Dave: Many people in the biohacking community have had trouble with how much they overpay their life insurance provider because these companies haven't caught up with new scientific studies that have changed the way different diet types and exercise are viewed by the scientific community.

For example, people who are committed to the Bulletproof diet may have an increased level of a good kind of cholesterol called HDL, but some life insurance companies lump all cholesterol into one negative category like they were created in the 1950s. Wait, that's because they were. A decision like this could greatly increase what you'd pay for life insurance.

Health IQ is a company that's decided to change that. Health IQ advocates for health conscious lifestyle, they use science and data to fight for lower rates on life insurance for health conscious people including cyclists, runners, vegans and vegetarians, weightlifters and other people who are on diets that actually make them feel better, perform better and live longer.

In fact, research has shown that people with a high health IQ are 42% less likely to be obese and have a 57% lower risk of early death. Many people don't even know their health IQ, let alone realize they can get a lower rate due to having a high health IQ. Health IQ has special rates on life insurance for the health conscious. Right now Bulletproof listeners can learn more and get a free life insurance quote by going to HealthIQ/Bulletproof. That's HealthIQ.com/Bulletproof to learn more about life insurance for people who care about their health.

Female: Bulletproof radio, the state of high performance.

Dave: You're listening to Bulletproof radio with Dave Asprey. Today's cool fact to the day is that Einstein said that if he had one hour to save the world he'd spend 55 minutes defining the problem and only five minutes finding the solution. In the journal of science researchers came to the conclusion that thinking things through exaggerates the importance of different facets of your decisions and actually harms your judgment.

To put that really clearly, simple decisions don't get improved by conscious thought, complex decisions are not … Wait, I said that backwards. To put that concisely and clearly, simple decisions are improved by conscious thought, but complex decisions are not improved by conscious thought. That is not what you would necessarily expect, but I found that to be the case throughout my career as well.

Before we get into today's show you know how important it is to eat meat that's 100% natural, meaning it hasn't been injected with hormones and that the cows were fed high quality sources of food. Not everyone has access or time to hunt around for high quality grass fed meat.

That's where Butcher Box comes in. They deliver healthy 100% grass fed beef, organic chicken and pork directly to your door and their products are humanely raised and free of antibiotics and hormones. Each box comes with seven to ten pounds of meat which is

enough for 20 individual sized meals.

You can choose from four different box types, all beef, beef and chicken, beef and pork or the mixed box. That's enough food to last you almost a whole month. You can also customize your box with add-on items like bacon, ribeye and beef bones.

Each box also includes step by step recipe cards and a note from the butcher describing the cuts and farm's feature that month, plus they deliver for free nationwide except for Alaska and Hawaii. The price is just 129 dollars a month which works out to less than 6.50 a meal. At that price it's a steal.

Order now and get free 100% burgers, six six ounce burgers for free in your first box. Use code Bulletproof to get an additional ten dollars off. Get started by visiting ButherBox.com/Bulletproof. You can cancel any time without penalties. Give it a try. Head on over to ButcherBox.com/Bulletproof right now and get your free 100% grass fed burgers and ten dollars off with this code bulletproof.

If you haven't tried the Bulletproof collagen bars you're in for a treat. We have these new ones called Bites. Look at this thing. It's incredible. What this is, is a bar that has the protein that you can only get from bone broth or eating things like gelatin which your mom probably doesn't make for you in bone broth soup anymore.

It also has brain octane oil which is a fat that you cannot get enough of by eating coconut oil because it's about 5% of what you find in coconut oil. Then resolve to eat it and you're full for hours and hours, you feel great and focused and amazing. Once you try one you'll never stop. If you want to kill hunger on a long flight this is where you go. These things are amazing. Head on over to Bulletproof.com and feel what it feels like to have collagen and brain octane in your body at the same time even without the benefits of good old fashioned Bulletproof coffee.

Today's guest is none other than Jake Knapp. He's a writer and design partner at Google Ventures. He's also a former Googler where he helped to create a few things you might have heard of. Things like Google Hangouts. He's supported a bunch of startups with product design. Started looking at ideas and problem testing process to develop a well known and efficient process that's now called sprints.

He's conducted sprints for 100 startups including companies like Nest, Slack, 23 and Me. Then he wrote a New York Times bestselling book about the process along with his other Google Ventures partners, Braden Kowitz and John Zeratsky. It's called Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days.

The reason that Jake's on the show for you today is that a lot of us have problems, big problems in our lives, in our careers. Sometimes the problems feel insurmountable. I know I've dealt with this many, many times. You feel it gets overwhelming. This is a chance for you to learn a technique that you can apply not just in a business setting, but to yourself to really, really push yourself and to maybe get huge results in a small amount of time.

As a long time listener to Bulletproof Radio you know that's really what I'm all about. Same thing happens biologically, same thing happens in your life. You basically want to figure out how do you cut a lot of the pain and stress and struggle out so you can make it easier. That's why Jake's on the show. Jake, welcome to the show.

Jake Knapp: Thanks so much for having me.

Dave: We've got to start out with the most important things first. You have claimed publically multiple times to be the tallest designer on the planet. Is this true? How tall are you man?

Jake Knapp: I claim to be among the tallest because the Dutch have a lot of designers and they're a tall people. I'm sure I'm not the tallest, but I am 6'7" and a half. That's good. In most companies that's usually the tallest.

Dave: 6'7" and a half, you've got me. I'm 6'4". Guys like you, I've got to tell you, not a lot of things piss me off, I do this four years, this meditation thing. You know what I'm talking about here, because everyone's shorter than you. You don't really notice how tall people are. At least I don't. whether you're 5'4" or six feet, you're all below. When I have to look up to look and meet someone in the eye, it's so weird because I never do. When I'm standing next to you I feel like, "This feels so weird, what's going on here?" I feel like something is wrong with my center of gravity or something.

Jake Knapp: It's a weird feeling because for you and I that happens once out of 10,000 times we run into somebody. You look up and just think, "Oh my gosh, my whole world view is tilted." I apologize right off the bat, apologize for edging you out there.

Dave: I apologize to everyone else that I've done it to as well. Sorry, we're not tall on purpose. Every time you're sitting in economy looking comfortable we look at you with insane jealousy. We'll just put it that way. What's a sprint?

Jake Knapp: A sprint is a chance for a team to solve a big problem that they're working on. This could be a team at a business, it could be a team anywhere and sometimes it's even an individual. The idea is that you clear a week, you get the team together, you run a specific step by step process and by the end of the week you've got a realistic prototype of your solution.

On Friday you're testing it with your customers or you're testing it in the real world in some way, so you've got data. It forces people to move quickly and it gives you a lot of tools to do that in a fast and efficient manner. What we've seen is that it really helps people, like you were talking in the beginning, those problems that are just hard to get started on, hard to get moving on. It gives you a way, a recipe to start.

Dave: I'm going to push you in this interview to think about customers as, we'll call them stakeholders. Some of the early work that led up to Bulletproof, I was in business school at Wharton. One of my professors who's been a guest on the show, his name is Stu. He wrote a book about this and I just blanked on his name of course because I hadn't thought of going here with you. It'll come to me.

What he wrote about, his name was Stu Friedman, he wrote about this idea that you have customers as stakeholders for different domains of your life and that one of the things that was missing is that we're putting a huge amount of effort into some things and getting very little results. He was like, "What if you measure the effort and results you get with your friends, with your family, with your health, with your career, with everything else and just realize, I spend 80% of my time where I hate everything, so maybe I could stop."

The attractiveness to me of sprint for everyone listening, not just entrepreneurs and business people, is that your customers may be your family. Your customers may be the community that you serve in some way through your volunteer activities. There's a way to take your sprint process and use it with different sets of customers even if they're not necessarily the ones writing a check for you. I'm going to keep asking you questions like how do I apply this to a situation that might not necessarily be a business and see what you think about it. Are you cool with that?

Jake Knapp: Yeah, absolutely. The big idea is to get real at the end of the week. Not to just sit off in a corner and think philosophically on your own or with your team about what might be the right solution or what might be the right course of action, but to put it to the test and show it to people and get their honest reaction. If you want an honest reaction you have to make something realistic and that's what a sprint gets you.

Dave: That is beautiful. The name of the book by the way, it just came to me, and I did not Google, you guys saw me the whole time. It was Total leadership. I was just waiting for my Aniracetam smart drug to kick in there. At the end of Stu's process, which takes more than that amount of time, you go to each of your "customers" and ask them for their feedback and all that.

I just see that this might apply to people who maybe don't think it applies to them. If you're listening right now going, "This is the business episode," no. This is how I solve complex problems episode and it may work in business, but you may find it works elsewhere. Walk me through the sprint process. What do you do on the first day of this five day process.

Jake Knapp: First of all you've got your team together. We advise that seven is the perfect number to have involved in a sprint if you're in a company, buy you can do it quite well with fewer. The first thing you do on Monday is you're sharing information and making a map for the problem. You can imagine this for all kinds of problems in business and outside of it. There's some kind of, a list on the left of the actors, all the people who are involved in this problem.

To give you a concrete example, I'll tell you the story of the hotel delivery robot. There's a company called the Savvy Oak who we invested in. They make a hotel delivery robot. They wanted to test the idea of giving the robot a personality before they launched. If they launched the robot with a personality and people hated it it'd be devastating for a new startup. People were frustrated or aggravated with the robot, they thought it was annoying. They really wanted to test it in this low stakes, but really fast way.

On Monday the map includes all the people that work in the hotel, the guests. Then as the map goes across the board it's all the spots where a guest might encounter the robot, not suspecting that there's going to be a robot and encounter that personality. Then you choose one spot on that map that you're going to focus on in the sprint. You come up with a lot of questions, all the things you think might go wrong.

Then to go really quickly through the other days, on Tuesday you're going to sketch solutions. Every person on the team sketches their own solution for that one spot on the map.

Dave: Separately from each other?

Jake Knapp: Separately, it's not a group brainstorm. We can dive into that later if you want, but I'm a big hater on group brainstorms after all the bad experiences with them. Then with those individual, and actually they're anonymous solutions that have come from each person. On Wednesday we've got a detailed process to come up with a decision.

At the top of the show you talked about how a lot of times you can make a decision really fast you can make a really good decision. We basically want to give what we call the decider on the team all of the information that she needs to make a great decision really fast. We make that decision, then we put together a quick plan and on Thursday we're building a prototype, we're trying to make a realistic prototype.

Dave: On day one you choose the decider?

Jake Knapp: You usually know the decider going in. Sometimes, in rare occasions you're like, "Who should decide?" Maybe a startup that's really early on, hasn't really formalized it, but in most cases you know.

Dave: You know who the boss is.

Jake Knapp: Yeah. It's a good conversation to have for sure, because sometimes it's a little ambiguous.

Dave: In any decision, even if you're talking about a family decision, if you don't know who owns the ultimate decision … By the way, the answer isn't we. The answer is someone does. Even if you have two parents. You guys may decide that you're going to have an agreement, but one of you is ultimately going to make that decision. The other one's going to agree with that decision. You might as well know who that's going to be ahead of time.

Jake Knapp: It's very important. After doing this 100 times it happens like second nature for me. I have kids. I have a 13 year old and a five year old son. There are situations when I'm at my the house, "Okay, Luke," that's my oldest son, "You're the decision maker on this. Once you have the information you make the call." It's always there. Things work easier when you know who makes a decision and everybody feels better. That happens on Wednesday. Then we make the plan for the prototype and then on Thursday we're

building the prototype. We just have eight hours to make a prototype.

Dave: The prototyping, all of you get together and you work on the number one idea from day three on the prototype?

Jake Knapp: We usually go for two or three ideas.

Dave: You take the top three or two.

Jake Knapp: The top three. What you're doing sometimes is combining those into one prototype. The example of the robot personality, the ideas that Savvy Oak chose or the CEO chose were a face for the robot, which is actually more controversial than you think because as soon as you put a face on a robot people want to talk to it and I can't talk back.

Dave: Also, what does the face look like, what race should the face be. That's a real question.

Jake Knapp: It's a big deal. One of the ideas was should the robot be able to play games, follow the leader? That was another idea that he chose to test out. Another idea was the robot do a dance at the end after the delivery. That slate of three ideas could fit together into one prototype, but sometimes we'll have competing prototypes.

One of the stories that we tell in the book is about Slack. You mentioned Slack a minute ago. This sprint that they ran that we talk about there, we're testing different ways to explain Slack to customers on their website when people signed up. They had two totally different ideas and they just prototyped both of them in one day. Then on Friday they could test two totally different, one with a fake brand even, versions of the product. Then on Friday you're going to run the test.

Dave: What does the test look like on Friday?

Jake Knapp: The test is with five customers, but one at a time, not all in the room at the same time. Another thing on my list of things I hate along with group brainstorms are focus groups. Focus groups, often what people think when they say, "We're going to go talk to customers." They really often bring out the worst of group dynamics and group think.

What we want to do is show people a prototype in a way that seems realistic to them and they just react to it. The team is watching our video and gets to watch customers just react and draw their own interpretation about what it means. Again, in the case of the robot that meant bringing people into a hotel room and asking them to call and ask for a toothbrush to be delivered.

Then when that delivery came to the door and they opened the door it was a robot. We could see on a drop cam that was stuck in the hallway how they reacted. If you do five of those tests actually in a day you'll get a really good preliminary set of data.

Dave: That makes good sense. I remember my first time really dig in with focus groups. I was head of strategy for the virtualization group at a company called Citrix. We were looking at some remote virtual desktop things. This is going back ten years or something where

virtual desktops still were a word. We spent hundreds of thousands of dollars and offered people a gift card for Starbucks or something. We got this room full of ten IT executives. I think three of the guys were there just for the Starbucks gift card.

"What do you use your technologies for?" and they're like, "Like management and stuff." They had no idea what Inisoft did, but they got their Starbucks card. That maybe wasn't the most effective group I've ever done. Everyone else was trying to agree with everyone else. You're right, there are big limitations on those things.

Jake Knapp: Part of the whole idea with this sprint, and the selling point is really you can move fast, you can start a project that's hard to start. There are a lot of group dynamics with humans that don't work great on their own and you need a little bit of help to make those work well. Making decisions in a group, not easy. Getting information from a group of people, not easy to do well. If you change that stuff a little bit you get a lot better results.

Dave: If I wanted to run a sprint, I've got, we'll say a group of four people, I've got my wife, I've got me, I've got my two kids and we want to decide to do something nice for the community around us. That's our challenge. Is this really going to work? Could I do that?

Jake Knapp: The big question at the beginning of a sprint is what is the question. What do you want to learn before you go ahead and take action? Is there a risk? Is there something you're not sure whether it'll work or not?

Dave: Maybe want to learn the most effective way that we could feed the homeless or provide a service for older people or something like that. It's the brainstorming side of things where we want to decide what's the most effective way we could serve our community?

Jake Knapp: That's a great frame, you totally could. What you do on Monday is you'd be sharing information that all of you had. What do we know about what our family can do, [inaudible 19:02] and then making a list of the options. What does that map look like for your family? What's in your community? What are the places you might go or the services you might go?

                Then you'd pick the one that you thought like, "This seems to us at the moment as the best opportunity. This is where we're going to focus on the sprint." Maybe you choose, "We're going to focus on trying to get some food to homeless families in our community."

                Then on Tuesday each person, you, your wife, your kids, would each come up with your own solution. You'd think it through. It's not just sketching all day. There's a step in the morning where you look at patterns where people have solved an analogous problem, done something interesting elsewhere. You might spend some time looking at where small groups have come up with interesting solutions for providing food for people or maybe helping people connect with services that are already out there.

                In the afternoon you sketch and then on Wednesday you would decide, you'd go through this critique process as a family talking about each idea, but not letting the

person who drew it give you a sales pitch about it. Seeing what you can understand on your own about how it works.

Then the decision maker, whoever that is in the family, will make the call about which one or two they're going to try out. Then you guys would prototype it. You'd have to decide, "How are we going to test this on Friday." What you might end up with is, "We've got one idea that's actually bringing food to people. We're going to set up a spot and we're going to cook meals and see if we can serve people." Maybe another idea where you think, "What we want to do is test whether we can actually get the information to people about where we're going to be distributing groceries for instance."

What you might do is then basically prototype, maybe one of those things can be prototyped with a paper brochure, with a flier that goes up somewhere. Maybe one of them has to be prototyped by actually doing the service. Actually finding a space, setting it up and doing it.

Then the idea is that on Friday you'd actually do it in a really small batch. You'd bake that small batch of cookies to see if the recipe works well. You would see when people reacted to it. What I think is cool about it is if you imagine your family doing that, if you were doing this kind of project you might spread it out over some time. You might compress it.

You get to see the idea … You don't have to commit at first to doing the whole thing. We're now delivering groceries, we're now cooking meals forever. This is a permanent commitment. You're saying, "We're going to try it once and see how it works."

Dave: It seems like this approach inherently embraces failure throughout it, which is really important and something that maybe is avoided in most business environments.

Jake Knapp: It's hard to take risks when, even when you, the culture of Silicon Valley talks a lot about taking risks and failing, but in reality nobody wants to fail. Failing's not great. I think what people really want is to be able to move fast. When you think, the only way I can learn is to launch something, to get something out in the world. Then we'll have to build something in order to be able to launch it. That takes time. People naturally become more risk averse. They become more careful. It's smart to be careful, but people avoid risks.

The sprint allows you to take a lot of those risks in such a short period of time that you're not out much if you fail. The funny thing is we've seen companies are more likely to succeed when they take those risks and they take them fast. They're more likely to hit on that thing that's wildly successful than they are if they take a longer time figuring out the safe path.

Dave: Do you mind if I ask how old you are?

Jake Knapp: No, not at all, I'm 39 as of last week.

Dave: I'm basically 44, my birthday's in a few days.

Jake Knapp: Happy birthday in advance.

Dave: Thanks, although by the time this goes online I'll be 44. There we go. Happy birthday in retroverse. I'm asking because, because we're about the same age. I can tell you, I'm the last year at the University of California Santa Barbara where I went to school that didn't have Ethernet in the dorm rooms. I still had a dial up modem.

Jake Knapp: Yeah, I had dial up.

Dave: You had dial up? You didn't have Ethernet in your college?

Jake Knapp: University of Washington, I don't want to diss them.

Dave: That explains a few … We were all too drunk to remember.

Jake Knapp: [Inaudible 23:39] which is how we used to do emails.

Dave: Pine and Elm, there you go. I actually did work on a book by Dave Taylor, the guy who wrote, I think he wrote Elm or Pine, I think he wrote Pine, the author of Pine. By the way, for non geeks listening, these are the original ways all of us did email before Gmail, just so we're all clear on that. Since Jake worked on Gmail we're just going back through memory lane here.

               The reason I was asking that is that your spring process here, that first day, would not have worked when we were younger. When you did research you didn't even have Alta Vista, did you? Or maybe you're a little bit younger. I was one of the first people to use that in my university. I always got As and no one knew why because I was doing searches online instead of in card catalogues with micro fish.

               You couldn't do a one day process of fact finding the way you can now thanks to Google and thanks to the internet and all these other tools that seem like they're a part of it. If you were even five years younger than you, if you were 35 or younger, the world's always had information on your fingertips and your process is a new thing in all of human history because data gathering analysis couldn't happen fast enough.

Jake Knapp: Although actually a lot of the things, on Monday there's actually very little connectivity on Monday. One of the premises of the sprint is that phones away, computers off, almost the entire week, except for … If somebody is giving a presentation on Monday they might share information in that way, but actually on Monday we try to share information that people already have.

Dave: The gathering happened before.

Jake Knapp: The gathering happened before … Or like a lot of the companies or teams or just people in general will come at a problem with a lot of information. If you can do research before I should say it's wonderful. It's excellent to do that, but I don't think teams

should wait to start until they've done research. Because you'll do, in the matter of the sprint you'll end up doing research. By the end of the week you'll know more. You can always do another one afterwards with that information in hand.

It's actually laptops pretty much off on Monday. They might be on Tuesday morning when you're looking at inspiring solutions from other domains. Then they're not on again until Thursday when you build the prototype, if you need it, unless you're making a service or making a physical object. It's an old way, it actually could have worked in almost any time in human history.

Dave: It just meant it would have taken longer to do data gathering the week before the sprint process really happened.

Jake Knapp: That's right.

Dave: A good deal. I feel like the speed of everything is sped up just because when you don't know something you don't have to go to encyclopedia Britannica and look it up. It's such a different thing. Or even that old, what was that nasty thing from Microsoft, Encarta was it called?

Jake Knapp: Are you putting me on right now?

Dave: I am because you worked on it. You caught me.

Jake Knapp: [Inaudible 26:33] I was like, "Oh no, should I defend myself?"

Dave: I was trying to get a good look from you. For people listening, if you remember Encarta, Encarta was the first CD ROM encyclopedia that absolutely decimated Britannica because Encarta was available to search in your computer instead of thumbing through in a book. Encarta was a huge jump forward in our ability to access information. Thank you for working on that. Yeah, I was totally yanking your chain.

Jake Knapp: Now if you search for Encarta, the top result is on Wikipedia because Encarta's gone, and the second result is Britannica. Britannica came back.

Dave: It did.

Jake Knapp: [Inaudible 27:10] gone. It's sad, but there was, it had its moment.

Dave: It did indeed. By the way, a lot of time the speed of tech has happened so much that unless you were there, you might not recognize what a world changing thing some of these things have been, like Encarta. It really did change the world of research almost overnight, it was a matter of three years. All of a sudden we're all shaking. Now I think that happens about every six weeks. In the sprint process, you've also talked about something called design thinking. What is design thinking versus the sprint process?

Jake Knapp: It's a good question. Design thinking is a philosophy. It's an approach to doing things. You'd find if you were someone who had studied design thinking, does design thinking,

work at a design agency, whatever, you would read our book or do the sprint process and say, "Yeah, this is design thinking."

What's often challenging is that people don't know how to put it into practice. One thing that's different about the sprint book from a lot of experiences people have had with design thinking is that it's really specific. You do these things you don't need to come in with any expertise in advance. If you follow these steps you'll be doing design thinking, which is a focus on the customer, on the human being at the end.

Then also willingness to try a lot of ideas and use a prototype to learn about things. I think the big benefit of design as a toolset for solving problems is that it can loosen people up to fail. They can move fast when you get into that mode of, "I'm going to build something fast, I'm going to make it real really fast." You can do that today. That's almost one of the biggest technology enablers lately, is how fast you can make something. Then design really frees you up.

Dave: How would I incorporate this into Bulletproof? Let me give you an example here. I come from software and Silicon Valley and cloud computing and all that. You know how long it takes to rapid prototype a collagen bar?

Jake Knapp: I can imagine it's not real rapid.

Dave: I'm like, "Product guys, I want 90 day product cycles where we come up with an idea, we munch some stuff together and we roll it out," and they're like, "Yeah, try 90 day microbiological testing before we could ever roll it out," and it makes me want to stab pencils in my eyes because I'm like, "We could do better." How do you make this work in meat space?

Jake Knapp: Let's do it, let's talk about it. Like I mentioned earlier, the big thing is figuring out what question is most important. What's challenging about something like, the bar is a great example because there's packaging, there's production. You've got to get the flavor right, you've got to get the flavor right. There's so many pieces of it. You've got to sell it, you've got to figure out how to tell people about it, get it to people, deliver it, whatever.

All that stuff is complicated and when you take it all at once you're like, "There's no way we can do that, prototype that in a day." If you have one question that's the most important question to answer there is a way to prototype it, even if the thing doesn't exist yet.

If the question is, "Will people be able to understand what it is if they come across it in a …" I don't know, just an example, "If they come across it in a Facebook ad, would they be interested enough to click through? Would they maybe order it? Would they try a free sample?"

You can test that. That's an easy thing to prototype. You can recruit people who are in the target audience. You can built a prototype that looks like their Facebook feed, it looks like that. Take them to a marketing page. It doesn't exist yet. It has pictures of how you think the product might look, describing the way you think you'd do it, all those

things you can do actually really fast. You can answer that one question.

Unlock some of the unknowns that exist around it. Or if it's about the physical object you prototype the package or if it's about the flavor you just test it out, but that idea of isolating, it's a scientific method. You isolate one question and then you try to answer that one question.

I think what's magic about the sprint is that it's problem-agnostic, but if you follow through the system you can get an answer to a question in a week. For many questions that's fast. For some it's too slow, but you shouldn't use it to figure out where to eat lunch, but for other things.

Dave: Unless you're going to have lunch there every day for the rest of your life.

Jake Knapp: If it's the big commitment you might.

Dave: By the way, the Bulletproof Coffee Shop offers lunch in Santa Monica. If any of you want to come to that as a solution I'm okay with that. What about constraints and deadlines? This has a really tight deadline. What effect does having a constraint like that have on the team?

Jake Knapp: This is borne out of the realization thanks to my colleague Michael who pointed out to me many years ago that I just so happen to get a lot more work done when there's a deadline coming up. Perhaps I should start setting those deadlines so I would get more stuff done. He was right actually. I reflected at some point back on my career and I realized that there were these short bursts of time.

One of the early projects that lead to Google Hangouts is a good example where I was working on this thing with a couple of my colleagues in the Google Stockholm office. I was only there for a couple of days. We had to work really fast. We had to make something that we could actually use really fast. That deadline forced focus. It forced to cancel all our meetings, get in a room together, hash it out. As a big time procrastinator I'm probably a the leading edge of meeting deadlines to make progress, but I think everyone benefits from it.

It is remarkable to see and I've seen a lot of teams go through this process, how it helps people to focus when their laptops and phones are off and they know that we're all in this together. We have people coming in on Friday. It's remarkable what you can accomplish and it feels really good actually to have that clarity.

Dave: I remember back starting in college. I couldn't imagine a paper until the night before it was due. Why would you do that without a deadline? I would get really good scores on my papers, but I would often times be up all night. Just like you said, the forcing function of a deadline. Reflecting back on my career and I imagine people listening, same thing. When you just don't have much time and you do your really best, sometimes it is your very best if you had a lot more time.

Jake Knapp: That's right. More time doesn't always make things better, but more time is comfortable

and it gives us more time to do the thing that we know the best. If you're a software engineer it's writing code and if you're a designer it's just designing and if you're a sales person it's selling to people, having those conversations to people. The sprint forces you out of that comfort zone, but that clarity of the deadline is pretty powerful.

Dave: It is indeed. I, looking back on my career, I probably should have had more deadlines which would have been more helpful. A six week deadline isn't really a deadline as far as I can tell. Six weeks means later, right?

Jake Knapp: Right.

Dave: It's a tight deadline which seems to do well. I've talked about using this in a family, which is the world's smallest and slowest growing startup. It always takes about 18 years for the first product to come to fruition. Version 1.0 did we call that?

Jake Knapp: Even then you don't know.

Dave: That's a fair point. They might come back. There's a return and RMA process after college. What's the difference between doing this in say a small startup versus Google's not exactly a small company these days, although sometimes it acts like a group of small companies. If you were to do this at a larger company versus a smaller company what would the differences be?

Jake Knapp: I actually started doing this at Google. I was working at Google and thought that a new method for the way we did design early on in projects would be helpful. It is, to be honest, been very much forged at Google Ventures and with my colleagues there and this experience of working over and over again with startups.

The startups we work with would range in size from two people to a few hundred, but they're not these massive companies. What's different at a massive company, and we still talk a lot with colleagues at Google who are continuing to run these sprints, and also it's been adopted at a lot of other companies, so we hear a lot of stories about it.

I think one of the big things that's different at a big company is that you have maybe less access to that decision maker. The real person who decides what goes on may be hard to get into the room. That's a challenge for people. Again though, it's a healthy challenge to figure out who that person is, which is often not clear, and to get her or a representative, a duly appointed representative, just so there's clarity about who makes the call on this project is a big deal. Sometimes it makes people realize, "This isn't what we should be working on because nobody cares."

Another problem is often that there are, there's different groups that need to work together to collaborate. There might be politics involved. That can be a challenge. It can also be a good thing because the sprint can give you a way to bring somebody from another group into the room and actually work together on the problem. Instead of hammering out your differences later on you get to do that right in the sprint.

The other thing is just that the bigger the company often the more meetings there are

and the harder it is to say, "We're clearing the schedule for a week to do this." That's a radical thing to say. "We're not going to have our status meetings, our one on ones, our brainstorm meetings. Our projects, our divided attention between A, B and C, we're not going to do that for week." I think when it's succeeded, when it's first started to take root at bigger companies it happens because somebody says, "Let's try this as an experiment and see how it goes." Then when it works it starts to spread.

Dave: There are companies who run things like hackathons and things where you have really focus 24 hours or 48 hours to do stuff. Quite often there are performance enhancing substances involved there. There's a large tech company in Redmond that might have eight Bulletproof Coffee kiosks on campus for the developers. Do you, during these sprints, do you tell people to take smart drugs or use any other things like that?

Jake Knapp: During the sprint I think that the way people manage their caffeine and what they eat is really important. In fact I'm a big believer outside of the sprint also and how you sleep is important. Because all these things matter a lot. I don't want to dictate to anyone that, if you're not a caffeine drinker then you should drink coffee-

Dave: It's okay, if you want to do that it's okay to just-

Jake Knapp: Maybe we should. Maybe I should work out a little system here because I feel like everyone could win. I actually like, quite honestly, one thing that's important for us when we're hosting a sprint in our office is to have coffee available at the right times and to have food that is going to keep people charged. One of the big problems that a lot of companies, startups, is that when they do have snacks they're not-

Dave: They're crappy.

Jake Knapp: They're horrible. They're sugary or there's just nothing to them and there's potato chips and things. Candy is a really common … There's this big mythology around group brainstorms, which are bad enough on their own, and then let's eat candy while we do it. Bad things happen.

Dave: It's good for 20 minutes of productivity and then a crash. You remember Sun Microsystems? One of the big server manufacturers before Oracle bought them. Way back, 20 years ago in Silicon Valley, they used to have a rule, no pasta lunches. Because pasta gives you a coma later, except in their corporate briefing center during negotiation. If they wanted their competition to be foggy they would give them pasta so they could close the deal. How bad is that?

Jake Knapp: That's amazing. There are no deviant roles in the sprint, but there is a, in the back of the book there's literally a checklist. We talk about the kind of snacks that you should have on hand. We also talk about-

Dave: What kind of snacks that you recommend in the book?

Jake Knapp: I'll read to you from the, I have a little book here, I'll read to you from the checklist. We talk about things like nuts are good, dark chocolate is good. It really needs to be real

food. [Inaudible 39:53] is good for some people. Some people like to have cheese. We basically want to have something that, it's not foreign to your diet because if you have a bunch of people from a team, we don't want to say, "Everybody has to eat the same thing."

We want food that's real food, that feels natural to you to eat so that you're not thinking about it, but then you're going to have energy as you go on throughout the day. Because if you want, the sprint is not a long day actually. It's basically six hours, but that is a long time to focus. You've got to eat well to keep that up. No pizza and no burritos at lunch where the energy just tanks.

Dave: I absolutely love it that you put that in your book. It's not a typical thing that you would write about in a business process book like this. It so matters. If you're numb and you're trying to do this brainstorm thing, I don't know how to brainstorm when all I can bring up is a drizzle because I'm tired.

Jake Knapp: It's a huge deal. You also have to end before people get burnt out. We have the chance to watch so many teams go through this and see when it was too long, when we ate something what happened. One time, there's a restaurant in San Francisco that's great called Curry Up Now that has Indian food burritos. They're delicious, but when we had that for lunch one time everybody was exhausted in the afternoon. You see that happening-

Dave: That's MSG. If you go to a traditional Indian household, and living in Silicon Valley it's happened lots of times, if you buy an MSG spice mix they'll be like, "That tastes like restaurant Indian food." They know the taste because that's what the restaurant seems to be doing. When they make the food at home they use higher quality ingredients, but they don't use MSGs. It takes different and there's a little zing, like you'd find in Chinese food.

Jake Knapp: All that stuff, it ends up playing into the work. That's something that … I think the funny thing is that office work is such a dominant part of so many of our lives, but it's been very unexamined how it's structured and what you should do to optimize your performance in the office to make it fun, to make it match why you signed up to do your job. At least for one week in the sprint process we think we can optimize it. The rest of the year you're on your own.

Dave: I appreciated that part of your book. Tell me about sleep since we're talking about personal productivity hacks here.

Jake Knapp: This is not in the book. This is-

Dave: It's just about you.

Jake Knapp: Actually my colleague, my good friend John Zeratsky who's one of the co-authors, he has written a really popular post. You can search for this about how he became a morning person. He's not naturally a morning person, but his wife was getting up early to go to work. He wanted to have more time with her. He figured out all these things he

needed to do at night to get wound down and go to sleep. Then he found that that morning time could be really productive for him once he got into the right cycle.

Similarly I've thought a lot about what's the best time for me to go to bed and how can I make the best use of that time, but with kids waking up early it's not, as you probably know, it's not guaranteed productive time. It can happen in the morning.

Dave: It's so easy to talk about being a morning person until you have kids and then, oh yeah.

Jake Knapp: John gets that a lot. What I've taken from his inspiration is just this idea that if you're really intentional about how you go to sleep and when you wake up … For me, I have to keep it on a very regular schedule. I can't all of a sudden go to bed much later or much earlier or that affects me a lot the next day. I can afford a little less sleep maybe for a night or two, but it's going to catch up for me.

For me the key working time, and this has been really important for me as a writer, is late at night after everybody goes to bed. I know that there's this window between my, maybe 9:30 and 11:00 when the house is pretty quiet and I can write. If I stay up too much past 11:00 I know that affects me the next day. I've got to get to it.

In order to really optimize that time, and actually I was listening to your interview at [Near Real 44:12] He does the same thing. We actually found out that independently we had come up with the same solution which a vacation timer on the internet router that goes off at 9:30 and then you can't use the internet and all I can do is write, I'm not going to be distracted. That's it for me.

Dave: That's really cool. You might enjoy a book by Michael Bruce called the Power of When or you can check out the PowerofWhenQuiz.com. By the way he's just a friend. I'm trying to plug this for any reason other than just it's cool. There's different windows of circadian timing. About 15% of people are night people, 15% are morning people. 55% are middle of the day people and 15% of people, by the way, that doesn't really add up, are just basically never going to sleep well.

He's a sleep doctor, but I found so much knowledge because I had been myself a morning person. I woke up at 5:00 am every morning for two years before I had kids, even though that's totally not right for my biology. I do my writing for my books between 11:00 pm and basically 5:00 am. That is my productivity window. 5:00 am is a bit late.

Jake Knapp: You're a serious owl.

Dave: Exactly, he calls them wolves in his book or lions. He's like, "Night owl's too vague. It need to be …" These morning people, I'm like, "Screw you guys." Apparently we evolved in caves so that some of us would take the night shift, some of us would take the morning hunting shift. Some of us would keep one ear to the ground all the time and the rest would get up and pick tubers or something. I don't know what those day people do.

Jake Knapp: They're important too. We can't dismiss them. The key to all this for me has been this idea of noticing what happens when you do something. When you eat something or when you sleep in a different way, just noticing what happens the next day or what happens over the course of the week. It really affects work. It affects everything about your life, your life enjoyment, people often don't t think about that part of work. I spent a lot of my career not thinking about that stuff. As soon as I lit up to it I was like, "My gosh, this is transformative."

Dave: It's free energy.

Jake Knapp: It's free energy, it's just sitting there. It's funny how much we think about the battery charge on our phones and we don't think about the battery charge in our bodies nearly as much.

Dave: In fact my next book is about mitochondria. They literally are the batteries in your body. It's funny. They're hackable like everything else. What about gadgets? Do you have any tech gadgets for this stuff that you just can't live without?

Jake Knapp: One of the gadgets that I love, and this is … I think this could be transformative for people even in their personal life, especially if you have kids, it's called the Time Timer. it's a clock and it's designed originally for classrooms. It's a clock, it's like an alarm basically, 60 minutes. It's got this thing you pull out, there's a visual chunk of pie basically. You can see this red chunk of pie that gets pulled. As the timer goes down you can visually see time elapsing and when it gets to the end it beeps.

                We use these all the time in the spring to time box activities, but for me it's gotten out of the sprint room and into my everyday life. If I'm sitting down to write I'll set that time for an hour and then it just brings a focus to what you're doing.

                Or if you are going to have a cup of coffee and just relax for a while, but you don't want to go for too long, maybe I set the timer for 15 or 20 minutes and then I don't have to worry so much. It gives me a bit more intentionality about how I spend my time. It's really helpful with kids. I have a five year old and for him to know what I mean when I say it's going to be five minutes [inaudible 47:57]

Dave: It's called the Time Timer?

Jake Knapp: The Time Timer. If you go to TimeTimer.com you can see it. I should say that there is a … We've talked to the makers of Time Timer because we love it so much. There is a sprint version of the Time Timer, but I'm not making a profit off of that. I really just genuinely thing this is a life changing thing. If anybody has kids you could probably see it in your kid's classroom. They're this black clock with a white face and then this red dial in the middle.

Dave: For getting out the door in the morning for school, that would be so beneficial for a nine year old. "Go to the door and put on your shoes," and on the way, I just had to draw for a little while. "Stop it!"

Jake Knapp: The funny thing is I'll see my kids doing that, but I do the same thing. It's so easy for me to see that of course, you don't have a concept of time. I don't have a concept of time. I'll be like, "I don't have to leave to catch the bus for ten minutes, so I'll check my email," and then it's 20 minutes later.

Dave: You're totally right. I'm so happy you told me about that, thank you. Do you have any other time saving hacks that you use?

Jake Knapp: One of the big things that I've done for a few years is on my iPhone to remove email, Safari. I don't have Facebook or Instagram or Twitter on there. That's a big deal for me because I have a hard time with distraction.

Dave: You have a Nokia 9600 that looks like an iPhone?

Jake Knapp: No, I even have the new … I have an iPhone Plus, I am a big iPhone … Because there are all of these wonderful things that you can do on the phone, actually even without those infinite pools of information. The phone has an amazing camera, maps on the phone are amazing, Uber and Lift are amazing. I have a ton of apps on there that I use, but I try to think of it as a tool and if I use the phone I'm using it to get something done. I listen to podcasts on it, I listen to music.

                Those things are amazing. I still feel like I'm living in the future with the phone, but I'm not likely to get distracted by it and get sucked into it. Then I feel a little bit more in control of my time, especially with the family, but even at work.

Dave: That's an interesting experiment. I am going to ponder on that one. Thanks for that idea. I think you're the only person who's talked about that on Bulletproof Radio so far which is really cool. I've got one more question for you before we get into our final winding down the interview. What does your work setup look like at home and in your sprint room at Google Ventures? How do you set the environment around you?

Jake Knapp: I'll start at home. It's not super exciting, but at home I've got a laptop basically and a stack of printer paper and a pen. I like to whenever possible do work or thinking on paper.

Dave: But not lined paper, not a pad, not an engineering's pat. You use printer paper. Why?

Jake Knapp: I just really like simple tools. I'm a big fan of the simplest tool possible. It's very easy to get distracted in trying to get the perfect tool. You get to the end of the day, I am very particular about the kind of pen that I use, but I want it to be simple and good. It's a Paper Mate Flair. I love Paper Mate Flairs, but that's it.

Dave: We're in the same boat there by the way. I despise paper lines on it. How dare you to tell me to color within those lines. If the pen doesn't feel right I don't want to write with it. You are already my kind of guy. You have a laptop, paper and a pen.

Jake Knapp: I have a laptop, paper and a pen. I've got the Time Timer on the desk. I've got this app called Freedom on the computer which I can use to turn off the internet. You can see a

pattern here. I have a lot of self-control problems. I'll be reading Sea Hawks news for an hour and lose an hour easily if I don't shut off the internet. I try to be very focused about a task. When I'm working at home hopefully I'm writing, I'm doing design work, I'm doing something that's pretty focused.

Then at the office in our sprint room, that's also very intentionally designed space. One thing that's funny is if you go into a conference room and even the most cutting edge or forward thinking startup in America, you'll still see conference rooms with conference tables in the middle. It's just this default, "We're having a meeting, we need a table. It's not really clear what the table's for, but we have to have a table."

It makes for strange dynamic in the room. It's not really flexible. In our rooms we have no table. We just have a bunch of chairs that we can move around because at different points in the sprint there's different configurations. Sometimes we are looking on the screen if we're working on the prototype or if we're demonstrating some software.

A lot of the time we just want to be in a circle talking to each other and writing on whiteboards. Whiteboard space is really important and we have as much as we can get. In our sprint room here in San Francisco we've got one wall that's got a couple of whiteboards on it, we've got a couple of rolling whiteboards. That space is so valuable, that ability to write something on the wall so everyone can see it. It's a little bit archaic actually. People are always looking for the perfect software or hardware solution that'll solve their team productivity. A whiteboard that everyone can see is incredibly powerful.

Dave: Do you put on the digital things that allow you to draw and project and all that stuff on your whiteboards?

Jake Knapp: No, I don't do that and I'm sure that at some point that's going to be amazing and that's going to be the way to go, but it is really tough to beat a whiteboard marker on a whiteboard.

Dave: I haven't found a way. I taught for a long time with whiteboards. I have the little special things that hold the pen to try and share with the team and none of it works that well.

Jake Knapp: It doesn't quite work.

Dave: Maybe someday.

Jake Knapp: I'm sure it's getting close. I recently tried iPad Pro which is the best stylus speed I've seen. It was very impressive in many ways, but it still didn't, for me, have that immediacy of paper or a whiteboard. There's also something so powerful about something being physically in the room.

You talk about this, we're basically cave people just walking around in 21st century clothes. It's helpful when you're working together, or even if you're on your own, to have that physical thing, that physical object that you wrote on and your geographic memory remembers, "That's where that information is. I don't have to try to hold it in

my head." As soon as it's in another window or it's on software we forget stuff. It makes it hard to solve big problems.

Dave: Very well said. There's a question that I've asked every guest on Bulletproof Radio. If someone came to you tomorrow and said, "Look, I want to kick ass in everything I do in life, what are the three most important pieces of advice you'd have for me?" what would you tell them?

Jake Knapp: You can only do one thing really well at a time. I think the first piece of advice is to make a list of what's important to you and then make really hard decisions about what the stack rank should be.

Dave: That's a very Google answer by the way.

Jake Knapp: Yeah, right, search results. Search for your life. I didn't intend it that way, but you're right, it is.

Dave: It's accurate, yeah.

Jake Knapp: It's really helpful for me because as soon as I'm trying two or three things at the same time I can't really do any of them super well. That's important. It's also important to think about the ... When we talked about earlier how you spend your energy and being really mindful about when you do this what happens, when you eat this what happens, when you sleep this way?

We all have to keep in mind that we are cave people. We evolved for a world that's 200,000 years ago to be hunters and gatherers. Our office environment, all of our shiny gadgets that we have today that are engineered to distract us, they stand in the way of us having optimal energy, having optimal focus to do the biggest problem solving.

To achieve the things that are going to be on that stack rank list you need the time and energy. It's incredibly important that people realize they're not just ... Like Sir Ken Robinson's TED Talk, we're just brains moving around from meeting to meeting. The whole body matters. Your energy matters. How you spend your time matters. To get really in touch with your energy is important. It sounds silly, but I think that's really important.

Then I think maybe the third thig is to be really honest about what you love and to not be embarrassed about doing the thing that you love. Not being embarrassed about being passionate about what you do at work, doing the part that you care about. If you find out that that's not what your work is about trying to find something else.

It's important for people to I think wear their heart on their sleeve and really live their lives with passion because it goes by pretty fast. When you turn around and look back and ten years have gone by and you've been working on something you want to know that you were giving it your all. That goes back to that idea of the stack rank list, but you've got to make sure you're doing those things with all of your heart.

Dave:	Very, very well put, well considered answers. Thanks for sharing. Where could people buy a copy of your book? I think I saw it at the airport the other day. It's out there all over the place.
Jake Knapp:	It's at the airport, but you don't have to go to the airport. You can get it on Amazon. You can get anywhere fine books are sold, fine business books. It's not in the stores that don't have business books.
Dave:	You're not going to take down Paulho Coelho?
Jake Knapp:	No. There's a few authors that I like. The business book is never going to eclipse John Grisham and Stephen King. You can find it all over the place. If you go to TheSprintBook.com you can also find that information about it. You can consider whether you really want to buy it, you can see a little bit more.
Dave:	The whole title is Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days. I would recommend this, you listening to this, I tend to recommend good books. You just heard the whole interview with Jake and how he thinks. Even if you're not someone who's solving these problems every day in your day life you have problems that probably don't have very good solutions and you have stakeholders and you have people that support you, take it to your non-profit, take it to your school board and you might just be amazed at what can happen. Jake, anything else listeners should know?
Jake Knapp:	No, thanks a lot for listening. Thanks a lot of having me on Dave, I appreciate it.
Dave:	It's been a lot of fun. Have an awesome day, thank you.
Jake Knapp:	Thanks.
Dave:	If you enjoyed today's episode you know what to do. Go out and pick up a copy of Jake's book and while you're at it pick up your next order of Brain Octane, or if you've never had them, the new Bulletproof Collage Bars. I'm telling you, you eat one of these things, you're going to think you had desert and then you won't want lunch because they're so full. They're that powerful. Have a great day and if you love the episode I always appreciate a review on iTunes.