

Five Motivators That Fuel Peak Performance – Steven Kotler with Dave Asprey – #784

Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. Today is going to be a fantastic episode because it's with a guy who's been on the show twice, but not since after maybe episode number 216. I'm talking about Steven Kotler who's one of the world's leading experts on peak performance. He's done neuroscience research at USC, UCLA, Stanford, Imperial College, all looking at extreme achievement. He's very knowledgeable about this stuff. He's a crazy guy, a friend, and author of a brand new book that comes out exactly the same day, that *Fast This Way* comes out.

I am releasing this right in the middle of my own book launch, because his book is worth your time to read. You guys know, it's my job to share really cool stuff with you. Thousands of people try to get on the show. I'm really selective about who and what and when. I'm just going to say straight upfront, I got the advanced edition, prepublication and all that for *The Art of Impossible*. Steven's been nominated for two Pulitzer Prizes, has written 13 books, and he's just a genius at writing. I love his writing. I love his deep research. Steven, welcome to the show.

Steven Kotler:

David, it's great to be with you.

Dave:

I was so stoked when I saw your new book, because your basic premise is that it's in our biology, that your biology is what drives extreme achievement, not just willpower. How did you come to this conclusion?

Steven:

The center of my work is flow. Flow, if you look at like, what is flow up to mind? It's a huge suite of things. There is motivation, productivity, grit, creativity, and learning, innovation, cooperate. It's this huge set of things. This is a study flow. I've had to study the full macroscopic, like all these different things and what's going on in each of them. When you look at the big picture, and this is really developments that have happened in neuroscience and performance psychology over the past 10 years, we're starting to see the big picture. It became very, very clear.

One, the foundational premise of this book and of everything else, you and I very much agree on this, is that big performance is nothing more or less, I guess, than getting your biology to work for you, rather than against you. Again, not a new idea. William James and the very first psychological textbook ever written in 1901 says the most important thing in any education is to get your nervous system, meaning your brain, especially back then, be your ally instead of your enemy. This is not a new idea. There's 100 years of science saying, wow, this is what it is.

What we've seen in the past 10 years though is, wow, this is all a system, all these things that flow optimizes. They're actually part of one system. They're meant to be utilized together. They're meant to work together. If you get everything working for you, you get farther faster. That's the whole point.

Dave:

All right, so then what is the art of impossible? You're saying get your nervous system in alignment, okay.

Steven:

Okay. Now the art of impossible, the way I look at it though, and this is, when I say peak performance, it's a system you can only optimize certain things. Peak performance always starts with motivation, which is, as you know, a psychological catch all term for intrinsic and extrinsic drives, goals, and grit. That would be motives. Peak Performance always starts **motivation**. Gets you into the game. **Learning** is what keeps you into the game. **Creativity** allows you to steer and **flow** allows you to turbo boost the results.

That's the entire ... If you're really talking about what is the art of impossible, anytime you see the possible become possible. You see huge goal achievement. You're seeing people capitalizing on these four biological systems and using them together in a very specific way.

Dave:

The four being motivation, learning, creativity, and flow, kind of the structure of the book.

Steven:

Mm-hmm (affirmative).

Dave:

One of the things that I used to believe when I was fat was, well, I'm trying, I'm motivated to not feel this way and look this way. I was unsuccessful. I could lose 25 pounds. I gain 35 pounds two months later, and it would just go back and forth. I felt like I had motivation, but it wasn't working. Why was it not working?

Steven:

Okay. I don't know the ins and out. I can tell you that when you talk about intrinsic drive, you're really talking about curiosity, passion, purpose, autonomy, and mastery. Those five are our big five intrinsic motivators. We have a lot of others, for sure. Those five are linked. They're all built on each other. Curiosity is a little bit of dopamine and a little bit of norepinephrine. Passion, which is basically the intersection of multiple curiosities. Curiosity is designed and built in passion, is way more dopamine and norepinephrine.

Purpose, which is just our passion that has to cause greater than ourselves, is norepinephrine, dopamine lasts a couple extra neurochemicals for more motivational boost. Once you have a purpose, you need the autonomy, the freedom to pursue your purpose, and you need mastery. You need the skills to pursue that purpose. You have all five of those, you don't tend to get knocked off course. On their own, they're usually not enough, which is one of the things you see in really top performers.

In the same way that if you've got an athlete, they're going to do everything they possibly can for physical energy. You also want to do everything you possibly can for mental energy. Motivation is those five things. Once you have those five things, there's also proper levels of goal setting. The science shows three levels of goals that are necessary, and followed by six different layers of grit skills, which is what would allow you to sustain that diet when the motivation is gone. I don't know where you went off. Maybe you didn't line up your intrinsic motivators properly. Maybe you didn't set the right levels of

goals. Maybe you didn't have all six levels of grit trained up at one time and working together in that sequence. I don't know the ins and outs of the exact thing.

Dave:

Sure.

Steven:

I would tell you that my guess is that's the fault lies somewhere in that matrix. That motivation is like ...

Dave:

It felt like you have this motivation in the morning. Like, okay, today, I'm not going to eat the cookies they put in the conference room table in the afternoon. Then you're sitting there and eventually like, goddamn it, what did I eat that?

Steven:

There is Roy Baumeister's work on willpower, which is very different than motivation, but it's a thin slice of persistence. Roy got pillared for linking willpower, totally tying it to glucose levels. That was maybe not the right thing to do, but he was definitely right on the fact that willpower declines over the course of a day, unless you can reset it. He argued that you can reset it with glucose. It really seems like the only way to reset willpower, certainly, you need to fill up the tank again. You're going to need food and water.

It seems like state change, getting the brain out of beta and into alpha for maybe it's a nap, maybe it's a long walk, maybe it's a workout, you know what I mean? There's a lot of different ways. It seems like if you want to reset willpower, you have to tank up the energy, but you also have to shift state. That seems to be where the research is pointing and look at our declines over time. You want to schedule the cookie meeting for early morning when you have more willpower. Then try to skip the cookie meeting in the mid-afternoon. That might be a geographical cure.

Dave:

I like that idea. I think he was probably wrong about glucose levels. He was using glucose levels as a marker of mitochondrial function, because they can run on other things like acids or on ketones. Basically, if you have enough energy, and there's no doubt in my mind, like if you're lagging, and I will admit, when I was writing on *Fast This Way*, I do most my writing late at night. You shouldn't even eat anything late at night. On occasion, I'm like, you know what, I'm flagging. I'm going to take a certain kind of sugar, D-Ribose, which does raise insulin. It's one that also makes ATP very effectively. I'll put three scoops of that in my Decaf Bulletproof. I've got my energy back. Then that does affect motivation and willpower and mental clarity.

Steven:

For sure, yeah. I always want to say, I'm like, people really ... Like the greatest biohack in the world is a glass of water often. It's the only thing that I know of where you actually get smarter, almost while you're drinking it. You could feel that happening in your brain.

Dave:

Yup. It's important. I would say, add a pinch of salt to that and you'll get an additional boost. Because a lot of people are drinking so much water, that their electrolytes are off. Then it all comes down to that cellular stuff. Motivation, you're saying in your book, when you go into decoding it, there's a bunch of neurochemicals. It's also raw energy, is a big part of it. You also something ...

Steven:

Well ...

Dave:

Go ahead.

Steven:

I mean, this is what I think of when I think of motivation. As you know, performance, we don't have a lot of levers to work with. There's not a whole lot. If you're really interested in any given situation, you have basically two things. You have your attention, what are you going to focus on? What are you going to ignore? The action required by whatever it is that you're doing. Now, usually, the action, like that skill, like you can get better and better at that over time. It's going to require less energy. That's usually a long period and you want faster results.

Attention is really the only thing you can work with. If you put your attention, you do the same action over and over again. You get a habit. That allows you to perform the action without having to think about it. That's your suite of foundational tools. The big deal about motivation is it gives you focus for free. That's what such an important thing about motivation, is you don't have to work so hard to pay attention the thing you're paying attention to. We know, brain is 2% of your body mass, 25% of your energy, and that's at rest. You're not even paying attention to this stuff. It's a big performance level.

Dave:

You also mentioned purpose, which is underlying motivation. Let me ask you this, what's your purpose?

Steven:

My purpose have always been the same. It really hasn't change, even in our early interviews. I'm here to write books that impact the world. Mostly, I'm just here to write books because I love writing books. I've always been about trying to decode the neurobiology of flow and use that to help people level up their game. I've always been about making the world a better place for plants, animals, and ecosystems. Empathy for all. Those have always been the things that drive me, purpose wise.

Dave:

It's interesting. I hear from so many people like I don't know how to find my purpose, like why I'm here. A lot of what I wrote in game changers was around that I asked 500 people. In fact, I think you're in there. One of the answers or two of them probably ...

Steven:

Yeah, I think I am in game changers.

Dave:

I did the scientific analysis of answers of all this. I still hear this a lot, especially in people under 30 like, "You know what, I'm finding like I have this motivation. I know there's something." Do you have any hacks for helping people connect with their purpose?

Steven:

Yeah. One, passionrecipe.com. The beginning of the book is a plan. This is not overnight. This is not an overnight hack. The reason you want to really ... The pleasures will take you a couple two to three months to go through, and it will teach you how to turn curiosity into passion and passion into purpose. Two things it's pointing at, don't rush through it. Don't try to get there too quickly, because you do not want to be two years into devoting yourself to your purpose only. Discover is a phase. That is massively demotivating, obviously.

The other thing that I always tell people, and I think this is your younger than 30-year-old friends who are coming to you and saying they're having this trouble. We make a bad mistake. When we think about passion, we think how passion is going to feel. If I said give me an example of athletic passion for most people, they're going to talk to me about like LeBron James going in for a windmill dunk in the finals. That is passion, but that you are looking at late stage passion. That is not what early stage passion looks like.

Early stage passion is a little kid in a driveway, trying to get a basketball to follow through. That's what early stage passion looks like. That's what it feels like on the inside. The system is designed to build curiosity into passion and passion into purpose. It's not designed to work super fast. You don't get the full feeling of, oh my god. You have to live inside of that passion for a long time, where it starts feeling and looking like that. I think often, the hack is be more patient with yourself.

If you look right, one is understand that this is not ... Sometimes in peak performance, and I'm sure you know this as well, you got to go slow to go fast. Learning to turn curiosity into passion and passion into purpose. This is one of those places where you got to go slow. Because once you get it right, these are three huge intrinsic motivators. If they're pointing in the same direction, it unlocks a tremendous amount.

Dave:

It seems like it can also shift over time. There was a time in the first half of my career where building the internet, making it scale and grow and able to do what I believed was possible, was the most important thing. I poured everything I had into it. I became a world class expert on that. It was my thing. One day, I'm like, I'm done. It's there. Everything is incremental on top of that like, I got to do something else. That whole time, I've been building up my curiosity around hacking my own biology. At a certain point, it's like, this is my passion. This is what I'm going to do. I feel like it can change over time. The entire time I was building the internet, I was still curious and I was building my skillset around biohacking before it had the name.

Steven:

David, I spent the first 12 years of my career, essentially tried to be the best long-form journalist in the history of the world. I was writing about neuroscience. I was writing about all the same questions I'm still writing about, but I was ... My main passion was trying to be the best and then long-form journalism as an art form. The internet happened and it went away. You know what I mean? That's a really weird spot to find yourself in. Where the thing you're trying to be best at in the world that you've devoted your entire life to, you wake up one day and it's gone.

That's a weird one. That happens to people also. Again, like you, all the things that I was actually studying along the way became where I want to next. That's how the process is designed to work also. That's how the biology works. That's how having an associative pattern recognition system for a brain works. That's how we grow, anyway.

Dave:

I really like what you're saying there, Steven. There's so much going on that's not known. I would argue that long-form journalism isn't really gone. You are one of the best writers I know. You write books that are just abundantly readable. I did there, because you're at abundance.

Steven:

Yeah, I think that is probably cute.

Dave:

I stood that writing.

Steven:

You know what, David, you make me feel bulletproof. I don't know why. I just love you.

Dave:

Nice, right back at me. Seriously, it feels like in a world of Instagram quotes and things like that, that there's a desire for the long-form journalism. It's 5% of what it used to be, which means it has to be epic for people to want to invest 20 minutes to read an article. I read your stuff, because it's good.

Steven:

I appreciate that. Thank you. I don't think it's dead. I mean, it was dead as a viable way to make a real living. You know what I mean? During the dotcom crash, I took a 300% overnight pay cut. You know what I mean?

Dave:

Yes, that was ...

Steven:

So did everybody. You know what I mean? So did everybody else. It wasn't just me. I'm sure that's coming back now. Radio went away when television happened. Then it came back as its own thing. Quality always persists. If your devotion to craft is there, sooner or later, it's going to rise to the top.

Dave:

It is going to rise to the top. It reminds me of Ryan Holiday's *Perennial Seller*, his book about that. Have you come across that?

Steven:

Mm-mm (negative). I know ...

Dave:

That's a book worth reading too. It's what goes into writing a world class book, like the amount of passion and effort. You should read it. Anyone listening to this, you guys, if you want to be like the best at creating something, this explains the guts that goes into it better than any book I've come across. Ryan is another really quality writer who's out there. As you well know, Steven, there's ...

Steven:

And a good dude.

Dave:

And a good dude, yeah. There's hundreds of thousands of authors. We can publish a Kindle book with a picture of their foot on it and be top of whatever thing. The ...

Steven:

Podiatry. I'm number one in podiatry.

Dave:

There you go, right. There's a crazy amount of noise out there. It doesn't mean that quality shines even more when there's so much noise, because we just get used to this level of just low level stuff.

Steven:

This is totally off topic about nothing, but I find this interesting because it's on this topic. A lot of this stuff that allowed the foot book to rise to the top, sort of, is that you could, on the marketing end, you could do SEO, you could do keyword stuff, you could do whatever. What people don't get on who are not devoted to quality is that the AIs that are driving the search engines are now smart enough to read whole books and watch whole movies. You can no longer write the era where you can sneak past the system is coming to a close and now more than ever, which I love.

I love the fact that the people who are really fired up, but doing the research and putting in the craft work to learn how to ... Whatever it is, if you're making a book or a movie or TV. I don't care what it is. I care that you're deeply passionate about it and you put everything you possibly can into it.

Dave:

I'm with you there.

Steven:

I think the AI is going to start fighting that.

Dave:

That's why I think what you're writing about here matters even more now, because there's a mindset that was taught a lot over the last 10 years that's ... Find some suckers, live on a beach, work one day a week, and just be a little bit parasitic, just get people to buy. It doesn't really matter what they buy. I've always been repelled by that. Because just my purpose and my passion is it's not about that. I want it to be the world's best. I want to be more than worth the time it takes to read it. It requires that deep level

of passion and motivation, which are the ingredients you're talking about in your book, *The Art of Impossible*. I keep wanting to call it *The Art of the Impossible*. It's like it's interesting thought.

Steven:

By the way, so does everybody. I have no idea it was missing a the. Everybody is having the same problem. You're not alone. One or two things is clear, either I don't know how to speak the English language or all you don't know how to speak the English language. I don't know which one it is.

Dave:

It's actually a catchy title, *The Art of Impossible*. Because you're not saying the impossible, it's just like impossible. For some reason, every time, I'm like, am I going to say it right? Then I question myself. Maybe I need to work on my passion even more. You talk in the book about something called the full intrinsic stack. What is a full intrinsic stack?

Steven:

It's what we were just talking about. It's curiosity, passion, purpose, autonomy, and mastery. It's getting that stack, totally getting all of those motivators lined up pointing in the same direction.

Dave:

What is autonomy in the way you talk about it? It's an interesting word.

Steven:

Autonomy is a ... It's interesting. Because if you go into the psychological literature, it's relatively a new term. We called it freedom. Like Mihaly Csikszentmihalyi wrote a lot about this stuff. A lot of people did back in the '70s and the '80s. They just called it freedom. It's literally we are hardwired to ... We want to steer our own life. That we are an organism who believes we have the best chance of success if we're running the show for ourselves, in a sense. Thus, it's a big driver.

What's interesting is, we're starting ... We've known almost since the '70s or '80s, that autonomy was a big motivator. What we didn't realize, autonomy, what we now know is that we always want it. Once you have a purpose, once that your curiosity, passion, purpose is set, then is autonomy becomes deadly effective. Then it becomes really most ... What's interesting is, there hasn't ... It's hard to study. There hasn't been direct studies on this, good case studies and examples to learn from, but how much autonomy you actually need.

How much autonomy do you really need to be in control of your life? Because a lot of us work for somebody else. We can't control all our time. Or we have spouses or girlfriends, boyfriends. We have other people. The question is, to really tap this motivator, how much autonomy do you really need? The first example, what did we learn from Google with their 20% time is that 50% of Google's products have come out of 20% time giving engineers or engineer at Google, you can spend 20% of your time. Turns out, Google didn't come up with the idea.

They borrowed it from 3M who's been doing 15% time since the '70s. Again, huge, huge uptick. You don't even need that much. This is a lesson learned from Patagonia. Patagonia is always tops list the best place to work in America. Why? If you go into the research, the data, employee autonomy is one of the big ones. How much autonomy do you really get if you work at Patagonia? They allow you to make your own schedule. They have a rule at the ... Patagonia headquarters is right on the Pacific. It's in Oxnard.

If the surf is up outside, you can quit, stop whatever you're doing and go surfing. It's a rule that Yvon Chouinard, the founder of Patagonia, calls let my people go surfing. This is important. Why does making your own schedule and the ability to go surfing whenever you want? That much autonomy is enough to tap into this. Why would that possibly work? It's what's underneath that. You have to think about when you make your own schedule, you gain two things, one, gain the ability to control your sleep, you can get seven to eight hours of sleep a night because you can't ... As you know, peak performance is essentially impossible over time without seven to eight hours of sleep at night. We're just hardwired that way.

Dave:

I'm going to say six-and-a-half.

Steven:

I think everybody's a little different in that. You know what I mean? The research pretty much says seven to eight is the human average. You may not be quite human. It's hard to tell at this point.

Dave:

Well, there's that.

Steven:

The other thing you get with your schedule is, of course, you get to work in accordance with your circadian rhythms, which is the other huge thing. I'm in extreme luck. You want me at my best? Find me at 4:00 a.m. You're a night owl. I want you at your best, I got to find you at 5:00, 6:00, 7:00, 8:00, 9:00. That's when you're starting to wake up and come online. You need to be able to make your own schedule so you can get enough sleep at night and work in accordance with your biorhythms, your circadian rhythms. Why does surfing matter? Two reasons.

One, because regular exercise is foundational to peak performance, because it's foundational regulating your nervous system and keep my anxiety levels down. Anxiety is such a block on peak performance. Surfing for a lot of different reasons that we could go into, if you wanted ... It's packed with flow triggers. This gives you the autonomy to chase flow whenever you want, keep your nervous system calm down, follow your natural biorhythms, and get enough sleep at night, and the ... That's like a pretty good recipe just for basic peak performance.

That much autonomy is enough to start triggering this motivator. That turns out to be not a whole lot of autonomy. That's the other thing about some of these things, is you don't need as much of it as you might think you do to start getting the results you want.

Dave:

A little bit of autonomy. It seems like it's that way even with neurotransmitters. You're like, oh, serotonin, good. Excessive serotonin is exceptionally toxic. No serotonin is a bad place to be.

Steven:

Little bit of dopamine, good. Lot of dopamine, schizophrenia, right?

Dave:

Yup, exactly.

Steven:

Like mania or schizophrenia. Yeah, exactly. I don't know why this is difficult for people. Everything in the body is a spectrum, anger, little art, homicidally murderous, same emotion, flow, microflow to macroflow, introversion, extrovert. We're built on spectrums. I often think of ... Like all of a human being may actually be, is like an intersection of about 30 or 40 of these spectrums, which means that we're actually just a perspective. You're like a point in the intersection of all these things. There's one point into perspective. That's, of course, not fixed over time. Never mind, we're not going to go there. We're going to leave the metaphysics out of this.

Dave:

Yeah, there we go. You can always get metaphysical. Some of the flow is metaphysical. It's worth just noting that, that if we ignore the spiritual side, some of this stuff doesn't work as well, because flow states can feel spiritual, right?

Steven:

They absolutely can feel ... I mean, people like ... Until Abraham Maslow came along, William James thought flow was a mystical experience. Not, meaning it had mystical properties, but it was found predominantly in spiritual and religious traditions. I want to say it was the '50s, late '50s, Maslow was doing a giant study on a high achievement. When he says high achievement, he doesn't just mean success, he really means like, are you a good, kind person? Those kinds of things. He had this huge study group.

He found that all high achievers used flow, had flow at the center there. Whatever they were doing, they were trying everything to drive themselves into flow. They were using that for high achievement. They were all atheists. Everybody in his study group was an agnostic or an atheist. It was like Eleanor Roosevelt ...

Dave:

Wow.

Steven:

... and Albert Einstein. What are the odds of it? Suddenly, he was like, "Oh, wait a minute. That's where why we stopped calling a mystical experience." That's where the term peak experience came from. He wanted to find ...

Dave:

I love that.

Steven:

He wanted to find a non-spiritual neutral term, basically, to describe what was going on. It was only Csikszentmihalyi came along and rename peak experiences flow. We now know peak experiences are a spectrum, which flow part of them. It was interesting.

Dave:

It's cool that you're mentioning Maslow. Dr. Scott Barry Kaufman was just on and he's ...

Steven:

Yes, that's a good friend. He works with us at the Flow Research Collective Team.

Dave:

He does? Okay, good.

Steven:

Yeah, he's ...

Dave:

You know of his work.

Steven:

Yeah, I know Scott.

Dave:

I was blown away when he said, "Oh yeah, Maslow died before he mentioned that transcendence was the final thing on the hierarchy of needs." It's like that makes so much sense. That was a cool thing. I hadn't heard of.

Steven:

Yeah. I love Scott's work on the idea of the ... Because I always ... If you look at Maslow's pyramid, it's right, but only up to a point. I love the fact that Scott came along and was like, "Hey, even Maslow didn't really think it was a strict literal pyramid, but it shows up." Maslow wasn't wrong. He's one of the foundational things we know about motivation, is you have to have some level of safety and security, extrinsic motivation, before you can start doing the intrinsic stuff, the curiosity, passion, purpose. If you're still like, where's my rent and my next meal coming from, you have too much anxiety in the system to even begin to have a conversation about the other stuff. You got to solve those problems first.

Dave:

That in and of itself can be motivating, but these are extrinsic motivators, not intrinsic, right?

Steven:

Yeah. What the research shows, and this is Daniel Kahneman's work, is that extrinsic motivators are perfect until you make enough to cover your basic needs and have a little leftover. In his research, it's \$75,000 a year. This was probably 10 years ago.

Dave:

Exactly.

Steven:

That's where the line is. About \$75,000 a year, and after that, if you want better productivity, better performance, you can no longer rely on extrinsic motivators. Giving somebody who's making \$75,000 a year way more money doesn't get you. They'll be happy about it, they'll feel motivated. If your real goal

is performance benefits or productivity benefits, you're not going to get it. Once you're at that level, you want to work on work that you're curious about, work that you're passionate about, work that's aligned with your values and your strengths and your purpose, work where you have the freedom to pursue the work in the way you want to, and work where you have the opportunity to master skills. That's what the research consistently shows.

Dave:

I love that. That number sounds high. It was 8 to 10 years ago, it's probably higher. I think it was household income too, not individual income, right?

Steven:

Yeah, I think it was household. It was household income, you're right.

Dave:

It's really important to just understand it's all right if you're still working on the extrinsic stuff and you're getting to that level. I remember, in my career, the first time I hit that level and it was like, wow, this is great. I actually have something left at the end of the month. That feels really good. It took years to get that.

Steven:

Yeah. It took a very long time for me to get there. I was probably 28 or 29 before I actually started really reliably getting to that threshold, because it was hard to make a living as a writer when I was in my early 20s. It took a really long time and it felt like in ... The Art of Impossible, it's a book written, because I spent my career studying people who have accomplished what I call capital I Impossible, that which has never been done. It's meant to be utilized by anybody who's interested in what I call small I impossible.

Small I impossible, is that which we believe is impossible for us. The example I give in the book is when I was growing up in Cleveland, Ohio, I want to be a writer. Cleveland, Ohio in the '70s when I was growing up was a blue collar steel mill town. I didn't know writers. I didn't know anybody who wanted to be ... You know what I mean? What I mean, it was a small I, impossible, because there's no clear path between point A, where I was and where I wanted to go, point B, where I wanted to go. Statistically, bad odds to success.

What is another small I impossible? Learning how to get paid for what you love, which is what we've been talking about, arising out of poverty, overcoming trauma, becoming world class in anything you do. These are all small I impossibles. They are things that are outside of our expectations for what we think we can achieve. The whole point of the book is, of course, we can achieve far more than we believe. I bring that up because I always think that the first small I impossible that most people figure out is how to get a boyfriend or a girlfriend or first kiss.

That's often ... Right? I mean, remember when you were 12, 13 years old? Trying to solve that puzzle, you have no idea how to solve that puzzle. It's impossible. The same thing is ... I think for great many people, that's the first small I impossibles. How the hell do I get paid doing what I love and actually making okay living at this? It's interesting, because it's also ... This is not exactly in the Art of Impossible. In the Harvard development project, one of the things that came out of it, George Vaillant writes about this in his book, Aging Well.

If you haven't figured out how to get paid for what you love or align your intrinsic motivators with what you do for a living, by around the time you're 40 years old, you have a very, very, very difficult

time sustaining life satisfaction and wellbeing beyond that. It's one of those ... Like it's a deal breaker in adult development. There's a line. I don't know why it's at 40. The line at 50 is you have to forgive those people who have done you wrong. Or it's very hard to have a creative, fruitful, older age. It's really weird. There are these thresholds in adult development that if you haven't solved this puzzle by X, wellbeing and life satisfaction really suffer afterwards.

Dave:

If someone's right on the cusp and you haven't done it, you got to do it anyway. Those tie to the Ericksonian stages of adult development and all of that. What we don't know is now that we have the era of radical life extension, I'm going to live at least 180.

Steven:

I know. I know. We stretch that ...

Dave:

Can we stretch those out? Are there six more levels?

Steven:

I often wonder, because there's all these, who knew that dementia was what was waiting for us on the other side of cancer. It's like as we push into our 80s and our 90s, brain diseases? Did we just solve the heart diseases and the cancers, and now I've got brain diseases? We know there's probably something waiting for us at 100, 110, 120. As Peter Diamandis and his cohorts go, "Keep pushing that out farther and farther." You ask the other question, I've been asking Peter this, same bag.

We've been talking about like, are there more emotional development stages as we live longer and longer? You're asking really good questions. Or what about emotional set points? These are set up in a ... Like things that are set up in early childhood experience, and they are supposed to be personality traits. You can change personality traits, but they're ...

Dave:

They're hackable.

Steven:

Yeah. It takes like 5 to 10 years of real work to really reorganize one of those at a foundational level. Do those things start to change when lifespan gets out to be 120, 130? Those are really weird questions that we haven't answered, because we haven't really lived that long. I guess you could try to solve it by studying certain animal. Do turtle's personalities change over time? Do whales?

Dave:

Maybe whales would be a good model. Turtle personalities, I've had a couple turtles as a kid. They never really displayed that much personality.

Steven:

I know. I know that.

Dave:

The Atlantis.

Steven:

I know. I know. If I got with turtles. They're wonderful, but I know.

Dave:

Talk to me about the habit of ferocity. What is that?

Steven:

If you can get all the motivation stuff lined up, meaning you've got your intrinsic motivators lined up, you've got your three tiers of goal setting proper in lined, and you've trained up all your grit skills. This is a trait that I noticed over and over and over again, really, in anybody who could accomplish something that you would call impossible, like that which has never been done before. It also seems to be just foundational in high achievers. If all this stuff is lined up, what a habit of ferocity tends to be what you develop.

I define it as the ability to automatically and instinctively lean into a challenge. You lean into a challenge before you even know you've leaned in. I'll give you an example in a weird way. My best friend, Michael Warden run track in high school. He had this really weird track coach who had this idea that whenever the team encountered a hill, they should really focus on form. Tight arms, high kicks, not try to speed up, not try to do anything, just focus on form. Well, you know what happens if you focus on form. Eventually, your form tightens up and higher kicks.

You'll end up going faster. What happens with most runners is when they encounter a hill, because the body is a homeostatic organism, people will slow down. They don't want to burn more energy. They're going to slow down to their same level. Elite runners will train to maintain the same pace in the face of a hill. This track my friend was running for, because they were focused on their form whenever they encountered a hill, pretty soon, they were sprinting up hills. This was a huge advantage. Of course, at the beginning, it sucks.

After a little while, they just got used to it. It was the habit of ferocity. Now that's the habit of ferocity applied to running. The habit of ferocity is that same idea applied to everything you do. What's the big deal? I'll give you a simple example. When most people encounter in business, I've been in business 30 years, I have about five problems a day, let's say, on average. I think that's an average. They're not big problems, but they're problems. When most people encounter a problem, they will dither around for a little while.

They'll pull their hair out and be like, ah, I got to decide, I want to solve this. I don't want to lean in. Peak performers, automatic. The problem comes up, they know they're going to end up solving it. They immediately lean in. Now say, what is this saving you? Five minutes of problem and you're doing five problems a day, it's 25 minutes a day that you're saving. That 25 minutes a day adds up to three-and-a-half weeks a year that you end up saving. One of the reasons peak performers always appear to be so far ahead of the competition is things like this.

Because they've got the compound interest of this habit of ferocity. It's not a big deal. It's a lean in instinct. When a challenge shows up, they don't dither around. They instinctively lean in. Often, you've had this experience because you have this habit. You know how you get woken up at 2:00 in the morning where your brain is suddenly processing all the stuff you did all day and all the high risk big decisions you made all day without even thinking about it and then they come and find you at 2:00 in

the morning and wake you up. You get that norepinephrine surge. You're like, oh my god, what did I do? That's your brain going ...

Dave:

Never happens.

Steven:

Never happens, of course.

Dave:

Really, it doesn't. It doesn't happen to me.

Steven:

You don't get woken up in the ...

Dave:

I mean ...

Steven:

That doesn't happen to you?

Dave:

I'm at peace with what I do. Never.

Steven:

I'm at peace with what I do as well too. Sometimes I'm like, oh my god, I made all those decisions today? Wow. That's what I mean by it.

Dave:

Interesting, okay. A lot of people get that. I've worked on my sleep enough.

Steven:

Oh, you've worked on your sleep enough? That still happens to me, even with everything I do. It doesn't happen a lot, but it'll definitely happen to me. The habit of ferocity is the automatization of the lean in instinct, how I think about it.

Dave:

Okay. That's ferocity. You always use descriptive words, which is part of being a good writer. That ferocity, it's lean in. There's something in there that also isn't like lean in to the point of self-destruction.

Steven:

No.

Dave:

I think you captured that and the rest of the words. Some of the lean in stuff, like Sheryl Sandberg stuff, and I've lots of respect for Sheryl Sandberg. You can lean in to the exclusion of other things that are part of the art of impossible. It's balancing it out, just like with those neurotransmitters. You don't want too much, you don't want too little. It's the habit of always doing it. I like that a lot.

Steven:

Yeah. What I think you gain with that ... Over the past couple of years, I've written four books, launched four books, launched a company, moved my family, built a house and moved my family, and, blah, blah, blah, couple other things of that ilk. If you would have gone back 15 years ago, I would accomplish one of those things in a year or two years or five years. That would have been, oh my god, how did I ... Like that was a lot of work. I'm so proud of that. Now, four or five in one year. Now, that's the new habit. That's where you end up with it. That's the whole point, is you end up getting to a point where you're living a life where you're constantly exceeding your own expectations for what you thought was possible.

Dave:

I see that in my own life, just the speed of change. You get used to it. You up level. Then you work on that for a while and then you up level. It becomes easier to start more than one company at a time and to launch more than one thing at a time. Part of that is mastery. Part of that is having the right support structures and really, a lot of the flow stuff. I know a group of people who do that, because they're running from failure and they're miserable all the time. I was one of those when I was younger.

Now though, I don't want to say effortless because I know it's work, but it doesn't feel like a heavy lift in order to do it. Even though when I look back like, oh my god, how could that not be a heavy lift? Where does that it's not a heavy lift anymore? Where does that come from?

Steven:

Well, predominantly, now you're really getting it, I think, into the territory of flow. Flow, optimal state of consciousness where we feel our best and perform our best. One of the qualities of a flow state is this quality of effortless effort. It's bottom-up attention, is really what it is instead of top-down attention. It's happening automatically. You're getting effortless effort. This is interesting, one of the new physiological correlates that's shown up a lot with flow, probably more work needs to be done, but your frowning muscles appear to be paralyzed in flow.

Smile muscles are hypoactive and frowning muscles tend to be paralyzed. It's not that you can't be unhappy in flow, you actually can't be unhappy in flow. That's beside the point. Frowning correlates to work. When we're frowning, when we have that downturn, the brain is perceiving effort. Because flow is effortless effort, it appears that your frowning muscle is somewhat paralyzed in flow. I think we need more research on that. It showed up in a couple of really interesting studies that came out of the Karolinska Institute.

Dave:

Well, that's definitely a good school. My wife went to school there. I hear it all the time what a good school it is, so it must be.

Steven:

It's a good school. It is ...

Dave:

She just is really happy she went there.

Steven:

It's a really good school. There was a flow research left America for a while in around 2000 and went to Europe, and there were a bunch of reasons for it. A lot of it went over to the Karolinska Institute. They're like four or five really talented flow scientists and psychologists and neuroscientists there. Plus, they've got physicists.

Dave:

They got physicists and the Swedish bikini team. There's nothing wrong with that.

Steven:

I'm going to keep my comments to myself, just to let you go out and hug yourself on that particular ... Yeah.

Dave:

Hey, I just like to say I married the captain of the Swedish bikini team and I'm good. Now, see, I just rescued myself [crosstalk 00:44:47].

Steven:

The habit of ferocity. The habit of ferocity. See what you got? Art of impossible, people, art of impossible.

Dave:

Something else in your book that I really appreciated. You talk about five not so easy steps for learning almost anything. You're like, they're not so easy, which is a bit relaxing.

Steven:

They're really not so easy. Yeah, they're really not so easy.

Dave:

What's the first one of those five?

Steven:

Little backstory on this process, almost everything in the entire book is as research-based is possible, meaning as like I go all the way back to neuroscience. This is why I'm calling the book The Art of Impossible, not the science of impossible. Almost everything else in the book is science. I think life itself is an art, but that's beside the point. This is literally a system. I was journalist for a very long time. I worked for over 100 different publications. I had to be an expert to write about anything. This was especially back in the day when magazines had fact checkers. If I wanted to get paid, I had to get it right. The fact checkers, they we're assassins. They live to find ...

Dave:

They're merciless. All my books are fact checked, yeah.

Steven:

Awful, awful experience. It's wonderful. Thank God, but awful experience. They would love to go to my editors and be like, "Yeah, Kotler got it wrong and this, this, and this." You had to be really, really, really right. I had to learn subjects very, very quickly. The first step, I always say that the first step starts with what I call the five books is stupid. Everybody's number may be a little different. I found that if ... There's a specific. When I start trying to learn a subject, I would start ... It would take me five books till I could learn enough, to know enough, to start talking to experts. I'm not saying I know the subject. I mean, I just know enough to ask good questions. That's where I ...

Dave:

You have to read five books before you were qualified enough.

Steven:

If I came in cold, and I always started with the most popular book you could possibly find, because the first thing you want to learn is, what's the language of the subject? How do people talk about this? When most people try to learn stuff, they work too hard at it, is really the point. If you understand how the brain learns information and you understand how subjects themselves work, you can shortcut things a little bit. I always say start with the easiest, most popular book. The only goal is just pay attention to the language. Just pay attention to the language being used.

If a term shows up more than five times and you don't know it, look it up. Every time you see it, just save the definition to yourself a lot. Start there. Second book is a little more read. If the first book, let's say you want to learn something about intuition, you start by watching or reading the book *Memento*, just so you can get a little bit about here's how memory works, here's how the brain works, little basics, this is the language. Second book, maybe that's the Malcolm Gladwell, *Blink* level of a book. Popular, easy.

You're going to get a little bit more of the science, a little bit more of the language. You're going to start to get a historical narrative. That's the second thing you want to pay attention to. Why? Because the brain is a cause and effect machine. Our brain naturally tells stories. It's pattern recognition system. If you say, hey, this happened in 1800 and this happened in 1850, and this happened in 1900, that historical narrative becomes the overarching, sort of. It's the big Christmas tree that you can start to hang the ornaments of the facts themselves on.

You give the brain an architecture that it normally naturally relies on, and then you build up from there. The five not so easy steps starts with reading the ... Just step one is read these five books. It's until you get to book four or five, you're not reading anything hard. The most important part about this process, this is where it's a little different from how most people learn, is the most important thing you pay attention to are those emotional wow moments, when you are naturally curious. Those are the only real notes you should be taking when you're learning a subject.

You're following your own curiosity through a subject because it takes advantage the brain's inherent learning journey. When we get excited, when we get curious, we're getting a little bit of norepinephrine and a little bit of dopamine. What does this do? Well, we're suddenly paying more attention to the subject at hand. Norepinephrine primes the brain as you know for learning. If you're following your own emotional wow through the book, you're actually taking advantage of the brain's inherent learning software and you're going to learn faster.

The trick there is you don't have to understand everything you read. That's not the point. That's where people get screwed up. They get screwed up because they want to understand, oh, this was confusing to me, I got to go back. No. Don't do that. That's not what you're trying to do. Your brain is a pattern recognition system. It will learn over time. Your job is to read from the beginning of the book to the end of the book, understand what you understand, and forgive yourself for not understanding the rest, and trust that the learning is going to happen automatically, because it does.

One of the things that I think is really, really true is peak performers know. It's always crawl, walk, run. Everybody else, they don't want to ... Most people are like, when they're faced with a subject, they're like, "Ah, I don't really want to crawl. I don't want to walk. I'd like to start a jog." They spend a lot of time looking for a shortcut. I think peak performers, I'm trying to get the shadow out of this thing. Where am I going? I'm getting the afternoon sun in weird ways. Okay, that's really like ...

Dave:

There you go. That's really good.

Steven:

I think a lot of other people that come to challenges and they so dislike being bad at things, that they will spend a really long time looking for a way to hack their way in and start in the middle. Are the peak performers just come along there like, look, I know I'm going to be bad at this, I know I'm going to suck, and I know it's going to feel bad. Our experience of learning on the inside is, I suck, I suck, I suck, I suck. Oh, look, I don't suck anymore. Look at that. That's because ... I mean, right? You're taking stuff unconsciously, passing it up to the subconscious.

We don't get to tell the subconscious when it's going to figure your shit out. We just get to stock it and know that sooner or later it will. That is, I think, one of the secrets, is not being so damn hard on yourself along the way and taking advantage of your natural inherent learning software and how the body is designed to learn. Of course, we're all designed to learn.

Dave:

I realized back in the day that if I really wanted to be top of my field in internet infrastructure sort of things, I was going to have to know the very latest stuff. There was just a huge fire hose of innovation happening. I would teach a class every night after work at the University of California. I'd finished the work day and I'd have one hour, while I was eating dinner, to go through all the trade journals to compose my class for two hours of lecture that night.

Steven:

Wow.

Dave:

I was terrified. The first time I did this, I'm sure I screwed up. Within a year of doing that, four nights a week, I got to the point where I trained myself to just absorb as much as I needed to be able to make diagrams to make it teachable, to engage a classroom and all. I still think to this day that that rapid learning training, it beat out of me that, oh no, I don't understand something. Well, do I know enough? Then the rest of it does soak in, the way you're saying in a way that I can't really explain.

That's to this day, where I can look at PubMed and I can read a paper like, this one's really detailed. There's four strange peptides I don't know about mentioned here. That's okay. I'm still getting

the gist of this paper. Eventually, it just becomes easier and easier. Your point there that, yeah, learning actually does suck. Because as you're learning, it requires failure. Failure is generally painful for people. As you get better at it though, you fail less. All of a sudden, it's not that hard anymore. I love it that you're just open about it instead of this like, oh, it's going to be happy, happy, joy, joy all the time.

Steven:

The funny thing about peak performance of impossible goals, it takes the exact same amount of energy to be the best dry cleaner in Cleveland, Ohio as it does to, say, open lock the space frontier. Peter Diamandis is one of my closest friends. That's essentially Peter's contribution. He helped unlock the space frontier. We dreamed up this idea. It was a total impossible. It was crazy, every thought it was out of his mind. Suddenly, it wasn't. I watched the whole thing up close. You know what I mean? I can tell you.

Dave:

It's beautiful.

Steven:

There's only 24 hours in a day. What does it take to unlock the space frontier? What did Peter do? He woke up, typed into his computer, talked on the phone, talked on the phone, talked in his phone, went to a meeting, typed in his computer, had lunch, went to the gym, went to the bathroom. I mean, that sound familiar? Of course. By the way, how often did he do this? For about 16 hours a day. Why? Because we know you need seven to eight hours of sleep a night. That's what expertise takes.

If you want to be best in the world at whatever it is you're going to do, that's what you're going to give. That's basically all you can give. It's going to be the same. That variable is not going to change. The size of the vision really, really matters. The actual work itself is the same. I always say, if you've somehow managed to get to adulthood, you already have a pretty good idea of it's not going to get any shittier. You've already experienced the shittiest that's going to be, because we have things known as emotional set points.

You have the best you're going to feel, the worst you're going to feel. Your life is going to take place in the middle of that. Now there are things, death of a child and chronic unemployment can push you lower on the scale. That is for sure. Excluding those things, what the research shows is, no, you've pretty much already experienced it. That's what people, I don't think, get about these really high hard goal. It's about setting really big goals. It's not going to get any harder just because the goal is harder. You've already experienced the difficulty of life.

Dave:

Man, so well said. You're going to put one foot in front of the other. It's a question of what direction you're going in while you do it.

Steven:

Totally.

Dave:

You talk about creativity in *The Art of Impossible*. You say there are seven ways to hack creativity. What is your favorite one of those seven ways?

Steven:

It's interesting. When I break down creativity, the creativity is tricky. People have been trying to train up creativity for a really long time. We're really bad at it. We're bad at it, because we were bad at a lot of the performance hacking stuff in a lot of the 20th century because we're coming into the psychology. Psychology is awesome, but it's a metaphor. Neurobiology is mechanism. If you get down to the neurobiology, you find out ... I'll give you one of my favorite, the simplest things, if you want to increase creativity, the simplest way to do it is a good mood or peripheral vision, both of those things.

They're really weird. The anterior cingulate cortex is the part of your brain that helps us make far flung connections between ideas. The anterior cingulate cortex has a couple of governors on it, the amount of anxiety in your system, specifically norepinephrine and cortisol. The more anxious we are, the more logical and linear the ACC will be. The reason is really simple. When we're faced with a crisis, the brain doesn't want to make millions of choices. It doesn't want to be creative, it wants simple solutions.

The classic example is extreme stress fight or flight or freeze, are the only three options. What people don't realize is that same system, the spectrum, like we were talking about earlier. Everything is a spectrum. The more anxiety in your system, the fewer choices you can make, the fewer options you're going to get. Which is why one of the fastest optimism is so foundational for creativity. Optimism, being in a good mood. Interestingly, the quickest way to hack that, you asked for a fast way to hack that, and this is, by the way, not my work. This is Dr. Andrew Huberman who's at Stanford. I'm sure you've met him along the way [inaudible 00:58:18].

Dave:

He's been on the show. Yeah, he's great.

Steven:

Yeah, I figured. He's great. We do some work with Andrew, and this is his work. When we utilize our peripheral vision, because anxiety, focus is very tight, linear vision. When we use our peripheral vision and look out things onto the side of our eyes or look at very wide vistas. My office, my windows face mountain ranges for this very reason. Whenever I'm stuck, I look up out at the mountain ranges. Why? Because it pulls my vision into my peripheral. It calms me down, because my brain goes, oh, look, you're looking out of the corner of your eyes.

You must not be in a dangerous situation. It calms you down. It actually amplifies creativity. That's why I mean why mechanism is so useful. When you get down to like that foundational level, you start saying, oh, this is how this stuff works at a state level rather than a skill level.

Dave:

I haven't ever talked about this, I don't think. I've talked about how I did a bunch of vision training in order to change my eyes because I had all kinds of vision problems like visual processing that I didn't even know about. I went through peripheral vision training exercises and ...

Steven:

I didn't know that. That's interesting.

Dave:

Yeah, totally. I was maybe around 30 when I did this. I found out that my left eye would actually turn off my visual input because my brain had a hard time lining up my vision. It's surprisingly common amongst people learn to read when they're 18 months old, like I did. You can teach kids to read way before they probably should. I didn't crawl enough because I was reading. All sorts of things happen there. It was incredibly difficult. I was exhausted when I learned to see out of my peripheral vision, because I was walking around the entire time in television. I didn't even know it. Once I expanded that, it took about a year or two, I think, for my brain to restructure itself to be able to see the periphery. It did improve my performance, but it was work.

Steven:

Let me ask you a question. Did it calm you down?

Dave:

I think it did.

Steven:

Did you notice any impact on mood? That's interesting. That's really wild.

Dave:

It did calm me down. As a side effect, I was 20/60 or 20/80. I had astigmatism in one eye. At the end of about ... It was either three or six months of doing an hour a week of intense work with a developmental ophthalmologist.

Steven:

Ophthalmologist.

Dave:

Yeah. My vision went back. I was 20/15 in both eyes, and it stayed ever since. I got rid of the astigmatism. That peripheral stuff, I would combine it with breathing exercises, but I do an hour of training. I'd have to sleep for like four hours after I did that. I was just destroyed mentally, because it was so much work. I think it really did calm things down and just allow a greater perception of the world. It's really cool as a creativity hack. Looking at vistas, definitely heard about that. I've never heard anyone connect that.

You just made me think, oh yeah, I actually did a bunch of work there without necessarily knowing why other than some guy told me to. Well, all right. I'm going to keep focusing on my peripheral vision. I recognize what a luxury having a vista view is. I will say simply, if you have the opportunity to have a bigger monitor, I'm looking at you on a 45-inch monitor that's set for feedback from my desk that has a vista on it. Even if I'm not looking out the window at Salt Spring Island, which is awesome, I can do that, but in a lot of places, you just can't do that. Having your monitor further away and bigger, I think, has a very meaningful neurological impact on people.

Steven:

That's interesting.

Dave:

Any evidence you've seen?

Steven:

Yeah. That's interesting. I don't work directly on the visual system. That's super interesting though. It would make sense to me. I guess the question I ... What I wonder is, with big screen televisions, at what point does the brain go, oh, this is a vista. Or is it if I'm looking at a Jimmy Chin photograph of El Capitan or something like a really majestic one, even if it's small, I don't know if that has the same effect either. This is a question for [inaudible 01:02:46].

Dave:

I don't know either. It might. I think that there's something about those big paintings on a wall or a photograph. If it's super small, it might not. Even a photo of the sun, surprisingly, can have an effect on your circadian, but just a picture of the sun without light behind it.

Steven:

I didn't know that. That's ...

Dave:

Yeah, it's so crazy the way the eyes work. Linking them into creativity directly is really cool work. I like that part of the book. Now, I want to hear at least one or two of your impossible stories like the time you flew a Russian fighter jet. Tell me about that.

Steven:

Okay. You're going to totally appreciate this. This is a slightly longer story, because I got to start a little earlier. You have to know that when I started my career and I was originally studying flow, it was not entirely clear where the line between flow and other altered states of consciousness were. One of the things that was very commonly reported in flow states were out of body experiences. In the late 1990s, early 2000s, I was doing a lot of work on the neurobiology, what goes on in the brain when people have so-called mystical experiences.

It turns out, the original major study, first giant study ever done on out of body and near-death experiences was done up by the US Air Force. The reason was, the stealth fighters were introduced. Pilots kept flying themselves into GILOC, gravity-induced loss of consciousness. Too much G-force pulls the blood out of your head and you ... They were crashing billion-dollar airplanes over and over and over again. This was a problem. A guy named James Wintery got called and he's a physiologist who's working in Texas.

What he did is he spun in a centrifuge over 1000 Air Force pilots into GILOC. What he started to notice is right before GILOC, a surprising amount of them started reporting out of body experiences. If he kept spinning them, that out of body experience started to turn into all the classic symptoms of a near-death experience, including like moving down along dark tunnel towards it. He thought there were physiological reasons for this. It was one of the things that he had worked. I had reported on this around the same time. This is all backstory.

A friend of mine is a publicist. As a journalist, you cultivate weird publicists, because they're the gateway into crazy stories. This guy was one of those guys. Calls me up. He had the Stolichnaya account. Berlin Wall comes down, cold war ends, and Russia is essentially bankrupt. What did they do? They start selling off their old planes from the military. Stoli buys a bunch of MiGs, including a MiG trainer. They

bring them to America. My phone rang. My buddy says, "Hey, do you want to go fly in a MiG?" I was like, "Of course, I want to go fly a MiG." Dumb, dumb question.

I go to the airfield. It's a MiG trainer. That means the trainees sits in the front. There's another spot for a pilot behind you. I'm sitting like ... They put me in the thing and the pilot walks up. He starts telling me how to fly the plane. He's like, "Well, here's your rudder and here your pedal." He's going through and I'm like, "Dude, you know what, I don't know how to fly a plane, man. You could tell me how it works, that's great, neat. You do realize I've never flown a plane before." He's like, "Oh, yeah, yeah. This is just in case something goes terribly wrong."

I was like, "Okay, whatever." He takes off. We're 100 feet off the deck. He's like, "Okay, man, you got the stick." I was like, "What do you mean I've got the stick?" He's like, "You got the stick." I was like, "Really?" He's like, "There's probably nothing you can do to this airplane that I can't recover us from." I'm like, "Are you sure?" Like, "Yeah. I think I got you." I was like, "Can I fly your MiG into GILOC?" Because there's this theory of neuroscience that if I fly it into GILOC, I'm going to have a near-death experience. I want to see if that's real.

He's like, "Man, I don't know if you want to do that, but give it a go." I start barrel rolling the plane and barrel rolling the plane and barrel ... It turns out, I have a massive tolerance for G-forces. Finally, he's like, "Well, why don't you try looping it?" I was like, "Okay, give me a loop of MiG."

Dave:

Wow!

Steven:

You go up to 11,000 feet, you point the nose at the ground and then you push out the stick and fly at the ground as hard and as fast as you can. Then when you think you're about to die, you yank back on the stick with everything you've got and the plane will loop.

Dave:

Wow.

Steven:

As we were coming up over the loop, I lost consciousness and flew myself into GILOC. Yes, it is exactly like you're going down a long dark tunnel. Because the optical nerve is the deepest nerve in the brain. It's the last thing to get extinguished. It looks like, remember those old televisions where you would turn them off, it would go down to that single dot? That's what it looks like right before you lose consciousness. What they didn't tell me is that G-forces are actually incredibly rough on the body at high G-forces. I pulled about nine Gs over that course of that flight.

I was sick for about five weeks, I mean, violently sick for about five weeks with the worst flu. I couldn't get out of bed for about four days after that. I was driving home. I was driving home from Liverpool to San Francisco, which is where I was living at the time. I got halfway to San Francisco and I was like, god, I feel really ... I mean, I felt nauseous from the fly. I was like, this is getting worse and not better. What the hell just happened to me? I learned that, that astronauts get sick.

Dave:

Pretty much, the equivalent of rhabdo. I just felt like the amount of damage protein in your body floating around inflammation everywhere. Yeah, it takes a while to clean that out.

Steven:

Yeah, I didn't know. I did get to fly a MiG fighter jet into GILOC. I can tell you that it does produce very ... I didn't have an out of body experience, but I did have the classic near-death experience symptoms. I found that really interesting.

Dave:

It sounds a lot like what happens if you have a low blood pressure, which I've had for a long time. I talked about POTS with Nick Foles. There's been a few times where I'm like, oh, my blood pressure is going down, and you feel like the sides. It's just I don't have enough blood in the brain.

Steven:

Wow. Oh no, that's interesting, okay.

Dave:

I managed to hack that. It's not a factor in my life anymore. I've definitely know that feeling. I never even had to get in a jet to do it. All I have to do is stand up quickly.

Steven:

You didn't have to fly. You didn't have to fly a MiG to do it. I just liked the fact that I flew a MiG to GILOC to run a random neuroscience experiment. You know what I mean?

Dave:

I think that's epic. I love that. You've done so many things that people would say are impossible. I think it's a cool backstory for The Art of Impossible because you're saying, look, I have done all these things. One of them is being a world class writer and working with all the people you're working with on neuroscience and all that stuff, that in and of itself, a lot of people say, oh, that's impossible. That's never going to happen. People in flow is. I think you're living evidence that you can do a lot of stuff that most people don't think is real. You live in that world. You've done a good job of being an example, and then writing the book, instead of just-

Steven:

David, I got to say, this quest started for me in the 1990s, when I became a journalist and I was covering action sports. The thing you got to remember about action sports, in the early 1990s, where I was ... Actually, in the 1990s, we called it the era of impossible, more things that were never going to be done. They were being done. They were being iterated upon. It was again and again and again and again and again. The limits of human performance was going up and up and up. That was the view from the outside.

Oh my god, look at these people doing these impossible things on waves or on skis or on surf. The view from the inside was very weird, because it's a totally different thing. I was living in these communities, I wasn't just reporting in them, I was living at Squaw Valley. These were my friends. When you go drinking with a dude on Friday night and you're just too drunk 23-year-olds in a bar and then you wake up the next day and your friend goes out and does something that all of recorded history has never been done and nobody actually thought was going to be ever done.

It's a totally different level of like, well, what the hell is going on? Because it's not like some figure on a screen. It's the dude sitting next to you at the bar. The other thing about these action

adventure sport athletes in the 1990s, back then, this was not mainstream activities. These were like rowdy, irreverent, punk rock people with ... Almost everybody I knew, they had terrible childhoods. They came from broken homes. Very, very, very bad upbringings. They had very little education. They had no money.

There was a tremendous amount of alcohol, a tremendous amount of drugs. If I were to tell you about this combination, okay, you got a bunch of people, they got no money, they got no education, there's lots of drugs, there's lots of alcohol. By the way, they're taking lots of risks all the time. You're not going to say that's a combination that puts people in the grave or in jail as a general rule. It's not a combination that routinely leads to the redefinition of what is possible for the human species. That's what was happening over and over and over again.

When I came into this question, I was a lot more grounded maybe. Because I was well aware, it wasn't an image on a screen of, oh, here's this faraway thing doing the impossible. Or even when I moved into science and technology, I was covering those innovators returning sci-fi ideas and the sci fact technology. I was in the room when a lot of that stuff was happening. These are very flawed, broken, normal people. I always say that I have spent my life studying extraordinary people doing extraordinary things. Yet I have met almost no one who started out extraordinary.

They just start out like you and me. It's just about getting your biology to work for you rather than against you. Because there's no other tool set to work with. There's no fantasy. It's this is what it is and that's why ... One of the things that keeps happening with art of impossible, you probably had this experience as well. Peak performers read and they go, "Oh yeah, I'm doing 60% of this stuff. I didn't know there was an additional 40%. I didn't know it was all a system or it was all designed to work together." If you're at the top of any game, this is your toolkit.

Of course, you've been using these things. Of course, there are great books, individual books. There's great books on focus or gratitude or grit or mindfulness or flow. I've written some of those books. What's different now is that, oh, wow, we have the whole sequence. We have the whole series. We know how they work together. That I think is what's different about this book. I think when peak performers read it, they're like, "Oh yeah, that's really familiar. That's really familiar." Of course, it is. It has to be.

Dave:

I definitely got that sense. Well, that makes sense. You just explained something that you know it works, but you don't know why, and you got the why in it.

Steven:

Yeah, exactly.

Dave:

Well, Steven, thanks for an awesome interview and an awesome book. The book is called The Art of Impossible. Guys, I want you to order this book and read it because it's worth your time to read it. At the same time, if you don't already have Fast This Way, order it at the same time. There's a secret for this. We're going to train Amazon's AI algorithms, so that they'll say people who read this book also read this book. Because I want people read either book to read really good books. It's funny. It only takes a few of those in order to make it happen.

I promise you, both of those books are more than worth your time, the ROI on them for you is exceptionally high. Steven is an epic, epic writer. He's really done his work on this book. It's worth your time. Have a beautiful day.