water. I think the effect size was like on the order of taking someone from the 50th percentile and moving them to the 80th, which again, I'm picking like a part of the curve that makes it seem the most impressive. But it was a big effect. Yeah. And so those things. So, now when I'm like, if I'm trying to memorize a talk or learn anything, I mix up the practice like I interleave, I quiz myself before I actually know the material that turns out to be another desirable difficulty. If you're forced to try to generate an answer when you don't actually know, it will then stick better when you learn it. So, yeah, some of those desirable difficulties in chapter four, I really apply to like kind of everywhere I can now.

**Whitney Johnson:** Yeah, it's so interesting. So, I've been, I've been learning a little bit of Romanian and a little bit of Korean and I was doing Korean on Duolingo. And Duolingo is more like what the first example that you described, it's too easy. Whereas Pimsleur it is desirable difficulty.

**Whitney Johnson:** I'm learning so much more, so much faster. Well, not faster, but I'm learning it so much better and feel like I'm really making progress. Whereas Duolingo, I felt like I was making progress, but it was like cotton candy for the mind. Not really making. Yeah, fast, but fleeting. Exactly.

**David Epstein:** I was going to say I was going to mention Pimsleur and I don't want to like endorse Pimsleur. I have no literally no relationship with Pimsleur or know nobody involved with Pimsleur or anything, but it is quite obvious that they read the desirable difficulty literature because it's worked into all the stuff they do and it makes it kind of frustrating at first and then you realize, Oh, all of a sudden like sentences are coming out. Yeah.

**Whitney Johnson:** To wrap up, I would love to hear any insights that you had as we were speaking. It could be said or unsaid connections that you made as a consequence of our conversation.

**David Epstein:** I mean, my favorite thing was the in praise of the launch point. I hadn't thought about it that way. And I think that's a great phrase, and I think it's also a very positive way to frame it, which I think is a big issue. Because, you know, we talked about self-consciousness that people have. Maybe they play down things that should be assets rather than liabilities. You know, I wrote in in the book, especially in the afterword, about the Army's talent base branching process whereby basically they, they develop people better and got better retention by giving people a sampling period. And to me, in many ways, that sampling is like coached quitting more or less. But that's really bad branding. And so, I think something like the launch point is it's positive. It's kind of exciting. And so, I will certainly attribute, but I'm sure I will use that phrase and give you credit for it more. So, I really like thinking of it that way.

**Whitney Johnson:** Wonderful. Any final thoughts?

**David Epstein:** I think people should just, like, focus on competing with yourself. Again, I think we're in a not great place in terms of comparisons that are not really good for how people develop. Because I think I think I think it's good to have things to shoot for and people to compete with. That I think is good. I like competition, but I think it's so much it's so overwhelming now. It can be depending on how you use the Internet. That it can really lead people to do things that are not optimal for their development to stay on a course that's not right for them. To pursue things that aren't really where they want to go. So, I think one way that I sort of combat some of that, and this was given task was given to me by a woman named Marije Elferink-Gemser a Dutch psychologist who studies self-regulatory learning, basically how you think about your own thinking. She gave me these questions to answer like every month, What are you trying to do? Why do you want to do it? Are you sure you want to do it? What do you need to learn to be able to do it? Who do you need to help you learn those things? And answer these over and over and over. And I thought it was silly at first because I would always answer them the same. And the fact is I don't like it always

changes. And I think having an exercise like that can kind of keep you a little bit focused on competing with yourself as opposed to like with the Internet, which is a losing proposition, I think.

**Whitney Johnson:** It will make you feel behind. And again, I want to just reiterate those words don't feel behind, because for me they were so powerful and so comforting. I think it was a wonderful way to to end the book.

**David Epstein:** I appreciate that.

**Whitney Johnson:** David, thank you very much.

**David Epstein:** My pleasure. Thanks for having me.

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I hope this conversation with David gave you a new perspective. Here are two overarching takeaways. Number one, if you're feeling stuck, do something new. Writer's block? No inspiration? Maybe you've hit the Mastery Plateau on the S Curve and work just doesn't feel as exciting as it used to. Or as David so eloquently put it, you're lounging in the hammock of competence. Take a page from David's book of Small Experiments. It's how he fights the narrowness of settling into your age or career. Force yourself to do something new whenever you can, and creativity will start to flow back in. Don't confuse this with a bold S Curve jump. You don't need to quit your job or become an avid skydiver. Even trying something adjacent to your existing work or hobbies can be enough. David calls it skill stacking a way to combine your existing skills with new ideas and experiences. At a minimum, it will give your brain a jolt. At most, it could unlock a whole new creative or career path.

Number two. Growing slowly is a good thing. It's easy to feel jealous of that friend or colleague who just gets it. She's naturally talented and hits the ground running without any effort while you're still struggling at square one. Take a deep breath because David says the data, it's on your side. People who take a lot of time to sample many ideas, skills or areas of focus have slower early growth. But this period better equips them with staying power and adaptability later. Think about Frances Hesselbein, in his example, she didn't have a professional job until she was 54 when she became the CEO of the Girl Scouts. All the experience of her life before then allowed her to deeply transform that organization. Development is not linear, so, if you find yourself in a slow sampling phase, enjoy it, smell a rose or two. You never know where that will come in handy in the future.

For an example of a career that felt slow but then went fast. Listen to *New York Times* best-selling young adult author Julie Berry, [Episode 121](#). She is, by the way, the author that eviscerated *Smart Growth* in the editorial process, which made it a much better book. Thank you again to David Epstein for being our guest. Thank you to you for listening. Thank you to our producer and engineer Matt Silverman, audio editor Whitney Jobe, production assistant Stephanie Brummel, and production coordinator Nicole Pellegrino.

I'm Whitney Johnson.

And this is Disrupt Yourself.