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MATTHEW: Welcome to the "Talks at Google" podcast, where great minds meet. I'm Matthew, bringing you this week's episode with bestselling author, Nassim Nicholas Taleb. "Talks at Google" brings the world's most influential thinkers, creators, makers, and doers all to one place. Every episode of this podcast is taken from a video that can be seen at youtube.com/talksatgoogle. American essayist, scholar and former trader, Nassim Nicholas Taleb, whose work focuses on problems of randomness, probability, and uncertainty, discusses his latest book, "Skin in the Game." Nassim explores the notion that skin in the game is necessary for fairness, commercial efficiency, and risk management and is key to making sense of the world at large. Now here is Nassim Nicholas Taleb: "Skin in the Game."

[00:01:06]
NASSIM NICHOLAS TALEB: Hi, thank you very much. Sir, you forgot your phone. The--I was very privileged to present at Google when "Antifragile" came out in California, and one--it six years ago, and one observation I would make is that the average age in this room is six years older than it was six years ago, okay? So. So I'm gonna talk about my book, "Skin in the Game," and a book is not an idea, and the first thing before we start, I'm gonna discuss how I write, okay? How the whole body of work is organized and what is the "Incerto" and why it's in a fractal--organized in a fractal way. My idea is that if a book can be summarized, two things. One, it will not survive, and the second thing is it's not worth reading.

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You read a summary. So a book cannot be about an idea, no more than a painting is about something other than being a painting. So a book has to be a self-standing item that you cannot reduce and that may communicate some message or not. That's not the relevant point. It's gotta be organized in a way that you read it in a fractal way. So the way it's written, you have sentences, paragraphs, sections, chapters, and volumes, and everything has to be integrated as a whole. So that was the idea--that's the idea of the "Incerto," five volumes on uncertainty, and the idea is to write--you know, for the author to write on his or her own terms. That's my idea of how an author should write, and I do it myself with passion, all right? I write on my own terms.

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The first volume was "Fooled by Randomness," and "Fooled by Randomness" is an interesting book, but nobody wanted to publish it. Nobody could figure out what it was about. It had probability. It had finance, and people tell me, "What does finance have to do with probability?" It had fictional characters, Nero Tulip, and then there's me, and they say, "What does a fictional character or a fable have to do with the book?" They couldn't figure out what it was about. I tell them, "Oh, the book is about philosophy." "Ah, okay, though why is there any finance in a philosophy book? Or why is there a non-fiction--fictional characters in a philosophy book?" So I wrote on my own term. I told them to get lost, and I kept writing on my own term, and in the end the book survived. So what is my modus operandi while writing the "Incerto?" Now, there is a restaurant called--used to be a restaurant called Lindy that closed on the day this was published, all right? It went bankrupt on the day this was published.

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It delivered very, very, I would say--I don't know if inedible conveys the right impression. The--it was absolutely horrible. It was known for its cheesecake, but you know what happens when you get famous for cheesecake. You sort of cut corners, and it becomes inedible after a while. But tourists kept flocking in for a while, until they--you know? So the thing went bust right after my book, and the problem that Lindy--there is something named after that restaurant called the Lindy Effect. Now, what is the Lindy Effect? It was discovered in that restaurant by actors that plays--because the restaurant specialized in giving cheap coffee or undrinkable coffee to unemployed actors. So, you know, and it was--when you're a unemployed actor--actors, by the way, are usually unemployed, particularly on Broadway. So they would sit down and talk about plays, all right?

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So the--they discovered that a play that had been around for 200 days had an extra 200 days of life expectancy, and 1,000 days, 1,000 more days. It was discovered, and it became known as the Lindy Effect, and about every single generation of mathematicians had tried to model it, and each--the models always work, but e--you know, but completely different models, all right? And the last iteration is the one I've been working on, on Lindy Effect. Now, how do I use the Lindy Effect? Well, it's very simple. When I write--when I started "Fooled by Randomness," it's--if you want a book to survive, how do you write? Can someone tell me? How do you make your book survive? What's the trick? If you want people to read your book 10 years or 20 years from now, if you want to have any chance of that happening?

PERSON: Make somebody hate it.

NASSIM NICHOLAS TALEB: That works, but there's got to be something else. What else?

PERSON: Write another one.

NASSIM NICHOLAS TALEB: Sorry?

PERSON: Write another one.

NASSIM NICHOLAS TALEB: Mm, that may work. Show that you--it's like the "Incerto" is not body parts, but it's one whole. Yes?

PERSON: Use old ideas.

[00:06:00]
NASSIM NICHOLAS TALEB: Very good, use old ideas. By the Lindy effect, an old technology has a huge survival advantage over new technology, okay? Like, I'm not saying that the future will not be technological, but I'm saying that what will be displaced is the newer technology, not the old technology. So the way--if you want to write something that can be read 20 years from now or hope to be read 20--make sure it's--could be read by someone 20 years ago. So protect yourself backwards in time. It's much easier than go forward. Had someone read the book in 1960, 1980, would he or she have--you know, would it have been interested in the message, in the treatment, yes, no? If yes, that's exactly how you do it. So it's basically

backwards. People who think that the wor--they have to be technological for their work to survive, it's the exact opposite by the Lindy effect, simple logic.

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And effectively, if you want to predict the future, you can't predict what new will happen. Nobody predicted Google, okay? Your grandparents didn't think that you guys would be wearing gym clothes and, you know, like, with the dog-friendly things delivering sushi for free, okay? So the--and cappuccino, actually a very good cappuccino. I mean, this is--I remember when I first came to New York how it tasted. So your grandparents didn't predict that. You cannot predict--but you can predict something, which is that what is recent will be replaced by something more recent. So it's easier to predict that what is fragile can break and what is--by the Lindy Effect. So it has some--for some domains. It doesn't work for all domains. So now that I--okay, spoke about literature, it's good, good enough? So now we can move on--move to "Skin in the Game," okay?

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Now, "Skin in the Game," I have absolutely no idea what "Skin in the Game" is about because every time I try to explain it, I come up with a different story, okay? So--which means it has a lot of layers. It's multi-layer, okay? The only problem is it doesn't have Fat Tony, my character of previous books, because I killed him at the end of "Antifragile," and I couldn't really--I didn't know how to get him back, all right? I had to--I looked at how Sherlock Holmes came back, and it was anachronistic. So I didn't know how to do it, okay? So sorry. So for this episode of the "Incerto," Fat Tony will be absent. However, his [inaudible] will permeate the book. So if someone asked me, "What is 'Skin in the Game' about?" I'd say, "It's about how Fat Tony learns things, how he would view the world as compared to some bureaucrat." Simple, okay? So that's one approach.

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Now, a little bit of background about how I got--this is, by the way, the German edition, and they ha--they couldn't translate it to German, so they had to translate "Skin in the Game" by "Skin in the Game," okay? So that's German for "skin in the game." So the--my national origin is this, okay? I was a--I was a trader, so I didn't become someone mathematically-oriented early on in life. First I had to become a trader. Now, you learn when you're a trader--first of all you learn that--that mathematicians and people who model are full of S-star--I don't--I never spell it out in my books, so let's use "baloney" as a good proxy. Whenever I say baloney, you know what I mean, all right? So that theoretician and academics are full of baloney because we have a view of the formulas we use that is organic, bottom-up, and this led to "Antifragile," where I was explaining that architects always do a better job when they don't use Euclidean geometry, when they use the rules required by architect, not mathematical top-down rules, bottom-up.

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So--but I discovered probability in a specific way, bottom-up, okay, was different, and then I started getting into the field coming from the back door, and after, you know, w--you know, after you stop trading, I couldn't find anything interesting to do with my life, okay? That was--so I decided to do that stuff here, okay? That's my retirement from trading, and, of course, you know, with a mission. So I came from practice to theory, and usually people go from theory to

practice, particularly in something very technological or something very scientific. But this parallels what I showed in "Antifragile," that--and that we ha--there's so, so much evidence from history that people have the illusion that technology comes from science, okay, when in fact science come from technology more often.

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Except for well-advertised things, most sciences came from technology. In other words, they started doing something, didn't know exactly why it worked, and then someone claimed credit later on, what I call lecturing birds how to fly. So starting working with probabilistic models, and I realized that people who traded have a different view of the world than those who came from theory, which is obvious. As Yogi Berra would say, "In theory there is no difference from the theory and practice. In practice there is," so it's a different mindset. But there's something else I figured out, that those who became practitioners after knowing theory always blew up, okay? So in other words, practice didn't help you if you came from theory, all right? There's something in the mindset of people who studied economics or something that made them blow up, okay, with the exception of mathematicians because they're sort of theory-free. Mathematics is just some kind of list of things that you believe to be true, basically.

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So--and among these things, there is something I call the ludic fallacy. Now, why am I talking about ludic fallacy? Because I--when I googled--actually, you guys just, like, invented the word, "I'm using Google" you know? When I searched for it on the web, okay, the--I discovered this very ugly painting by a fellow called Isaac McCaslin exhibited at the Saatchi Gallery called "The Ludic Fallacy." I don't see the connection with my work and my word, the ludic fallacy, but let me explain the ludic fallacy, and I hope it's not as ugly as this. Ludic fallacy is that the probability we--or the risk and uncertainty that we encounter in real life has very little to do with the things you encounter in casinos and games, and "ludic" is "game--" from game--coming from "games" in Latin.

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That's why I called it the ludic fallacy. So this is sort of, like, preparing the background for "Skin in the Game." And incidentally, the main idea of the "Incerto--" okay, the "Incerto" is--if one asked to describe it, I'd say it's a series of fables. What do I call it? "An investigation of opacity, luck, uncertainty, probability," la, la, la, okay, "In a form of personal essays with autobiographical sections, stories, parables, philosophical, historical, and scientific discussions." So basically, it's a mishmash of things are--that turn out to be readable for some, okay, or for--at least they pay the price, okay? Whether they read it or not, it's not--you know, I get the same. The money doesn't change, okay? And--but there is one point about the "Incerto," pervading the "Incerto," and I realized too late, you know, to put it in the book that there's a lot of uncertainty in the world. There's a lot more uncertainty than you think there is.

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But the way to deal with such uncertainty is unique. So in other words, there is a lot of certainty about how to act under conditions of uncertainty, you see? A very simple example, if you receive from ar-Raqqa, which is in Syria and ISIS, an ISIS thing, a package, all right, and written on it--you know, it originates in ar-Raqqa. This is a package. What do you do with it?

Do you open it? No. So you have a lot of certainty what to do with that package, all right? So on the--the more uncertainty there is, the more certainty there is in what to do. If you really don't know if the plane is robust, you don't get on it, okay? So the more uncertainty about the plane, the more certainty about not getting on it, okay? So--and this is sort of, like, what permeates the "Incerto," but I couldn't put it in concise terms because it takes a while. It takes me 25 years to bring an idea to its summary, you see?

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So maybe, you know, if you invite me to give another talk here in five years, I'll be explaining "Skin in the Game." So the--so now, simple application of "Skin in the Game" to make you really realize what's going on with our knowledge of the world without skin in the game. I haven't explained yet skin in the game. This is commonly known as a restaurant, okay? A friend of mine who, like me, was a trader, he was a former partner at Goldman Sachs, an oil trader, so he talks like oil traders, had gotten a very bad idea to invest in a restaurant business, and if I have one piece of advice, in case I die here, just don't invest in a restaurant business. Don't open a restaurant, okay, unless you really want to lose your money slowly, all right? Or sometimes quickly in New York City. So he discovered the following, that the restaurant business has a lot of prizes, the best sushi in lower Manhattan, the best sushi, you know, with music, the best sushi without--whatever it is.

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So we have all these categories, okay? And then there is a best restaurant in that category, all right? The best rare steak, the best T-bone, whatever, west of the Hudson. You have all these categories, and they're prizes, actually. Now, who decides on these prizes? Journalists and other restaurant owners. There is a gala dinner where they give these prizes, and guess what? Most restaurants who got prizes were closed, were shut down, all right, were shut down, no--you know, out of business, okay? So it tells you the following. Any business where you're judged by your peers and not by some contact with reality is gonna rot eventually, all right? That's why companies go bust. This is what happens. Now, this person, I think is a plumber, right?

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Are plumbers judged by other plumbers, or are they judged by--okay, they're judged by other plumbers. No? No, they're judged by you. You're the client. Okay, very good. So if you--you know, they may love you, other plumbers, but that's it. So any business that--where you have contact with reality in the form of your client judging you, okay, will--has more, you know--has fewer expert pro--what I call expert problem, which I outlined in "The Black Swan," and expert being--I used to call an expert an empty suit until I discovered that a lot of them actually don't wear suits anymore. Time have changed, so I have to rename it to something else that's not Lindy, you know, the--so there's a lot of classes of people. There's a tableau in "The Black Swan." This is who's an expert? Weather forecasters, they're experts. Climate, hmm, hmm, we don't know, all right? Accountants, they're experts, okay?

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If they can add and subtract, you know, you can pretty much have the evidence that they're pretty much--and follow the rules of--various accounting rules, so they're experts, no? How about financial economists? Not experts, okay. So but--so you have--this is actually very

simple. No contact with reality, no feedback from reality. So that's "Skin in the Game." That's the epistemology of "Skin in the Game," and you can apply it to a lot of things. People in policymaking, they're not experts. Anything macro, it's much easier to macro BS than micro BS, and that's the motto of the book, okay? So with macro BS, you don't see the feedback. You know a dentist will be an expert, but an epidemiologist will not be an expert, okay, because there is no feedback. That's "Skin in the Game." And this is very simple Darwinian survival, simple. I mean, it's not too complicated that it's Darwinian survival because it's very simple. You have a selection process that, you know, you survive, right?

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Like, in nature you have fitness. So we have all of these people who reject the idea of intelligent design, which they interpret, say, in a naive way, first-order way, not as a metaphor. But they want to be--like academics, they want, you know, no contact with reality. They want just rationalism to make things work. It doesn't work that way. I mean, you cannot believe in God when it comes to academia but disbelieve in God outside. You have to be consistent, okay? So--and this, of course, you remember this cartoon which violates my idea of the pseudo-expert because they say, "These smug pilots have lost touch with regular passengers like us. Who thinks I should fly the plane?" So the point is what we're observing is not a riot against experts. It's a riot against a certain class of experts. I call those the IYI, Intellectual Yet Idiot, because of lack of contact with reality.

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Anything, like academia, that doesn't have contact with reality, it collapses. Academics, are you judged by other--by peers, Pasquale? Who judges you? You're not gonna--"Oh, we're both in the--we're not in the same department." Who judges you, your peers, other academics? Well, there's an expert problem, okay? So if you're not judged by PNL, we say, or reality or something like that. And this--yeah, so the pilot definitely has to be an expert, and there's a very simple reason. What happens to pilots who are pseudo-experts?

PERSON: They die.

NASSIM NICHOLAS TALEB: There we go. There we go. They died, and their passengers died. So basically, we have Darwinian--it's called Darwinian, you know, the school athlete, survival of the fittest, or survival of the--of the non-experts, okay? And then, of course, you end up having fields such as--this is the mind of an economist.

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That's the clarity of mind on a good day of an economist. Why? Because there's no contact with reality. You don't have to be consistent. So you can have the Nobel Prize given in ec--pseudo--the pseudo Nobel in economics given to two people saying opposite things. You can't say--I mean, you can't do that in physics. We say, "You know, this is--you throw the ball. It goes up, and then it goes down." "Oh, let's be hedged. Let's give the Nobel to both." Because the problem is you end up with a mind like this if you're judged by your peers, not by experts, okay? So now the concept of symmetry, so let me--let me do the following. Before I get into Hammurabi, let me describe Wall Street. Hopefully this will have a pointer. No, no pointer, okay. So there's something I call the Bob Rubin trade, the absence of symmetry.

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And again, "Skin in the Game" is about certain classes of symmetry, and we're gonna see the--where the name comes from and the link to the pseudo-expert. The fellow was chairman of the--now to be called chairperson--of Citibank, or Citicorp, spent ten years there, and he received $120 million in compensation, okay? And when the crisis happened ten years ago--I don't know if you were--many of you were born, you know? Many of you at least were--were, you know, conscious of what was going on. So ten years ago there was a crisis, so--and then he said, "Some very unfortunate, highly unexpected event, often called black swan, for which we apologize profusely, but we are excused, as nobody could predict these things happened," okay? No, very nice. He acknowledged that it was a black swan, named after a very, very stubborn author, okay?

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Okay, but sometimes pleasant if you have coffee with him, you know? Not--but stubborn, definitely, intellectually, all right? So what's the problem there? Let's think about it. He ma--you make the upside when you're right, and when you're wrong, who pays for the losses?

PERSON: [inaudible].

NASSIM NICHOLAS TALEB: Sorry?

PERSON: We did.

NASSIM NICHOLAS TALEB: We--you did. Spanish grammar instructors, a recurring person in the book who pays for losses made by others, yoga instructors, Google sushi chefs, right, okay, and so on, okay? They paid the price, directly or indirectly. So what we have here is a violation of a law that effectively is the first law extant, Hammurabi's rule, and it says the following.

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If you--if the architect builds a building and the building collapses and kills the owner of the building, what should happen to the architect? He should be put to death. I mean, it was Babylon 3,800 years ago, so they were not--you know, didn't have a very sophisticated legal code, all right? And so--and then, of course, if it kills the firstborn, the firstborn son of the architect is put to death. So they're really--they're looking for symmetry. Now, what was the idea of Hammurabi's code? It was not eye for eye, eye for eye, limiting damages, you know, and making things balanced. No, it was that you cannot walk away from risks you've created for others. You should own your risks. That's the idea of Hammurabi's code. You cannot have civilized society unless those who create risks aren't also bearers of that risk.

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So when you get on a highway, you know, on the Hudson, you know, you can, you know, get drunk or whatever, something that people do when they want to have fun or want to become reckless drivers, and become a reckless driver, go--the best way if you want to kill a lot of

people is you go against traffic, okay? 150 miles an hour against traffic. Why is it that we don't see, we don't hear about these people?

PERSON: Highly symmetrical punishment.

NASSIM NICHOLAS TALEB: It's a highly symmetrical punishment. They're already dead, okay? If you--visibly, you know, if you have these traits, you're gonna--you're more exposed--you're exposed or even more exposed than regular people. So at all times in history we've had that symmetry prevailing. We can look at it, operational symmetry, but let's first look at it from a moral standpoint, okay?

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You've heard of the golden rule, do unto others what you want them to do to you, which I--in fact, I find a little intrusive because say I like raw Lebanese meat. Lebanese could be--I'm not gonna force you to eat it, all right? So there's actually--and say I'm a bureaucrat and like this kind of stuff. I don't force you. There is a much more robust silver rule, don't do to others what you don't want them to do to you, and effectively, you can't have civilization without the silver rule becau--and also--and unfortunately, people don't understand that it extends to international affairs, the silver rule. How? Treat other countries the way you would like other countries to treat you if you were weaker, okay? And there is a fractal aspect of the silver rule. Counties should treat other counties the same, you know, and so on, so that kind of symmetry. That's a moral symmetry.

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And of course, it kept going. That rule kept going and evolving, sometimes in the wrong direction. Kantian, I talk a lot about Kantian universalism. It's not practical because the universal kills the particular, and it's not fractal, okay? It becomes anonymous. You have to layer it, and if we have time, you know, we can say why, but all right. So this is--the golden rule came across ethical systems, religion, and the last iteration is--is with the--with Kant. But basically, the most--the most robust is the silver rule. You want, as a business and anything, just treat others like--as the way--you don't wanna harm them, okay? You wanna treat them--not treat them the way you wouldn't like them to treat you, okay? It's called the negative golden rule. And, of course, it has a lot of--you know, we can talk in the small and large. This is called hidden symmetries in daily life, okay?

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And something quite obvious, as obvious as the cook should eat his or her cooking, okay? It needs to apply everywhere, and these rules were--did prevail until recently, and we're gonna see where they stopped prevailing. But they prevailed for a long time, until, say, maybe a generation and a half ago or two generations ago. So the--and it was quite sophisticated, how merchants should treat other merchants, okay, how you should have stiffer ethical rules, more equity within a group, in-group then out-group, but still have the same out-group. And actually, it's much more workable within communities, outside communities, and--now, one thing about "Skin in the Game," "Skin in the Game" is interested in two aspects of social thought that are not discussed. The first one is dynamics and how there's--things happen over time, how systems--what rules should be applied over time.

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It all takes a snapshot and, we'll see how, why, and the mistake. And the second one is scaling, that things change in scale. A small hamlet will not become--you cannot turn the dynamics of a hamlet into a small village, and a small village cannot become--is not--you know, cannot turn into a very small town, okay? You have scale, some kind of a scale transformation that happen when groups become larger, and that's mathematical, okay, and at many levels. For example, I can predict how each and every one of you behave, assuming I could do that, but as a group, I can't predict the behavior as a group because a group is a different animal.

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Likewise, we know that if people are--have all these ethical traits individually, when you put them together in groups of 250, they will be very ethical in preserving the commons, like fishermen not overfishing because, you know, harming future generation. But when the group becomes 200,000, it doesn't work, see? So that's one aspect of scalability that has a political implication. You can--and both. It is very, very compatible to be a communist in your village and libertarian at the federal level and Democrats for the county while being a Republican for the state, okay? It's perfectly compatible. You cannot have a political opinion without attaching a scale to it. So communism can work in Singapore, okay, because it's small, much better than China. Look at the success, okay? Or s--that form of socialism, or you can--if you ha--you cannot--you should separate the political label from the scale, okay?

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So--and likewise in commerce, okay, if you don't have in-groups and out-groups of different layers, things don't work because you don't have individual and then the rest of the world. You have layers. You have the individual, the family or whatever, the finances of her family, the tribe, whatever he or she defines as tribe, and then you go up the layers, and that works a lot better because the tribes deal with one another. The dynamics of tribes dealing with one another need to mirror the same symmetry, and it looks like--I mean, the ancients were conscious of it. They understood scaling. They understood that you can love your town when it's a small town, but it's not the same love when it's a large town, okay? The ancients just knew that. So this is the idea of scaling, particularly with skin-in-the-game changes. Now, risk as virtue are the--I don't know how many Roman emperors we've had, close to 300. How many died in--of natural death?

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Assuming those really died of natural death, I mean, we don't have modern autopsies. How many? 1/2, 3/4, 100%?

PERSON: [INAUDIBLE]

NASSIM NICHOLAS TALEB: No more than a third, all right? And we're not sure about that third, and, of course, had they lived longer, had they not died of pneumonia or something, all right, they would have been killed by someone, right? And then this is a picture of Valerian, the Roman emperor who was captured by the Persians and used as a footstool. So these are the risks you get for being a Roman emperor, okay? It's risky to be a Roman emperor. Julian, who's

my hero in a book, Julian the emperor was known as the Apostate, okay? He died at the Persian border with a spear in the chest, okay?

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He didn't even have an armor. Now, this contrasts heavily with warmongers today, warmongers who are sitting in an air-conditioned office in Washington. Can we name names on Google thing? They can sue me directly, okay? In the book I name names, like Thomas Friedman and all these neo-cons. They can cause wars in Iraq, devastations, hundreds of thousands of people killed, maybe more, financial, you know, trauma. What price did they pay? Zero. So let's merge ethics and epistemology. If they had to pay for their mistakes like the driver who disappears--the system don't learn because people learn. Systems don't learn--system learn via the survival mechanism by eliminating those who don't have that trait, so you--systems--actually, in biology, systems learn at a cellular level.

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It's not, like, your knowledge that changes. So of course you're gonna have a lot of warmongers today. This is a danger for humanity. Now that--and they're gonna use any excuse to warmo--become warmongers, okay? And then even will get leftist ideas, okay, because our merchants know how to play the system and can ta--or humanitarian war, humanitarian war like in Libya, change of regime, all right? "Oh yeah, but look, we have democracy," right? You kill everyone and say, "Well, look, their cholesterol level improved., so I--" so the--if you use those metrics. So the point is that has--this is very recent. Hannibal, first in battle. Napoleon had to be more exposed than other soldiers, and the English feudal system, the lord, you're a lord because you're a lord, because you're--you take risks for others.

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You trade risk for social status. Very few societies had people of rank make decisions without being themselves exposed to the harm from the decisions at all levels, economic, financial, everything, physical. Now comes the notion of risk as virtual. We're not stupid. We have some organic understanding of these things, and the peacock, you know, the Zahavian peacock story is that the peacock, why does the peacock has a big tail? Absolutely useless. It's precisely because it's useless, and the peacock can maintain such a tail, it shows some kind of--some kind of biological fitness, okay, to be able to carry such a tail.

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Now, the peacock, the Zahavian peacock is a nice, you know, framework, what we call the Zahavian trait, a superfluous trait but that gives you definitely some kind of fitness. People who have scars, people who have scars command respect. People who have--who take risks command respect. People don't realize it, but that's what's happening, okay? Which is--it's a very bad idea for political parties to propose candidates who are lifetime bureaucrats, you see? And people detect it. Like in Switzerland they tried to pass a law to limit the income for chief executives, but nobody thought of limiting the income of entrepreneurs. Why? An entrepreneur takes risks. Chief executive is someone who works for the system and making 75 times what an employee makes. True, the law didn't pass, but that's the idea behind it.

[00:37:02]

So the--and this explains Christology. Think about it. Why is it that we have the Trinity, which absolutely makes no sense to anyone outside the Christian religion? Why is it that we had to keep going back to the Trinity? Fights, arguments, debates in Greek that nobody can understand because it's translated into Latin to be the same word, they kept going back that the Christ cannot be God. Think about it. If this person had a parachute, if an acrobat had a--walked in with a parachute, would you pay for that? It'd be like a video game, all right? So the whole thing is you signal by risk-taking, and the idea of Christology is to really put skin in the game in a deity, right? So he's not God because he had to suffer.

[00:38:02]
If he didn't suffer, it would be like a tomato, you know, for an actor in a movie, or sau--tomato sauce. It's not--it doesn't work that way, you see? So that's the idea of signaling via risk-taking, that you are in fact exhibiting virtue via risk. And again, now comes virtue. Every time I get into a hotel room, I get into--I don't know if you've seen me angry on Twitter. I'm like that in person when I'm angry, you know? Okay. What sets me off is going in, "Save our planet, the earth [inaudible]." What is--is this virtuous? I think it makes--it would make much more sense if they told us, "Listen, you know, it's good for us if you save--if you save the towels, it's good for us, bottom line," okay? So it's like, don't invoke the planet becau--as a--you see?

[00:38:58]
So this is cheap--cheap virtue signaling is--actually, for the self-serving way is what we're getting into. True virtue is risk-taking, Socrates. That's what we try to impart to the Christ. He really suffers. He can't be God. You know, he had to be human to suffer. Socrates, standing up for your ideas. Journalism, when--you know, when you have an oppressive regime like in Argentina or in Latin America, you know, during these dark periods, that is risk-taking. And effectively, the only way I can claim that a person, say an entrepre--that a public intellectual is not a BS vendor is he or she takes risk with every statement. So people ask me why am I insulting people directly in my books? Risk-taking. I want them to sue me, that simple. It's not like I have nothing. I've never met Thomas Friedman.

[00:40:01]
Actually, I did once cross--I had already insulted him in Davos, and it was an eye contact that was, "Okay, let's--" but that--never met many of the people I--Rob Rubin, had never met him, okay? But I wanna take risks. This is--this is the idea. I'm signaling. Why do I curse on Twitter? Not in my books because I don't like the aesthetics of a curse. Because risk-taking, you see? So that's simple. Now let's continue. People ask me, "What should I be doing?" okay? "I'm 20, and, you know, I wanna go somewhere." Start a business. Take risks now because everybody wants to work for a GMO to improve the world, and you end up like the UN offices, manufacturing problems, so you hire more staff who fly business class and have an apartment in Geneva, that kind of stuff. Start a business because we're tired of people who want to work for NGOs, okay?

[00:41:02]
Start a business. Create jobs for others, okay? And do not rent-seek. Do not be in rent-seeking. Have some skin in the game. Just like, you know, your grandparents, probably, your grandf--one of your grandfathers was, at age 18, disembarking enormity. They took a lot of risks, these kids, for a 18-year-old, okay? Take some risk. Start a business. Now, finally, when it comes to

inequality, there's something about inequality that's Ms.-measured, and I said we have to use dynamics, not statics. People tolerate inequality if the person at the top got there via risk-taking, not rent-seeking, and, more significantly, if he or she has a chance to collapse, you see? The company--and bad news for Google. I mean, Google is definitely [inaudible], but good news for humanity and bad news for Google.

[00:42:04]
When I was an MBA student--I'm very, very old, as you can see. I had hair then. The company spent about 50, 60 years in the S&P 500, so it was stable at the top. How stable is it today?

PERSON: Less than 30?

NASSIM NICHOLAS TALEB: Less than--

PERSON: 30 years.

NASSIM NICHOLAS TALEB: Keep going. Less than 30? Keep going.

PERSON: 10 years?

NASSIM NICHOLAS TALEB: Sorry?

PERSON: 10 years?

NASSIM NICHOLAS TALEB: 10 years.

PERSON: Is this all?

NASSIM NICHOLAS TALEB: 10 to 12 years. I think maybe even it's dropping, all right?

PERSON: It is dropping, but I do think it dropped [INAUDIBLE].

NASSIM NICHOLAS TALEB: You can't measure because there's standard error in measurement, okay? We have a big statistical expert here, my co-author, who will tell you that, but we know that it's definitely much lower, and you can't take fluctuation. But that basically tells you that the way from dorms to Google can only be short.

[00:43:01]
These guys were in dorms, no? To Google can only be short if the road from Google to dorms is equally so, okay? You had--you need short route from the top, okay? And in fact, if you have a short route from the top, it doesn't take long. Sears, okay? So we have--and so I don't mind inequality, this measure, and actually, even in inequality people say, "Oh, look at Europe. They're have less inequality." Fuck those--what do you mean, less inequality? Sorry I cursed in the clip. So they have in Europe, if you take---okay, let's take a new S. 1982 versus 2012, Forbes 500 billionaires, or rich people, the richest. 10% of the families across the list. In Europe someone did Florence, 1580. It's the same families are today--as today.

[00:43:56]
And in--yeah, and in France--I have two more minutes for the lecture. And in France if you--if you study at, say, the equivalent of Harvard or something like that, then you're done, okay? You're gonna run the big corporations, and they have a low bankruptcy rate. So you need a high bankruptcy rate in a system. Don't shoot for equality. Shoot for a high bankruptcy rate. So people have the--also the illusion that you want opportunity, means people to be able to go up. No, you want people to come down, okay, from the top. This is what you gotta focus on in society. This is an approach, a dynamic approach. We spoke about scaling. This is dynamic approach to social problems. Now, epistemology, experience, to explain, I'm gonna explain a couple of weird things. We have a minute. There is a story in both "Antifragile" and "Skin in the Game" of a fellow who lost a million dollars trading green lumber.

[00:44:54]
He knew everything about lumber, green lumber, everything, the economics, the mathematics, the statistics, collected data, everything, and lost a million dollars and wrote an account, "What I Learned Losing a Million Dollars," and he reports that there's a fellow, a pit trader, you know? It's like--I don't know if you've met pit traders, but they look like pit traders, and they act like pit traders, right? And these g--the fellow is making tons of money with green lumber and had been doing so consistently. Now, the narrator discovers that the fellow made a lot of money on green lumber, didn't know--he thought it was lumber painted green. He didn't know it was freshly-cut lumber, okay? So is it that that person--this is very high econ argument--knew nothing about green--no. He knew a lot of stuff but not necessarily what you think from the outside is valuable. So with that one, you have skin in the game, you tend to know a lot of stuff about the business, about things, all right, that you wouldn't guess you need to know from the outside.

[00:46:01]
And this is very hard to explain, and this is why machine learning is successful, because machine learning has no ideas. It doesn't learn--it learns from the inside, not from the outside. And then finally--we have one minute--when you have--in a business where there is skin in the game, say surgery, you go to a hospital, and because--to install the--you want a brain surgeon to install the next Google product, you know, which helps you solve, you know, differential equations. You install it. You put it in your brain. It's a very delicate operation. Many people have died, you know, all right, on the--during it. So it's a very dangerous operation, okay? There's a choice between two doctors, one doctor who looks like the Hollywood version of a doctor, of a surgeon, well-mannered, well-educated, every--and then the other person looks like a butcher, and these two have the same track record, have the same rank at the hospital, okay? Which doctor would you pick? Yeah?

[00:47:03]
PERSON: The butcher.

NASSIM NICHOLAS TALEB: Sorry?

PERSON: The butcher.

NASSIM NICHOLAS TALEB: The one--because this person had to overcome--because not judged at all by anything external, nothing, and also peer-reviewed, judged entirely by the track record, you see, by the performance. You have to overcome all this perception bias to get there. So this is the point. A field that has skin in the game, the cosmetic, beware of the cosmetic. Likewise, you want to fund people? If they know how to write business plans, no, okay? If they make money at something and you don't understand how, hire them, all right? It's the green lumber problem. So I'm gonna stop here because, you know, we can keep going forever, and the--for the Q&A. So thank you for listening to me, and I'm honored to be, again, here at Google six years later, and hopefully in six years you'll still be around, all right? Thanks,

[00:48:01]
PERSON: Do you want countries to force mandatory participation in armies, like conscription, so will be less wars?

NASSIM NICHOLAS TALEB: Okay, the--exactly, the other thing is people thought that it's a pacifist approach to not have, you know, mandatory service. It's the worst possible thing you could do if you want to avoid war because you want people who vote in Congress for wars to have children or grandchildren or themselves as part of the--you know, be in danger themselves. Definitely it would make people a lot more peaceful, a lot more peace-seeking.

PERSON: Do you have any practical tips for the individual investor for creating a sort of barbell strategy in a portfolio? I know, like, buying T-bills and tips are maybe a good idea for the conservative side, and maybe bankrupt--

NASSIM NICHOLAS TALEB: Okay, I have--okay, so the whole thing is--there's a slide here. I'll talk about path dependence to make sure that survival comes first and everything else later.

[00:49:00]
Take all the risks you want, but make sure you're there tomorrow. It's a different class of risk-taking than the one that takes risks for a small return but can blow you up completely. It's a lot la--so last chapter of the book, the Logic of Risk-Taking, it's actually a book--should be a book on its own, but because there's the "Incerto," you know, I kept it in there because of fractal nature of the "Incerto." Just if you don't want to read the book, you don't like reading, just read that chapter, the last chapter of the book.

PERSON: Thank you.

NASSIM NICHOLAS TALEB: Yes?

PERSON: Thanks for coming, and thanks. Because of you, I started doing dead-lifting.

NASSIM NICHOLAS TALEB: Ah, okay, yes, all right.

PERSON: So that has been great.

NASSIM NICHOLAS TALEB: For the skin in the game, yeah. So skin in the game, let me tell you something about dead-lifting. I was--no, I was--I have this motto, "Skin in the game," that you should never tell people what they should be doing. You should tell them what you're doing, okay? And I had a back injury when I was writing "Antifragile," about seven years ago, and I cured it by the dead-lifting, so--and then I started discovering the value of intense heavy weight on humans, like the bone and stuff like that, and the reason I talk about my own dead-lifting is only to say that I have skin in the game.

[00:50:06]
I'm telling you I have the injuries of a dead-lifter. I'm telling you--so I bear the risk of my advice. Great, thanks.

PERSON: Yeah. So I had a question, actually.

NASSIM NICHOLAS TALEB: Yeah?

PERSON: Like, what happened--you said, like, a generation or two generations, since the last couple of generations we've seen this prevalence of BS vendors, perhaps?

NASSIM NICHOLAS TALEB: Yeah, BS vendors, yes.

PERSON: What exactly happened? Like, what--

NASSIM NICHOLAS TALEB: Well, I mean, this may be a transitory phenomenon. It's very strange because people don't underst--don't realize that I'm writing "Skin in the Game" now as an outcry against BS intellectuals who actually are pseudo-left, typically. When they're on the left, they're pseudo-left because they really have all the traits of non-left. They want identity politics. It's actually a form of racial segregation, in a way. You know, the way they define themselves as--it's a white supremacist type thing. Well, whatever, the--everything they do is backwards, okay? But then there is a real left.

[00:50:57]
So there is a book that came to that effect called--by--in France in the 1900s, early 1900s, and it's called "The Betrayal of the Clerks" by Julien Benda, who really said the same thing, and I realized that for a long time, people kept citing Benda about what they call faux, un-sincere intellectual, faux intellectual, and insincere intellectual for me, like, I have--I say--I name Susan Sontag. Susan Sontag, as an insincere intellectual, had--one day I was--the first time I ever, you know, was ever interviewed in my life, you know, "Fooled by Randomness" was out. I was in a radio station at the BBC in the office in New York, and she had developed interest. This book writes on randomness. "Oh, very interesting. Oh, you're in the markets? I hate the markets, especially--" whatever. This is going on and on and on and on and on, okay? So I tried to explain to her it's not rent-seeking, but she treated me like I was crap, and she left as I was mid-sentence, as I was mid-sentence just to humiliate me.

[00:52:00]

Okay, so I said, "Okay, so she probably lives in upstate New York, Woodstock, and the farms are all vegetables, and she wants to live outside the market system." And then her obituary came. She lived in a $17 million mansion here, around here, in Chelsea. So you realize, you know, that's the absence of skin in the game. If you--it's fine to be against the market system, but please live in a commune somewhere on a kibbutz in upstate New York eating radishes and stuff, and that's fine. I have respect for that, okay? But I don't have respect for the caviar type, you know? And then you extend the caviar intellectual to a lot--many, many, many things, okay?

PERSON: Thank you.

NASSIM NICHOLAS TALEB: You're welcome.

PERSON: Hi. I really like this idea of skin in the game. I think we should all adhere to that, and so as an example of that, you mentioned the save the planet, save the earth with the towels thing?

NASSIM NICHOLAS TALEB: Yeah.

[00:52:59]
PERSON: So indeed, that could have been put there for one of two reasons, as I see it. It could be that they had nefarious reasons for doing so, they wanted to--they actually knew that it didn't work like that, but they put it there anyway because it might help their bottom line, appeal to hotel guests and so on. But it could of course also be because--out of ignorance, right? It could be that they didn't know. Many people don't know the details of this. And as another example of that, the peacock, okay? And I say this as an evolutionary biologist. The peacock's tail is not useless. I just wanna say this once and for all because people always bring up this damned example. The peacock's tail is not useless. If you see a peacock in a zoo and a little child runs over or a dog runs over, they might lift their tail. It's not a tail, but they might lift those feathers, and that scares off everyone from dogs to children. That's the purpose of that, okay? Just wanted to point that out.

NASSIM NICHOLAS TALEB: Okay, so yeah, but let's say the peacock tail is useless, but there exists something called Zahavian signaling, which is this thing.

PERSON: There is lots of signaling that is costly signaling.

[00:54:02]
NASSIM NICHOLAS TALEB: Exactly, yeah, costly--

PERSON: And sexual selection, indeed. Also in this case of the peacock, does have a large effect, but it is not a useless thing. It is not something that only inhibits it. It actually scares away predators.

NASSIM NICHOLAS TALEB: Okay, all right.

PERSON: Thank you.

NASSIM NICHOLAS TALEB: Thanks. Yes?

PERSON: Hi. I am curious about how you synthesize ideas. Like, are there any personal habits that you could share? I don't know, like, how do you decide, say, what to read to broaden your horizons, especially when there is so much noise out there?

NASSIM NICHOLAS TALEB: Basically, there is a simple rule. There is a simple rule. If something bores you, close the book. That's it. Go to something else. It's not that--if you have to also say--if you want to read a lot of stuff, it's not that you need to stop reading because you're bored. You're bored of that specific author, and then little by little you figure out how people get bored with boo--I mean, most books are boring, and most books don't survive, and you can tell that books that are boring don't survive. I mean, people may buy them for a while just to show off with them, but--so if something bores you, skip it.

[00:55:00]
Don't do anything boring. And, you know, after a while you develop a technique to read a lot of stuff.

PERSON: If I can ask a quick follow-up?

NASSIM NICHOLAS TALEB: Sorry, there--because there are more people, yeah. But go ahead.

PERSON: If you have a group of experts or pseudo-experts that has no skin in the game, do you have a rule of thumb on how long they can last before it collapses?

NASSIM NICHOLAS TALEB: Definitely. This is an excellent question because no system--as I was saying, those people, for example, trying in universities now to create all these--recreate classifications that didn't exist before, okay, can it survive? No, because you cannot--sometimes you read something that's completely BS, that it takes a lot more energy to displace BS than truth. It's the opposite. Truth is a basin of attraction. It has been over history. So eventually things will revert to the truth from wha--there is also a mechanism I call the minority rule that make things revert to the truth.

[00:55:58]
But in history, unless the truth is not helpful for survival, you see, the--it will--you know, unless it's really not helpful, it's guaranteed to prevail eventually. Yes?

PERSON: This is sort of the follow-up on the question which was just asked, but, you know, you're not a fan of academia because, you know, of all the programs it has, but if you applied the Lindy Effect, like, look at Harvard, right? It is 300 years old.

NASSIM NICHOLAS TALEB: Yeah, but Harvard today--okay, so I'm shortening to explain this. Say Harvard today, as Lindy, has survived so long. Several things, number one, Harvard

today is not the way Harvard was in the past, and the purpose of going to Harvard in the past was not the same purpose of going to Harvard today. People have the illusion that universities started as a place for people to go read interesting books and then go home, all right? That was the university. It was, you know, the free people's liberal arts, the free people's art.

[00:56:58]
So it was, like, organized not as a professional thing, you know, like medical school, like a county school, like a vocational school, but it was organized as a place for people to seek knowledge. There was maybe some of the ideology but not much, okay? And then--but look at universities today. Universities today, I mean Google now no longer hires from universities, right? So the--and in the past most people didn't go to university. People went and studied a craft or a trade, typically via this Lindy--via a--the apprenticeship mechanism, and this is the apprenticeship mechanism, okay? And still in Germany today half the people go through some kind of apprenticeship. So the--we have enough money to maintain prestige goods like Harvard, okay, and Vuitton bags, but it's not--you know, the society doesn't--doesn't need these universities, and they themselves are pricing themselves out of the market because of--they're turning into selling ideology rather than selling--and that's theory.

[00:58:02]
For example, to give you an idea, I've run into French--professors of French literature who spoke broken French because they speak--and then they have prestigious position because they write on some post-colonial aspect of the identity of this, of this, and the French mot passant, and that's how that--that's how they judge one another, you see? Two more minutes, okay. Two more questions, okay. So this is why we've gotta mutate to the apprenticeship model, back. Yes, go ahead.

PERSON: Sure. I hear--I heard you criticize the Iraq war as well as the Libya intervention, so I'm curious to find out from you when intervention is justified and your position on the non-interference like in Rwanda.

NASSIM NICHOLAS TALEB: Okay. If you own it--very simple. To shorten, it is justified if those who advocate for it are willing to pay the price if they're wrong, okay?

[00:58:59]
If you want--you wanna settle--you wanna in Iraq in case the thing goes wrong, be my guest. Go ahead, and we're gonna listen to your opinion. But you got a price to pay if things go wrong. You wanna settle in Libya? Go ahead. Today Libya has a slave market, okay? Don't tell me its'--you know, that your thing was harmless. It's called iatrogenics. People should always pay for the iatrogenics.

PERSON: What's the price though? Like--

NASSIM NICHOLAS TALEB: Well, some kind of price. For now it's zero price. Yes? That's the last question, I guess, because--yes, go ahead?

PERSON: Thanks.

NASSIM NICHOLAS TALEB: Yeah.

PERSON: If you read things like "The Federalist Papers" that framers go out of their way to talk about sort of decentralizing power and how important that is, and that's, like, a big reason why the U.S. is still around, do we need something similar for corporations as well? Because they have a tendency to really centralize their power. Or do we just need to leave it to markets to kill companies like that?

NASSIM NICHOLAS TALEB: Okay, corporations, no, it's best for corporations to die and be replaced.

[00:59:59]
I mean, you're not gonna die if your corporation dies, okay, or it mutates into a different group or spin-offs and stuff like that. But if I--you know, visibly, if I want to--if you wanna come back to this world, come back as a decentralized system of cockroaches rather than elephants. Your survival as a species is gonna be longer, you see? So the corporations, basically, the minute a company joins the S&P 500, it looks like the--you know, like, started commit--the suicide process, okay? And, of course, companies that don't join the S&P 500 have a huge survival advantage, what shows from the data, family businesses, stuff like that. So it looks like when you join the market, become large enough to have investors, your policy is gonna be driven by the 28-year-old journalist major who joined "The New York--" at "The Wall Street Journal" who's gonna comment on you, all right, and call up Steve Jobs and bully him, for example.

[01:01:05]
This has happened, okay? So this is what's gonna happen. All the analysts, the MBA from Wharton--some of my classmates became analysts at Goldman Sachs and then call up the chairperson of a company and bully him or her, okay? So this is the pr--so the stock market accelerates the process, and then we have no evidence, we've seen no evidence of economies of scale for being large. As a matter of fact, there are these economies of scale that are discussed in "Antifragile." Thanks for inviting me back.

MATTHEW: Thanks for listening. If you have any feedback about this or any other episode, we'd love to hear from you. You can visit g.co/talksatgoogle/podcastfeedback to leave your comments.

[01:01:55]
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