

Rationally Speaking #168: Don Moore on “Overconfidence”

Julia: Welcome to Rationally Speaking, the podcast where we explore the border lands between reason and nonsense. I'm your host, Julia Galef and I'm in the office of today's guest, professor Don Moore.

Don is a professor at the University of California Berkeley's Haas School of Business. He's a professor of management of organizations. One of the things he's best known for -- and the way I first heard of him -- is as the co-author of the excellent textbook *Judgment in Managerial Decision Making* with Max Bazerman. It's a great, very comprehensive intro to decision making and heuristics and biases, and how they affect actual real world decision making.

One of his areas of focus is overconfidence, and that's what we're going to be talking about in today's episode. Don, welcome to Rationally Speaking.

Don: Thanks, I'm delighted to be with you.

Julia: How confident are you that you are an expert in overconfidence?

Don: Only moderately.

Julia: Excellent, you've taught yourself well.

Don: I strive towards good calibration in all of my confidence judgements.

Julia: That's quite a motto.

Before we dive into the meat of the episode, I think most people colloquially are used to thinking of overconfidence as basically being someone who thinks too highly of themselves. They have an overly high opinion of their skill, or their intelligence, or charm or what not. Or possibly overconfidence means being too confident that some endeavor of yours will succeed.

Is that what you and your subfield mean by the term? Or do you have some more precise academic meaning?

Don: You are correct in guessing that, like many academics, I strive toward precision in my definition, and a colloquial definition sometimes gets in the way. People use the term confidence in all sorts of ways, many of which are not really amenable to an assessment of overconfidence. In order to accuse someone of being overconfident I need to be able to show exactly what it is they believe, and exactly how that deviates from reality.

Julia: From reality? Or from what they would be justified in believing reality is?

Don: That is an interesting distinction. The latter is more important, what they would be justified in thinking the reality is. Because there are circumstances ... We might get into

this, this is already starting to split hairs a bit. There are circumstances in which rational people can believe false things. Like if information exposure can lead Bayesians to inaccurate beliefs under some circumstances. And there are some attempts to account for the evidence on overconfidence by relying on just such explanations.

Julia: Well, we don't have to go quite down that rabbit hole yet. Sorry, I always want to be the one who splits hairs the most finely!

Don: That sounds like a challenge, I'll take it.

One of the major contributions of my research to the study of overconfidence is to clarify the different approaches to this study of overconfidence. The term overconfidence has been used in lots of different ways, by lots of different scholars, and I try to clarify those different approaches.

One is *overestimation* -- thinking that you're better than you are. A second is *overplacement* -- thinking that you place higher than others, in some percentile ranking for instance, than you actually do. The third is *overprecision* -- believing that your knowledge is more accurate, more precise, more truthful, than it actually is.

Julia: Got it. So you could be overprecise in your belief that you are actually not very skilled, right?

Don: Yup. Every parent has seen their child make that error, of saying, "No, I can't, I shouldn't try it, I'll fail, I'll screw up."

Julia: "There's no way I'll succeed."

Don: You as the parent say, "No, there's a chance that you could do it, and there's a chance you might love it. It's worth the risk, try it out."

Julia: Or if you're some parents, you say, "You will definitely succeed, you're my son!"

Don: No, I attempt to be well calibrated in the confidence judgments I transmit to my children.

Julia: I would expect no less.

What are the relationships between those types of overconfidence?

... Actually, let me guess before you tell me. I don't actually know but, it would seem to me that overestimation and overplacement would both be related. Because the better you think you are in absolute, the higher you think you should rank relative to other people. It's not obvious to me that overprecision would be related to those two things, because of the examples we were just talking about.

Don: That's exactly right.

Julia: Yes!

Don: Overprecision is weakly related to the other two. And in any given task, overestimation and overplacement are strongly correlated.

My research also examines some of the more quirky features of their relationship with each other, including the fact that across tasks, overestimation and overplacement are negatively correlated with one another. Where on hard tasks people overestimate their performance, but think they're worse than others, and on easy tasks people underestimate their performance, but think that they are better than others.

Julia: Interesting. I have a guess as to an example of when that comes up but I'm going to save that for later in the conversation.

Before we conclude this disambiguation portion of the podcast I want to ask about *optimism*, which I am using to mean thinking that some project of yours has a greater chance of success than you're justified in thinking it does. How does that fit into that three-way taxonomy?

Don: It is an excellent question, and optimism has been studied a great deal. Perhaps the most famous scholars of optimism are Charles Carver and Mike Shier who have a scale that assesses the personality trait of optimism. Their usage of the term is actually not that far from the colloquial usage of the term, where to be optimistic is just to believe that good things are going to happen. Optimism is distinctively about a forecast for the future, and whether you think good things or bad things are going to happen to you.

Julia: Something that might colloquially count as optimism that wouldn't fall into that definition would be something like, "I think people are basically good at heart," or like, "The world is better than it used to be." None of those would count?

Don: Yeah, because in my attempt to quantify and assess overconfidence, there isn't an outcome there. People are good at heart, what does that mean?

Julia: Right. I guess you could try to extrapolate, but that would be your own extrapolation.

Don: Right. Interestingly, this trait of optimism seems very weakly related to actual specific measures of overconfidence. When I ask Mike Shier why his optimistic personality trait didn't correlate with any of my measures of overconfidence he said, "Oh, I wouldn't expect it to."

Julia: I would expect it to!

Don: Yeah. My [reaction] actually was, "Well, what the heck does it mean, if it doesn't correlate with any specific beliefs?"

I think it's hard to reconcile those in any sort of coherent or rational framework of beliefs. But I have since had to concede that there is a real psychological

phenomenology, wherein you can have this free floating, positive expectation that doesn't commit you to any specific delusional beliefs.

I was just going to point out the irony of me studying overconfidence -- my mother finds it deliciously ironic, because she regards me as a hopeless optimist. But at the same time, sort of mercilessly specific and self-critical when it comes to specific beliefs.

Julia: When she thinks of you as an optimist, she thinks of a generally sort of sunny, enthusiastic disposition?

Don: Right.

Julia: That doesn't necessarily cash out in concrete predictions.

Don: When it comes to figuring out how to feel about something, that -- at least in my mom's assessment -- I do a really good job figuring out how to put my outcomes in life in the best possible light and feeling grateful for what I have. Rather than wishing that I had more, or that I had something else.

How to feel about your life seems to me to be quite a separate matter from assessing how likely it is you'll succeed, or whether your investments will increase in value, or whatever.

Julia: Right. In fact, I've definitely known people, I could think of two different people who would have the same probability assessment of whether they will get the things they want in life, or how likely their start-up is to succeed -- but they feel very differently about that probability assessment. That is an important distinction to make.

As one other side note... I could never tell, when people call themselves optimists -- like when someone self-labels as an optimist -- whether they mean, "I genuinely expect that things are going well, or are going to go well." Or sometimes it really sounds like they're saying, "I see things as better than they actually are." Which is a weird sort of doublethink.

Honestly the only real interpretation of that is as a sort of general affect, or a sort of flag that you are waving, as opposed to an actual belief. Because as a belief it's incoherent to say, "I think things are better than they are."

Don: We have attempted to study these beliefs.

Julia: Really? Cool.

Don: Yes, and you're right that a rational, coherent, integrated set of beliefs cannot hold these different pieces that seem to be at odds. Our data -- to my great consternation, and perpetual bafflement -- do seem to reflect ordinary people being comfortable having both of these beliefs.

Sometimes, when pressed they will say things like, "Yes, I prefer optimism." As a rule Americans enthusiastically endorse optimism, and they will even say, "Yes, I prefer to have more positive beliefs than an objective analysis would prescribe." When pressed, "You think self-delusion is the right way to live?" they will say, "No, I want to be optimistic *and* accurate."

And when you say, "How is that possible?" People will say things like, "Well, I want to be optimistic because it increases the chance that good things happen to me. My optimistic beliefs make themselves come true."

When people say that their optimism makes them more likely to succeed, I have two responses; one is, "I want to understand the magical processes that could actually lead to such a result."

The second is, "Well if it's actually going to be that good, then is it optimistic to believe that's it's going to be that good?" For instance if I believe that I'm going to survive until tomorrow... is that optimism?

Julia: I might be on their side in this particular case. Because self-fulfilling prophesies are just weird things. If they didn't call themselves optimistic then in fact according to their model of the world, they would not do as well, and therefore, it's one of those... it turns into whatever you say it is.

Don: I think many people do have that model of the world in which optimistic beliefs are more likely to result in positive outcomes, some of that looks like magical thinking.

Julia: Like the Secret, the law of attraction?

Don: Exactly, that stuff drives me crazy.

Julia: We've covered that on this show, you will not be shocked to learn.

Don: There is a slightly more sensible version of those beliefs, wherein people believe that their own faith in a positive future might motivate them to take action that would produce positive outcomes.

Some of those beliefs are more plausible than others. Like: "My positive outlook leads to enthusiastic outgoing behavior that elicits more positive reactions from others."

Some of it is a little less convincing along the lines of, "Well, if I believe I'm going to do well on the test then that'll lead me to study more." People generally don't have a sensible response to the concern, "Well, what about circumstances in which your persuading yourself that you're going to do fine undermines your motivation to prepare for undesirable outcomes?"

Julia: People don't have a response to that? Because that's what I always want to ask them.

Don: When I do, they say, "Oh yeah."

Julia: It is a response I guess.

I'm glad we're talking about this because this comes up, not just in the podcast, again and again. Most recently, perhaps, Maria Konnikova was touting --

Don: She's wonderful.

Julia: We've had her on the show twice! And she was touting the benefits of self-delusion for exactly this reason, that it affects your performance and therefore leads to better outcomes.

Don: Maria was touting self-delusion, that it would help?

Julia: Yeah.

Don: I'm so disappointed.

Julia: You should check out the context to make sure that I'm not misrepresenting her.

There's a lot to unpack here. For context I will just say that I used to use overconfidence as an example of a cognitive bias, when people would ask me what I do, and I would talk about my organization, "We run workshops and we try to help people notice and overcome cognitive biases." They would want an example. And I used to reach for overconfidence as an example, just because it was such a nice, clear example of a bias, so relevant to decision making, and there's actually research on how to overcome it.

But I've stopped using it as an example, because I got so much pushback from people who just didn't think that there was such a thing as too much confidence. That basically, the more confidence you have, the better. And to be more successful, our goal should just be to find ways to boost our confidence, irrespective of mapping to reality.

Don: I encounter those objections regularly myself as well.

Julia: It may not be wholly irrelevant that we are both based in the Bay Area, which is the home of moonshots and unicorns.

Don: To those people I say, "So, you want to be more overconfident about everything? You should believe that your investments will go up infinitely tomorrow, you should believe that you are immortal, and can drive as fast or as crazy as you want and don't subject yourself to risks?"

Julia: I never tried the snarky response! I always try the very gentle response, and it didn't work.

Don: I guess you're nicer person than I am.

Julia: Well, it wasn't successful!

One manifestation of this model that I've seen recently -- and I want to see if you agree with this -- is growth mindset. I don't want to talk about the specific thing that Carol Dweck, the researcher of this term, means by growth mindset -- but rather the colloquial understanding of growth mindset.

Which is, instead of thinking to yourself, "Well, I'm not a good public speaker, I guess I'm just not the kind of person who can do public speaking. Oh well, I'm giving up," ... You should instead be thinking to yourself: "I'm not a good public speaker yet. But it is a learnable skill, and I'm someone who can learn skills." By adopting this growth mindset, instead of a fixed mindset, you can actually improve at the skill.

And I have to admit, I wonder whether encouraging people to have growth mindset as much as possible is actually encouraging overconfidence. Because it seems to me to be an actually empirical question whether people can improve. There might be some skills that are just limited by your IQ, or limited by something else.

Don: There are people who practice their skills at telekinesis or telepathy, and they will fail.

Julia: Oh, I hadn't even thought of that example. Right. I'm speaking only of real skills. Let's limit the question just to real skills for now, because I think that makes it a more interesting question.

Don: I agree.

Julia: There is surely some fact of the matter about how difficult it would be for you to improve at a skill. So is growth mindset actually always a good thing, or is it only a good thing if you can actually improve pretty easily with practice?

Don: I'm going to go with the latter. That you should have well calibrated, accurate beliefs about how much you can improve, and how much effort it will take to accomplish it, and then what the rewards are at the end.

I loved your interview with Bob Frank, but I was so disappointed to hear him touting self-delusion as a recommendation for improvement. And so proud of you that you held his feet to the fire on that one.

Julia: That's right, that was the more recent instance of this recurring debate on my show, not Maria Konnikova.

Don: My eleven year old son loves basketball, is obsessed with basketball. I am so proud of his achievements and how much he's invested in improving, he's a pretty good player and he really enjoys it.

But when he talks about his career in the NBA I say, "The odds of you playing in the NBA are so vanishingly small. I think it's great you love basketball and it's great that you work

so hard to get better. It will provide a lifetime of pleasure and reward, but you should study hard at school, because you aren't going to play in the NBA."

Julia: I have been playing with this model recently where ... Let me back up. One way that my thinking about biases and heuristics has evolved over the last few years is that I used to think of them as relatively modular. Such that we have a bunch of biases, and if you can improve any one particular bias, you are better off.

Now I have a more interconnected model of biases. Where let's say you have bias A and bias B; if you just improve bias A, you might make yourself worse off. Even though if you could improve bias A and B together, fix both bias A and bias B, you would end up better off than you were when you had both biases.

I wonder whether overconfidence is like bias A in my model. We definitely have overconfidence as a species, but we also have other related biases -- like narrow framing or loss aversion. Maybe a better way to describe this other related bias is that I think humans find it hard to motivate ourselves to act just based on the expected value calculation. Like, if you have two options, and option one is you could have \$500 for sure and option two is you have a one in ten shot at \$10,000. Option two is actually a higher expected value, and it's especially a better choice if you're going to have this choice presented to you repeatedly over time. You should totally go with option two all the time.

But it's just not that motivating to choose something that has a low probability of paying off, even if it's a high payout. If we just fix overconfidence, or optimism I suppose I'm pointing at, and we give people the ability to see clearly what their odds actually are and see, "Oh, I have only a 10% shot at getting this reward" ...Then maybe they actually won't take it. Even though it's the best thing to do. Because they can't abide the idea of doing something with only a 10% chance of winning.

I'll stop there, what do you think of this model?

Don: There are a number of attempts to account for the persistence of overconfidence in human judgment, with explanations exactly like the one you've offered. Where overconfidence is somehow the antidote to some other human frailty or weakness or fear.

I have a problem recommending overconfidence as a treatment that way, or endorsing it as rational. Yeah, you want a machine that has this known flaw because sometimes it helps cover up another known flaw -- well that's problematic for a few reasons. First of all, if you can fix the first flaw then you wouldn't need the second. It's hard to forecast exactly all the ways in which flaw two -- this being overconfidence -- could get you into trouble, that you hadn't anticipated, in ways that flaw one isn't involved in.

Julia: It's a little like: You're writing code, and you realize there's a bug because you do a calculation and then get an answer that's five too low. And instead of figuring out what the bug was, you just add five.

Don: Right, you'd like to go back and fix the original bug. Do people always have well calibrated beliefs and do they respond sensibly to uncertainty? No. Would I recommend overconfidence as a general treatment or correction for those errors? Again, I can't recommend this as a general strategy for a rational individual.

Julia: I think the reason I'm interested in this model is not so much as a way to decide whether it's rational or irrational to be overconfident -- because it think it's irrational -- but more just as kind of a Chesterton's Fence type exercise.

Don: I don't know that.

Julia: There this parable introduced by an essayist named G. K. Chesterton, where he imagines someone coming across a fence in the middle of a road somewhere, and saying, "Well, I don't see why this fence is here, let's just take it down."

G. K. Chesterton says to this hypothetical man, "No, go off and figure out why that fence was put there in the first place. And only once you understand why it's there will I *maybe* let you take it down, but not before."

This parable has been invoked whenever some sort of high-minded, well intentioned reformer says, "I don't see why we have such-and-such social conventions." Or, "I don't see why cities ended up organized the way they are. This seems clearly inefficient or sub-optimal, let's tear it down and build something new that makes sense."

The point I take from Chesterton's Fence is not that we should never change anything. And in this case, my conclusion is not that the set of biases that our brains evolved happens to be the most optimal arrangement of a brain. That would seem very coincidental to me, especially given that we don't live in the environment that we evolved in.

The point is more that in our quest to improve the way we think, we want to notice what hidden benefits there had been from the old systems, so that we can make sure that we don't lose them in the process of improving.

Don: I love that challenge. It is wonderfully inspiring and encouraging to any scholar who's interested in asking one more level of why, "Why do we observe so much overconfidence?" Accounting for its origins, psychologically and practically, is of enormous interest.

If, however, the challenge you've issued to me is, "Explain what in the ancestral environment could have favored the evolution of being sort of overconfident"...There we get into some of the problems associated with all evolutionary psychology. And that is the shortage in the fossil record of evidence on the situations, cultures and environments in which humans evolved.

We can speculate endlessly about ancestral environments that could possibly have favored overconfidence, and we will never have an answer.

Julia: Sure.

There was a distinction that you made in this cluster of topics in one of your papers, between optimism in the period of deciding what to do -- like deciding whether to take a risk -- versus optimism in the implementation phase. Can you talk a little bit about why the diagnosis might be different in those two cases?

Don: Yeah. This is a question that I confront with my students in the classroom, talking about the role of confidence in the execution of leadership. Because everyone sees the important role that leaders play instilling confidence in others. Where in any large group or organization, a leader has a role marshalling resources, encouraging people to march in the same direction, to commit themselves to a cause.

Confidence that the leader has picked the right direction is enormously useful in the service of that goal. That doesn't mean you want to recommend that the leader be delusional about them assessing the risk associated with different courses of action, whether that be challenging the status quo in police law enforcement, or deciding whether to enter some new market, or found a new company.

As the leader you have got to assess the risks with clear-eyed insight before you commit the organization to taking some course of action. Once you've decide that's the way to go, you'd really like everybody marching to the beat of the same drummer, in order to maximize the organization's chance of success.

Julia: So you're explicitly not endorsing self-deception as a leader -- but you are maybe endorsing other-deception?

Don: That is a profoundly troubling question which I must confront with every class when I bring this topic up. I'll say no to the second too. Because a leader who attempts to lead by fooling his or her followers is practicing a profoundly unsustainable form of leadership. Unmasking their lies is an easy way to discredit them as a leader.

I think what I'm encouraging is more akin to strategic self-presentation. Along the lines of the strategic choices one might make, in an optimistic outlook that chooses the more favorable way to feel about a given set of facts.

Julia: This is sort of what we were taking about earlier in the conversation -- having an enthusiastic, all-in attitude, independently of what your probability estimates are about success?

Don: Yes.

Julia: I like that. I've been looking for solutions in this space, of ways to purchase outward confidence, without spending epistemic hygiene. I guess that's the trade-off.

Don: I've confronted this question in research that I'm doing with colleagues here, Cameron Anderson and Liz Tenney, who was a post doc here and is now a professor at the

University of Utah. Looking at issues of confidence expression and the circumstances under which confidence expression can help increase the faith that others have in you, or potentially get you into trouble, if you express overconfidence.

And the expressions of confidence that are most likely to get people into trouble are things like, "I am a hundred percent sure that we can accomplish this task successfully." Or early in the Obama administration, "We will get down to five percent unemployment within a year."

That sort of specific claim is falsifiable and can get you into trouble. There are other ways of expressing confidence that are less likely to get a leader into trouble, that aren't attached to specific claims.

Julia: Cool. I look forward to reading that. Because this is also something that I confront a lot. This is one of the objections that people have to addressing their overconfidence, is that they worry it'll cost them social points. And I think it's a reasonable worry.

I'm curious whether you think that overconfidence on the part of, say, entrepreneurs or angel investors, might actually be a positive externality. That maybe it is in fact bad for the individual who's deciding to throw five years or a million dollars into some project that doesn't have much of a chance of success, and if they were correctly calibrated they would do something that was maybe slightly less glamorous, but much more likely to succeed.

But that all of that collective overconfidence benefits the rest of us. Assuming that the average new start-up is positive for the world, which doesn't have to mean that all of them are positive, but just that every now and then you get a Google or an Uber -- I guess I'm revealing myself as someone who thinks that Uber is net positive! That's a whole other episode... But if all the entrepreneurs and angel investors were perfectly calibrated, we would just never get any of these.

Don: We would certainly have less of them. I would agree wholeheartedly that that sort of confidence has a positive externality. That as a nation and as a world, we have benefited enormously from inventors, entrepreneurs and dreamers who take bold and irresponsible risks. They have created movements and companies that have benefited us all, and the US economy is so much more dynamic thanks to that sort of courage.

Julia: Do you feel like your work is good for society if you're encouraging business school students in the Bay Area to be less overconfident?

Don: If it means they're less likely to throw away their life savings, to ruin their lives, to subject themselves to hardship, disappointment and frustration, then yes. I can feel good about the advice I'm offering to my individual students.

I also do so in the full knowledge that there will always be a ready supply of eager entrepreneurs who are delusional about their chances of success and are ready to fill the schedule of any VC willing to talk to them.

Julia: I don't disagree with that.

Now that we're back on the subject of entrepreneurial overconfidence that we hinted at earlier in the conversation, do you want to delve into this sort of seeming paradox in the relationship between overestimation and overplacement between tasks?

Don: Sure. Here we're getting into some of the hair-splitting that you invited me to explore earlier. The explanation for the negative correlation between overestimation and overplacement across tasks, I think can best be summarized by the simple and uncontroversial notion that people's knowledge of themselves -- their performance, their ability, and their potential -- is imperfect.

People will make errors. When the task is hard enough that everyone gets everything wrong, whether that everybody will fail if anyone makes an error estimating performance, they can only overestimate it. When the task is so easy or everyone is so capable that everyone gets everything right, or everyone succeeds, then they can only underestimate it.

Julia: It's like a "regression to the mean" effect?

Don: Yeah, except for there's not a mean. It's more like regression to your prior, your Bayesian prior, where you've gotten some signal of performance. But it's noisy, so your prior combines with the signal, and as a result what you get is regressive estimates. Where on very hard tasks people overestimate, on the very easy tasks people underestimate.

That's been known for decades. That is the hard-easy effect in estimations of performance. It appears to be superficially contradicted in people's beliefs about placement, because in hard tasks people think that they're worse than others even though they have just overestimated. The way that that happens is a natural consequence of the effect that even though their knowledge of themselves is imperfect, their knowledge of others is even more imperfect.

For instance, if I ask a group of my students, "Give yourself a percentile rank relative to others in the room on your juggling ability," on average we will see that the mean is below the fiftieth percentile. On average people think they're worse jugglers than others.

They know they're not very good, but they think, "Maybe there are some jugglers in the room, and it's unlikely that everyone here is worse than me." They err in estimating others' performance on this very hard task, and wind up believing that they're worse than others, when they're not.

There are many other instances in life where people feel capable, and think, "Oh, I'm pretty good at this, I know how to drive a car. I haven't had an accident in the last week, maybe I'm better than others." They wind up overplacing themselves.

Julia: And the tasks that entrepreneurs gravitate to, that are especially difficult, like getting an successful company off the ground? I guess I don't know what exactly I'm comparing this to, sort of an undefined reference class, but are those the kind of tasks that would lead to this paradox?

Don: Well, we do see that there are substantial variations by industry. Industries where there are a lot of people who think, "Yeah, I know how to do that" -- most notably running a restaurant -- you see much higher rates of entry, intense competition, then much higher rates of failure as result.

The other issue in entrepreneurship has to do with self selection. If you want to ask whether potential market entrants are biased in their beliefs, if they are on average overconfident... That is a question that must necessarily include all potential entrants, everyone who could have gotten in and started a company. Well, there an awful lot of people out there who look at the statistics, and who look at the challenges associated with entrepreneurial entry, and think, "Oh man, no way. I'm going to stick to my day job."

You've got this huge selection effect. Where in the nation of 300 million people, how many choose to get in and enter? You should expect an adverse selection problem, where those who choose to enter are those who are most delusionally overconfident. It ought not then to be a surprise if we look at the lottery winners at the end, if we look at Bill Gates and ask, "Was he delusionally overconfident about his chances of success?"

Yeah, well those who ultimately succeed are sampled from those who chose to get in. They are all delusionally overconfident. The fact that you're left with a set of people who are delusionally overconfident isn't all that informative, if you ask, "Well, wouldn't you like to be like Larry Ellison or Bill Gates?"

Yeah, if we condition on their ultimate success. But if we condition on the set of people who had those delusionally optimistic beliefs and ask, "Well, was their attempted entrepreneurship a positive expected value bet?" There, the evidence is much less clear.

Julia: Right. I think I read also in one of your papers that fully a third of entrepreneurs, when asked about their chances of success, will say, "My chances are one hundred percent."

Which just blew me away! I can only explain that as a sort of social signaling, or like steeling themselves, trying to cultivate optimism, instead of trying to take their best guess. Otherwise my mind can't accept it.

Don: Given the grim statistics on entrepreneurial failure, it is those people who have convinced themselves their chances are so great, that they're going to beat the odds, that's who's left to run the risk of entry.

Julia: We're almost out of time but I want to take the last few minutes to invite you, if there are any open questions that you're are particularly interested in regarding overconfidence or optimism? This could be something you have already studied, or

something that you want to study. What question would you like to see answered?

Don: Well, my research has really zeroed in recently on overprecision, the third type of overconfidence, which we haven't talked about much. That is the excessive faith that you know the truth. And it is just, by many measures, the most robust form of overconfidence. It is rare that you find exceptions where people are underconfident about the accuracy of their beliefs.

I am fascinated as to why. One answer that I find intriguing comes from a book which might actually be my *Rationally Speaking* pick.

Julia: You know how this works, great! What's the book?

Don: The book is called *Being Wrong*, it is by a brilliant and insightful journalist named Kathryn Schulz, and it is all about the ways in which we are too sure of ourselves, are overconfident, and are wrong.

She offers the following beguiling explanation for how it is that we can consistently overestimate the accuracy of our knowledge. She says that we get used to being right about everything all the time, and her explanation is as follows -- it's really simple and leads to a profound and surprising conclusion. Stick with me: Most people believe what they believe because they believe it to be true.

Julia: With you so far.

Don: ... We hold the beliefs that we hold because we think that they're accurate about the world. As soon as we find out that something that we used to believe is not true, in that instant, we go from believing that thing to not believing it.

Julia: There's never a point for more than half a second that which we believe something that we know to be false?

Don: Yes.

Julia: Oh my God.

Don: She asked, "What does it feel like to be wrong?" Her insightful answer is, "It feels like being right." Because in the instant that you realize you were wrong then you abandon that false belief and you think, "Wasn't I silly to believe that before? Now my beliefs are more correct than they were before. Now what I believe is right."

Julia: I've noticed myself doing this on slightly lesser scales. Where I boast about how I'm a really good judge of, I don't know, who has been abroad, or who has some other particular demographic characteristic. And if someone asked me for examples, I'll list off a bunch of examples as sort of proof that I'm good at this. Then when pressed I'll realize, "Wait, I never actually confirmed that any of those examples I was right about." They just felt right to me -- my brain stored them as conformations of my detection skill.

It does seem to be tenacious property.

Don: You aren't alone.

Julia: I think this is a good point on which to wrap up, so let's move on at this point to the Rationally Speaking pick.

[interlude]

Julia: Welcome back, every episode on Rationally Speaking we invite our guest to introduce the pick of the episode -- that's a book or website or something that has influenced his or her thinking in some way. Don, what is your pick for today's episode?

Don: I already mentioned *Being Wrong* by Kathryn Schulz. Its charming subtitle is, "Adventures Within the Margin of Error."

Julia: That is a great subtitle, I'm envious that she thought of it first.

Don: I know, I'm envious of her writing in many ways, she's brilliant and clever and inspiring.

It is a close sibling, and a nice complement, to the other book that I would also highlight as a potential pick. And that is *Bright-sided* by Barbara Ehrenreich, in which she -- in her own angry, cynical, wonderful way -- takes on the American love of optimism.

And in discussing her own cancer diagnosis, and the advice she got from so many people that she had to "stay positive," confronts the perversities of an optimistic outlook and courageously entertains the possibility of rational, good calibration in one's judgements and beliefs.

Julia: I can just imagine Barbara's Ehrenreich's face when people give her a cheerful and disconnected-from-reality pep talk about cancer. That's the vivid image. Would you say that ... I keep on wanting to call it blind-sided, I guess that's the pun, being blind sided by the bright side thinking. Would you say that it conflicts at all with your research, or is it just a vivid concretization of what you discovered through research?

Don: She writes more articulately and inspiringly than I can about conclusions that I think are deeply compatible with my research. That note the dangers of self-delusion and the brilliant joyful, inspiring and empowering consequences of well-calibrated and rational beliefs.

Julia: Perfect note on which to end a Rationally Speaking episode! Don, it's been a pleasure having you on the show, thank you so much for doing this.

Don: Pleasure has been mine.

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

