

The Tim Ferriss Show Transcripts

Episode 81: Bryan Johnson

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Tim Ferriss: Bryan, sound test. What did you have for breakfast?

Bryan Johnson: I had an omelet.

Tim Ferriss: An omelet. What was in the omelet?

Bryan Johnson: Peppers, onions – onions, peppers, tomatoes, no meat.

Tim Ferriss: I love you reorder those ingredients. The mind of Bryan at work.

Hello midnight mad hatters. This is Tim Ferriss. It is very late and I am sing songing my intro to you in a sultry voice because there are people sleeping in my house, so I do not want to wake them up. But, I had to record this intro because I want to get this episode to you ASAP. It is a really fun one.

For those of you who are joining the Tim Ferriss Show for the first time, do not take my lack of seriousness for lack of content. We have a very important mission here on the program, which is to deconstruct world class performers to interview people like billionaire investors, chess prodigies, actors like our Arnold Schwarzenegger, and so on and so forth and everything in between. We have athletes. We have memory champions and there are commonalities across all of these different disciplines and my job is to tease out the beliefs, the routines, the rituals, the favorite books, all of the tidbits that you can apply in your own life and this episode is no exception. Had a blast with this.

My guest was a friend and very impressive entrepreneur and investor, Bryan Johnson. That is Bryan with a Y. He is the founder of OS fund, which I will explain in a second and Braintree. He sold the latter to eBay in 2013 for \$800 million in cash.

Now, that is more than enough to retire and kick in a hammock and lather yourself with coconut butter for the rest of your life, but he is not one to rest on his laurels. He took the Elon Musk approach and took \$100 million of his personal capital to launch the OS fund. That was in 2004, and the entire fund is intended to support

crazy inventors and scientists who aim to benefit humanity by rewriting the operating systems of life.

In this interview, he will explain what that means, but it is going to stretch you to think very very big. Hopefully, much bigger than you thought possible for yourself. Some of his investments, to give you an idea, include endeavors to cure age related diseases and radically extend human lifespan to 100 plus, Human Longevity Inc. and we talk about this in this episode. Making a biology of predictable programming language. So, how can you program DNA and biology to produce what you want? Like ginkgo bio works and synthetic genomics.

Replicate the human visual cortex using artificial intelligence, companies Vicarious Mind. Precious resources off of asteroids, companies Planetary Resources and many others. So, Bryan is not only a scrappy rags to riches story, but he is someone who succeeded and had a massive success story in a technical field without technical training. Also, just a very deep soulful good guy and all those things combined make for a fun conversation. I hope you enjoy it as much as I did, and without further ado, please meet Bryan Johnson.

Bryan, welcome to the show.

Bryan Johnson: Hi Tim, thanks for having me.

Tim Ferriss: This is our take two. We had a rough audition start. We were sitting in a park and we had this guy fooling around in the bushes, who then asked us if we had a spare backpack. I thought that was an odd request.

Bryan Johnson: Yeah, I think we were missing something.

Tim Ferriss: I do not think that was the real request and we did not have a spare backpack. But, we were put sufficiently on edge by this guy meandering around us like doing concentric circles like a shark around somebody in a lifeboat. That I decided it was better to do it inside.

So we are at casa Ferriss and I want to look at this in kind of a meta context because I have been hoping to have you on the podcast for so long and we were talking just before starting recording about what questions I might ask and giving you sort of an overview and I had no idea that you had done any prep. But, I wanted you to tell me a little bit about it because you asked how

can we make this a home run? And I said, well I think we will want to focus on stories and I will also typically judge it by how many notes people take. You are like, that is really interesting. You should say that. So, maybe you could talk about since we first discussed doing the podcast together, how you have been thinking about it.

Bryan Johnson: Yes. I guess I love efficiency. So, as I contemplate if I am going to spend 60 minutes of my time listening to something, I want some value and so specifically I want to have five, six, seven take a way. So, I thought ahead of time, what could I do in the shortest amount of time that would create the most value in someone's life?

Tim Ferriss: So, I think – this made me very excited because I wanted to have you on, first of all. But, second of all, you thought about it very methodically, which should not have surprised me at all. We have taken a lot of hikes together and had a lot of long talks, very wide ranging, and I think we will get into a good amount of it. Let us start kind of at the beginning and we will bounce around sort of Memento style throughout your life I think. But, what are some of your earliest, most formative memories from your childhood?

Bryan Johnson: So, my family and I, we were really close. I have three brothers and one sister, and we were always up to no good.

We lived in a small town in Utah and we had nothing really to do but to get into trouble. We were also very close and we were best friends. It was true through high school. For example, most – when people are in high school, they do not like their parents. They will shun them. They are embarrassed by them. But, I would walk down the hallways with my arm around my mom and she would give high fives to my friends because she was there being a substitute teacher watching over her rambunctious boys, but we had a great time as a family.

For fun we would watch the Dukes of Hazzard and the A Team on Friday nights and we would go get a special combo meal at Hardy's. We did not really have much money, but we just – I guess I have a lot of sweet memories growing up of being close to family.

Tim Ferriss: It sounds like your mom was one of the cool moms. What do you think – correct me if I am wrong, but what characteristics of her or habits of hers or otherwise enabled her to be the cool mom and not the shunned mom? What were the contributing factors?

Bryan Johnson: Alright, so one time I wondered what – if you filled a milk gallon jug full of gasoline and you lit it on fire, I wondered what would happen. So, I went out into the street and –

Tim Ferriss: This is just in front of your house?

Bryan Johnson: Yeah, exactly. I took the gasoline that was otherwise used for the lawnmower and I filled up this carton and I went out on the street and I lit it on fire, and as expected, it was producing quite a flame. Her green Taurus rolled around the corner coming down the street coming home and I thought oh no. So, in haste I kicked over the jug and now the gasoline spills on the street and into the gutter and now it is rolling down the gutter and there are cars there. So, I am having these images of cars blowing up. So, I walk over to the gutter and I stomp on the gasoline to put it out and of course that splashes. Now, the lawn is on fire. So, it is getting worse and worse. So, anyways we put the fire out and then the only thing she says to me is – she says, “Bryan, you probably should not do that again.” And I said, “Alright, that is fair.” That is typical of my mom.

She was supportive and kind. She kept us out of trouble the best she could, but she was not over the top and we responded to that.

Tim Ferriss: So, do you think it was – it is a very Dalai Lama like response to a potential gasoline bomb. Do you think – from the time I lit the Dalai Lama’s lawn on fire. No, I am just kidding. That is not what I did. But, do you think then that that kind of moderation in discipline prevented the rebelliousness that you would otherwise see? Or do you think that it was that she was closer to you guys in some way than other parents were to their kids?

Bryan Johnson: We trusted her implicitly and I think when she let go and we owned ourselves and our own behavior, I think we behaved accordingly. And so I did feel responsible for my own behavior and it did not – I was still just as mischievous, but I also knew there were boundaries in how mischievous I could be and it was out of respect for her and that she did give us a lot of freedom to do what we wanted to do.

Tim Ferriss: Did you ever get in trouble at school or not so much?

Bryan Johnson: So, I successfully avoided really serious trouble my whole life, but just below the level that I think could have been really dangerous. But, we did all sorts of things and even now I guess I look at my children as they grow up. The world has been sterilized

dramatically in terms of what is and is not acceptable behavior. In many ways, I am grateful for the things we were able to do because we were able to explore and try new things out. But, yeah I stayed out of trouble mostly.

Tim Ferriss: Did you collect anything as a kid?

Bryan Johnson: Baseball cards.

Tim Ferriss: Baseball cards. How long did you collect baseball cards?

Bryan Johnson: For seven years. I remember going down to the store and buying the Tops. 25 cards for \$1.25.

Tim Ferriss: And was it mostly an obsession for you as a baseball fan? Was it a business? Was it a combination of that and more?

Bryan Johnson: I just loved having it and knowing that I had value or some rare card to show to friends when they came over, but no it was just simply a way to splurge. I did not like spending money very much, but that was the only thing I really spent money on.

Tim Ferriss: Where you a popular kid in grad school, high school?

Bryan Johnson: No, well in eighth grade I remember I had these good friends in my neighborhood – we were best buddies and I was annoyed because in school there were this cliques forming of jocks, stoners, and nerds, like these typical things how people organize themselves and they had these in group characteristics where they would conform with each other's behaviors and say similar things. I was bothered because I wanted to be friends with everyone and so I did this scrappy [inaudible] analysis where I went out and I evaluated all the different groups and the power structure within each group because there is always people within the group who allow new members to join the group.

Tim Ferriss: Sort of the alpha?

Bryan Johnson: Exactly.

Tim Ferriss: The border card.

Bryan Johnson: Yes, and so I would befriend these people and I would say look I come in peace and I just want to be friends. I have no agenda here and I became friends, I think honestly, with everyone in the whole

school. I just loved having friends and I loved to dance between the different groups because they saw the world so differently.

It was not just this mono understanding of the world and so I really enjoyed maintaining friendships. That was my first experience in learning social dynamics because it was not natural for me. I was not good looking. I did not have expensive clothes. My parent – we actually had very little money. I was not funny. I was not witty. I was not necessarily super smart. So, I did not have the natural things that get you entry into that kind of club.

Tim Ferriss: Did your analysis – when you were looking at say the power structure, when you went and interacted with the – whoever it was, the rockers, the stoners, the skaters, fill in the blank, did you take on sort of the characteristics of that group? Or did you have a base sort of personality and set of behaviors that traveled across the grooves?

Bryan Johnson: I just took an interest in them. I wanted to understand how they looked at the world, what they experienced, what they liked, what they disliked. I just was sincere and I've always been curious.

So, no I did not try to become like them. I just wanted to be friends and understand them.

Tim Ferriss: Did you think of yourself – or let me rephrase that, when did you first thinking of yourself as an entrepreneur?

Bryan Johnson: I think when I – I guess I lived in Ecuador for two years and I came home to the states and I guess this is probably not the answer you are looking for, but after living in Ecuador and seeing these people shackled in extreme poverty and seeing that they really did not have a shot at life, I came home with this burning desire that I wanted to spend my life improving people's lives. So, I assessed what I could do. I looked at all the things you find in college, like model UN and helping do projects in Africa, wherever else. But, nothing really spoke to me and so I thought, I will just become and entrepreneur. I will build a successful business. I will retire by 30 with an abundance of resources and I will have freedom of time.

Then, I will figure out a way to improve people's lives. So, I think really at the age of 21 was the first time I set my sites really on that I can become an entrepreneur and build something of value.

Tim Ferriss: What gave you that confidence?

Bryan Johnson: So, I assessed my skills, at what I was really good at, and I could not really find much.

Tim Ferriss: This is when you were 21 or was it before that?

Bryan Johnson: Yeah.

Tim Ferriss: Okay.

Bryan Johnson: So, I was not good at – necessarily great at school or science or biology. I did not really have any skills of note, so I figured what I do I have is I am persistent, I am determined, and I am smart enough that I figure stuff out on the fly. So, entrepreneurship seemed like a good path for me.

Tim Ferriss: Then what was – so you have decided on the report card. The skill assessment, the self-audit of life, you are like okay persistence, check. Good on tap dancing with uncertainty, check box number two. Where did you go from there?

Bryan Johnson: So, I trying to find a cell phone and I was really frugal. I have always been really frugal, and I found this guy in the yellow pages. I met him at the mall and I bought a cell phone that was super cheap and he said, hey you look like you are smart and energetic. Why don't you come sell phones for me? I will pay you \$40.00 per activation and I thought, perfect. I never understood this whole idea that I would trade 60 minutes of my time for \$8.25 an hour. It seemed crazy to me. So, he said that to me and I said, okay yeah I will make \$80.00 an hour. I can do two per hour and I said, deal. So, I sold phones for him for two days, then I was on the porch of this lady's house and she had two screaming kids and I had this thought.

I thought, wait a second, if I am selling for him why cannot other's sell phone for me? And left the sale, I ran home and I spent almost two solid days figuring out how to become a wholesale provider of cell phone service. I figured it out and I started a company and now I changed the commission structure so now I was making \$300.00 per activation. It was the first company I started and I hired college students to sell phones for me and I paid my way through college doing that.

Tim Ferriss: When you first selling to people like this woman with the kid screaming on the porch, was that a door knock type of sales approach? How where you –

Bryan Johnson: It was.

Tim Ferriss: No kidding?

Bryan Johnson: The knock knock, wipe the feet on the door mat.

Tim Ferriss: What was the opening line once somebody opened the door?

Bryan Johnson: Well, I was A B testing the different approaches. I could walk throughout campus and ask student. I could walk door to door. So, this was second day and this was the day to test going up and down the street. So, yeah do you have cell phone service? And if you do not, I have a plan for you.

Tim Ferriss: So, one of my very close friends, a fantastic systems engineer, I started working with when I graduated from college and went to a mass data storage start up. Mass at that point was like fiver terabits, ten terabits. Big deal, right? Big storage area network at the time. He was so effective as a systems engineer, he had to do integration, but he started off as a door to door encyclopedia sales person. That was his first entrepreneurial gig.

So, he had to get really really good at overcoming objections and interacting with people socially, even though his sort of bedrock skill set was technical. Now, did you – so, let us see. You have the cell phones. That was your first business. What happened between there and – this is obviously a very large – or maybe not so large, but a lot happened I am sure between that and Braintree, but what was the sort of montage version of that?

Bryan Johnson: Well, the short version is the cell phone company went remarkably well, but it was not going to make me enough money to retire by 30. So, I had to find something bigger. So I started a voice over IP company with three founders and it was just before Skype and Vonage and the short of that is we had the wrong team, wrong product, wrong timing.

Tim Ferriss: Sounds Perfect.

Bryan Johnson: We did everything wrong. We did have a – we actually built something. We got customers.

Tim Ferriss: And this was also in Utah?

Bryan Johnson: Yes. And we had revenue. So, we actually built something, but in reality we were not set up to succeed. So, that failed and then on

the hills of that I joined another guy to do real estate development and the short of that is that failed because of some bad decisions we made. So, without income for two years I was dead broke, so I applied for 60 jobs found on Monster and the other job sites at the time. Nobody would hire me. It was just – it was so clear that I was – I had no intention staying a long time and I tried to make the resume look like it, but just never was the case. So, nobody would even give me an interview and then –

Tim Ferriss: Additional skills, loyalty, fierce loyalty to employer.

Bryan Johnson: Exactly, and then I saw the newspaper one day. It had a list of the 50 richest people in Utah and I thought, bingo that is what it is. I will write an email to these 50 people. I will say I am young, I am smart, I am trying to become an entrepreneur but I just need some money on the side. So, I will be become your right hand man. I will do whatever you want me to do and no one responded. At this point, I am like totally desperate.

Tim Ferriss: I am sure you get a fair amount of those emails these days.

Bryan Johnson: I do and I am empathetic to it. I totally am. So, at this point I have no income. I have a child at home and so I need to make ends meet. So, I find this job posting – again, I think it is Monster. It was selling credit card processing door to door and basically it was like –

Tim Ferriss: Business to business?

Bryan Johnson: Yes, like marching up and down the street, walking into a retailer or a restaurant.

Tim Ferriss: Let me help you set up a merchant account, get a point of sale system.

Bryan Johnson: Yes, or mostly change. Everyone already had existing service.

Tim Ferriss: Got it. Got it.

Bryan Johnson: And so, the requirement was like if you could fog a mirror, you could work for these guys. It is 100 percent commission. They do not care if you do not succeed. But, to your point on the sales side, I would go inside a business – I figured out pretty quickly the industry was really messed up. The technology was terrible and people were just generally plagued by the industry because it is just unscrupulous, all this dishonestly and complexity.

So, I figured out that was the hook because my product had zero differentiation. It was exactly the same as 500 other providers that walked in the door every day. So, I would walk in and I would say, alright Tim – right when you saw me walking in you would be like, alright sales guy. Alright, I am not interested. I have stuff to do. Then, when you heard me say credit card processing, it is like please leave.

Tim Ferriss: Strike two.

Bryan Johnson: Yeah, like leave. So, I would say Tim if you give me three minutes of your time I will give you \$100.00 if you do not say yes to using my service. Usually they would say like, that is interesting. What is this guy have to offer and I would open my pitch book and I would walk them through the industry. Here are the providers. Here is what they do. Here is how they do it. Here is what I do. I am the same as everyone else, except for with me you get honest and transparency and great customer support. So, I became this company's number one sales person. I broke all their sales records following this really simple formula of just selling honesty and transparency in a broken industry.

Tim Ferriss: That is super interesting. So, a couple of questions. I just want to rewind for a second. With the real estate company, what were – if you are comfortable talking about the money. What were the bad decisions? What were the worst decisions? What were the fatal mistakes?

Bryan Johnson: So, I am really proud actually of what we did. We launched a \$50 million mixed use project in one of the best places in Utah.

Tim Ferriss: Mixed use means residential plus commercial?

Bryan Johnson: Exactly, bottom floor small shops. Fannie Mae came in; they were our equity investor. We really put together a great project. The single biggest flaw was storage space. So, empty nesters showed up to buy and there was not sufficient storage.

Tim Ferriss: Storage for just all their extra stuff that they wanted to take out of the big house and move into this community living space?

Bryan Johnson: Exactly, yes. So, then sales stalled in phase one. The bank got anxious, so –

Tim Ferriss: Got it, so just did not account for that need.

Bryan Johnson: Yes, that was the big blunder.

Tim Ferriss: With the sales, so I am fascinated by sales because there is the good, the bad, and the ugly and you often see it within one industry, right?

So, this brings back a lot of memories for me because I was the lowest paid as base sales person at the start up that I worked for out of college and they are like you are really persistent. You are in sales. You are really persistent. You have no technical background; you are in sales. Congratulations. I was like, okay. Here we go.

Smiling and dialing, and one of the things I did was very similar to what you did with taking the potential objection and putting it right up front. Which was, I am the same as every other guy. Product, different label, same thing, except for this. Which was the relationship piece and I took a very similar approach when I was cold calling, which I did between I want to say like 7:00 and 8:00 and 6:00 and 7:00. So, I avoided the times that the gate keeper would be manning the phones and only called when I thought I could get the higher ups that yes worked longer hours.

But, I would do my homework so I could guess what they were currently using, like Solaris boxes or whatever –

[Crosstalk]

And then I would say, well not sure if this is the right fit at all. If you are using this type of system, this type of system, or this type of system, it is not at all. I would take all of the potential weaknesses and just put them right up front. You at that point had already had experience hiring sales people. What did you look for in sales people or how did you hire the people who had the highest likelihood of success or train them?

Bryan Johnson: Their ability to connect with other people and earn their trust.

Tim Ferriss: And what are the correlating behaviors or qualities that allow them to do that?

Bryan Johnson: They had to be genuine. It could not be that they were manipulating them into believing them. They had to be truthful. That if I trusted you that you were saying something that I could believe you and that would be true tomorrow as well.

So, I think that sincerity and being genuine go a long way. I think even it spans different personalities and experiences in life, but if someone feels like someone is really trustworthy.

Tim Ferriss: How do you read that when you meet someone?

Bryan Johnson: If I trust them.

Tim Ferriss: Okay, I am going to dig a little bit more. So, is that a visceral spider sense or is that a guy is not looking me in the eye? What is the – is it a gestalt of all those things? What is it that leads you to feel that you can trust or not trust someone?

Bryan Johnson: Yeah, I do not know. I guess I have always had an interest in people because I am curious and I have always enjoyed friendships. I do not know if I can even articulate this. It is just this subconscious process that happens that I read whatever the hundreds of data points that you reach when you meet someone and you [inaudible] feel like yeah, I could trust this person. The more you gather, of course, the higher your confidence level becomes. Of course, I make mistakes like everyone else, but I think it is a fairly accurate – I think most people can read that.

Tim Ferriss: This is where a bit of a lateral step, but I just saw – and I want to say it is called Ex Machina, which made me think of – I guess it is [inaudible] Ex Machina, which is the god from the machine, which is when – it is a theater expression – I am all over the place because I have had enough caffeine and coconut oil, but it is when – there was a plot problem that needed to be solved and the writer could not find any other solution besides having God descend from the rafters on a wire and be like, be gone problems. Therefore, act three comes to a close. Good night everyone.

But, Ex Machina – I think that is – there is a lot of debate how in Latin it is pronounced. No idea. In any case, how long do you think it is? We are in 2015, last I checked. Before a computer can read all those micro expressions and so on and come to the same type of trust or not trust conclusion?

If you were a betting man and this was the Price is Right of technology.

Bryan Johnson: I do not think I am qualified to answer. I will say that the other day I watched a video online where robots were walking along and then people were kicking the robots, or tipping them, or doing something to put up an obstacle and I had this emotional reaction

watching this happen. Even though I knew they were robots, but watching humans be cruel to robots. This like visceral reaction inside of me and so as you talk about Ex Machina and the progression of robotics to read our emotions and for us to interact with them, the emotion is real. Our ability to connect with robots is significant. As I watch my kids interact with Siri and even other low tech computer interfaces, I think that we will generally be surprised at how seamlessly the technology is rolled throughout society.

How we just interact as we normally would. It will appeal to our emotions and all of these things we read.

Tim Ferriss: Do you think we will have [inaudible] test level interactions with machines within the next five years?

Bryan Johnson: If I am a betting man, I will go longer. I will say a decade at least.

Tim Ferriss: A decade at least? Interesting. Alright, did the credit card processing business or that experience – you became the number one sales person.

Bryan Johnson: Yeah.

Tim Ferriss: Where did – obviously it is very interrelated, not exactly the same, but how did you go from there to Braintree?

Bryan Johnson: I did it for a year and it was amazing because it was this terribly broken world where the technology was years behind and nobody trusted different providers. It was fragmented with hundreds of providers and after doing it I thought this is a perfect industry to start a company in. so, I started Braintree.

Tim Ferriss: To disrupt it because it was just so ripe?

Bryan Johnson: Yeah, for the right technology and the right disposition as a company to be honest and transparent and treat customers so they were thrilled.

Tim Ferriss: Did you have any technical background?

Bryan Johnson: I did not, no.

Tim Ferriss: You did not.

Bryan Johnson: No.

Tim Ferriss: So, no computer science? No mechanical engineering, electrical engineering? What was the – and you had one kid at home at that point?

Bryan Johnson: Two.

Tim Ferriss: Two kids at home, so what was the – do you remember the moment or the conversation or the walk in which you decided yes I am going to forgo this sales job where presumably you are making pretty good income and start this company?

Bryan Johnson: Yeah, so what I did to start Braintree is I had these customers in Utah – I was in Chicago at the time. That is where I built Braintree, Chicago, and I went back to my ten best customers in Utah. Best meaning like most loyal, and also making me the most amount of money, and I said I just started this company Braintree. I would love if you switched over your processing to me and it was restaurants and retailers, so it was just terminals.

I could use back end processors for it and I think I had nine of the ten say yes if I remember right. They collectively made me \$6,200.00 a month and it was enough for me to get going, hire some part time help, and start the company. The biggest transition we had is Open Table showed up and said, we have 11,000 restaurants around the world –

Tim Ferriss: Where was Open Table based?

Bryan Johnson: California.

Tim Ferriss: It was?

Bryan Johnson: Yes.

Tim Ferriss: And they somehow found you?

Bryan Johnson: So, the founder of Open Table, Chuck Templeton, was an advisor and he knew of the problem they had internally where they had this huge global network of restaurants and they stored credit card data when people made reservations and they had the compliance issue. So, they came to us and they said, we have this big problem and we said, we can fix it. Of course, I had no idea if I could fix it, but we did a deal with them and that is when we became a software company. But, it was a bet the company decision.

Tim Ferriss: So, in the beginning then Braintree was like your previous company that you worked for as a sales person. It is kind of a commodity business.

Bryan Johnson: That is right.

Tim Ferriss: But, you had the relationships.

Bryan Johnson: That is right.

Tim Ferriss: So, a couple of related questions. How on earth, as I assume – but correct me if I am wrong – an unknown quantity at that point, did you get Templeton as an advisor?

Bryan Johnson: We met at a local meetup in Chicago and we –

Tim Ferriss: What kind of meet up?

Bryan Johnson: It was actually Matt Maloney and Mike Evans from Grub Hub. They just went public and Karan Goel, who is a local entrepreneur – there was like five or six of us and people were just getting together to have breakfast and he and I hit it off. He was clearly a great guy. He had the right disposition, the insight, he was advising people around the table. He was an advisor to Matt and Mike at Grub Hub and he came on and he was my only advisor for the whole duration of when I was building Braintree.

Tim Ferriss: No kidding? How did you get so connected with these tech guys when you are not – at least from the first glance as an outsider looking in, not in the tech space per say?

Bryan Johnson: Yeah.

Tim Ferriss: Or where you? I do not know.

Bryan Johnson: No, I was not. I was not connected to software engineers at all actually and so I had one friend who I trusted as a good developer. He had a high – he has a good reputation and I would post jobs online and then he would help me interview these people as they came in. As I listened to the questions he asked and how he discerned what made a good engineer. I learned over time how to decipher and it took me a couple hires to get down, and then I found a couple really good core engineers and I now know how to benchmark to know what exactly to hire, both in personality but also coding scales. We can then build it from there.

Tim Ferriss: That is how you developed – that is how you sort of got your foot in the door with the tech world?

Bryan Johnson: Yeah, that is right. Then the – so, when I started Braintree, I had three main goals. 1.) Is that I wanted us to be the best payment provider in the world for developers. 2.) I wanted our employees to say it was the best company they had ever worked for. 3.) That our customers would write us love letters.

So, on the employee side, I wanted people to literally go home and rave about work, to be so excited about the stuff they were working on, and what they did, and how they did it, and their peers. So, having high quality engineers was really important because nobody likes to work with someone who is incompetent or causing a problem. So, it was extremely important we got exceptional people to work.

Tim Ferriss: Do any of those questions come to mind? High level vetting questions for good engineers?

Bryan Johnson: Well, on the technical side, sure there is a lot. On the personality side, what I would try to communicate when we hired someone is that we – payments was not necessarily changing the world. It was not like we are going to provide clean water for everyone in the world or whatever else. The stated objective that we were going to build an exceptional company. A company with a sole that we really cared about. So, I wanted people who really cared about what they did, the quality of the product, the quality interactions working with other engineers.

So, we are in it for the long term. So, I try to flush it out in interviews of we are here to do something epic and special, so if that appeals to you, great. If not, then...

Tim Ferriss: How do you – maybe this comes back to the spider sense, but how do you vet people who are BSing and acting in an interview to get a job versus people who are the true believers?

Bryan Johnson: Well, I guess for non-engineers I would write these posts on Craigslist to recruit people and at the very top of the page – so the assumption was, first the person reading your job ad is not the person you want to hire.

Tim Ferriss: That was the assumption?

Bryan Johnson: Yes, the person reading the ad knew a person you wanted to hire. So, the very first statement was, I will pay you \$5,000.00 if you refer the most capable person you know. Then below it, it would say please do not apply if and we would list out characteristics of people who were just not compatible with our environment. So, we wanted to be clearly distinctive in who we were and then we had a section that said please do apply if. So, the goal was –

Tim Ferriss: But, the do not apply was first?

Bryan Johnson: It was first, yeah which had this great psychological effect and then the please do apply if. We wanted people to jump out of their seat and say this is the environment that I have been dying to be in because the most exceptional people love to work with exceptional people and they have a hard time dealing with people who are not that exceptional. So, if you build a critical mass around everyone around you is just really good, then it feeds upon itself and so we wanted to put that signal out to say if you feel like this in your current job. Like, you are the best guy n the whole company, best gal in the whole company, and everyone else around you is kind of driving you nuts. You can come over here and feel really good about what you do every day and who you work with.

Tim Ferriss: How did you choose the name Braintree?

Bryan Johnson: So, it is funny. Being this small company, I went through this thought process of like hey I am small and I am insecure, so I am going to come up with National Federation of Merchant Services.

Using big words that connote strength and stability, and nothing felt right. I had just read the biography of John Adams, who was born in Braintree, Massachusetts and I really admired John for his contributions to the world. So, I wanted to come up with a name that was meaningful to me personally and it was Braintree.

Tim Ferriss: No kidding? I did not realize that Braintree, Massachusetts.

Bryan Johnson: Yeah.

Tim Ferriss: Wow, I had no idea. So, you have this advisor. Open table, opens a lot of doors, changes the direction of the company it sounds like.

Bryan Johnson: That is right.

Tim Ferriss: Did it make you nervous that you were betting the future of the company on one person effectively who is, I suppose, making

promises or pointing to the future and saying this is what we can do together?

Bryan Johnson: Well, so it was a big decision because I think I was 28 at the time and I grew up poor. We did not have any money. As an entrepreneur, of course, I had never had any money.

So, I had been broke my entire life and at this point we were making really good money. We were making I think something like – I do not know. \$200,000.00 net income a year. So, it was the first time I actually made money in my entire life and deciding to become a software shop, meant we were pouring back all the cash back into the business because I was bootstrapping. I had not taken any outside capital and so it was a huge decision on what to do. But, it was also I knew that – I intuitively knew that the industry was broken. I intuitively knew that if we got the right people there, we could build good software. To me, it was a must go.

Tim Ferriss: Are there any – So, you mentioned John Adams. Are there any books, biographies, or otherwise that gave you confidence and a kind of hutzpah to go for it in those early formative years?

Bryan Johnson: Yeah, a personal hero of mine is Ernest Shackleton.

Tim Ferriss: Oh, yeah. I will let you reintroduce people.

Bryan Johnson: Yeah, right so we probably share a mutual love. So, 1914 he went on the trans imperial Antarctica expedition where he tried to cross coast to coast the south pole, Antarctica. What I like about Shackleton – there is a whole bunch of things I like about Shackleton. Basically to this question is when he imagined what he wanted to do in the world, he chose the most audacious thing imaginable. At the time it was nearly inconceivable that somebody could do that and he chose to do it and he prepped and he did it. They failed in their endeavor, right? But, he is not remembered as a failure.

He is remembered as the grit and how they actually overcame all the obstacles that came about during the expedition. He is hugely inspirational in my life because I apply what I call the Shackleton sniff test to everything I do in life. That I contemplate if I am going about on the endeavor, does it meet the threshold that Shackleton applied? Is this the most audacious endeavor I can possible conceive?

Time will iterate, will change, will pivot, that happens of the course. But, I want to start with that as the contemplation.

Tim Ferriss: So, it is kind of like a what would Shackleton do bracelet?

Bryan Johnson: There you go, yeah. Better said.

Tim Ferriss: Shackleton. Why did you move to Chicago?

Bryan Johnson: To pursue an MBA.

Tim Ferriss: Oh, no kidding?

Bryan Johnson: Yeah.

Tim Ferriss: Are you glad that you got an MBA?

Bryan Johnson: I have mixed feelings about it. School – I was always so bored of school because I felt like the data rate was so slow. It was like a 56k connection. Sitting in the classroom and the pace of speech and the data – I wanted a gig data transfer. I wanted to learn so much faster and so school was just boring to me. The MBA was helpful, but do not know – I guess had learned in different ways, mostly in doing and I had been in the trenches of entrepreneurship my whole life and that is really how I prefer to learn. Then, of course reading on my own and stuff like that.

Tim Ferriss: Let me ask you this, if you were counseling a young entrepreneur who was living somewhere they felt was – and I am not saying Utah is this place because I have actually spent quite a bit of time there, but if they are living somewhere they feel does not allow them to surround themselves with other highly ambitious capable entrepreneurs and the only way that they could relocate was to get an MBA. Say to Chicago, New York, SF, do you think the \$120,000.00 or whatever it might be would be worth it? If someone – if one of your kids was considering getting an MBA and let us just say there were kind of of that age now, what might you ask them?

Bryan Johnson: So, I remember the very first case study we did in school was about these guys who were – they came up with, I think, a new golf ball that was better than other golf balls and it was about their struggle over a two-year period of time to work with patents and IP and distribution channels and stuff like that.

Then we got together with the study group to talk about the case and there are certain questions we are trying to answer. I forget what they were. But, in my group there were five of us and we were contemplating things like cost models and distribution channels. My mind immediately went to how are these people paying for their rent? Are their marriages still intact? Are they emotionally just too stressed out to function? The way I thought was so colored by my experiences as an entrepreneur and it was such a dramatic difference in how my peers thought.

Tim Ferriss: People coming in from like Ernst and Young to –

Bryan Johnson: From larger corporations, yeah.

Tim Ferriss: Pay grade jump.

Bryan Johnson: It was just dramatic and so I guess I would say to my son that the skills you need to succeed in a certain track of life may not require that education. The core set of persistence and determination and then just the ability to learn and adapt quickly, are much better suited for trying to do this. That is not to say that education is not helpful. It certainly is in certain regards, but –

Tim Ferriss: There are different types of education.

Bryan Johnson: That is right, yeah.

Tim Ferriss: What is the most valuable thing you took from business school or from that experience? Let me say that. We can come back to it.

Bryan Johnson: Yeah.

Tim Ferriss: You are giving me the look. Or we can drop it.

Bryan Johnson: I am not sure.

Tim Ferriss: Okay, that is a fine answer. I think more people should have that as an answer quite honestly.

Bryan Johnson: Maybe that is the answer.

Tim Ferriss: I was telling my brother – we were talking about some kind of deep philosophical questions, and I said I just have not figured it out. And he said, maybe that is what you have figured out.

Bryan Johnson: Exactly, totally true.

Tim Ferriss: Maybe that is not an answer you need to find. So, with Braintree then, let us kind of look at what turned Braintree into a rocket ship? What led to that perception at the very least?

Bryan Johnson: Early on I had to figure out how to get customers without any money, which is a hard problem to solve.

Tim Ferriss: A common problem.

Bryan Johnson: Right, exactly and so what I did I I knew that software engineers were the target. That I needed to appeal to them and I knew there were different communities, like python.net, Ruby on Rails, Java. They all hung out in these different communities and each community had certain characteristics about how they worked together, how collaborative they were, how chatty they were. My theory was if I could find a community of engineers that were chatty and that helped each other through a word of mouth referral basis, I could get a few of the leaders in that group to come on board, then it would spread throughout the community. Then we would go to adjacencies and so did this analysis of looking at the characteristics and I found that Ruby on Rails was the most conducive. They were very tight.

Tim Ferriss: Now, did you figure this out by looking at message boards? How did you go about doing it?

Bryan Johnson: No, I found actually a couple academic research papers that actually measured sociality and interconnectedness and had these maps – diagrams that showed where they nodes were and how they interconnected.

Then, I focused on Ruby on Rails and we got a couple of leaders and they are like 37signals and a few other hubs.

Tim Ferriss: Good one to have. 37signals is a good one to have.

Bryan Johnson: Jason and David were amazingly good to us. It is like they would tweet out all the time and then they referred out all of their friends. They were fantastic. So, we basically built the business on word on mouth because we tried so incredibly hard to be exceptional at what we did. So they would come on and they would love what we built and how we treated them and they would tell others.

Tim Ferriss: So, I want to really underscore what you just said because I think it is so important for anyone who is considering launching a product

or service or business and that is that your first target is not the entire market, right? And when I talk to people about, say book launches, a lot of people want everyone to love the book and when they write and promote and market a book to appeal to everyone, when everyone – when you want everyone to be your customer and no one is your customer. Especially when you have no money. You need the kind of cost [inaudible] [00:45:00] to be as low as possible.

Bryan Johnson: Right.

Tim Ferriss: So, when I launched The 4 Hour Work Week I was formulating the marketing plan – you and I have a lot of shared DNA. We have observed this before across a lot of different areas, but I wanted to identify the market I could communicate with that would have the highest rebroadcasting ability. Very much similar to your chattiest checkbox, right? I determined that I also wanted to be a market that I understood, ideally belonged to, and that was the 20 to 35-year-old tech savvy [inaudible] in San Francisco and New York. Right, primarily.

And then after – if I hit a critical mass in that particular demographic and psychographic – say my goal was – I think it was 10,000 books per week for two weeks and I could try to identify kind of the conversion rates and so on to hit that number. Then I knew through word of mouth, that would bleed out both in age range – it would jump from male to female.

Bryan Johnson: Exactly.

Tim Ferriss: But, I wanted to identify the people who are kind of disproportionately creating the most online content at that time. Okay, so you target Ruby on Rails and was there a particular tipping point where you were like, holy molly? Any particular kind of hockey stick or break through moments that come to mind?

Bryan Johnson: Yes, let me think. So, we got customers within the first couple years – 37signals, GitHub, Uber, Air B&B, LivingSocial when they were on their terror. We had so many of the –

[Crosstalk]

Tim Ferriss: You had the all-star team.

Bryan Johnson: We did. We had some of the best companies in the whole world using us and that their growth fueled credibility of course in our

brand that we were able to provide great services to them. So, we had this exceptional client base. That is what it was. Once these guys hit their growth trajectories and then once their reputation started spreading that we were a great provider, people loved using our service, it just really built upon itself.

Tim Ferriss: Who were you, in that period of time, competing against? Who were your primary competitors?

Bryan Johnson: Initially, it was the old guy like CyberSource and Authorize.net and then processors like First Data and Global, which were really great targets because they were dinosaurs in technology. Then, Stripe launched about a year or two after us and they are obviously a fantastic company. So, they became formidable competitors. Then, of course PayPal was always there doing their thing.

Tim Ferriss: So, when you met with the Uber, the Air B&B, and so on, how did you convince them to work with you guys?

Bryan Johnson: So, we did do some outbound. We did track a lot of these companies down, but most of these companies signed up on their own. That we just found out they were customers when they were going through the under writing process. We did target some of these companies individually, but most of it was organic.

Tim Ferriss: Got it, and to what do you – aside from the word of mouth, what are other things that facilitated them finding you naturally?

Bryan Johnson: The being exceptional. This was the thing I said continually again internally, is that if we paid attention to creating an environment where people who interacted with us would walk away and say unbelievable. The software is amazing. The support is amazing. I just love this company. So much so that I want to write them a love letter. If we solve that, everything else will take care of itself because they would walk away and that night when they are out with their friend getting a beer, they are going to bring us up because they have this amazing experience with us where we solved all of their problems.

We did small things, like the integration team, we would see when someone was coding to the API and if they were having problems with it, we would reach out and say hey we see you are coding to the API, having problems. Can we help? They are like, what? Who does that? Who proactivity reaches out?

We tried to do small things that created these really great experiences for people.

Tim Ferriss: Could you explain just for people who are non-technical out there, so application programming interface, API.

Bryan Johnson: Oh, yeah sorry.

Tim Ferriss: No, we are fine. I love to kind of – it is a very important context in a lot of tech, so what is coding to the API mean?

Bryan Johnson: So, they are programming their software to speak to our software and there is a certain way they would do that. So, a lot of the value of how that is done would be is our software easy to work with? Does it make sense?

Tim Ferriss: So, your software is behind the scenes handling transactions, so it is kind of like you have a restaurant. Front of the house, the maître d', the waiters, so on. Then you have back of the house, the restaurant and you need those – the people in the restaurant never see the people in the back with all the flames and burns on them, but you need a very reliable way for the front of the house to talk to the back of the house.

Bryan Johnson: Exactly.

Tim Ferriss: That is the API.

Bryan Johnson: That is right.

Tim Ferriss: Super, super important concept. It is how also – correct me if I am wrong, it is how a lot of companies grow very quickly just by making that a seamless experience.

Bryan Johnson: That is right. Making your services broadly available to a broader ecosystem of engineers.

Tim Ferriss: Your story reminds me of a story told by one of my favorite people out there. A guy named Derek Sivers. I do not know if you know Derek. So, Derek is – certainly hope to have him on the podcast sometime, but certainly a philosopher king in the programming world. Really fascinating guy. Great teacher also. Really great teacher. But, he had a very similar focus on details with CD Baby. Started, grew, and then later sold and I remember he told me and he wrote about this in his book as well. If you guys search – I think I put this on my blog.

If you just search Derek Sivers Letter and then Ferriss. I am sure it will pop up. Sivers S – I – V – E – R – S, sivers.org. Really amazing guy. But, when people would get their order confirmation email, it was like this hilarious kind of elaborate story of like your CD has been carefully pulled off the shelf and placed on a satin pillow and then wrapped in paper by a Japanese origami specialist and it was just this very personable email confirmation.

No one was doing that and so it spread. It was such a small detail with huge implications for brand loyalty, for PR, for acquisitions, for all of these things and it was so easy to do. It was not something that a big company could not do. It was just something that a big company would not do typically. What are other – whether it is – and I hesitate to use this term, but growth hacks or rituals or routines or rules within Braintree to help you guys grow as quickly as you did?

Bryan Johnson: So, one thing I focused on a lot was the second goal, which was the employees would say it was the best place they have every worked.

It was this ongoing quest to figure out how to make that happen. Again, my goal in my mind was they go home and rave about what they do on a day to day basis. They feel good in life. They love it. So, I always wanted to know what people were feeling and thinking because if I did not know that, then I could not change or build certain things. So, I tried all the normal things of like we did town halls every week and it was more like group therapy, than it was company updates. Where I would let these long awkward silences persist until the theme came up that everyone was worried about or they wanted to talk about but no one dared.

Tim Ferriss: So, what would be an example. When would those awkward pauses come up? You would say, does anyone have any questions? And then you would just let it sit?

Bryan Johnson: Exactly.

Tim Ferriss: Like we are going to wait until we have some questions.

Bryan Johnson: Exactly, and I knew there was one or two things on everyone's mind because I could feel the pressure build all week. The one thing I leaned was –

Tim Ferriss: The pink elephant expanding?

Bryan Johnson: Exactly. The thing is true in life is that everyone always has a pebble in their shoe, always. There is something bothering us.

That sometimes by just acknowledging it, it addresses the problem. But, I seemed like every week we would build up this tension in the startup and the company and if we had addressed it opening in a town hall setting, it would be great. So, I would let these long pauses go and someone would finally raise their hand and say alright I am really bothered that we hired someone for this role instead of promoting someone internally. What is going on? And it was great because they were really hard questions to answer and so I encouraged brutal honesty. If they criticized me, even better. Right, if they could criticize me than anything was open game. But, one thing – I was at this Christmas party one year and I was talking to the significant other of one of my employees.

Tim Ferriss: This was at a company Christmas party?

Bryan Johnson: Company Christmas party. We are in the buffet line and I say, so how is so and so doing? He is four months in and how is he enjoying life? And she says, it is amazing. He is happy and he comes home and he is energized and he loves his coworkers and it is so different from what he was – how he felt before.

I thought, yes this is the data I want. I want to know the significant other knows the most about how that person feels in life based upon what they do on a daily basis. It was a constant quest of trying to find out the right data source of how people feel in life to build an exceptional company and knowing where to go for that data and how to get it. Now, of course, I could not go interview everyone all the time. That would be awkward, but just knowing that the data sources were out there to gather to build a good team was really helpful.

Tim Ferriss: So, you said if they criticize me, all the better. What would you – how would you prompt people to be brutally honest? Because you are the big boss, right?

Bryan Johnson: Right.

Tim Ferriss: Would you send out an email outlining the goal of the town hall? Or would you get up and talk for a few minutes in the beginning and try to encourage people to let that stuff out? What did you say in either case?

Bryan Johnson: So, one I think it is a disposition. I try to be self-deprecating, where I would make fun of myself for things I did or mistakes I had made. I would try to openly broadcast those so that they felt comfortable that I owned that and I was not sensitive about it. Then, I would just – I guess in dialogue I would try to typically own things myself and to make them feel comfortable that they could bring it up and we could discuss it openly.

Tim Ferriss: How would you do that?

Bryan Johnson: So, if we talked about – I am trying to think of a recurring theme that came up. Maybe if it came up like two or three times I would say, look this honestly is my deal because you guys have brought this up two or three times now, I have not done something about it that is adequate. So, clearly I am not doing what I should be doing because you are doing your job of being honest and transparent with me. I have not taken the responsibility of actually acting on this. So, I am going to go think about this, put together a plan, and do it. But, in the meantime, this is my problem and my mistake. So, I try to own things like that.

Tim Ferriss: So, it is no longer your job to worry about it. It is my job to worry about it?

Bryan Johnson: Yeah, and like I hear you. You did a good job. Thank you for being honest and transparent because that is what I asked of you.

You do not have the power to fix that yourself. This is like a more community problem, so it is in my –

Tim Ferriss: So, the observation that I have had on multiple occasions is you are very persuasive, but I do not think you would be very good at lying and maybe you are so good that I would never notice. I do not know, but – I am just kidding obviously. But, I do not think you would be good at lying and you seem – even though you do not have technical training, you seem very scientifically minded and sort of an engineer at heart. Does that make sense?

You are very methodical and one thing that I have personally struggled with and maybe this is through a lot of competitive sports, maybe it is just from working solo so often, I do not want – I generally do not want – or it is a personality type. I do not want people to tell me what is going right. I want the bad news because I feel like the good news will take care of itself, does that make sense?

Bryan Johnson: Yeah.

Tim Ferriss: And I think as a result of that, I recognize that one of my deficiencies as a manager of people is that I am not very good or consistent in giving positive feedback. I do not feel – I erroneously believe that because I do not necessarily need that, other people probably do not need it or I just forget about that. How did you address that within Braintree because I think it is – at least in my experience, it is important to maintain moral of the troops and so on. What did you do to help to kind of maintain moral and that level of happiness that the significant other reported?

Bryan Johnson: I would tell stories. I would tell stories about people and exceptional efforts. Now, it is always a double edged sword because if you tell a story about one person, you are not telling a story about the other person and one person is always going to feel left out because I was just as involved as him or her in doing this. So, it is tricky, but I always highlight – I did weekly emails as well.

I wanted to tell stories of people who went above and beyond the call of duty, either in building our software or customer service interaction or even helping a coworker do something. Those stories resonated with people, right? They saw what their peers were doing and it was influential in how they behaved. So, I wanted to build a culture of a certain behavior and I told stories to reinforce that.

Tim Ferriss: Right, the positive reinforcement.

Bryan Johnson: Yes.

Tim Ferriss: How often did you do the town hall meeting?

Bryan Johnson: We did either weekly or biweekly. It kind of fluctuated over the years.

Tim Ferriss: What day of the week?

Bryan Johnson: Friday.

Tim Ferriss: Why Friday?

Bryan Johnson: It is a different vibe in the company. People are kind of reflecting upon the week. The tensions kind of buildup. We are going into the weekend. Monday morning is a little bit of a frantic, but Friday I

find people more pensive and reflective and that it was a good time for us to dig deep and find out what was really bothering us and how – I guess regroup on the essence of why we existed.

We were not just there to make a paycheck. We were there to build something exceptional and to continually talk about that was important.

Tim Ferriss: When you were building Braintree, when do you feel like you were at your peak powers? In other words, when were you pitching a no hitter in the world series? What point in building Braintree was that?

Bryan Johnson: I do not think I could identify it. It was just so gradual over time that we started these companies like Uber and Air B&B. they hit their growth stride and it was amazing that we were powering all of their payments. It is just so gradual and slow because companies come on brand new and it takes them a couple of years to ramp up to start processing significant sales, so I do not know if I could identify a single point. Just this slow steady build.

Tim Ferriss: When were you under the most – when did you feel under the most pressure?

Bryan Johnson: Always.

Tim Ferriss: Okay, so the –

Bryan Johnson: I am trying to lead this.

Tim Ferriss: When you can try to think of when you were operating at a very high level, under very high stress, what did your morning routine look like? The first hour of your day or two hours of your day?

Bryan Johnson: Yeah, so I guess if I think about the broader context of life. I had two children when I started Braintree and then I have three by the end and we had – my first two children were colicky so they were crying all night and so not being able to sleep very well at night, think it the next day and going to work and dealing with all the stuff you deal with. It was a pretty tough time in life. There were some dark moments. It is I guess something that you and I have talked about on our walks is that I generally view advice – I am very skeptical of advice because it is so contextual and it can be deceptively unhelpful because you do not understand what is packed into that advice.

But, one piece of advice that I think is helpful for entrepreneurs and I wish someone would have told me is, the importance of surrounding yourself with fellow founders, people, who get you and understand you. That all those years as a founder I felt like I owned everything. I owned energy. I owned growth. I owned the success. It was all me and I did not have any cofounders.

It is not to say people on my team did not shoulder that, but as the founder you do feel an extra level of burden and I had no outlet for it. I owned energy at home. I owned energy at work. It was tough. It took a toll. So, over the past couple years I have created these friendships like you and I have where we can talk as if we were journaling to get to the real raw and good stuff of life. But, I think that would have been very helpful during those darker times, during the moments it was the hottest.

Tim Ferriss: Yeah, I had a book inscribed for me. Actually, it is right there, Psychedelic Explorers Guide. Had Jim Fadiman on the podcast and I thought his inscription was so great. He said, to Tim, a companion on the path. I was like, that is it. We are literally companions on the path. We go on these hikes, but having those people who can identify with the pressures that you are feeling. What were other coping strategies that you had or routines that were helpful when you felt you shouldering all of that burden?

Bryan Johnson: Yeah, so I always look for hobbies that would consume my mind, where I could escape myself because these things –

Tim Ferriss: You could change the channel.

Bryan Johnson: Exactly, yeah.

Tim Ferriss: For a brief period of time.

Bryan Johnson: Totally because it loops and loops and loops and if you try anything else it just loops, even when you are having conversations. You are just obsessed with trying to build your company. So, one day I had a hard day at work and I was walking home and I thought, I am going to go fly and airplane. Maybe that will do the trick. I did this discovery flight and the guy took me up and he was like, if you can do the following things you can fly.

He did this really hard turn up and down, I got sick. I was like, oh I can never do that. So crazy and hard. But, I thought about it and the next morning – no, I can actually do this. So, I started flying

and I lost myself in aviation. I absolutely love it. So, that really helped that I could a different place to park my mind and focus.

Tim Ferriss: Is it discovery flight where you are in the passenger seat of a new car and they show you what the car can do? Is that what a discovery flight is?

Bryan Johnson: Basically, yeah. You go up and he is like okay if you want to get your license, you have to perform the following maneuvers. Here is a steep turn, 30 degrees, and so he was just showing me basically how the plane operated and what I would need to do.

Tim Ferriss: I think for a lot of people listening, they think of learning to fly as a very very very expensive thing. I think they associate it with say owning a private jet, but that is not the case, right? As far as I understand it. I have friend who work jobs here who have gotten into aviation. Is it – how cost prohibitive is it to become involved with aviation in some capacity.

Bryan Johnson: So, I think I paid a few thousand dollars over the course of the lessons, something like that.

Tim Ferriss: Okay, for what period of time?

Bryan Johnson: I believe it took me 90 days.

Tim Ferriss: Got it, so all in all not pocket change, but not like buy a Gulf Stream.

Bryan Johnson: Right.

Tim Ferriss: This is something I have a number of friends here in the bay area who use aviation as their way of changing the channel. So they are not constantly watching BBC News or whatever the hell their world happens to be. Let us see, when you were 21 – I think you said 21 – when you were 21 and you thought of the word successful, who was the person that came to mind at that point for you? Or in that rough range.

Bryan Johnson: I admired people who had – I guess I had number of buckets in my mind of who I admired.

But, one bucket that appealed me because I thought I could potentially be like them was those who acquired significant amount of resources through building businesses and were now using those resources to do good in the world. That they had

freedom of time. They did not need to show up for a job and they did not – all that kind of stuff. So, I identified with that because I think I thought it matched up with my potential skill sets and something that I could potentially achieve in life. I really was freedom of time to do the things that you cared about the most in life.

Tim Ferriss: So, who were some of those people or who are some of those people?

Bryan Johnson: Growing up in Utah, John Huntsman was –

Tim Ferriss: I do not know who that is.

Bryan Johnson: He built – I am not even sure what company he built, but he was enormously wealthy and of course the Marriott's are in there as well, but there were a few families in the community that had accumulated significant resources and they – I think Huntsman has a cancer institute at the University of Utah and others that they are able to move the needle in significant ways, that other people just could not. I thought that was really remarkable that you could make huge contributions potentially to humanity.

Tim Ferriss: So, this actually a good segue to one of your current projects. I think it is fair to say primary project. The OS Fund.

Bryan Johnson: It is, yes.

Tim Ferriss: So, could you explain to people what the OS fund is?

Bryan Johnson: Yes, so the context is – at 21 I made that goal that I wanted to spend my life improving people's lives and over the 14 years or so as I was building my companies, I thought a lot about this. What would it look like? What it feel like? What would it taste like? What areas would I focus on? And I looked through thousands and thousands of ideas, and I was always thinking about it. I studied during that time, a lot of science and technology and the realization I came to was the reason that our time and place is so unique in the arch of humanity, is we literally now have the tools to build the kind of world we can dream of.

So, if you take computer software and biology, genomics, AI, virtual reality, 3D printing, we can literally program our existence. So, I think often times of Da Vinci where he had his great sketch books where he designed a flying machine and had these really amazing ideas, but he could not build it. He did not have the tools.

We can literally build anything today and so as I realized that, I thought this is like one of the biggest moments in the history of human kind. How do we – biggest question for me was, what kind of world are we going to build? And that is when I started the OS Fund, is trying to invest in these tools of creation that will so dramatically affect the kind of world we build.

Tim Ferriss: Yeah, it is really a fascinating time. We have this sort of Cambrian explosion of potential. What happens when you can create virtually anything? You can download a recipe for a virus that can cause an epidemic or a weapon? Or at the same time, obviously use that knife – that surgical knife to repair or build as opposed to damage, right?

Now, OS refers to operating system?

Bryan Johnson: Yes.

Tim Ferriss: Why operating system?

Bryan Johnson: So, it is a metaphor I like a lot that the biggest changes in history – the biggest improvements in history have happened at what I call the operating system level. So, for example, I germ theory that we try to figure out what was causing disease and death for a long time and when we figured out there was this thing like bacteria that caused infections and death and once we figured out sterilization and antibiotics and vaccines and good personal hygiene, we radically extended healthy human life, but it was finding out there was this core problem of bacteria.

Every major change we have had has been at this level and so instead of playing things at a different level – what we think about is the companies we invest in are doing world changing things at the operating system level. So, if they are successful and their endeavor, it would radically change the world.

Tim Ferriss: Right, so the foundational level upon which everything else depends.

Ryan Johnson: That is right. So, just like a computer has an operating system at its core that determines how it works, then there is applications that sit on top, everything in life has an operating system.

Tim Ferriss: And what are some of the investments that you have made this far in the OS Fund.

Ryan Johnson: Yeah, Human Longevity lead by Craig Venter is – they are trying to radically extend healthy human life into the 100's and they are doing it by using the whole human genome and then adding data like the meta bio and feno type data and then using advanced machine learning to learn about disease and create personal therapeutics. If they are successful, it will change medicine.

Tim Ferriss: As we know it in a really fundamental way.

Ryan Johnson: Yeah.

Tim Ferriss: Any others?

Ryan Johnson: Yeah, we just made an investment in Ginkgo Bioworks, which they are basically making biology programmable. So, just like we use computer code today to render a website or process a credit card transaction or fly an autopilot system in an airplane, we can program the same thing in biology.

Today they are doing fragrances and flavors. Producing in a lab that otherwise would be required in nature and as we climb up the complexity scale, we can do much more complicated things like working on antibiotic resistance and carbon capture. But, the idea – Tim you are biology. I am biology. Our world runs on biology. The fact that this could be a programing language we could actually predictably use is remarkable.

Tim Ferriss: What is it? DNA is what ATCG? I mean it is something along those line. I am getting out of my depth here in my ignorance pool pretty quickly, but the fragrances for instance, that would be considered – is that considered synthetic biology?

Bryan Johnson: No, so they design the organism – just like you take yeast for brewing beer, right? You take an organism and you can alter within the production of the organism what it produces. So, it is actually a natural production, you are just altering the organism that produces it. So, it is not synthetic biology.

Tim Ferriss: Interesting, okay so you are just kind of removing a few ingredients in a preexisting recipe and letting the chef, i.e. the organism, produce –

[Crosstalk]

Bryan Johnson: Yes, exactly. It is this new area of industrial engineering where it is going to change all the processes we created during the first industrial revolution.

Tim Ferriss: Now, what does your – and you may not have a strong opinion here and if not, that is totally fine, but people get very excited positively and negatively about the term GMO and genetically modified food. What is your perspective on that?

Bryan Jonson: So, I think that –

Tim Ferriss: Just from a personal standpoint there are cases where they can change the genetics slightly to make something more resistant to pests. Then it seems like we get into an area also where they are taking something from a fish and putting it into a plant, or some like that. Then, I get a little uneasy and I am not sure if that is well founded or not.

We start getting into – I think of all of the sort of horrifying mad scientist novels that I read when I was a kind. But, do you think any of those fears are well founded or what are the risks of that going wild?

Bryan Johnson: Okay, so I will answer your question in a different way.

Tim Ferriss: Perfect.

Bryan Johnson: You may not find satisfactory, but I think –

Tim Ferriss: It was a very very poorly worded question. So, thank you for saving my ass in the first place.

Bryan Johnson: So, alright if we start with this premise that we have these incredibly powerful tools of creation, we can program anything. That obviously means – and couple that up with we have this distributed environment now where anybody can pull up with a computer terminal and anywhere in the world and whatever age and program, either through biology or computer software, so we have all these tools. So, we have a world full of makers that have these powers. So, with that what you build affects me and what I build affects you.

So, one thing that I am exploring now with the OS Fund is what I call social operating systems and there are systems of cooperation and reconciliation. So, in that category falls governance and capitalistic systems, these believe and value frameworks that drive

out behavior and allow us to reconcile our differences. So, we are going to have some really big questions to answer and we have to decide as a society through our reconciliation systems, do we modify our genetics in our children? Do we do GMO? What is appropriate for AI in terms of what people build?

So, we have really big questions to answer and I think that one of the best areas we could focus on would be how these social operating systems are constructed and calling attention to them as being technologies that can in fact be built, chanted, and better aligned with the realities of our current time.

Tim Ferriss:

The big question topic is a really fascinating one to me for a whole host of reasons. I remember as an undergraduate, some of my favorite classes were philosophy classes, introduction to metaphysics or whatever, and you had utilitarian philosophers – I think that is the right term. Like Peter Singer for instance, very controversial. I think most of his controversy is unearned. I think it is politicized and so on, but the question of doing the greatest good for the greatest number of people – how do you make decisions if that is your objective? That would mean if there is like – if you are stuck in a cave and there is fat guy plugging the exit and ten people in the cave are going to starve to death, you kill the fat guy. Just it is mathematics, pure and simple.

That used to be primarily just a thought exercise. Sort of an academic ivory tower thought exercise and now you have companies working on autonomous vehicles and AI who are hiring philosophers to try to advise how to answer these questions once they – an autonomous care is barreling down the highway or the Golden Gate Bridge and all the sudden it has to choose between hitting the five octogenarians on the sidewalk, the old ladies, or swerving the other direction and hitting a car that has a four-year-old in it. So, how do you make those value judgements, right?

And what I am so curious about, 1.) that is a very multifaceted thorny, potentially subjective question to tackle, but you have to program these vehicles or entities to behave. That is the set of rules they are programing. At the same time, what I really worry about is not only – the complexity of the technology own is a big audacious challenging problem to tackle by good ethically wired technicians and technologists in the valley and elsewhere.

That is challenging in and of itself, but how do you address the – ultimately a lot of these – whether it is a bill of rights or an arbitration agreement to manage these social contracts where

everyone is a maker will be dependent on – it would seem – and I want you to challenge on this if you do not agree with this. Would be dependent on legislation. There will be the way – economics is how humans, among other things, respond to incentives, right? So, that is like the reward in a capitalist society and then the punishment of the legal system, put you in prison. When many politicians are completely incentivized in the short term for reelection and not envisioning the long term implications of some of these massive decisions, how do you contend with that? How have you thought about this?

Bryan Johnson: That is why I think it is such a hugely important area to focus because when people make decisions, you are looking really at the surface layer. The beliefs and values that are driving that are imbedded very deeply. Oftentimes – that is why ideology – for example, social operating systems are so incredibly powerful, but also they are invisible. They are just woven into the fabric of our lives and we do not know they exist. When we do see them as existing, we just consider them as givens or fixed. So, what we are hoping to do is to call attention to what they are. These massive powerful influences in our life that drive our decisions and we do not even know it.

Tim Ferriss: Our subconscious.

Bryan Johnson: Exactly, and that identify that they really are social technologies that are driving these decisions.

So, if we go to use a technical term, like if we go deeper in the stack, go down to the operating system level, what are these core beliefs and core values? Where did they come from? What are they assuming?

Tim Ferriss: Right, what are the assumptions and the if thans that are built into the lowest level that affect our decisions on the eight layer and we have never tracked it back to that low level because maybe we absorbed them during childhood, through religion that was not of our choosing, whatever it might be. Or of our choosing for that matter. How do you personally try to identify those for yourself? In your own personal decision making and so on?

Bryan Johnson: At Braintree one of the principles I consistently communicated was challenge all assumptions and the story that I accompanies with it was there are five monkeys in a room, there is a basket of bananas at the top and the monkeys of course want to climb the ladder to get the banana, but every time a tries they are all sprayed with cold

water. So, after a few times of being sprayed by cold water, the monkeys learn do not climb up the ladder to get the bananas because we are going to get sprayed by cold water.

So, they take one monkey out and put a new monkey in and the new monkey of course sees a banana and is like, hey I am going to grab a banana, but when it tries to go up the ladder the other monkeys grab him and pull him back. I do not want to get sprayed by cold water. You are a new guy here. So, do not mess –

Tim Ferriss: Let me teach you the rules.

Bryan Johnson: Exactly, so then they systematically pull every monkey out and now you have five new monkeys in. Any time a new monkey comes in and tries to climb the ladder, they grab the monkey and pull it back, but none of the five ever been sprayed by cold water.

Tim Ferriss: Have ever experienced it.

Bryan Johnson: Exactly, so what I always try to wonder is where is that in my life? What am I assuming that is not visible that I cannot see?

Tim Ferriss: Of course, when the circumstances change in a situation like that you have learned helplessness. Where they say take a – these are horrible experiments, but ultimately the data is very valuable where they would have a skinner box that was used where they subject animals to shocks.

There are some animals who could move from one side to the other and avoid the shock from a pane on the floor to another pane and others that would get shocked no matter what. If they moved them into a new box where that was no longer the case, where they could avoid the shock, those who had learned it was futile to try to move would just lay on the floor and get shocked. So, where does that exist in your own life? What are some cases – if you are comfortable discussing them, where you have discovered that? Whether at Braintree in a business capacity or otherwise?

Bryan Johnson: Let me think about that. So many, I guess being human is remarkable tough. So, you and I before this discussion, we were talking about all the funny irrational things you and I both do that is inconsistent with our thought patterns and I guess a couple years back – maybe a decade ago I got into irrational behavior, [inaudible] irrational and thinking fast and slow.

Tim Ferriss: Thinking Fast and Slow, Danny Kahneman.

Bryan Johnson: Yes, exactly. So, I started reading all these books and I became increasingly convinced of my own fickleness and inability to actually act rationally in life.

Once I became aware of that, I think I became much softer in my opinions and confidence levels alike where I want to question thoroughly everything I do all the time. Of course, I miss all layers all the time, but I try to be present in knowing that when I make a decision here is all the layers behind it, many of which are probably flawed and if I went back and evaluated it. So, I suppose just being present and knowing it exists and how flawed we are in our abilities, when really we think we are perfectly logical and consistent all the time. We are just not.

Tim Ferriss: Yes, there is Dan Ariely's book is great, Predictably Irrational. Also, a lot of really solid business take aways in terms of how people – I remember the example he gave in a presentation. I am not sure if it is in the book. I am blanking. The checkout process that the economist magazine tested and it was like get the printed edition for this amount by itself, get the digital edition by itself, or get both for this amount. How changing the pricing and removing or adding options affected the average order size. So fascinating.

Or adding basically – not a red herring, I do not think is the right term. But, a straw man of an option that they do not even really want you to choose, but they will add the cheaper option just so that you will – because they know that 50 percent of the people will take the middle option, which would have been the cheapest before but you would have then not chosen it.

Bryan Johnson: Just like restaurants I think put the most expensive pricy item in the top right corner to say here is a \$75.00, everything else is cheap at \$32.00.

Tim Ferriss: Same thing with wine. Very common. When you are feeling – maybe the answer is you do not feel this way, but when you are feeling overwhelmed how do you unpack that and try to reduce the sources of that overwhelm?

Bryan Johnson: I have gotten so much better over the years. Now, I just call a friend and just say, you know what? I am feeling overwhelmed and I feel terrible and I do not think I can do this.

Just saying it out loud – actually, I can. I got this, but I just needed to get that off of my chest. I am alright. So, when I work with

entrepreneurs now, people I am investing in or otherwise, I say if you want to chat at any time of the day and say anything – no judgement on my side, just say it out loud. Do it. I think there is just – it is hard to do hard things, I guess as Ben Horowitz would say and having the ability to be vulnerable and be honest and transparent and raw with other people is immensely helpful for me.

Tim Ferriss: But you were not always – you did not always do that.

Bryan Johnson: No, I was extremely private and guarded and I owned everything. I did not dare come out and let go.

Tim Ferriss: I think men are particularly bad at that.

Bryan Johnson: I agree.

Tim Ferriss: I have struggled with myself and you are so on point and it is such a simple answer. Seemingly self-evident and obvious, right?

But I think it points to something I noticed about myself, I tend to be stuck in my prefrontal cortex, but if you have not kind of thought your way – if you have not rationalized your way – or that is not the right – reasoned your way into a problem, it is hard to reason your way out of it.

Bryan Johnson: I agree.

Tim Ferriss: Just by relying the sort of internal pro and con list and schematic of something that is purely emotional or maybe based on some operating system flaw that you are experiencing. So, yeah just calling a friend.

Bryan Johnson: But, that is what I love about the friendships I have, is I can go into a conversation and I know when I leave two things will happen. 1.) They will have challenged my mental models. That I cannot see my mental models and I cannot challenge myself very well. But, someone else and see it so clearly and they can just call it out, right? 2.) When I leave the conversation and saying I want to become a better person. I want to do more in life and I want to work harder. Those are the two things I think I value the most in the interactions. I want to be that for other people.

When they bring something to me, I can flip it and say yeah here is a different model for you to contemplate and two, hopefully when they leave they say, you know what? Yes, I can do this and I have that much more energy to go about it.

Tim Ferriss: I find also my version of talking to someone very often is journaling in the morning. Just to take what I feel, for instance, if I am feeling overwhelmed or having some type of problem or source of anxiety, putting it on paper makes me realize how absurdly unfounded it is.

Bryan Johnson: I agree. It is magical, right?

Tim Ferriss: Yes, and I think that it can be – if you do not have a fiend to call who is going to challenge you in that way, just putting it – freezing your thought on paper can provide you with sufficient mirror in which you can see it is completely ridiculous. I thought I had – I looked like the elephant man and in fact it is just a tiny little pimple on the side of my head. Stop freaking out. It is not a big deal. It is transient or reversible, or both. So, a couple of – just to shift gears for a minutes, a couple of rapid fire questions that you – which do not have to have rapid fire answers.

So, you can take it however you want.

Bryan Johnson: I am not very witty, of course or quick. So, I will try my best.

Tim Ferriss: I think you are fast enough. In the last say six months to a year – or the first that comes to mind, what is something – a purchase you have made for less than \$100.00 that has had a significant positive impact on your life? I have water, so take your time.

Bryan Johnson: I would probably say – I do not know.

Tim Ferriss: Okay, we will come back to it. We will come back. Do you – that is not the right question because it gives you an out. What historical do you identify with?

Bryan Johnson: So, I love biographies. I have ready probably 100 plus biographies and I do not know if there is one person in particular.

It might just be a collection – actually, no actually I would say there is a few. 1.) We talked about before, Shackleton. He resonates with me in a deep level. 2.) I read this book called A Good Man by Mark Shriver about his dad Sarge Shriver who worked in the Johnson administration and started the Peace Corp and he was a remarkable man. An exceptional father, a good friend, loyal, and he is a mental model of the kind of person I want to be in life. 3.) I would probably say Victor Frankl's Man's Search for Happiness.

Tim Ferriss: Happiness or Meaning?

Bryan Johnson: Meaning, okay. So, thanks.

Tim Ferriss: Very inter related though.

Bryan Johnson: Yes, so I have – one of the driving philosophies of life – the thing that drives me the most is – I guess I find the most beautiful is that we have the ability to offer life in life.

We can choose not to take default routes. We can choose to take different paths that we can design and do whatever we want. That is why I find entrepreneurship so appealing is that you get to design your own world. So, in my office I actually I commissioned a graffiti artist.

Tim Ferriss: You sent me a photo of this. I remember. Explain it please.

Bryan Johnson: Yes, so on one side is Gandalf the Grey and the other side is Harry Potter and they have their wands and staffs pointed up and it is exploding energy in the middle of the air with his book that is open blank pages with a pen, then above it in graffiti is the word dream. The concept behind it is JRR Tolkien and JK Rowling created worlds we inhabited through the tool of text. They wrote this stuff down and then we inhabit it. So, they literally authored worlds. We have that same ability as entrepreneurs to build companies. Everything we do we have that, especially our tools of our creation now that we are investing in at the OS Fund. So, I wanted to use pop culture figures because I wanted my kids to see this thing.

That they have that ability to do that in life. That they do not need to say yes to the default options. They can carve their own path. Even though it is incredibly hard, it is going to be painful, to me it is so much more fulfilling than a secure and safe way to live life.

Tim Ferriss: I think it is also just worth rewinding and pointing something out to folks, which is you did not come from – as far as I know, a wealthy family where that was the kind of default – was that the default belief system? Maybe it was. maybe despite the financial challenges – because I think I recall you telling me your mom made some of your clothing that you wore to school?

Bryan Johnson: She did, yes.

Tim Ferriss: So, it is not like you sort of came in with every possible advantage that people might assume is required to think that way. The authoring of your own world.

So, I am going to come back to that and I realized the successful question I think could be broken down in a few ways. You just brought up with that biography, the first one A Good Man. The thought in my head that you can model different people for different traits, right? Which has its own risks because you might absorb bad habits if you are spending time with those people without realizing it. Sort of like viruses – bugs in the OS, I guess. But, that person correlated to the values, so modeling that person based on values. If you were modeling – who is an entrepreneur or who are entrepreneurs that you admire for their aggression?

Bryan Johnson: So, I would say actually a bunch of names pop up. People I have invested in at the OS Fund, Craig Venter at Human Longevity, Peter Diamantes there as well, Josh Tetrick Hampton Creek, Jason Kelly Gingko Bioworks, Daniel Fong at Light Cell, Scott Phoenix at Vicarious, we have a great roster of incredibly passionate entrepreneurs.

Mustafa Soleman from Deep Mind. I was not an investor there, but I find him immensely inspiring. But, these entrepreneurs think differently about the world and they are going after extremely hard challenges and I would say they are audacious and determined and very aggressive.

Tim Ferriss: Got it, okay so now do you – would you describe yourself as aggressive?

Bryan Johnson: I am.

Tim Ferriss: In what ways are you most aggressive?

Bryan Johnson: When I see something I want to go after; I can be pretty relentless.

Tim Ferriss: Which entrepreneurs do you most admire for their – I will have to say – you will have to choose either smaller subset of the people you invested with or a you can choose other people, which might be safer, but for their resourcefulness?

Bryan Johnson: Alright, so let us come back to that. I know I am going to have a lot of examples to think of. People who have faced near and certain death countless times, but somehow they figured out to maneuver around the problems.

Tim Ferriss: To sort of Neo in the Matrix, do the back bend and dodge the bullets and come back to life.

Bryan Johnson: Yeah, exactly. That is the essence of entrepreneurship.

Tim Ferriss: So, that is actually a good segue, so what do you think an entrepreneur is? What is an entrepreneur?

Bryan Johnson: Someone willing to – So, I think entrepreneurs and explorers have a lot in common, like Shackleton. They head off in uncharted territory and they maintain this ability to adapt to circumstances that are chaotic, unknown, and extremely challenging.

They can maintain some order in all the chaos, to actually achieve a goal.

Tim Ferriss: What are practices, experiments maybe, that people could perform to help them develop those characteristics? Is there anything else you find sort of ports well over to that chaotic, uncertain nature of startups or small companies?

Bryan Johnson: So, I guess we – I have a lot of conversations with people who want to start their own thing and one of my favorite questions to ask is, is this an itch? Or is burning? So, if it is just an itch, it is not sufficient. It gets to this point of how badly do you really want it. For me, I burned the boats. There was no way I was going to get a job. Failure was never an option. I had to make make this work.

I did have jobs along the way, but that was just simply to pay the bills. But, failure just was not a solution I would accept. So, I think I want to get at entrepreneurs that how badly do you want it? What will you do to get there?

Tim Ferriss: I find it very difficult in the current environment to identify those people because thinks are so frothy right now. A lot of people who would otherwise be risk intolerant and fearful of uncertainty are jumping into the fray as founders. You have – look, a lot of my very close friends come out of McKenzie and places like that, but when people with very high paid consulting jobs are then jumping into startups, I start to wonder what tis on the horizon and if I look back a very kind of macro timing way to at least narrow down the field a bit.

So, I it is easier to find those people seem to be investing during recessions. So, that sort of investing right after crashes. It left sort

of the people who could not conceive of doing anything else standing on the playing field and the sort of fair weather investors, the fair weather entrepreneurs, all went back to doing whatever the perceived to be charted territory.

Bryan Johnson: Yes, exactly. I guess I want to be careful. I do not want to be an entrepreneur definition snob, right? And suggest that –

Tim Ferriss: I was going to come out and say it and yell at you about that.

Bryan Johnson: But, these attributes are held by people within companies who have started the companies, who are working with larger institutions, but it is just inherently people can create, do, and see what others cannot or will not do. That they will blaze something that others will follow or benefit from.

Tim Ferriss: Let me dive in to a couple of other questions also.

Do you have a book that you have gifted off? Are there any books that you have gifted to other people often?

Bryan Johnson: I have gifted A Good Man to quite a few people and Shackleton and Victor Frankl's book. A Good Man I gift because if we contemplate how – like I wonder what would my son or daughter say about me? What kind of biography would they write? And that is a model for me I would want. Shackleton, that is how I want to behave in life and Frankl, that is how I – his basic point is no matter the conditions we surround ourselves in, we can author our life. We can author however we respond. I guess I will also throw in there Siddhartha. Have you read that?

Tim Ferriss: Herman Hess or Herman Hessa I guess in German.

Bryan Johnson: Love that book.

Tim Ferriss: That came up yesterday on a walk with someone I will not name because it was a private conversation, but a very very successful guy that I also admire a lot for his sort deep thinking on important philosophical questions.

Siddhartha came up. That has also come up with my conversation with Josh Waitzkin, who the second interview ever on this podcast who is the basis for Searching for Bobby Fisher. Known as a chess prodigy, but really I do not think it is appropriate because he has applied his kind of learning framework to many different areas. But, that book comes up a lot. It is a very sort allegorical, but often

times I think the deep truths can be explored more effectively in fiction than in nonfiction because it pulls you out of your normal context in a way. So, your problem solving software is not running so it kind of blind sides you.

Bryan Johnson: New mental models.

Tim Ferriss: Yes, exactly. I had a profound question that just escaped by semi ketogenic brain. [inaudible].

Probably right on the – I think we were talking about this just before and I have 0.6 [inaudible] because I fell out of ketosis and then I am just getting back in. I had some coconut oil, but I think that kept me going for about 60 minutes. So I am probably in the no man's land. The grey zone of substrate suffering. If you could have – if you had a huge billboard you could place anywhere ad you can put whatever text you want on it, where you put it and what would it say?

Bryan Johnson: Let us say I would put it in New York and it would say, do an anonymous and random act of kindness today.

Tim Ferriss: I like it. Why New York?

Bryan Johnson: For if you are giving me the constraint of a single billboard and I want the broadest exposure, I would go to New York where the density is highest.

Tim Ferriss: Got it. I like it. Good answer. If you were giving advice to your 30-year-old self, what advice would you give?

Bryan Johnson: That no matter what comes your way, no matter how hard things feel, that I have the power to overcome and be at peace with it.

Tim Ferriss: Good advice. I think that is a great place to start wrapping up. Is there anything else you would like to share with the audience? Resourcefulness examples? Anything else?

Bryan Johnson: Yes, one thing – I do a lot of projects with my kids and for example we started a few businesses together and we wrote a children's book together and as I think about the coming generation of makers and doers that they are the people who will define our world so dramatically. If I think about who they aspire to be like and what kind of things they want to do and how we write the operating systems of their upper aspirations and endeavors, I think that – I am encouraged by watching my own kids grow up. I see a

bright future that we can trust these incredible powerful tools of creation can be used for good things. Good is subjective of course, but that we can actually change humanity in fundamental ways and that the rising generation, if we do it right, will have amazing ability to contribute to our wellbeing.

Tim Ferriss: And if there are – and I am sure there are, new parents listening to this and in fact I have someone I know very closely who is about to have his first kid, what are a few activities or experiments or collaborations that you would encourage them to have with their kids or habits? It could be anything, but just general try these two things, three things, whatever it might be with your kids.

Bryan Johnson: My personal philosophy is I try to be relevant in my kids' lives. So, for example, in my sixth grader, he is in a public school, and they do not have any technology in the school and so I have been working with the principal to bring technology in the school and the way we are doing it is we are running a test in his class where they are using the scientific method to say if we bring technology into the classroom, will it improve our educational experience? So, they have to test it out and use pros and cons and the whole process and then each of the – there is six groups making a documentary. So, I am with the teacher working with –

Tim Ferriss: Six groups of students?

Bryan Johnson: Yes, six groups of students within the class and they each are making a three to four-minute documentary on the process of testing the scientific method of is technology in the classroom a positive or a negative experience or what are the pros and cons? And so I am working with his teacher to do that and doing the filmmaking and plotting out the story boarding and identifying what the scientific method looks like and that give me all these opportunities to talk about everything that is relevant in his life in ways that are meaningful.

So, when we have conversations I am not just saying, hey how is your day? Fine. And that is the end of conversation. It is relevant. So, the same is true with my fourth grader and my daughter who is in preschool, but I would say parents to get engaged in the children's lives to be truly relevant. To understand the underlying context of who they like, who they dislike, who are their friends, who are the people who are saying mean things to them, what are they worried about in school? So that has been kind of helpful in my relationship with my kids and I think it has really helped us form a very strong bond.

Tim Ferriss: Are there any traditions that you have built into the family that are not obvious? Christmas is very common for a lot of people of course, but are there any other traditions or rituals that you have developed with your kids?

Bryan Johnson: Yes, when we sit down for dinner I always have a question for them. Like, last week on Saturday night we had this discussion of what does it mean to be good? And they are jamming. It is like 11, nine, and five and they are jamming on this questions on what it means to be good and I raise all kind of questions, like what you think is good is not necessarily what I think is good. We have these different interpretations and is there a single definition of good? So, my five-year-old is raising her hand and offering up her input, which is amazing but they walk away – they are surprisingly bright and have these amazingly good insights.

So, I try to have these significant conversations with them and sometimes it lasts like ten minutes before chaos breaks out in the house, but at least we this moment where we can connect on really serious questions and they explore these philosophically which I have found to be beneficial in both their development, but also our relationship.

Tim Ferriss: What in your mind are common mistakes that parents make? Aside from doing the opposite of the two things you just described.

Bryan Johnson: We were – this is up for opinion of course, but we were at my five-year-old had this little party for her preschool and I took her over and we were at the park and there was this merry go round, and there was like 20 kids on the merry go round. There were some older kids going really fast around and sometimes a kid would fall in the dirt and get trampled by their friends.

Tim Ferriss: That is what friends are for.

Bryan Johnson: Exactly, so there was like two camps of parents that broke out. One camp was like no way is my child going to be involved in this terribly dangerous endeavor, which is a reasonable thing to say, right? Because it is pretty dangerous. Someone could get really hurt. There were other parents were like myself, like look they will figure it out. If they get hurt, I am sure that they will recover and it will be a great experience for them to learn about big objects moving very fast.

Tim Ferriss: The principles of physics in the flesh.

Bryan Johnson: Right, so my daughter got on and she was in the mix of all this stuff, but I am certainly in the philosophy that I like kids to go explore and do on their own and if they make mistakes, that is fine. They can learn, but if there is too much inherent protection structured that they just forgo those learning experiences –

Tim Ferriss: Well, they are taught that they are fragile. I think therefore they developed the belief that they are fragile.

Bryan Johnson: Yes.

Tim Ferriss: Granted, I think back to – I am sure you probably have the same – like your gasoline in the street example. I think back to some of the stuff I did where I am just like I cannot believe I was allowed to do that, like skateboarding off of ramps in the middle of street, right? Flip over and smash my head on the asphalt and concuss myself. Just like, oh my God. But, all of those things taught me ultimately either this too shall pass or like okay you earned your lumps, now you know not to do that.

But, you also know you were able to weather the storm and get through it.

Bryan Johnson: Exactly, yes so we got on a four wheeler two weeks ago – my 11 and 9-year-old, and I said okay I am going to put your helmets on, I am going to give you a two-minute lesson on how to go forward and how to go backwards, how to break. I am going to give you some lessons like do not go into a ditch, do not go on a hillside that you will turn over, but I am expecting you now to go out for five minutes and come back safely and tell me how you did it. What were our thought processes? How did you stay safe? What were the risks you took?

But, I want them to do it and I am not going with you. Right, so you go and come back and they came back in one piece, but it was a good experience for them to tell me like okay dad this is how we looked at the risk, this is how we through we potentially get into a problem. They ran into a tree, going slowly, but right? They talked about it, which I thought was really helpful.

Tim Ferriss: Well, I just think it is – I think you are fascinating guy and I think you are very inspiring guy and as I think forward to someday having kids myself, I love asking you these types of questions. This has been a blast. So, 1.) Thank you very much for taking the time. I always love having these conversations. This is our first one

on the record. And 2.) Where can people learn more about you, about the OS Fund and so on?

Bryan Johnson: osfund.co is where all of our investments are and I am active on twitter, so happy to have ongoing discussions about the various things we talked about.

Tim Ferriss: What is your twitter handle?

Bryan Johnson: Bryan_Johnson with a Y.

Tim Ferriss: Got it. @Bryan_Johnson. I will put that in the show notes as well. Any parting thoughts or comments?

Bryan Johnson: No. Tim, I just love this. We have had fantastic conversations over time, so this is fun to actually do this formally and I really enjoy the friendship.

Tim Ferriss: Likewise, man and this is – I am so glad that I was able to try to give people a view into these conversations that we have. It is so much fun for me.

I always come away with a bunch of things that I want to try or a bunch of assumptions that I want to test. I think you are really good at not only helping to prepare people for what could be a very glorious future of sort of infinite creation, but also giving them the belief in the first place that it is possible. So, I really believe that you are a force for good, so thank you for spreading confidence in the world and I think you are trying to really leave a dent in the universe and an impact.

Bryan Johnson: Thank you, my friend. I appreciate that.

Tim Ferriss: Much appreciated. So, to be continued. Everybody, hope you enjoyed this. This was a blast for me. We are going to continue to hang out, but off the record and if you would like to chat with Bryan ping him on Twitter. Let me know what you think. Certainly, if there is anything that struck you please let me know what was most memorable in the comments on the blog. Fourhourblog.com, all spelled out. You can find the show notes for this episode and every other episode by going to fourhourworkweek – all spelled out. fourhourworkweek.com/podcast and until next time. Thank you for listening.