

The Tim Ferriss Show Transcripts

Episode 131: Eric Weinstein

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Tim Ferriss: Greetings, lads and lasses. Welcome to another episode of the Tim Ferriss show. I'm sitting at my kitchen table with Mr. Eric. Now, I've always – this is embarrassing to say, and I've done this with a number of friends now. Is it Weinstein, Weinstein? How do you say your last name?

Eric Weinstein: I think it's Weinstein.

Tim Ferriss: Weinstein. I agree. That's the more Germanic way to go about it. Now I'm going to read a short bio. I'm sure I'm gonna bastardize this. Because I realized that we have so many wide-ranging conversations, and I was wondering and asking myself where to start, and I realized, there's no real good place, or no particular place to start. So you can start anywhere. So I'll start with your bio. Eric Weinstein, managing director of Teal Capital, PhD in Mathematical Physics from Harvard, Research Fellow at the Mathematical Institute of Oxford University. But, as you and I have discussed, that does not quite capture the eclectic combination of life experiences that is Eric. So what are some other sort of colorful aspects of this collage that is yourself?

Eric Weinstein: Oh, all right. So sometimes, I pretend to be an immigration expert, particularly with respect to skilled labor. I'm also a member of the advisory board for a group called Drugs Over Dinner, trying to get a rational and healthy drug policy for the US. I was pretty early on sounding the alarm over mortgage-backed securities and failed to alert the world, with a bunch of other people who also failed, but we gave it the old college try.

Tim Ferriss: Guess that makes it the uncrowded trade?

Eric Weinstein: Well, the problem is that early is another name for wrong.

Tim Ferriss: Yeah, right.

Eric Weinstein: And also, you can't quite believe what you're saying, that Goldman-Sachs and the rest of the world is gonna blow up. It's hard to have the courage of your convictions. But, oh gosh. I mean, I think –

Tim Ferriss: Have you taken a lot of Economics classes to inform all of these insights?

Eric Weinstein: I've dated women and married them who have taken a lot of Economics classes. I haven't taken any. But in order to get some attention for the work we'd done in Economics, I decided to start referring to myself as an economist. I figured if I got called out, then I would get to push the work in front of a world that was asking for my credentials. And so, strangely, economists don't call you out when you call yourself an economist. And so I ended up as an economist rather than having the attention that I was hoping to drag to this new theory of Gates theoretic and geometric economics.

Tim Ferriss: And to provide just a little bit of context, which I think is fairly normal for our interactions, I'm just gonna read one line from an email exchange. And this is from Eric to me. Do you want to try a podcast on this, and we'll get into maybe what this is: psychedelics, theories of everything, and the need to destroy education in order to save it?

How did we first meet? Was it Summit Series, or was it somewhere else?

Eric Weinstein: I think it was Summit Series. I think you were talking about the potential of the human mind and how to unlock it, and I think I became very curious as to what the domain of applicability was and whether some of these techniques that would help you shoot baskets or learn tango could be applied to, let's say, quantum field theory, which seemed like kind of the next logical place to go after tango dancing.

Tim Ferriss: I think many people would ask themselves, managing director of Teal Capital. So how does someone who, from a layperson's perspective, is a mathematician pretending to be an economist very effectively –

Eric Weinstein: Or pretending to be a mathematician.

Tim Ferriss: Or pretending to be a mathematician, get recruited and end up working with Peter Teal at Teal Capital?

Eric Weinstein: It's a really good question. I knew Peter slightly before. Geez, we are gonna be just entering at a random point, so. No, it's quite good.

Tim Ferriss: It's the best attempt I can make in trying to be quantum.

Eric Weinstein: So I had met Peter when I had been sort of living in New York and playing in the Bay Area a little bit with the tech crowd. And I was told by some friends, you have to come out for this crazy Being Human conference. And so any conference named Being Human seemed too Californian to be a good idea, but I was forced into coming out. And there was sort of a circle of people which Peter was in, and I was talking about what it means to really look at the human condition from a rational, but also open-hearted perspective. And Peter and I started talking. And I told him that I was thinking that I might have a theory of everything that I should debut.

And I think he probably haircut the possibility that what I was saying was true. But then I was invited to give these lectures at Oxford, the Simone Special Lectures.

Tim Ferriss: And is Simone named after the Simone who went to space and also created Microsoft?

Eric Weinstein: Charles Simone? Yeah, I think he was the original engineer at Microsoft. And he had endowed a professorship at Oxford which is held now by Mark Vistosotoy after Richard Dawkins held it, which has some lectures attached. And I was invited to give lectures under this program. And I was giving technical talks, but a story or two came out about how a potential theory of everything was being debuted. And I guess Peter probably saw that. He invited me to a quiet conference he was holding in the south of France shortly afterwards.

And then he invited me to a breakfast after that. And at the breakfast, I think I was midway through some breakfast sausage, and he just blurts out – he says, “You have to leave New York.” I didn't understand why, and I said, “Really? And go where?” He says, “You could come here.” And I said, “And do what?” And he said, “You could work for me.” So I didn't know whether he was suffering from too much sleep, but it turned out he was quite serious, and it's been one of the most rewarding intellectual relationships of my life. He's just a stunning, sparkling mind, and somebody who has not only the courage of his convictions, but has been right so many times and over enough things that he has had the freedom to break with all tradition when he thinks the world is wrong and one or two people may have it right, which is exactly my cup of tea.

Tim Ferriss: Did he have a clear idea of what you would be doing when he hired you or made the offer?

Eric Weinstein: Probably less important to him, is my guess, is that the first issue is that there are – it's so difficult to think for yourself. I mean, I find it very difficult to think for myself. I have all sorts of ideas in my head that aren't mine. I'm subjected to all sorts of pressures I find difficult to resist. And so I think Peter's looking for the tiny universe of people who are attempting to think things through from first principles. And it's become very tough because socially constructed reality is so much a part of our lives. So I think first, his feeling would be find the people who are capable of seeing something really new, and then figure out what to do with them later.

Tim Ferriss: Escaping or averting the consensus reality, as you've mentioned.

Eric Weinstein: Yup, whenever possible.

Tim Ferriss: Whenever possible. What outside pressures do you find tempting or difficult to mitigate?

Eric Weinstein: Oh, well, I mean, everybody loves to fit in. The fear that happens when you start swimming away from the shore that you're not going to find a next island before your strength gives out. I think it's very rational to be afraid of thinking for yourself because you may very easily find yourself at odds with the community on which you depend. And I think for some of us, it's just a compulsive behavior. It's not even necessarily the smartest evolutionary strategy. It's just hard to do it any other way.

Tim Ferriss: Hugging the shore.

Eric Weinstein: Or not. I mean, if you keep trying to screw your eyes up so you can see the world the way other people are reporting that they see it, and it just doesn't work, you realize at some point that it's a losing battle. You might as well try being yourself.

Tim Ferriss: What is the first example that comes to mind of a time when you had that fear of swimming away from the consensus and facing the scrutiny or criticism of people in a given community?

Eric Weinstein: Well, sometimes it happens by accident. So I remember, for example, being in a guitar store in Philadelphia and having a crowd of people gather around as I played something badly. And I couldn't figure out why they would want to listen to somebody

who was not very good at classical guitar. And this isn't bragging that I'm great at classical guitar. I was really not that good. And it turned out that I had taught myself from sheet music, and I believe that the notation for using your thumb is to use the letter P, which I interpreted as pinky. So I was using my weakest finger for everything that needed to be done by my strongest finger. And so my guitar was completely wrong. And that was a clear example of, well, this didn't come from a guitar teacher. It didn't come from a normal experience with music. It came from teaching yourself something and having the scars to prove it.

So I think in that case, you also learn how much power there is, that you can shortcut all sorts of things. So as you've showed us with the Parado principles and trying to eschew the work of the 10,000 hours, you start to realize that the world is meant to be jailbroken. And then you get into really scary stuff, where you come up with political conclusions that aren't shared by others. So for example, I don't have the usual convictions of my groups about immigration. I'm of the opinion that what most people think of as progressive immigration is actually regressive. And so at some point, I came out with a free market model to open the borders, but without adversely affecting American workers. And –

Tim Ferriss: Have you written about that?

Eric Weinstein: Oh yeah. I published a peer-reviewed model for how to do it.

Tim Ferriss: For a layperson interested in exploring your opinion on that or your perspective on that, would you point them to a given paper, or?

Eric Weinstein: Sure. There's one called "Migration for the Benefit of All" in the International Labor Review, I think of 2002. And the funny thing about this paper is that it takes what US corporations always claim they want, which is access to any workers anywhere in the world, and it achieves it through a market mechanism. But unfortunately, what they were really interested in wasn't the small gain in efficiency that comes from being able to hire on a global market. They were really much more interested in the wealth transferred from American workers to American business owners. And so it was a great example that they thought they'd make a free market argument, but in fact, they weren't interested in the free market advantage. They were interested in transfer payments. And so when you give them a free market model, they lose all interest in the free market, which is, I think, just really funny.

Tim Ferriss: You mentioned guitar. I can recall we had a dinner at your house which was not Drugs Over Dinner, it was Death Over Dinner, where we talked about death. And I think that was somehow related to – was it NPR? It was some radio station.

Eric Weinstein: Yeah, Capital Radio, some NPR affiliate.

Tim Ferriss: Right. And we discussed death over dinner. But one thing I noticed at your home was that you have a lot of musical instruments. When did you start experimenting with music? And how many musical instruments have you experimented with?

Eric Weinstein: Am I right that the federal government hasn't made musical instruments illegal? So I've been experimenting with musical instruments for some time. I think at some point, you learn that music is an abstraction, and that each particular instrument is a way to instantiate the same common abstraction. And so this was extremely powerful for me because I –

Tim Ferriss: Could you explain what you mean by that?

Eric Weinstein: Well, I don't really hear music very well. I don't have a lot of intuitive feel for it. To me, it looks like systems. And the idea that music was so highly systematized, and that this was covered up by the standard relationship that we pick up where we take music lessons, we learn to read music in this country – lots of people are bad at reading music, and lots of people are bad following instructions. But you learn that in other areas of the world in which notation isn't a big part of musical education, people very casually pick up an instrument and start playing it. And I think it's because the systems – if you will, the math behind the music – is so powerful that it allows you to improvise. It allows you to compose and to understand that there are canonical songs. At some point, for example, I wrote a tiny computer program in Python and put it in a tweet. And its only purpose was to reproduce the chord progression for Pachelbel's Canon as an algorithm.

Tim Ferriss: Did you say Taco Bell?

Eric Weinstein: No.

Tim Ferriss: I can't believe that I heard that correctly.

Eric Weinstein: Okay. I thought I said Pachelbel's Canon.

Tim Ferriss: Oh, there we go. All right.

Eric Weinstein: Yeah.

Tim Ferriss: Now when you're talking about the ability to improvise, pick up an instrument and start playing – I mean, Paul McCartney, I believe, is one example. I heard something –

Eric Weinstein: Oh, he's such a gifted, intuitive musician.

Tim Ferriss: But I heard, and this could be completely off-base, that he, at least for a period of time, couldn't read music. And is that because humans have potentially some type of innate grammar for music, in the same way they might have some type of innate language grammar, along the lines of Chomsky and his theories? Or is it something else?

Eric Weinstein: I think you're right. I mean, I think that a lot of it comes down to the physics of a vibrating string or air column. So if you look at the harmonics, the patterns of vibration that are encoded into simply taking a cat gut and stretching it between a wall and the ground and then twanging it.

Tim Ferriss: You've seen my spa room, in other words.

Eric Weinstein: So much of our musical system is in the math and in the physics of a vibrating string. There's one crazy innovation, which is even temperament, which the West figured out, which has to do with a strange math fact that if you raise the number two for twice the frequency, which gives us the octave, to the 19th power, and then take the 12th root thereof, that's almost exactly equal to three. And that weird numerical accident is what makes it possible to both have extremely beautiful intervals, but have them also so regular that you can do harmony and make chords. And I don't think most musicians probably even know why we use a 12-tone system.

Tim Ferriss: So what you just described before, the 12-tone system, that's even temperament?

Eric Weinstein: Yeah.

Tim Ferriss: That's what that's called? So I've always been somewhat insecure as it relates to music. I've never thought I was –

Eric Weinstein: How interesting.

Tim Ferriss: Innately capable of being good with musical instruments. And I grew up trying a lot of musical instruments and quitting them, whether it was piano, trumpet, etc. The drums are one example, or exception, rather, where I have so much fun playing even poorly that I will continue to practice. On the flip side, though, if you had to just take a stab, how many different instruments would you say you've toyed around with in one capacity or another?

Eric Weinstein: I would say that the ones that I regularly check in with would be mandolin, harmonica, guitar, piano, and occasionally some funkier stuff than that.

Tim Ferriss: But you've also dug into natural human languages.

Eric Weinstein: Yeah.

Tim Ferriss: What languages have you given a go?

Eric Weinstein: Well, oh gosh. I mean, the ones I love?

Tim Ferriss: Sure.

Eric Weinstein: Turkish and Indonesian were great fun to learn about and learn some of. Russian is extremely emotional, but grammatically fairly unforgiving. I enjoyed the little bit of Thai that I started trying to learn because tones are not a big part of any of the other languages that I've tried. But when I tried a little bit of Vietnamese, the tones were so hard that there was no satisfaction. I spent three weeks and I couldn't say my first word convincingly.

Tim Ferriss: Why do you – and I promise this is going somewhere, not that it has to. So a question I get asked oftentimes is why do you study these languages that don't seem to have any practical application in your life? How would you answer that? Like Turkish, for example.

Eric Weinstein: There was a girl.

Tim Ferriss: All right, let's try another one. Indonesian, same answer?

Eric Weinstein: Well, Indonesian is just brilliant. Everything that can go right with a language for a US language learner has happened to Indonesian. So for example, it's not inflected for tense. If you want to say, "I came," you would say, "I already come." It's not inflected for number. So if the word for child is anoch, the word for children is anoch squared, or anoch anoch. Yeah, yeah. Guarang guarang.

Tim Ferriss: Guarang guarang.

Eric Weinstein: People.

Tim Ferriss: Person person, yeah, for those people wondering.

Eric Weinstein: [Speaking Indonesian], man of the forest.

Tim Ferriss: Yeah, very good.

Eric Weinstein: And then it's in a Latin script. And so I would say that if you wanted to figure out your bang for your buck with a language, try Indonesian if nothing else has worked for you. You may find that you have over a hundred million new friends and a facility you never thought you could develop.

Tim Ferriss: Indonesian's super cool. I remember spending a month in Bali and just drilling down into it. And it was such a relief after studying languages like Mandarin, which, similar to Vietnamese, is just so unforgiving. If you don't get the tones right, you could have a vocabulary of 5,000 words, and no one will be able to communicate with you in any meaningful way.

Eric Weinstein: I think also, when you try one of these languages that it's less common to learn, people are so much more appreciative than if you were yet the Nth person they've met who's tried to speak French.

Tim Ferriss: Yeah, the psychic payback and the gratitude that you get is a factor that, I think, is undervalued. Because people say, well, the utility of Spanish is X because I can travel to Y number of countries and talk to Z number of people.

 And it's like, well, that might be true, but if you, say, go to Greece, as I did at one point, and pick up 20 different lines, and make sure you throw in two or three that are kind of ridiculous just for comedic effect, the sort of added value to your, say, vacation there will be 100X versus, say, a 2X with Spanish, right?

Eric Weinstein: I completely agree.

Tim Ferriss: And that makes it so much fun. Turkish, oddly enough, and for those people who are not interested in languages, we're not gonna spend the entire time talking about languages, but I'm gonna try to tie this into music. Turkish, for instance, and this was pointed out to be by a Turk, is grammatically extremely similar to Japanese.

It's really, really weird. I mean, eerily similar. So it was very easy for me to start to pick up Turkish from having spent time as an exchange student in Japan. And so that brings up all sorts of interesting theories about migration patterns and so on from long, long ago. But what does, if anything, studying music have in common with studying natural languages?

Because the latter is where I'm more comfortable, even though I thought I was bad at languages until halfway through high school.

Eric Weinstein: Yeah. I think that these areas that are so intrinsically human, and we don't even realize that there are these systems that are undergirding it. I think that there's at least that as a formal similarity, where until Chomsky and his thoughts on grammar, we didn't understand the way in which this could be potentially an innate process, just the way the hairs in your ear and in the organ of Corde may predispose you to love particular intervals. When you hear, "Wise men say," that's really going from a fundamental frequency to three halves times that frequency back to the fundamental frequency.

And if you can hear the different between that. And going to two times, it would be "Somewhere" – I can't do that very well. But these iconic intervals are really based on physics. If you think about your phonian production –

Tim Ferriss: Phonian production.

Eric Weinstein: Yeah. The sounds that you can make with your math are really based on a five-dimensional lattice, which I didn't understand.

Tim Ferriss: I don't understand that either. I'll need you to explain.

Eric Weinstein: Well, you can either turn your nasalization on or off. You can have your vocal cords vibrating. So vocalization can be on or off. So those are two degrees of freedom. You can have your lips in one of several positions, a third degree.

Tim Ferriss: Like in Chinese, retroflex. That's a hard one.

Eric Weinstein: There you go.

Tim Ferriss: So in saying [speaking Chinese]. Oh, I fucked that up. Hold on. [Speaking Chinese], like going to Taiwan and going to Beijing, they say [speaking Chinese], they do that shrshr.

Eric Weinstein: Oh, I see. It sounds very Bengali and Portuguese with the shh.

Tim Ferriss: Oh, yeah. They love doing that. Anyway, not to interrupt. So that's three degrees of freedom.

Eric Weinstein: And then you have where on the tongue, what location on the roof of the mouth your tongue is attempting to make contact, and how raised or lowered it is. And so these five degrees of freedom generate the phonemes. And if you ask opera singers to sing in a really squirrely language, they don't know. Maybe they know Italian and French, but they don't know Hungarian. They may be able to produce all of these sounds because they have been forced to understand exactly what the degrees of freedom are to produce the sounds, even if they don't know what they mean.

Tim Ferriss: Right. They have the conscious awareness and control of oral articulation. I've never used that before. But much like a, say, ballerina with a vocabulary of different types of pirouettes and movements would be able to replicate a lot of what you would find in tango because they have this vocabulary and awareness.

As a side note, for people who might be wondering, Japanese people have a really tough time learning almost any foreign language because they have a very limited set of phonemes in their language.

Eric Weinstein: Interesting.

Tim Ferriss: So they kind of got shortchanged when God was handing out sounds, which is why, say, with R and L, they have [speaking Japanese] [00:29:20] as opposed to R or L. But as soon as you point out to them the position of the tongue, like la, you touch the tip of your tongue to the back of your teeth, then all of a sudden, just like a snap of the fingers, they can figure it out. But no one's ever tried to explain it to them. They're just like, repeat this sound, repeat this sound. But once you explain that one factor, and you're like, no, no, touch your tongue to the back of your teeth, they're like, oh, I got it. And of course, it takes practice to do quickly. But that is why Japanese have a very tough time with almost every language. Spanish may be one exception. Let's come back to something you said earlier, which is navigating from first principles.

Because I think this is a really important concept to understand. What does that mean?

Eric Weinstein: I think that –

Tim Ferriss: And why is it important?

Eric Weinstein: Well, very often, we have some spectrum of difference that we're allowed. Frequently in politics or news, somebody will take about the Overton window. What can we discuss, what can't we discuss?

Tim Ferriss: The Overton window.

Eric Weinstein: The Overton window.

Tim Ferriss: You mean in the context of, say, a debate or a newsflash?

Eric Weinstein: So for example, when Donald Trump said that he wanted to temporarily ban Muslims from entering the US, that was considered outside the Overton window. It was not something that was discussable. And I think that a lot of us may benefit from the Overton window, this idea that we're going to make certain ideas too hot, too dangerous for people to express in polite company.

But on the other hand, what we've started to do is to hamstring all the cognitive power in our contrarian thinkers, where they don't feel comfortable or safe thinking aloud. If somebody tells you, for example, or asks you the question, do you believe intelligence is perfectly evenly distributed between genders, or among ethnic groups? Statistically, it would be crazy to say yes, I believe it's perfectly distributed. On the other hand, socially, it would be crazy to suggest that it isn't perfectly distributed. And so we have all of these really funny situations where the top-down thinking tells us what's acceptable and what isn't, but the bottom up leads us to ask all sorts of questions that are framed out, if you will, by the usual terms of discussion.

And I think that this is really animating a lot of people who feel that social justice, which they always thought was a positive, is starting to metastasize into kind of a thought police where –

Tim Ferriss: Yeah. Well, it seems to have turned into this sort of Internet lynch mob version of McCarthyism in a way.

Eric Weinstein: There you go.

Tim Ferriss: And actually, I'm gonna put this out there, because I was thinking about writing a blog post about this, but blog posts take a long time

to write. So there currently isn't much of a penalty for labeling people, whatever it might be, fill in the blank-ist. All right? So you can be accused and guilty until proven innocent of being sexist, racist, fill in the blank. Misogynist, whatever it might be. Classist, you name it. And that can be really damaging to people who are accused of such things, often with no evidence, or very questionable evidence, or even contrary evidence.

And so what I was hoping is there should be a term that you can apply to people who go on these witch hunts and apply these labels. And I was thinking that bigoteer could be a good one.

Eric Weinstein: Oh, that's good.

Tim Ferriss: What do you think? So therefore, if a journalist, let's just say, is taking the lazy route for cheap applause, i.e., cheap page views, and they're just accusing people of being these really career-damaging things, like sexist or racist, whatever, they themselves could then be labeled a well-known bigoteer, for instance. And then there would be some type of social consequence, which I don't see currently, to acting in such a haphazard and damaging way.

Eric Weinstein: So currently, we have this other weird term, SJW, for social justice warrior.

Tim Ferriss: Social justice warrior.

Eric Weinstein: So I like bigoteer. Why don't we try it in the wild and see what happens?

Tim Ferriss: Yeah, I'd love to hear anyone's thoughts on this, bigoteer. And I've thought a lot about this because I figured you needed a term that was sort of phonetically similar enough – we were just talking about phonemes – phonetically similar enough to an already loaded term so that people would immediately get the negative connotation.

Being called a bigoteer, even though as far as I know, it hasn't existed, can't really be a good thing. I mean, you have bigot, and then you have the teer, in most peoples' minds associated with racketeering or something else. But it does a decent job of kind of describing the sin against intellectual honesty that is what we're talking about, this type of out of control social justice warriorship. But I agree with you, that I think that even more than top down, the phenomenon is so puzzling, in a way, because it seems like people

are creating prisons of their own making. And in creating this lynch mobs, or participating in them, you're creating this momentum for this type of activity that ultimately has to come back and bite you in the ass, or it'll just create these barriers to honest communication.

And sorry, I'm up on my soapbox now that we brought up this stuff. It also seems like – and I'd love to hear your opinion on this – but oftentimes, the most important conversations to have are the most uncomfortable that would fall outside of this Overton window by definition.

Eric Weinstein: And even the conversation that you most want to have to try to remediate the long-term problem is prevented by the evident relish that some bigoteers, if you will – the relish that they obviously enjoy and take for themselves in sort of settling for the short ride rather than really trying to get some kind of structural change. And I think that because the level of distrust is so high in the US at the moment, we have a problem with people trying to shut down conversation because they just don't know where it's going to go.

And so as soon as anyone starts talking about something sensitive, you can always trot out, "Check your privilege," or something that can be completely content independent because everybody's enjoying some privilege at the moment. And so if you're spending all of your time checking it, you're probably not going to be able to say much of anything.

Tim Ferriss: So I want to shift to a very serious topic, and that is Kung Fu Panda.

Eric Weinstein: Oh boy. It's getting weighty.

Tim Ferriss: It's getting weighty. Now I recall visiting the offices of Teal Capital, and we had a fun lunch chat with a whole group of folks. And I remember going to your office and seeing all sorts of toys of various types, and then I guess a figurine of Kung Fu Panda. What is your relationship to Kung Fu Panda?

Eric Weinstein: This is emotional, embarrassing, and rather weighty. But I went reluctantly. I can't say that I relished going to a children's film, even though I two kids who were excited to see it. But my wife said it would be a good idea. And as I sat there in the theater, I got deeper and deeper in to the story. And when the film was finally over, I found myself weeping.

Tim Ferriss: Were your kids okay with that?

Eric Weinstein: I don't think anybody was okay with that. It was a little weird. And what I realized was that it was the only film that I'd ever seen that struggled with the issue that I felt almost defines my quest, which is why can't a self teacher leave pupils?

And if you think about that for a second, you'll realize that Einstein wasn't successful in leaving any Einsteins, and Francis Crick didn't leave Francis Cricks, and Winston Churchill didn't leave any Winston Churchills. If there was some way for a Newton to leave a Newton dependably, the world would be a completely different place. And what Kung Fu Panda was trying to do, in my opinion, was to struggle with this question of how would an innovator leave a successor when it's his time to go? And at some point, somebody on Quora asked a question. This story doesn't make any sense to me. How does a panda slob become the ultimate Kung Fu warrior? And I wrote up my explanation, and I think it's probably the most viral thing I've ever written.

Tim Ferriss: What is the title? And we'll link to this in the show notes for everybody, just fourhourworkweek.com/ [inaudible].

Eric Weinstein: I think it's how does Po become an awesome Kung Fu warrior in the film Kung Fu Panda. Something like that.

Tim Ferriss: Yeah, I'm sure if we look up your name and Kung Fu Panda, it'll pop right up.

Eric Weinstein: And so my claim was that the original innovator in the film is a turtle, which is an even more inappropriate kung fu archetype than a panda because they're obviously slow-moving. And the turtle works out the secrets of harmony and focus at the Pool of Sacred Tears. But when the kingdom is threatened by a kung fu student of great ability who's gone wrong, all that the kingdom can muster is the usual collection of over-trained students. So think aspirants to Princeton and Stanford and Harvard. And so these are all the kids who would get perfect SATs and have amazing extracurricular activities.

But fundamentally, what we don't realize is that they've all been rendered incomplete in a way because they can't tap into the self-teaching modality because they have been so thoroughly over-taught. And so the turtle recognizes that the panda is the only one who can save the day. And all the turtle has to go on in choosing a successor is that the panda has innovated one silly thing, which is

to turn a fireworks cart into a makeshift rocket to jump a wall. And so from this humble beginning, the magic unfolds. And it's really about the magic of how one self-teacher leaves a successor and solves the problem.

Tim Ferriss: Have you come to any conclusions or beliefs outside of that essay related to how autodidacts or Newtons can leave Newtons when they travel on from this world?

Eric Weinstein: I think so. And I can't prove it, but I think where I'm headed with this is that most of us who wind up using these sort of strange high agency hacks to negotiate the world have some kind of a traumatic birth. We may flatter ourselves that we're in touch with reality, but in fact, reality is a second best strategy. If you're lucky, your family works pretty well and you never leave social reality. It's only when something goes wrong that you discover, okay, the world doesn't work in any way the way I was told. Here's the underlying structure. And what you then have to realize is if you want this at scale, you've got to stop relying on these traumatic births. It's like you're waiting for somebody to get bit by a spider to become Spiderman. No, you have to do this in a more controlled fashion.

Tim Ferriss: You have to harvest spiders.

Eric Weinstein: That's right. You've got to regularize it.

So I think what we need to do is we need to create a completely secondary parallel educational structure for people who are going to be in the high agency creativity discovery idiom, and realize that we know how to impart expertise, but we don't know how to impart creativity and genius.

Tim Ferriss: Could you define high agency?

Eric Weinstein: Sure. High agency –

Tim Ferriss: Or just explain what you mean by it.

Eric Weinstein: Well, I think what I mean is are you constantly – when you're told that something is impossible, is that the end of the conversation, or does that start a second dialogue in your mind, how to get around whoever it is that's just told you that you can't do something? So how am I gonna get past this bouncer who told me that I can't come into this nightclub? How am I going to start a business when my credit is terrible and I have no experience?

You're constantly looking for what is possible in a kind of MacGyverish sort of a way. And that's your approach to the world.

Tim Ferriss: I'm not gonna take us off the rails here. Have you seen *The Martian*?

Eric Weinstein: Yes.

Tim Ferriss: Did you love it?

Eric Weinstein: The ultimate high agency film.

Tim Ferriss: I just saw it last night, man. It was just like two hours of *MacGyver* on steroids. I loved it.

Eric Weinstein: Yeah, and I'm glad you brought it up. I think it heralds a return, at least among Americans, to our previous way of being. I think there was some terrible thing that happened starting around 1970 that is just cracking now. So really about 45 years of a low agency, super safe, timid, frightened kind of societal aspiration.

If you just stay on track, can we keep the American prosperity machine going? I think we now realize that you can't do it without a bunch of really marginal characters, people who might be described as disruptive, have bad attitudes. These are my people. And they're tough to deal with, and I don't always enjoy them. But I do think that without them, it's not much of a football team.

Tim Ferriss: What can someone do who's listening to this, let's say, and they live in a community that is clearly low agency, and they want to train themselves to be able to look at options C, D, E and F when people say, do you want A or B, right? Or if they're given, let's say, the no from the bouncer, from the admissions officer, from the fill in the blank. They look for a way around it instead of just being stopped in their tracks.

Are there any recommendations or tools or resources, exercises, that they could use to cultivate that higher agency?

Eric Weinstein: Well, I don't know think there's a community on earth where somebody isn't modifying their car beyond what's street legal. I don't think that there's any community in which nobody is cooking something up in the basement that probably is prescribed by law. I don't think that there's a community on earth where somebody isn't trying to break into their own computer in order to see how it

works from the inside. So there are high agency people everywhere. What there isn't, necessarily, is critical mass. And I think that – sometimes I refer to the Bay Area as the innovation ghetto. So you have all of the people who are too high agency to behave properly and wait their turn in the rest of the country.

And so they've been given the nicest piece of real estate, an ungodly amount of cash, and the pleasure of each other's company. But they've been told, okay, you have to stay. And the terms of your probation is that you have to stay within the Bay Area. And so what I'd love to see is I'd love to see more of us violating our parole and going into the rest of the country, and trying to bring that irreverent spirit. Because I think one of the things that the US still has over, let's say, a competitor like China is that we tolerate the middle finger. It's perfectly acceptable to be disruptive here in San Francisco where you and I are conducting this interview. Whereas if I'm told that my child is disruptive in Kansas or South Carolina, I'm probably being told that he's being sent home for bad behavior.

So I think it's really important to start respecting our marginal citizens of greatest ability, and looking for the unusual personality types that are irreverent and committed enough to making things happen and really do things.

Tim Ferriss: This is gonna seem like a detour, but it might be related. What book or books have you gifted most to other people?

Eric Weinstein: Oh, so for my science friends, I tell them to read *The Emperor of Scent*, by Chandler Burr, about my friend Luke Tern. And it talks about a renegade scientist being stymied by the journal nature, by various conferences, by the established research centers, and it's just a wonderful introduction to how the dissident voice is marginalized.

And because Luke is such a genius of olfaction and chemistry, he's able to take a perspective, which may or may not be true, but keep pushing forward and battling. So that's one of my favorites. I have another weird recommendation, which is this book, *Heroclitean Fire*.

Tim Ferriss: By? Let's see if I can spell this. Heroclitean Fire.

Eric Weinstein: By Cha Greff, who is the guy who effectively shorted Watson and Crick. He told Watson and Crick that he didn't think that they were very good and very smart, and they didn't know their chemistry.

They weren't qualified to work on DNA. And it turned out that they got it right and he got it wrong. And when I heard that there was somebody who bet against Watson and Crick, I thought, well, this is just gonna be the laugh of the century. But it turned out, just to short those guys required another genius.

And he writes about trying to suppress these guys and failing because they were right and he was wrong. And he has enough presence of mind to struggle with it. So these are books that I think are incredibly powerful because they talk about what it's like to be one against the many.

Tim Ferriss: If you were advising, say – you might hate this question. If you were advising, say, a senior in high school, nontechnical – no, I'm sorry. Senior in college, nontechnical.

Eric Weinstein: Probably too late.

Tim Ferriss: Probably too late. Well, let's just say that – I mean, that was me, right?

Eric Weinstein: Okay.

Tim Ferriss: All right. And I had fairies and sugarplums in my head about Silicon Valley, and wanted to come here and attempt to build something amazing. What books, resources would you suggest, or what advice would you give?

Eric Weinstein: Well, first of all, if you can do anything else with your life other than innovate, other than create, go do that. Don't come. If you're still here and listening, saying okay, I can't really do anything else.

Tim Ferriss: Meaning you have a compulsion that you cannot resist.

Eric Weinstein: Yeah. And fundamentally, you are zagging when other people are zigging. You're not even thinking outside the box. You haven't seen the box for years. If that's who you are, my feeling is just get here. And I can't promise that your first week or your first month and a half is gonna be the greatest week or month and a half of your life, but you will fall in with people. There's enough openhearted assistance that's given, there's enough money that there's a different culture of abundance now that may not last more than this particularly cycle.

But even if this is a bubble, I think it'll reinflate in the same place because fundamentally, we've run out of all other options other than innovation. If we don't create and we don't think our way out of this, I don't think we have a great plan for a steady state. So it's grow or die, and that means that we'll have another bubble. And bubbles aren't terrible things. A lot of wonderful things happen during them.

Tim Ferriss: What, to you, is the most powerful idea or few ideas in *Zero to One* or the material that helped generate that from the class that Peter taught, which was transcribed by Blake Masters?

Eric Weinstein: Yeah. Well, so the entire book is about what to do if you think you have a secret.

If you really understand something that the rest of the world is confused about, and it's an important truth, *Zero to One* says here are all the ways you might want to make that work. I think the problem is the average person has never had an idea, a really powerful personal idea. And so most people don't have a single secret. And the real reason most people shouldn't start a company is that they don't know or believe anything that the rest of the world thinks of as being nonsense, right? And so this is the engine behind the book. And what's disturbing is to watch people reading this book, not realizing that the whole thing is predicated on you must have a secret.

And try to imagine somebody building a car with no engine. It doesn't really matter how nice you get the upholstery. It's not going to work.

Tim Ferriss: Now I suppose there are different schools of thought here, as with many different domains. Some people would say, well, you either have the hardwiring to come up with these secrets or spot these unpopular opinions or unpropagated opinions, that very people or no other people hold. Then there are the folks – I tend to lean this way – who think that that can be facilitated by forcing people to ask, for instance, absurd questions, right? So if you had 10X, not just 10 percent increase, but 10X your input in whatever you might be, how would you do it? And forcing people to break whatever systems they might have in place, right? The current incremental approach to what they're doing, these minute optimizations, won't answer the question, right?

They have to delve into this kind of terra incognita, things they haven't explored. Do you think this can be taught, or you can help

people to get better at spotting or coming up with these secrets, seeing things that other people don't see?

Eric Weinstein: Well, yeah, I do. And I think that in part, this is why it's so difficult, coming back to this sort of Kung Fu Panda pedagogy question, assume I hit one or two of these secrets and I'm successful at them. It doesn't have to be in business. Could be in science, could be in literature, anywhere. The problem is that you want to lead someone through the process of succeeding at something and seeing what blocked the path.

Tim Ferriss: What do you mean by that?

Eric Weinstein: Well, here's a problem I give people.

Tim Ferriss: Uh-oh.

Eric Weinstein: Well, no. I haven't solved it.

Tim Ferriss: Oh, okay.

Eric Weinstein: If I'd solved it, then – and in fact, nobody's solved it.

Tim Ferriss: I was sort of getting pre-McKinsey interview jitters. Okay. How many golf balls can you fit in a [inaudible]?

Eric Weinstein: No, this is exactly what I hate about those problems, is if there are answers in the back of the book, it's not a good problem. It has to be an actual problem that the asker doesn't know. So I don't know how to solve the problem of the umbrella. There's nothing I like about umbrellas. Seriously, Tim. They blow up in wind so that they're easily wrecked under the conditions that they're supposed to be – in which they're supposed to be used. They have these long metal spikes at about eye level, so they're clearly a safety hazard.

Tim Ferriss: Your legs always get drenched.

Eric Weinstein: There you go. Everything about the umbrella strikes me as wrong. Now what I believe is that there are – and I've seen people try to innovate on the umbrella situation.

There are ones that have air blowers that blow the water away from you. There are funky folding designs. But I am almost positive that there exists some very simple mechanical design that would improve the umbrella. On the other hand, I don't have that same confidence about the coffee mug. Yes, you could put some

electronics in it. You can make it smarter than it is. But fundamentally, it seems to be in such a simple state that I wouldn't think that I should innovate there. So if I can give the example where there is a solution known, luggage before 1989.

Tim Ferriss: I was just going to ask you about this.

Eric Weinstein: All right. So it turns out that nobody really knew how to do wheeled luggage before 1989.

Tim Ferriss: It's just mind-blowing. Anyway, yeah.

Eric Weinstein: It's hard to imagine that the whole world had their heads wedged so far up there that they couldn't think to put in these large recessed wheels with a telescoping handle. And this was the invention of a guy named Robert Plath, who was a pilot for Northwest, I think. And in one fell swoop, he convinced everyone that their old luggage was terrible. So even though there wasn't a lot of growth, he created the growth because nobody wanted their old luggage. And you could compare these discrete brainwave innovations across fields. So for example, in table tennis in the early '50s, the worst player on the Japanese team at the Bombay Table Tennis Championships was this guy, Hiroshi Satoge. And he glued two foam expanses to both sides of a sandpaper table tennis bat. And nobody could cue off of the sounds because it changed the sound of the ball.

Tim Ferriss: Oh, like a silencer on a gun.

Eric Weinstein: Exactly. So if you put a suppressor on your paddle.

Tim Ferriss: Suppressor. Just the fact that you used that word makes me think that you have a bunch of firearms hiding in your basement, but anyway. I digress.

Eric Weinstein: I can neither confirm nor deny. All right. But the idea that the worst player on one of the lower-rated teams would be the undisputed champion simply through an innovation that was that profound shows you what the power of one of these ideas is. That the power laws are just so unbelievably in your favor if you win that it makes it worthwhile.

Tim Ferriss: Or Dick Fosbury, who went backwards over the –

Eric Weinstein: 1968, you got it.

Tim Ferriss: Ridiculed and the mimicked, and eventually standard.

Eric Weinstein: Yeah.

Tim Ferriss: So in the case of, let's say, the umbrella or the luggage, is there a process for trying to tackle, innovate in these areas along the lines of something you might at – say, an idea?

Or exercises that you guys do at Teal Capital when looking at different markets, or trying to assess, say, an idea and its validity or promise in a market? Are there any particular questions, I guess is what I'm asking, that you find very useful when trying to spot these breakthrough ideas?

Eric Weinstein: Well, it depends situation by situation. So for example, in science, I try to use various intellectual arbitrage techniques, where if you have a bunch of smart people who have been focused on a problem, I try to look at what, as a group, their weaknesses are. How is their bread buttered? What is it that they can't afford to say or think?

Tim Ferriss: What might be an example?

Eric Weinstein: Well, so for example, in theoretical physics, there are all sorts of shibboleths where if you can't say that you believe that quantum mechanics is intrinsically probabilistic, you're not a member of the club because it's assumed that you sort of can't accept a difficult reality. Or if you can't sign up for one of the major schools, you have no way to get funding because there's no one who will support your grant applications. So you start to look at what causes what should be a diverse portfolio of ideas to collapse in terms of the diversity, where everybody starts representing the same point of view with tiny variations. If you're looking at a problem that's never been attempted, you don't want to use intellectual arbitrage because it's just blue sky. There's no reason that the first attempts to think through the problem won't yield fruit.

But in the case of the umbrella, I would start to think about, well, what made me think, or what made one think that this was a problematic object? So count the number of moving parts that, in general, as things reach final form, that they tend to get radically simple. So if there's too many moving parts, if there's some innovation that's happened since the problem was originally considered – so for example, in the case of Oculus Rift in virtual reality, maybe virtual reality was considered years before Oculus, but nobody had rethought it in the presence of economies of scale that brings screens and smartphones down in price. And so

suddenly, you have the high quality screens that are affordable that way back when would have cost a prohibitive amount. So ask yourself, well, what's changed recently? Where is the object that currently inhabits the space violating some sort of aspect of canonical design?

Tim Ferriss: What do you mean by canonical design?

Eric Weinstein: Well, let's look at nature. If I look at the – there's a great virus called T4 bacteria phage. And if you look it up, it's like a lunar lander. It's really cool. And the genetic material is held in a capsule called a capsid that has the form of an icosahedron. And so you wonder –

Tim Ferriss: Something with some sides.

Eric Weinstein: 20 sides.

Tim Ferriss: There we go.

Eric Weinstein: 20-sided platonic solid.

Tim Ferriss: Wait a second. What's a dodecahedron?

Eric Weinstein: 12.

Tim Ferriss: Goddamnit, all right.

Eric Weinstein: They're dual to each other.

Tim Ferriss: I meet need to brush up on my Dungeons and Dragons die references. Okay. So just continue.

Eric Weinstein: So it's a little crazy to think that before Plato ever existed, nature had figured out this complicated 20-sided object.

But because it was so natural at a mathematical level, even if it was complex, nature found the canonical design even though there was no canonical designer. There was no God-given – because it was a God-given form, it didn't need to be thunk up, if you will, by any individual. Or the recent discovery of grasshoppers that use gear mechanisms for jumping. You would think we had invented gears. But in fact, gears are such a natural idea that natural selection found it long before we did.

Tim Ferriss: So is this natural idea, then, roughly synonymous with canonical, or does that have a different connotation?

Eric Weinstein: I mean, I sort of think about it as if we get visited by aliens from another planet who are pretty advanced, they're gonna know about platonic solids. They're not gonna call them platonic solids because they didn't have Plato, and in fact, they were known before Plato.
But these forms that really don't have an inventor so much as a discoverer.

Tim Ferriss: Got it, got it.

Eric Weinstein: These are just things that sort of have to be.

Tim Ferriss: Um-hum. Okay, I took us down the rabbit hole a little bit. But we were talking about umbrellas.

Eric Weinstein: Yeah.

Tim Ferriss: And the number of elements or moving pieces. Maybe I'm –

Eric Weinstein: That is a clue that something is wrong.

Tim Ferriss: Right, right. It's not as elegant as it should be.

Eric Weinstein: So I would, for example, immediately think about, let's say, the Japanese and their love of origami, and the mathematics of paper folding. That would be a place that I might see whether I could mine that silo of expertise for any application to the umbrella. Very often, it's a question of being the first person to connect to things that have never been connected before, and something that is a commonplace solution in one area is not thought of in another.

So I think that it involves recognizing when something is likely to allow an innovation, figuring out where the information might be, and as a last resort, thinking really hard about what the form of the solution might be before you actually push yourself to be concrete. I think very often; you see people get very impatient with hand-waving. Well, that's a lot of hand-waving for my taste. Well, if you stay practical, you'll probably be part of a lot of incremental improvements, but you may never be part of one of these moments where that idea changes everything.

Tim Ferriss: I was reading a quote today, and I'm blanking on this philosopher's first name, last name Dennett. Maybe you know.

Eric Weinstein: Daniel?

Tim Ferriss: I wanted to say that, and then I thought to myself, it sounds too much like Daniel Tammet, who's the subject of this documentary called Brain Man.

But I think it is Daniel. And I'm gonna butcher this. But he said something along the lines of people who look down upon those who say it seemed like a good idea at the time. But that is actually a sign of brilliance in some capacity because you're able to look back and admit that, and have that type of self-awareness. And I apologize, Daniel, if I'm getting this mostly wrong. But what do you think, if you had to create a class for any grade level from ninth grade to the end of college, what would the class be, and when would you teach it? I'm gonna go grab a copy of this quote because it's gonna bug me. But I'm listening.

Eric Weinstein: Okay. So it's a really interesting question. Part of the problem surrounds where would I be allowed to teach this class?

Tim Ferriss: Anywhere you like.

Eric Weinstein: Well, the first question is, are you really allowed to deeply question your teacher or your school? Yes. So I would look to, for example, the Milgram experiment and the Asch conformity experiment. So in the Asch conformity experiment, one person was led into a room and asked simple questions, which a bunch of confederates of the experimenter, confederates, those people cooperating with the experiment.

Tim Ferriss: Right.

Eric Weinstein: Agreed to answer the question.

Tim Ferriss: Actor's effect.

Eric Weinstein: Yes. The actors answer the question in an obviously wrong way, and then when it comes time for the only real participant to answer the question, they often falsify their answer just to fit in. So you should be able to pass the Asch conformity test.

And then there's the Milgram obedience experiment, where an experimenter appeared to ask the only participant to administer a series of increasing electric shocks. And it's really important that most people continued to administer the shocks, even when they

heard screaming from the actor, in that case, if they were assured that it was expected of them and that they would not be held responsible. And so I think what you're always looking for is you're looking for an education which makes students unteachable by standard methods. And this is where we run into the trouble, which is we don't talk about teaching disabilities. We talk about learning disabilities. And a lot of the kids that I want –

Tim Ferriss: That's so true. Such a good way to put it.

Eric Weinstein: I think, are kids who have been labeled learning disabled, but they're actually super learners. They're like learners on steroids who have some deficits to pay for their superpower. And teachers can't deal with this.

We label those kids learning disabled to cover up from the fact that the economics of teaching require that one central actor, the teacher, be able to lead a room of 20 or more people in lockstep. Well, that's not a good model. And so what I want is I want to get as many of my dangerous kids out of that idiom, whether it requires dropping out of high school, dropping out of college. But not for no purpose. Drop into something. Start creating, building. Join a lab. Skip college.

Tim Ferriss: So this would be – what was the program? It's not 20 Under 20. The scholarship program.

Eric Weinstein: The Teal fellowship.

Tim Ferriss: The Teal fellowship. Could you describe that in brief, and then is it an example of what you're describing, or is it different?

Eric Weinstein: Well, so there's a lot of confluence between how Peter thinks and how I think, even though we start from radically different places. The Teal fellowship preexisted my coming on. And it's a program that will pay kids \$100,000 over two years to leave college to try something, like start a company or a nonprofit, or do something of high agency. And roughly speaking, a lot of the kids drop out of the Stanfords and Princetons and Harvards. They're incredibly impressive, and we're not that worried that in life, they're gonna be set back, because they're gonna do just fine under any circumstances.

Tim Ferriss: Now, in fairness, most of those schools will allow them to come back.

Eric Weinstein: That's true, but two years is a little bit longer than is comfortable. A lot of people understand that there's a gap year.

But one of the things that we hope is that if they do go back, they will go back maybe as graduate students. That maybe the undergraduate degree is necessary. In fact, we at some point did a little study, and we found that for every advanced professional degree we could think of, there was somebody who held that degree who had never gotten a BA or a BS. And so the idea of skipping college is now quite appealing to me, with the idea being that a Master's degree or a PhD or a JD or an MD has an embedded assumption of a BA or a BS. In fact, you'll never be asked about that lower degree because the leading degree, the professional degree and credential is usually the one that matters.

Tim Ferriss: Now what would you say to those out there who might look at your credentials and say, well, how would you have been able to obtain these very helpful degrees from places like Harvard and Oxford if you hadn't had the prerequisites set by going to undergrad?

Well, because I would imagine there are critics who would say there's a survivorship bias. You hear about the Zuckerbergs, but you don't hear about the 999 other people who might drop out, but then end up feeling or being restricted in their career options because they can't show a college degree. That at least is a common refrain. So what would you say to those people?

Eric Weinstein: Well, so my undergraduate wasn't from Oxford. It was from Penn. And there was a language requirement at the University of Pennsylvania. And I at the time couldn't figure out how to satisfy it. So I assume that I did not graduate from Penn, and then I just broke all the rules. They had a program that actually helped you break all the rules, if you could find it.

Tim Ferriss: And I have to ask, so what did that look like?

Eric Weinstein: It looked like one guy, whose name was Mike Zuckerman. He was a professor in the History department. And he's what we would call in Yiddish a shtarker.

He's the guy who breaks kneecaps for his people.

Tim Ferriss: Shtarker. It's like German. Like the strong guy?

Eric Weinstein: The strong guy.

Tim Ferriss: Hm.

Eric Weinstein: And so every time I would sign up for a class that had a prerequisite, and I would be held back, he'd get on the phone and he'd say, "This is Mike Zuckerman at the Office of University Scholars. I understand that you're holding one of my kids hostage with red tape." And it wasn't like he had any power, but the sound of it caused other professors to let go.

Tim Ferriss: What was his official job? I mean, was he just like the –

Eric Weinstein: Well, he was a History professor.

Tim Ferriss: Oh, he was, okay. He wasn't just the secret mercenary in the basement.

Eric Weinstein: This was a brilliant idea that he'd thought up, and it was sort of a secret kind of a secret program so that you didn't know that it was there, and it had power. It allowed you, I think, immediate access to any of Penn's graduate schools.

Tim Ferriss: What was the program called?

Eric Weinstein: University Scholars. So it sounded respectable.

Tim Ferriss: It sounds very respectable.

Eric Weinstein: Right. And it was just an anti-red tape program for kids who wanted to do research while undergraduates.

Tim Ferriss: And it was created by this History professor.

Eric Weinstein: Yeah.

Tim Ferriss: Amazing.

Eric Weinstein: Yeah. And this shows you, all through corporate America and the Ivy League universities, there are rebels who can't quite leave these institutions, but I call it the rebel end of corporate and the corporate end of rebel. So I end up as the corporate end of rebel. But I've always had help from the rebel end of corporate. And he was a guy who was –

Tim Ferriss: The rebel end of corporate.

Eric Weinstein: The rebel end of corporate.

Tim Ferriss: He was the maverick within the machine.

Eric Weinstein: That's right.

Tim Ferriss: Let's switch gears a little bit because for this part one, I have to get to the airport shortly, so I want to ask a couple of my favorite questions that are short questions that you don't have to give short answers to. But we'll see what we can knock off.

When you think of the word successful, who's the first person who comes to mind and why?

Eric Weinstein: Paul Dirac, because he found what must be the strangest and most bizarre piece of physics I ever hope to encounter.

Tim Ferriss: How do you spell his last name?

Eric Weinstein: D-I-R-A-C.

Tim Ferriss: Dirac. I don't know why I put a weird Turkish crescent mark on his name. I just really wanted to. What else can you say about him that leads you to call him successful? Is it just that discovery, or is it the way he went about it?

Eric Weinstein: I'm very focused on physics in the 20th century. There were really three guys who were the main forces behind the three major equations. And what I noticed about all three of them, Einstein, Dirac, and a guy named Ceeyin Yang, is that they all followed the same weird path, which was the use aesthetics rather than experiment as their guide.

So the entire rest of the field has had to use experiment and be in a regular science idiom, and these are the three guys who, more than anyone, just sort of closed their eyes and tried to figure out, okay, how should this game go? And then prove that the world more or less went the way they said it should.

Tim Ferriss: Now by aesthetics, do you mean looking for what they perceived as beautiful or elegant?

Eric Weinstein: Yeah, right? So I often make this joke that the scientific method is the radio edit of great science. Great science doesn't look much like the story you've been told about people diligently trying to falsify things and all sorts of statistical significance. Great science

looks like breaking into graveyards and digging up bodies when you know you shouldn't, or trusting your aesthetic sense when the data tells you otherwise.

And I've always loved this aspect of science. It's that you may want to tame this thing, but it won't be tamed. It will always be the case that the leaders of the field are the misfits in the back throwing spitballs rather than the good kids who are always there on time raising their hands.

Tim Ferriss: We asked about books earlier, so we won't hit that. Do you have a favorite documentary or movie besides Kung Fu Panda, or any that come to mind?

Eric Weinstein: Well, there was a brilliant one that I haven't ever heard of since I saw it called Rate It X, which had the great idea that –

Tim Ferriss: Rate It X.

Eric Weinstein: Yes. And it was about pornographers. And it was an anti-pornography movie. And its gambit was to just let pornographers talk at length without interruption or editing.

And so it made its point by just giving these people a mike when they really shouldn't have said anything. I thought that was absolutely ingenious.

Tim Ferriss: I really want to watch that. Yeah, sometimes the best sort of refutation and debating tactic is just letting somebody talk. Just let them bury themselves. What \$100 or less purchase has most positively impacted your life in recent memory, last six months, a year, whatever?

Eric Weinstein: I just bought my punk 10-year-old kid a mandolin. And suddenly, that's all we hear in the house. And I just think, what a completely bizarre instrument to fall in love with. And I think I got it for \$98.

Tim Ferriss: Ooh, just on the – it's a hair's breadth away. And why the mandolin, as opposed to a different instrument?

Eric Weinstein: I think it's really important, like we were talking about with languages that are less commonly studied, I think that the mandolin is the loser of an old battle between the mandolin and the guitar. It was very popular at the end of the 19th century when a bunch of the – I think they were called the Italian students or the Spanish students came through. And everyone went crazy for

mandolins But they weren't quite as versatile. It's the same fingering patterns as a violin, so that everything that you learn to pluck, you can then learn to bow later. But it's also compact, and it's highly melodic in its nature. So you can alternate between chords. It's like a little bit of a ukulele on steroids.

Tim Ferriss: Do you have any favorite mandolin player?

Eric Weinstein: Oh, gosh. Well, there's this guy who just got the MacArthur Fellowship, but I can't think of his name.

Tim Ferriss: Of course, I'm imagining there can't be that many mandolin player MacArthur winners. Maybe I'm wrong.

I guess if you search.

Eric Weinstein: Mark O'Connor, who was the great bluegrass prodigy. First the violin, I think he won the fiddle championship three years in a row. They outlawed ever winning again [TK check language] so he'd be the flatpicking champion on guitar. I think he's pretty terrific.

Tim Ferriss: What was his name again?

Eric Weinstein: Mark O'Connor.

Tim Ferriss: Mark O'Connor. So the MacArthur award.

Eric Weinstein: Well, this is another.

Tim Ferriss: This is a different person.

Eric Weinstein: Yes.

Tim Ferriss: The MacArthur award, for those people not familiar, it's actually a cool award worth looking into. That's called the Genius Grant, right?

Eric Weinstein: Yeah.

Tim Ferriss: Is that the nickname? Do you have any particular morning rituals that are important to you?

Eric Weinstein: Okay. Each morning is basically a struggle against a new day, which I view as a series of opponents who must be defeated. I'm not a morning person. So every morning I get out of bed, I'm just astounded that I've done –

Tim Ferriss: That you've gotten on your feet?

Eric Weinstein: Well, was it Julian Schwinger, the great Harvard physicist, I think, was asked if he would teach the 9:00 AM quantum mechanics course.

And he stopped for a second. And the person who asking said, "Well, what's the problem, Professor Schwinger?" And he says, "I don't know if I can stay up that late."

Tim Ferriss: So if you are trying to do deep creative work that requires a lot of synthesis, or just as Neval Ravagut might say, in orthogonal thinking and so on, what would your kind of work cycle look like? When do you do that type of work?

Eric Weinstein: So I use a weird technique. I use coprolalia, where I say – it sounds pornographic.

Tim Ferriss: A little bit.

Eric Weinstein: You know the strings of obscenities that Tourette's patients involuntarily utter?

Tim Ferriss: Sure. What was the term?

Eric Weinstein: I think it's coprolalia?

Tim Ferriss: Coprolalia. Okay, got it. Just talking streams of shit.

Eric Weinstein: Yup. So I find that when we use words that are prohibited to us, it tells our brain that we are inhabiting unsafe space.

And it's a bit of a sign that you're going into a different mode. So I tend to become sort of facultatively autistic. That is, I think I can be social and personable if I'm trying to do that, but when I'm gonna do deep work, very often, it's got a very powerful, aggressive energy to it. It's not easy to be around. It's very exacting. And I think I would probably look very autistic to people who know me to be social were they ever to see me in work mode.

Tim Ferriss: So how do you incite that? How do you invoke that? So could you just, going back to the expression or the term that I still can't say, do you just start trying to string together as many obscenities as possible? Like an incantation?

Eric Weinstein: I have my same sequence. It's like an invariant mantra that I have to say.

Tim Ferriss: Can you share it, or that's top secret?

Eric Weinstein: No, no. You can't share your meditation word.

Tim Ferriss: It's like TM.

Eric Weinstein: Yeah, exactly.

Tim Ferriss: Well, just some hints, then. How long is it?

Eric Weinstein: It probably takes me seven seconds to say it.

Tim Ferriss: Oh my god. That curiosity's killing me.

Eric Weinstein: You have to decamp from normal reality where you start thinking about everything in positive terms. Well, how am I negatively going to impact my neighbor? No, this is your time. You're stealing the time. And the act of creation is itself a violent action.

Tim Ferriss: What time of day would you specifically bring up this mantra and go into that mode? Do you have a preferred time?

Eric Weinstein: Sure. So this is a politically incorrect statement, but mathematicians of an older generation discuss the hour of the night when all theorems are true and all women are beautiful.

The pleasure of doing math or physics at 3:00 AM when the phone stops ringing, when you have no FOMO because everybody's asleep, it's a Monday night, and it's just you and an expanse of whiteboard. That's when the magic happens.

Tim Ferriss: Yeah. Unfortunately for my social life, that's also when I do my – I'm not saying it's good, but my best writing and synthesis happens, yeah.

Eric Weinstein: Is that right?

Tim Ferriss: It's typically between 1:00 and 5:00 AM.

Eric Weinstein: I find 5:00, stuff that I come with is a little bit unreliable.

Tim Ferriss: 5:00 is only if I've managed to catch the wave.

Eric Weinstein: Oh, nice.

Tim Ferriss: The wave you've been waiting for for an entire season of mental surfing, and you're like, okay, there's no way I can paddle in now and miss that set that's coming. And you just have to ride it. At least, what I will do is ride it until I just collapse from exhaustion.

If I have it. If the muse has somehow been captured in the bottle.

Eric Weinstein: I mean, I may cycle over a 24-hour – I mean, not go to sleep in that state. But that's rare.

Tim Ferriss: Yeah, it is rare for me also, not to compare the funny how-to stuff that I write to complex physics. If you could have one billboard anywhere with anything on it, what would it say?

Eric Weinstein: One billboard with anything on it. Just because a large number of well-credentialed experts believe something in common doesn't mean that it's necessarily wrong. But if they've reached consensus, that's the way to bet. Somehow, people have to learn that consensus is a huge problem.

There's no arithmetic consensus because it doesn't require a consensus. But there is a Washington consensus. There is a climate consensus. In general, consensus is how we bully people into pretending that there's nothing to see, move along, everyone. And so I think that in part, you should start to learn that people don't naturally come to high levels of agreement unless something is either absolutely clear, in which case consensus isn't present, or there's an implied threat of violence to livelihood or self.

Tim Ferriss: What advice would you give to your 30-year-old self, and if you could just place us in time, what were you doing at that age?

Eric Weinstein: So when I was 30, I guess I was still struggling to stay in or get out of academics.

And I think what I didn't realize is that the structure of the universities was that they were either hitting steady state, or growing very little, or shrinking. And that was not a healthy place to be because most of the good seats in the musical chairs competition had already been found in the '60s, and they had occupants. And we were in some sort of a game where we were doing work for the system, but we weren't set to inherit it. And I think what I needed to do was to decamp and to realize that technology was gonna be a boom area. And even though I wanted

to do science rather than technology, it's better to be in an expanding world and not quite in exactly the right field than to be in a contracting world where peoples' worst behavior comes out.

And your mind is grooved in defensive and rent-seeking types of ways that – life is too short to be petty and defensive and cruel to other people who are seeking to innovate alongside you.

Tim Ferriss: And the last question – maybe the last of one or two. That doesn't make any sense. But here we go. Do you have any asks or requests for my audience, for people listening? Anything they should think on, do, or otherwise?

Eric Weinstein: Well, first of all, I would really like a high quality umbrella from one of you, just to prove the point that that was actually a reasonable problem to set. I guess what I would really like is for those of you who have been told that you're learning disabled, or you're not good at math, or that you're terrible at music, or something like that, seek out unconventional ways of proving that wrong.

Believe not only in yourselves, but that there are structures that are powerful enough to make things that look very difficult much easier than you ever imagined.

Tim Ferriss: That is great advice. And for those people who particularly have this music insecurity, as I do, one thing that has seemed to me like a life raft in this sea of complexity is the three-chord song by the Axis of Awesome.

Eric Weinstein: Four chords.

Tim Ferriss: Aw, guh. I knew I was gonna do that. Four-chord song, there you go. So you can look that up on YouTube or elsewhere for a real hilarious but also potential – what the hell am I trying to say here? I just ran out of caffeine. This is the moment that –

Eric Weinstein: No, no. It's an amazing –

Tim Ferriss: Displaying an act that they put together which shows you how complexity can be created through simplicity, or perceived complexity.

Eric Weinstein: Well, and it shows you that your mind has stored over a hundred songs that you think of as being completely different in different places, even though there was a simple fact bringing them all

together. I liken it to the moment that people realize that in almost every advertisement for wristwatches, the watches are set to 10:10. And before you realize that, you can't really believe that it's true. But afterwards, you realize that the world has just pulled one over on you, because 10:10 looks like a smile to watch advertisers.

Tim Ferriss: Oh, I guess it's very symmetrical, isn't it?

Eric Weinstein: Yeah. But what's funny is that the wisdom has crept in to the point that sometimes you'll see digital watch ads.

And they'll still be set to 10:10, even though it doesn't look like a smile.

Tim Ferriss: So I'm just gonna throw out a teaser here because we don't have time to get into it today. But you and I have privately spoken quite a bit about psychedelics. I am, either by the time people hear this, or very shortly, going to be helping to raise funds for a very interesting study that Johns Hopkins is putting together. You said to me not too long ago something along the lines of, "You'd be amazed – you wouldn't believe how straight and narrow I was for so long." When was the first time that you tried psychedelics?

Eric Weinstein: Relatively recently. And it was because I had been propagandized so thoroughly that even to this day, I don't like the association, I don't like the word cloud around them.

There were all sorts of confusions that the power of one of these substances must come from killing brain cells, like pouring acid on your brain and leaving it as Swiss cheese. It wasn't until I started meeting some of the most intellectually gifted people in the sciences and beyond, and I realized that this was sort of the open secret of what I call the hallucinogenic elite, whether it's billionaires, or Nobel laureates, or inventors and coders, that a lot of these people were using these agents either for creativity or to gain access to the things that are so difficult to get access to through therapy and other conventional means. So tune in next time, when you'll hear Tim say.

Tim Ferriss: I will dig into the font of knowledge, this goldmine.

And give a Google, guys. Search my name and Johns Hopkins. By the time you hear this, you might see some very interesting stuff up about this, and you can actually get involved and learn a lot more about it. But before that, and in closing, I suppose I should ask, where can people find you on the Internet? Where can they ping

you if they want to share with you their incredible origami umbrella solution?

Eric Weinstein: That's a good question.

Tim Ferriss: On Twitter, or wherever you might be more active than less?

Eric Weinstein: Sure, yes. I'm on Twitter at EricRWeinstein. And you can find some of my essays at edge.org, particularly one on professional wrestling as a metaphor for living in a constructed and false reality.

Tim Ferriss: Well, Eric, I love hanging out. This is always so much fun.

And I appreciate you taking the time to join us and to brainstorm and share your wisdom with me and with everybody listening. Thank you so much.

Eric Weinstein: Tim, thanks for inviting me into your world and allowing me to talk to your base.

Tim Ferriss: All right, folks. So let us know what you think. Definitely say hi to Eric at EricRWeinstein. Say hi to me also if you have any feedback or you'd like to hear a round two at [tferriss](https://twitter.com/tferriss) – T-F-E-R-R-I-S-S on Twitter. And until next time, thank you for listening. Hey guys, this is Tim again. Just a few more things before you talk off. Number one, this is Five Bullet Friday. Do you want to get a short email from me? Would you enjoy getting a short email from me every Friday that provides a little more sort of fun before the weekend? Five Bullet Friday is a very short email where I share the coolest things I've found, or that I've been pondering over the week.

That could include favorite new albums that I've discovered, it could include gizmos and gadgets and all sorts of weird shit that I've somehow dug up in the world of the esoteric, as I do. It could include favorite articles that I've read and that I've shared with my close friends, for instance. And it's very short. It's just a little tiny byte of goodness before you head off for the weekend. So if you want to receive that, check it out. Just go to fourhourworkweek.com. That's fourhourworkweek.com, all spelled out, and just drop in your email, and you will get the very next one. And if you sign up, I hope you enjoy it.