

Rationally Speaking #165: Robert Frank on “Success and Luck”

Julia: Welcome to Rationally Speaking, the podcast where we explore the borderlands between reason and nonsense. I'm your host, Julia Galef, and with me is today's guest, Professor Robert Frank.

Robert is a professor of management and economics at Cornell University. He is the author of many books and, for more than a decade, was a columnist for the New York Times. His most recent book is called *Success and Luck: Good Fortune and the Myth of Meritocracy*, and that's primarily what we're going to be talking about today. Robert, welcome to Rationally Speaking.

Robert: My pleasure, Julia.

Julia: Your thesis, as I understand it, is that first of all, luck is more important than people give it credit for, in terms of explaining who becomes successful; and also that luck is more important than it used to be in explaining who becomes successful. Is that about right?

Robert: Both of those things are accurate, yes. I think the problem is, when we see an outcome, any kind of outcome, we try to explain it using the best narrative we can put together on the fly. When we see somebody who has been very successful, we look for all the factors that generally explain successful outcomes. The first things that would spring to mind in that attempt would be talent, hard work, diligence, personal qualities like that.

If somebody were constructing her own history, she succeeded big time after 30 years of toil. What's her memory bank going to serve-up as ingredients for her narrative? She got up early every day, and worked hard, and solved lots of difficult problems. She vanquished many formidable opponents along the way. Of course, those are the things that are going to constitute the building blocks of her story.

Maybe she had a teacher in the eleventh grade that steered her out of trouble. Maybe there was a promotion she got early on in her career. There had been a more qualified coworker who couldn't accept the promotion. His ailing mother needed care. He couldn't take the job. Those kinds of things, those sporadic, seemingly transitory, minor events just don't enter into the narrative as readily.

I think yes, the tendency is for people, when they look back, if they've been successful, to think, "Yeah, I made it primarily through my own efforts and talents."

Julia: You had a nice metaphor in the book, comparing how it looks to illustrate someone walking into a wind that's blowing against them, versus walking with the wind. It's very obvious when someone's leaning into the wind, that the wind is pushing against them. It's easier to show that in an illustration.

But if the wind is blowing at your back, helping you along, how do you even illustrate that? It looks just like the person's walking normally.

Robert: Yes.

Julia: That was such a good metaphor.

Robert: That's a metaphor that I'll credit my friend Tom Gilovich for.

Julia: Oh. *How We Know What Isn't So*.

Robert: Yes.

Julia: Great book.

Robert: Yes. Exactly. He's been writing about this of late, and it's a major asymmetry in human memory. The example he uses is, if you're running into the wind, or bicycling into the wind, you're extremely conscious of the handicap that you're laboring against. Then the course turns around, and you've got the wind at your back. Wow, what a great feeling that is.

But that feeling, he says, lasts for about five seconds. Then you become completely unconscious of the fact that the wind is at your back, so it's a total asymmetry.

Julia: Yeah. This is just how far I move when I pedal one rotation on my bike.

Robert: Exactly, and if you're on a bike, then you can have an eight mile an hour wind at your back, and if you're going 12 miles an hour forward on your bike, then you've still got a four mile an hour wind in your face. It feels like you're confronting a headwind even though you're not.

His suggestion is along the lines of your earlier remark. Do a Google search on headwinds. You'll see all these vivid images illustrating the concept. It's a very easy psychological concept to grasp. It's easy to depict diagrammatically, or with pictures. Then do a search on tailwind, and you get gobbledygook. There's no clear image of it comes up that you say, "Ah, yeah. That's the right one to illustrate the concept."

Julia: Yeah. This first part of the thesis, the core of the thesis, it's a little interesting, because on some level, it almost seems obvious. Of course luck plays some role in events. And yet, on an intuitive level, or an instinctual level, I think people often don't realize it, or don't want to acknowledge it. There's just a weird tension there.

Robert: Yes. If you had asked, let's take a CEO who's been successful. If you had asked that person, "How do you think your life would've turned out if you'd been born in South Sudan?" There won't be any hesitation. They'll know immediately that of course things wouldn't have turned out nearly as well if they had been born there.

Yeah, I think everybody at least implicitly recognizes that we owe a huge debt to external circumstance when we've done well. If you try to point that out to people, often the message is met with hostility, defensiveness.

I don't know if you were following the presidential campaign in 2012, but there were two speeches, one by President Obama, another by Elizabeth Warren. Both of them eventually came to be known as the, "You didn't build that" speeches.

What they were both saying, they were remarkably similar speeches, was totally uncontroversial. If you start a business, and it succeeded, great. You're entitled to keep a big chunk of the money you made.

But just remember, you ship your goods to market on roads the rest of us help pay for. You hired workers that the community helped pay to educate. You were protected by police and firefighters that the rest of us hired to protect you. Part of the underlying social contract is that you pay forward for the next group that comes along. You didn't succeed entirely on your own.

That's not what they heard. There was an explosion of outrage in response to those speeches. Millions of angry comments.

What they seemed to be hearing was, "You don't deserve the success that you've achieved. You didn't earn it somehow." That was the message they heard. That was not the message, so I think it matters a great deal rhetorically how we have this conversation. The way both Elizabeth Warren and the President framed that message, it just wasn't able to fall on receptive ears.

I think we need to think harder about how to talk about that.

Julia: I basically share your reaction to the public's reaction to those speeches. But to try to steel man that reaction, by which I mean to try to see it in its most charitable light possible, I suppose they could say, "Well, look. Yes, I benefited from these public goods, these institutions, but in order to determine whether I deserve all of my success or not, you have to look at the fact that *everyone* had the option of benefiting from these public goods and services. I'm one of the few elites who did in fact benefit from them, because of my talent, and hard work, and grit, et cetera, et cetera."

Robert: Oh, absolutely, and I would endorse every syllable of that. It's just that there are lots and lots of people who were just as talented, and just as hardworking, who didn't succeed, so ...

Julia: Right, so I think that actually ... Your argument about the role of luck and success is sort of more crucial even than the argument about the role of public goods and services, or more foundational, maybe. Without the role of luck, you can still get out of the conclusion that your success is partly due to public goods and services. Does that make sense?

Robert: Okay, then we can go to your second point, which is that luck has gotten more important over time, which I think does speak to exactly that issue. It's my claim that luck has gotten more important over time in part because of the spread, the intensification of what Phil Cook and I, in our 1995 book, called "winner-take-all markets."

These markets, we've seen them forever in sports and entertainment. They're becoming more common in other fields. Technology is giving the most productive

players in every domain the ability to extend their reach geographically. A century ago, piano manufacturer was a completely local undertaking. Why was that? It was because pianos were so costly to ship that if your customer was more than a few miles from the factory, it was prohibitively costly to get the goods to them.

Now, with each opening of the system ... The canals got built, the railroads got built, then the container ships that could transport stuff all over the world for not much expense. At every one of those developments, we saw the market for pianos get more and more geographically concentrated. There was a shootout between the many local producers that used to compete in that market. One of them would prevail, and then serve the entire regional market, or now the global market. When you've got lots and lots of competitors for the top slot in a market like that, then they'll be some of them who are right up against the very upper limits of the talent and effort scales.

Let's find the one who is the most talented and the most hardworking. He should win, right? Not necessarily. There will be hundreds of others almost as talented, almost as hardworking as that guy, but the most talented, most hardworking guy will, by definition, have had only average luck. We selected him because he was the most talented and hardworking. We didn't select him because he was more or less lucky than the average. On average, he'll have average luck.

Julia: Just to go on a brief tangent, it seems to me like there's a couple of cognitive biases that work here, or logical fallacies, where one of them is the selection bias that you were just referring to, in the sense that we only look at the people who turned out to be successful, and then ask, "Well, what factors are present that could've contributed to their success?" We see things like hard work, and talent, and so on -- but we're not looking at the people who *didn't* become successful, and if we would, we would notice that many of them also had hard work, and talent, et cetera, which sort of screws up the causal inference there.

Robert: Exactly. The reason luck's more important now is that more of the income that's being doled out in society is being doled out in the context of these kinds of markets, these winner take all markets where there are literally thousands, maybe tens of thousands of people competing for a few slots at the top. In almost every case, even if luck counts for only 2% of the total performance that determines the outcome, the most talented, most hardworking contestant will rarely be the winner of that contest. It'll be somebody almost as talented and hardworking, who happened to be quite a bit luckier.

I think for example, Bryan Cranston is a great illustration of the problem. He's a very talented actor. I don't know if you're a Breaking Bad fan.

Julia: I tried. It was a little too upsetting for me, so I couldn't get into it, but I'm a big Bryan Cranston fan, from what I've seen.

Robert: Yeah, so I don't know if you knew about him before he starred in Breaking Bad, but Vince Gilligan, the creator of Breaking Bad, wanted to cast him in the leading role. The studio guys, the money men, didn't want that. They didn't want that because

hardly anybody had ever heard of Bryan Cranston, and they were going to spend a lot of money on this project. They want somebody known.

At their insistence, Gilligan offered the role first to Cusack, John Cusack. Cusack turned it down. Then Michael Broderick. Broderick didn't want it. Only then was Gilligan able to persuade the money guys to say, "All right. We'll give him a try." They offered the role to Cranston. Cranston won four Emmys in the show's five seasons. He is now the very most sought-after actor in his likes of the demographic.

He's an unbelievably talented actor. I just heard him on a talk show do a Trump imitation, just off the top of his head. It was unbelievably spot-on. Does he deserve his success? Absolutely. He's incredibly talented. I'm sure he worked harder than a dog all through his career, but if he hadn't also been lucky, if he hadn't had those two guys turn down the pivotal role that launched him into the big time, we never would've heard of him, or at least I wouldn't have. He was the dad in Malcolm in the Middle. I never saw that. Most people I know didn't watch it, so who is Bryan Cranston? We wouldn't know.

Julia: Yeah. It's such a striking contrast to the character he plays in Breaking Bad. It's pretty funny to be able to compare the two now.

Robert: Yes. Exactly.

Julia: You also told a pretty striking story in your book about how the Mona Lisa came to be one of the most celebrated paintings in all of art history, which just really drives home just how pivotal luck can be. How did that go?

Robert: Yeah. This is an account that I owe to Duncan Watts. He is one of the sociologists whose work I admire most out there. He offered the Mona Lisa as an example of hindsight bias that we mentioned earlier. You see an outcome. You try to explain it.

The Mona Lisa, as we all know, is the most famous painting in the world. It's a symbol of Western art and culture. Art historians try to explain why it's assigned that role, and they look for all the properties that it must have in order to deserve the successful prominence that it's attained.

Duncan was at the Louvre. I've been there, too. I've seen it. I remember being surprised when I first saw it. It's smaller than I expected. There were hundreds of people elbowing one another aside, jostling for a closer look at it.

You get a closer look. Okay. What's so special? Duncan actually walked into the next gallery. There are hanging there two Leonardos. They're from the same era. They have the same new style of brushstroke that we saw in the Mona Lisa. Nobody's crowing in to see them. Why didn't people care about them?

He read a little bit more about the painting, and apparently no one had much remarked about it for its entire early history, hundreds of years, until 1911. What happened then? It had been stolen from the Louvre by an Italian maintenance worker. He walked out with it one night.

This was the first time that a picture of a painting had appeared on the front pages of newspapers around the world as the theft was reported in great detail. It was much discussed. It was an ongoing issue for about two years.

Then, Vincenzo Peruggia, the thief, was apprehended when he tried to sell the painting to the Uffizi in Florence. Of course, the director had to turn him in, and then another media explosion, pictures of the painting all over the world's newspapers.

If the painting had not been stolen, nobody would've ever heard of it. That's the claim, so the Mona Lisa, she's famous, yes, but she's not famous because of objective qualities X, Y, and Z of the painting.

Julia: Like her smile.

Robert: Yeah, so it's not this enigmatic smile that beats out. It's just, if she hadn't been stolen, we never would care a whit about her.

Julia: Yeah. Someone, I think it was ... Maybe it was Phil Tetlock. I don't remember, on Twitter, just today, said we really need to pay attention to the probabilities, to the uncertainty currently looking forward, in whether Donald Trump will in fact win the presidency. Because it's currently, I don't know, 36% or so. If he does win, there will be a ton of think pieces of how this was inevitable and why we "*of course* could've known from the start that he was going to win."

Robert: Yes. They should've predicted it.

Julia: Right, and if he doesn't win, there will be all these think pieces about it. "Of course, he was going to lose, because X, Y, Z." We really need to just call it right now that it is uncertain, head the hindsight bias off at the pass.

Robert: Exactly.

Julia: There was this unusual art exhibit that I saw. I think it was at the Guggenheim, years ago now, and what made it unusual was that they didn't pick the best art pieces from a particular genre, or era, or of a particular painter. The organizing theme of the exhibit was art in ... It was some particular year. It might've been 1911, or something like that, and they just exhibited a bunch of art that had been shown in galleries in 1911.

They did not flag explicitly, "These are the ones that turned out great, turned out to be famous, and celebrated, and made history, and these are the ones that didn't". You just had to go through the exhibit, unless you were already a well-educated student of art history, not knowing which paintings turned out to be great. And sort of experiencing it all without the benefit of hindsight. And having to figure out for yourself which ones seemed great to you, the way that you would have in 1911.

Robert: Sure. Great exercise.

Julia: Yeah. I don't know if that was the motivation behind the exhibit, but that was how I

experienced it.

Robert: One of the famous hindsight bias experiments was a survey that asked students in a small college to predict whether Clarence Thomas would be confirmed by the Senate in a vote coming up in a week or so. 58% of students said that he would be. The researchers went back and re-interviewed the same students, asking them to recall how they'd voted in the earlier survey, and 78% said that they had predicted confirmation.

Julia: Wow. And how long, sorry, what was the time elapsed between the-

Robert: Two weeks.

Julia: Wow. That is really depressing. I'm going to hope that they were knowingly lying, because that is less depressing than our memory actually being that revisionist.

Going back to the, "Why has the role of luck increased over the past few decades?" question: You talked about network effects in your book, as something that contribute to this winner take all phenomenon. Where a book that's only slightly better than other books, or a piece of music that's only slightly better, or slightly luckier than other pieces of music, can quickly rocket up to the very top of the charts, in part thanks to network effects. Where people want to read and listen to the things that other people are reading and listening to. If you get even a slight edge in popularity, that can snowball into a huge edge.

I don't remember if you made this case explicitly in the book, but I was wondering if that phenomenon itself might be increasing over time because of globalization and social media, where-

Robert: Oh, of course. Yeah. I think where we get our cues about what to do, it used to be that we would get them from people we knew personally in our own very narrow geographic location. Now, we're in contact with people from all around the globe, literally, so if something catches on ... It wouldn't have been possible for something like this Pokemon GO phenomenon to have happened 40 years ago. There could be fads, yes. We would eventually read about them, but the idea that everyone's on the same page, at the same time, that just is a new thing, and it's vastly increased the stakes in these markets.

Julia: I also wanted to ask you about the way that you modeled the contributions of skill and luck. You had these simulations that you ran, which you detail in the appendix to the book, where you're making some basic assumptions, like luck is random and therefore independent of skill, and skill is modelled as being uniformly distributed. You show that luck, therefore, plays a large role in who ends up reaping the rewards, being the most successful.

Robert: Yes.

Julia: I was wondering whether the result would still hold if skill was not uniformly distributed, but instead normally distributed, or something like that.

Robert: We actually-

Julia: Just to clarify for my listeners what that means, before you respond -- If skill was uniformly distributed, then the differences between one person and the next most skillful person remain basically constant throughout the whole spectrum of skill level. At the center, you've got people who are 50, 51, 52, 53, et cetera, if we're measuring skill from 0 to 100. Similarly, up in the upper end, you'd end up with 97, 98, 99, et cetera.

If skill were normally distributed, most people would be clustered around 50. You'd have people at 50 and 50.2 and 50.3 and 50.5, et cetera. Then, when you get way out into the upper and lower ends of the distribution, it would be much sparser. There would be a person at maybe skill level 96 and then a person at skill level 98 or skill level 100, or something like that.

I'm wondering then: If the gaps between skill levels are greater at the tail ends, if it were normally distributed, then maybe luck wouldn't dominate so much in the final calculus.

Robert: Your intuition is right about that. We did do some simulations with long-tailed distributions, not just normals, and the people in the middle basically don't matter in these contests.

Julia: Right, if we're talking about who wins, yeah.

Robert: They're not going to ever be finalists anyway. Typically, the kind of contests we're talking about have a huge number of contestants in them and most of them, if they're at all realistic, are already from the long, right tail of any distribution like you're talking about. So, yes, it does make a difference. You don't see quite as much bunching near the top of the distribution. There isn't any natural cut-off for talent or effort at the top of the scale, and the normal distribution extends to infinity, but the results qualitatively are really quite similar.

Julia: Let's move on to another big theme of your book, which is the implications of believing, or acknowledging, that luck is a major contributor to success, versus not acknowledging it.

It sounded like you had mixed feelings about that, that there were upsides and downsides. Where one of the downsides of acknowledging the role of luck is that it reduces your will-power, your motivation to work hard. Is that a correct interpretation?

Robert: Yeah, that's a concern. As one of your former guests, George Ainslie, explained very clearly, a hard thing for people, and non-human animals too, is to postpone seizing an immediate but inferior reward in the hope of waiting long enough to get the larger reward that you could have later. We're not good at self-control. We're not good at postponing the immediate gratification that's available on the fly.

If you think about that, somebody who's constantly bombarded with a message that

says, "Look, you can work hard and be very skillful, you still probably won't win because luck's such a big part of the story," that person's more likely to say, "The hell with it, there's an easy early reward. Why should I study hard to get into a good school, I'll just take the easy reward now." If you really encourage people to think that they're not the captain of their own fate, there could be bad consequences to that.

I think the resistance to luck as part of our narrative must surely trace in part to that, but at the same time, if you look back on life, it's obviously that no one's really the captain of his own fate. There's all this external stuff that happens.

It's probably not adaptive to try to build a society on the view that whatever happens to you, it's either your credit or blame, 100%, for that. We pool all the risk we face, we try to ensure against them. There's all sorts of things we want to do, and should do, if we recognize that people are not, in fact, the captains of their own fate.

Julia: I know that you've found many examples of people being resistant to this thesis, including ... There was this one, really uncomfortable to watch, interview that you did years ago, on Fox Business News, where the host, basically before he even let you speak, came right out and said, "Your thesis is insulting. I came to this country with nothing and it was through my own talent and hard work that I built my career, and you're saying that that was nothing and that it was all luck. How dare you." Essentially. The interview didn't get better from there.

Robert: Do you do show notes on your podcast?

Julia: We have links to things. We can link to that interview if-

Robert: If anyone's got six minutes to spare, it's spectacle to behold, really, that interview.

Julia: And some emotional energy to spare as well, because it will cost you more than your time.

Robert: Yeah, I can't watch it again, but if anyone's curious... It's really a one-off experience.

Julia: Where I was going with that is, I know that people like that Fox Business host are very resistant to your thesis. Those are people who are already successful being told, "Hey, luck played a role." But I wonder if people who have not yet become successful are also resistant to this thesis. Is that something that you've noticed as well?

Robert: It depends how much time you have to talk about it. Cornell sends me out to talk to alumni groups. Most of the groups I talk to are NPR listeners, they're all fairly socially conscious, and think we ought to have progressive policies to protect people from hardship, and so on.

Occasionally they send me to a hard right group. I went to a group like that last spring. I give a 45 minute talk about the role of luck in life, and here are all of these lifelong conservatives who will come up and they'll start telling me about luck, how

it's played out in their own lives, and yes, we really do need to be investing more heavily in infrastructure, and so on.

I think that if you can get enough air time, and you don't need a two week seminar, 30 minutes is plenty, you can get most people to rethink their histories and start noticing, "Yeah, luck was a part of my story, too."

If you don't have much time, the only strategy I've come across that works is, I call it "Ask, Don't Tell." If you're talking to a successful person, don't try to point out to that person that she's been lucky. That's likely to elicit a defensive reaction. Ask the person, "Can you think of examples of times when good fortune smiled on you?"

If you do that, it's an amazingly different reaction. They don't get angry, they don't get defensive, their eyes light up, they think of examples. Each one they think of, they want to tell you about. After a short conversation along those lines, they're starting to volunteer examples of investments we ought to be making and we aren't making.

It's really quite a powerful framing. If you ask about people's experience, they're open. If you tell them they've been lucky, nope, they don't want to hear that.

Julia: Do you have a prescription for whether we should be promoting the role of luck or not? Given that it could reduce people's motivation to work hard? Or *assuming* that it could reduce people's motivation to work hard -- I'm not actually conceding that point just yet.

Robert: I would want to tell kids, growing up, "Look, it's all up to you. The world's a tough place out there. If you want to become an expert at something, it's hard to do that, but the people who manage to do that are way more likely to succeed than others."

Julia: So, "It's all up to you," and "You're way more likely to succeed," are two different messages there. The latter seems true.

Robert: "You're more likely to succeed," which is true, and "It's all up to you," which is not true, but nonetheless, possibly a useful message.

Look, I hope I won't offend anybody if I ask hypothetically, what if religion were not true? What if there were no higher force that had anything to do with our lives? Might it, nonetheless, be useful for people to believe that there was such a thing? It's easy to construct a narrative in which it would be.

Julia: That's very funny because I was going to bring up that case but with a different conclusion. I was going to say, if someone points out that religion has useful benefits, like it gives meaning to people's lives, surely the right conclusion from that is not, "Okay great, we better keep encouraging people to believe in religion." Surely the right conclusion from that is, "Okay, great. We better find a different way to get meaning from life." Right?

Robert: Yeah, and that's my view as well, but many of my friends are quite contemptuous of

people who embrace religious faith. I think that's a very odd posture. It's such a widespread phenomenon in humanity. It's clearly adaptive, in some way, to be open to the idea of a higher power guiding things along. Maybe somebody can construct a plausible narrative according to which people who embrace that belief actually do better than people who deny it. Maybe the people who deny it sit around worrying all the time, "What's going to happen when I go into the void?" And the other people don't worry about that. They focus on today and they get more stuff done.

I'm not arguing for any of those narratives, I'm just saying it's possible to imagine that people who believed something that was in fact false could do better in this world. In that sense, if you believe that luck has nothing to do with your prospects, maybe that's a good thing to believe, but you definitely, once you've succeeded, you don't want to look back and say, "I did it all by myself." You're going to contribute to the formation of a pretty mean society, if that's your view.

Julia: My problem with the self-deception, or society-wide deception, "because it's useful" argument is that it ... Setting aside the ethics of it, it feels like getting stuck on a local maximum to me. That yes, there is a cost to giving up the deception, yes, we're going downhill, but in general, in the long-term, if we want to get to that higher point, that global maximum, aren't we better off giving up the deceptions?

Robert: I think that's a hard question.

Julia: I agree, it's empirical. It's not obvious.

Robert: This comes up in discussions of free will. I fall on the "no one has free will" side of that debate. I think, sooner or later, it's at least in principle, possible to know what someone's going to do, in a given circumstance, before it happens.

Is it useful for someone to believe that? There have been experiments done, trying to probe that. You can prime people to believe either than free will is a thing or that it's not a thing. The people who are primed to believe that there is no freewill, they don't work as long or as assiduously on a hard problem that you give them to work on. There are a lot of other things that they do differently.

So, yeah, it's at least possible to imagine that believing in freewill is adaptive in some way. Does that mean that we need to believe in freewill in order to make our way? No, it doesn't imply that.

Julia: Yeah. Interestingly, one of our recent episodes, it was with Gregg Caruso, who is a philosopher, who argues basically that we have no free will and also that our society would be better off if we acknowledged that we have no freewill -- because, for one thing, we would be able to pursue a justice without retribution, essentially. A justice based on rehabilitation or utilitarian concerns in general.

Robert: Yes, those are strong arguments too, but I would have been interested to hear him say how he felt about the empirical findings that people who .. We have to take into account that people have a limited capacity to understand and embrace the implications of various beliefs like this. How does he feel about the empirical finding

that if you don't believe in freewill, you don't work as hard on a challenging problem that's before you.

Julia: It is a good question.

This is an interesting companion episode, in a way. I had not planned it that way, but his episode was about people not deserving the *bad* things that happen to them, like getting punished for crimes they commit, because of accidents of genetics and environment, et cetera. And this episode is kind of about people not deserving the *good* things that happen to them, because of their success. It's kind of a nice parallel.

Before we leave this thread, I do want to push back a little bit on the idea that acknowledging the role of luck reduces people's motivation. I don't have empirical evidence to point to here, like in the form of studies, but when I look at case studies like... Take a casino. If you look at the time and effort that people spend playing slot machines, for example, I think ... Actually, I kind of do have the studies to point to here, because what I'm thinking of is the phenomenon where variable rewards are more motivating, and keep people trying for longer periods of time, than certain rewards.

The slot machines that I was getting to at the casino are an example of variable rewards. People don't know exactly how much they're going to get. They don't know when pulling that lever is going to give them a huge payout, and that is part of what motivates them to keep playing for so long. I think that if people knew exactly, "If I pull the lever 20 times, I will earn two dollars," that people would not play slot machines nearly as often.

I know that the expected payout of slot machines is negative, but I think that only makes my case stronger. That the variable rewards are so motivating that they overcome the negative payout.

Robert: Right.

Julia: How does the power of variable rewards intersect with the idea that people will shrug and give up if they're told that it's not all up to them?

Robert: There's a lot more to every story than just what you believe about luck, that's going to drive you to behave one way or another. Some people are incredibly resilient. They pick themselves up, they dust themselves off, they keep trying. If you try often enough, even if it's all random, sure enough, you will succeed in the end, just by luck. I don't think telling people that luck is an important part of the story is going to extinguish all motivation. It's not my position, certainly, that we shouldn't tell people about luck or try to keep them in the dark about that fact that not everybody who tries hard and is talented is going to succeed. I'm just trying to call attention to the possibility that there may be some adaptive features to not focusing too much on the fact that luck's an important part to the story.

Julia: I guess now that I've made that argument, I've noticed that there's a subtle, but important difference between the casino case and the working hard to succeed case.

In that the casino case is, in fact, determined by luck, but it's not necessarily people *believing* that it's about luck that is motivating them. Whereas, you're talking about what do people *believe* about the role of luck, not what *is actually* the role of luck.

Maybe, the best scenario is where luck does play a role, and so people get variable rewards, but they believe that it's their skill that's getting them the rewards.

Robert: That is what people do seem to believe. When they succeed, they think it's because of their skill. When they fail, they attribute that to bad luck.

That's oddly adaptive in a way, too. If you succeed, talent and effort, those are persistent traits, that a past success would encourage you to seize a new opportunity that comes along. You're still talented, you're still able to expend effort, so you'll probably succeed here too. If you fail, and you attribute that to bad luck, you could say to yourself the next time an opportunity comes up, "I might as well try here. I just failed last time because of bad luck. I'm not going to be unlucky every time."

Julia: Right. We have a few minutes left and at the end of the episode I was just referencing, with Gregg Caruso, we talked about how society could benefit if people accepted that criminals weren't wholly, entirely, responsible for their choice to commit crimes. I'm wondering if you have suggestions for how society could benefit if people acknowledged a greater role of luck in success. Are there policies, for example, that we could collectively find the will to pass, that we otherwise couldn't?

Robert: Yeah, I think the big issue is that if you're born in a place that has good institutions and infrastructure, you have a such a much bigger chance to succeed than if you're born in South Sudan, or a war-torn, poor country where you really have very few chances, no matter how good you are or how much you work. The problem here is that we just haven't been maintaining those investments. We've all been lucky.

People my age, at any rate, came along at a time when we were sort of at the peak of our environmental support for people who wanted to work hard and had something to offer. Today, poor kids can't get into a college and graduate with any real likelihood.

The chilling statistic I saw was that if you have top quartile math scores and you're from a lower income family, you're less likely to graduate than if you're from a high income family and have bottom quartile math scores. What a horrible number that is. If you do graduate -- and it's not very likely that you will, if your family didn't have money -- you'll graduate with 35 or 45 thousand dollars worth of debt when you come out. Those years when the miracle of compound interest should be working in your favor, it's instead working exactly against you.

We could rebuild the social safety net, in a way. We could make it so kids all can go to college, without coming out with debt. The kids who go to elementary schools now, if they wanted to do music program or a sports program, the budgets have been cut. There aren't those programs anymore. They may be offered on an extra curricular basis, but then you have to pay a fee. A lot families can't muster that fee.

That's not the best kind of society to bring kids into.

The ironic thing is that everybody agrees in principle to that. The only thing that keeps them from saying, "Yeah, let's invest," is that they don't want to pay higher taxes.

I think the biggest cognitive error of all time is the idea that if you're well-to-do, you'll somehow be worse off if you, and others like you, pay higher taxes. Why is that? It's because if you're well-off, you already have everything you need. The only question is, can you get what you want?

What do you want? You want things that are special. Things that are special are defined in relative terms. It's a house with a view, it's a choice slip at the marina, a painting that everyone else wants. How do you get those things? You bid against other people like you, and the highest bidders walk away with it.

If I'm prosperous, and you're prosperous too, if we each pay a little more in tax, then how does that affect the bidding contest that determines who gets the apartment with a view of Central Park? Not one bit.

So, we could invest more heavily in the public sphere. Most of us feel we should do that. We're inhibited from doing it because we think it'd be painful. The truth of the matter is it would not be painful.

Julia: Is the idea here that we're in a pareto suboptimal situation, where we could make a change that would make everyone better off, without making anyone worse off?

Robert: That's exactly where we are. It's exactly analogous to the situations where, for example, if everybody stands to see better, nobody sees any better than if everybody had remained comfortably seated. It's a collective action problem.

If I have less money, and I think about higher taxes, how do I think about the affect of that? It's hardly ever happened that we've raised taxes, in recent memory. So, if I want to think about the effect of higher taxes, how do I think about that? I try to think about other times when I've had less money. But those times are typically when I've lost my job, or when my business has suffered, or worse, I've gotten divorced, or I've had an earthquake hit my house, or some other thing where I've had less money but everyone else has the same money as before. In those situations, having less money really does make you less able to get what you want.

Julia: If we had more of a progressive tax, aren't there ... Even though there's still a large component of relative evaluation, not just absolute evaluation, of how well-off people are, aren't there still some people who would be made worse off by not being able to compete as strongly for their share of the pie?

I'm sorry, I didn't say that very well. Let me give an analogy to what I mean.

I've heard people say, for example, that we would all be better off if we just banned wearing make-up, if women were not supposed to wear make-up. Because we can

model it simply as saying make-up makes everyone more beautiful -- but still, that just shifts the scale of beauty. Still, it's only the top quarter, or top ten percent of people who get rewarded... Et cetera.

So, if we stopped wearing make-up, then no one would have to spend the time and effort on wearing make-up and it would still be the same scale, just shifted lower.

Which makes sense, except that there are some people who benefit more from wearing make-up than other people. If you have bad skin, for example, wearing make-up gives you more of an edge than someone with naturally good skin.

I'm wondering if there's an analogy here with shift the consumption scale.

Robert: Yeah, I think the analogy breaks down entirely, in this case.

The point you made is exactly valid. High heels don't matter for some people, they do for others. If we banned them, that would cost some people more than others. Yes, that's true.

But a more progressive income tax, or better still, the tax I advocate, a much more steeply progressive tax, not on income, but on consumption, the total amount you spend ... Tax your income, minus your annual savings. That's your consumption. Tax that at a steeply progressive rate. Then if the big rates don't kick in until we're already up over a million dollars a year of consumption, then who can argue with a straight face that the next dollar you're about to spend at that level is really for something essential?

We're all, at that level, buying things that are special in a relative sense, and if we all spent less on them, we'd end up with exactly the same amount of special as before. The diamonds might be a little smaller, but because everyone's diamonds would be smaller, the power of a diamond to impress would be the same, if it were in the 99th percentile, no matter how big it was in absolute terms.

Julia: Right. I'm so tempted to keep talking about the progressive consumption tax, now that we've brought it up, but that probably should be a whole other episode, which maybe we should do.

Robert: Happy to do it.

Julia: I will at the very least, setting aside the specifics of the consumption tax proposal, say that it seems pretty clear to me that appreciating the role of luck would make possible a bunch of policies that would be good for society, that we don't really have the political will to pass yet.

I'm reminded of a frustrating conversation that I had with someone, who was basically arguing, "No, luck has nothing to do with my success. It's all about skill," and he said ... We were talking on a global scale in that conversation, and he said, "Yeah, if I was born a poor African, I would still have found a way to become successful. I would have just worked hard and been determined, et cetera. I would

have found a way. I would have had grit."

Robert: Such is the power of that belief.

Julia: Yes, I know! But it's so weird. For him, the phrase, "If I was a poor African," was sort of like he was imagining his current psychology, which was developed as a result of his genetics and growing up in America, et cetera, just transplanted into the body of a poor African.

Actually, the counterfactual is more like, "No, you would have been born to a poor African family and grown up in Africa." And if we want to know how that counterfactual turns out, all we have to do is look at how poor Africans actually behave. What are their actual outcomes?

That's the answer to the thought experiment. That's a really counter-intuitive step for people to make, it seems.

Robert: Yep. These conversations help. I think somebody eavesdropping on this conversation, not everybody, but some who might have had the view of the person you're describing, might want to rethink a little bit, so it's good to talk about these things.

Julia: Here's hoping. At this point, we'll wrap up this conversation. Potentially, to be continued to talk more about taxation, in a later episode.

For now, we'll move on to the Rationally Speaking pick.

[interlude]

Julia: Welcome back. Every episode, I invite my guest on Rationally Speaking to introduce the pick of the episode. That's a book, or article, or something that has influenced their thinking in some interesting way. Robert, what's your pick for today's episode?

Robert: Julia, I'm going to mention a book that was by the same author as a book mentioned by George Ainslie, when you talked with him. He mentioned Thomas Schelling's *Strategy of Conflict*. That's a great book. That's, in fact, the work of Schelling that the Nobel Committee cited most prominently when it announced that Schelling had won the Nobel Prize in 2006. So, yes, I would feel perfectly comfortable with a reader running out to buy a copy of that and reading it.

But the book of Schelling's I want to recommend is one that the Committee did not stress, but which I predict will, in the end, be seen as the far more important book of Schelling's, and that's called *Micromotives and Macrobehavior*.

In it, Schelling's theme throughout ... This is a book I think you would particularly like, if you don't know it. It's that the actions that perfectly rational individuals choose to undertake, are quite often productive of outcomes that none of them like.

I mentioned the example of all standing to get a better view, everybody being

unhappy with the result. Why didn't we all remain seated? It would have been more comfortable. There are probably hundreds of examples like that that Schelling develops, and it's a very powerful way to reorient your thinking about what constitutes rational choice and behavior.

The prisoner's dilemma is an example of a choice like that. It's individually rational for us to defect, but we'd both be so much better off if we would cooperate.

Julia: Yeah. I don't think I ever officially read that book, but the ideas in that book have found their way to me and really influenced how I see the world and how I interpret phenomena.

Robert: What's so great about the book is you don't need to summon any energy at all to read it. It's written in a very conversational style, he's a good story teller, and it's just magnificently interesting, page by page.

Julia: Excellent. We'll link to that, as well as to the infamous interview that you did on Fox Business News, illustrating the unpalatableness of the thesis to many successful Americans, as well as to your website, where our listeners can check out some of your research papers and other books.

Robert, thank you so much for joining us. It's been a pleasure having you on the show.

Robert: My pleasure, entirely.

Julia: This concludes another episode of Rationally Speaking. Join us next time for more explorations on the borderlands between reason and nonsense.