

**ANNIE:** We have this way that we view changing course as a decision and staying the courses as not making it. But of course, staying the course is just as much of a decision as changing course. Right. We have a choice. Should we stay on the highway or should we take the exit? But we don't view it that way. And what comes along with that is that it carries, it carries different, basically different loss version with it.

**CHRIS:** Welcome to *No Turning Back*, a podcast hosted by General Stan McChrystal and myself, Chris Fussell. Our goal here is simple: to have serious conversations with serious leaders so that we can learn from the best and navigate these complex times together. Thanks for joining us.

**ANNA:** Poker is a game of risk. The chances you take, the bets you make, determine the loss, or the reward. It's a heated calculus of quick decision-making, gut instinct, and strategy. This week, on the second episode of the Risk mini-series on *No Turning Back*, Stan and Chris speak to Annie Duke, a former professional poker player whose titles include the NBC National Poker Heads-Up Championship, as the World Series of Poker Tournament of Champions.

Annie has a background in Cognitive Psychology, studying the topic at the University of Pennsylvania before pivoting her focus on poker. She brings an academic focus, and intense inquisitiveness, to the game, and her lessons and tactics transcend poker. These days, she's a bestselling author, consultant, and a speaker, with much to share about how we think, compete, make decisions, and strategize in uncertainty.

In today's discussion, Stan and Chris speak to Annie about why most people *don't* think probabilistically when making decisions, why uncertain decisions are often most impactful, and why no good decisions ever come from consensus. She speaks to the power of a pre-mortem to think through ways a plan can fail before it does, and discusses how poker players not only think about only winning, but winning the most they absolutely can (even if it means taking on more risk).

Annie brings a new level of intrigue to the conversation on Risk, and we were so excited to pick her brain. Thank you to Annie for making the time. Now, over to the discussion.

**STAN:** Well, Chris grew up as a Navy SEAL. I grew up as an Army Ranger and in both of those communities, the concept of quitting was an anathema.

In fact, in SEAL training, as Chris will describe, there's almost a ritual to it. And in the Rangers, if you quit, I had a friend of mine who is a peer, when somebody wanted to quit, he made them come into him and say, "I quit" out loud. And then he would say, "Great, you just started a habit that's going to last for you for the rest of your life."

So, so whenever we talked about quitting, it has this completely negative connotation. Chris, describe it, if you would.

**CHRIS:** Well, yeah, I'd love to get your thoughts on, in, in poker, Annie, how, or just your calculus there, because in, in SEALs selection, you may have seen this in a movie or something, there's this brass bell and it's the same bell that has been there for generations.

And the youngest, the youngest candidate in the newest class is responsible for polishing the bell and it has to go with them everywhere. So, it's a big tradition. And if you quit, you, you ring the bell. Literally you have to walk up and ring the bell. You ring it three times and you've quit the program.

And so, it is a, there's a huge legacy there. And to Stan's points and distill that thinking that you, you don't quit. But when you get into the operational world, that's not exactly true. It's choice of language because there are plenty of times we want a smart operational team will turn around from an objective because there's too many variables that have popped up out of their control.

You don't, you call it a smart decision at that point, but I'm curious, we'd love to dive into this with you like, that... when is it right to say, okay, this is now out of my control. I'm going to fold, I'm going to turn around on this mission or am I, am I then quitting unnecessarily?

**ANNIE:** Yeah. So, this is a complicated topic. It's why I'm, I'm writing a whole book on it. You know, I talked to, uh, Admiral McRaven on this topic and he, he had such an interesting way to put it. He said, as a commander, he sees himself as basically trying to figure out how to get people to quit, who have been selected for not being willing to.

So, I think a lot of these issues have to do with how do we deal with what our long-term goals are versus what our sort term goals are? And what we're trying to do with anything is maximize our return in the long run. And a lot of times what that means is that we have to quit in the short run.

Now in SEAL training, given what somebody's long-term goals are, you're trying to select people for not quitting because that's going to get you the best person for that particular job in the long run, given what the long-term goals are. But then you have this, this tension that is created, which is, as you just said on an operational basis, as you go into a mission, really good planning is going to require that you figure out what are the kill criteria here - meaning what are the criteria under which we would abandon course, regroup, and then come back to this at another time, and there's all sorts of reasons that you might do that. And if you're not following those and you're plowing through those signals that the world has turned against you, then you're actually going to have bad long-term outcomes.

So, you basically, with any of these things, you need to lay a structure on top, which is, let's think about these things in advance. Let's make sure that we have somebody who is not the person who is actually executing the mission necessarily, the one who wants to plow ahead no matter what, who's thinking about this from more of a long-term standpoint. And basically the, the way that I think about quitting is essentially this: that when you're making decisions, there is pretty much no decision that you're ever going to make of any import in which you're not dealing with either luck and/or hidden information.

So, when we decide we don't have complete information. And even if we did, we can't know which future we're going to see unfold. So even in a case where say, I knew that a coin for sure was 80-20 heads and tails, if you flip the coin and you call heads, I can't know whether on that particular iteration it's going to land heads or tails.

I just know that in the long run, it will land heads 80% of the time and 20% of the time. But most of our decision-making is actually much sort of more compromised in that, in the sense that I can't see the coin. So, I have some guesses about what the probabilities are and the more expert I am, the more information I have, I might be able to get closer to what ground truth is on what the coin is going to flip.

But so, I have both of those problems, and this is why quitting is so important, because what allows us to make decisions under uncertainty is that post-decision we have the option to quit it. When we get new information, we can now quit. The problem for most of us is that we don't do that. So we sort of lose this amazing thing that we've given. It's really a gift, which is: I'm going to make decision-making really hard for you because you're going to be making decisions under extreme uncertainty, but I'm giving you an out. And that out is that you're allowed to change your mind. You're allowed to cut your losses. You're allowed to leave and come back another day, try a different strategy, try a different tactic.

And the issue is that while we have been given that gift, we mostly refuse to accept it.

**STAN:** That that's really powerful. And it really takes us into where I want to go next, which is decision-making, because we spend a lot of time talking about it, thinking about it, writing about it.

I'd like you to describe to me, two things, first: how do you think people, on average, make decisions and then how do you think we get it wrong? Where can we do it better?

**ANNIE:** Well, how much time do you have?

**STAN:** All the time you need, Annie.

**ANNIE:** Oh my gosh. Okay. So how do people get decisions wrong? So, oh my gosh. In so many different ways. Let me think where to start because I've written two whole books about it, and they weren't, you know, the complete story.

So, the first thing is that when most people are making decisions, they're not in any explicit way thinking probabilistically. So, in other words, as they're trying to think about a decision, they're essentially trying to think about how that decision will turn out in the sense of one particular outcome. So, they're thinking about, I want to get a particular outcome. What's the decision that's going to get me that outcome? As opposed to, as I think about different options that I might consider, they have a range of possible outcomes associated with them.

I automate those explicit, and then actually try to in some way, assign probabilities to them.

So that's really the best way to make a decision, but most people aren't actually following that process. They're either thinking about only one outcome. They're not thinking about it in a probabilistic way, and then there's all sorts of mistakes that they add on top of that, which is that they do a kind of weird backwards thing, which is, when they feel like they can't know for sure, then they say, well, I'm just going to go with my gut because what could I do otherwise?

And when it feels like they could know for sure, which is usually an illusion, they will take a lot of time on the decision. Now, the funny thing is that those decisions actually should take very little time with, and the first type of decision you should take a lot of time with.

So, I'll give you, I'll give you a simple example. And this, this comes up very commonly in, like what I'm doing with companies that I'm consulting for people that I'm trying to coach or executive coaching on decision-making. You'll say something like, "well, what I would like you to do is to estimate the probability that this company that you're about to fund is going to successfully fund a series B. And let's assume that they're, they're, they're investing at the seed stage."

So, this is now going to be like two rounds later, and I'm asking you to try to figure that out. And the answer that I get all the time is, "How could I know that? That's... I don't know. I can't give you an exact answer for that. That's too hard," right? If I say, um, as you're looking at a, an opportunity that you might be thinking about bringing into your sales funnel, to a sales person, that do you, what do you think the probability is that you're going to close this within six months? And they'll kind of look at you and say, "Well, I'm not sure," because they're thinking about it as either a yes or a no black and white.

Because in poker speak that we have is because that's something that settles to one, it either one or zero, it either happens or it doesn't. And it's hard to see that in the long run, these things are probabilistic. So, what happens with is when people sort of get the feeling that they can't give you an exact answer, then they say, "Well, I can't give you a guess because I don't know."

And what they'll do then is make the decision very fast because they sense that they're in this sort of not knowing space, but here's the problem with that: is that the things that I'm trying to ask are actually already baked into the decision that they're making. They're implicit in the choice that they're making.

Because for example, in the case of venture, I can ask that person, well, what is it that you're trying to get an outcome for? And they'll say, "Well, you know, to be a unicorn, I'd like the company to reach escape velocity, to exit for more than a billion dollars." And I'll say, "Okay. So have you ever had a company that you invested in that exited for more than a billion dollars and didn't successfully fund a series B?" And they'll say, "No."

And I'll say, "Well, then that's implicit in the decision. So, you must try to make that explicit and you have to stop thinking about it as just like a random guess, because there's whole a whole

bunch of stuff that you know about that that's why you're good at this job. And you can look up the base rate," right.

And this is true for anything, right. If you say, how long do you think it's going to take you to get from a to B? Right. If it's a new route for you and you don't have GPS, you could say, "Well, I don't know. I've never been on that road before," but the fact is of course, you know, because you know, it's not five minutes and you know, it's not three hours, it's somewhere in between and the more you can narrow that down the better. And the fact that you don't know doesn't mean that you shouldn't take the time to try to guess. In other words, to do a really strong educated guess and try to narrow it down as much as possible.

And there's two reasons that you want to do that. One is it's going to cause you to go search for knowledge and it's going to make the knowledge that you're bringing into the decision much more explicit in a way that it can be examined as an object, that will really help with the quality of that decision. That's number one, and then number two, it actually helps you to create tighter feedback loops so that you don't have to sort of wait around for these very long-term outcomes, but you can actually create these shorter feedback loops so that you can start to understand how good am I at forecasting into this market that I'm deciding into.

And the better you are at that, the more that you can de-risk your decisions, because the more information you have, you can generally lower your risks. And this is incredibly necessary because the more uncertainty we have, actually, usually the more impactful the decision is going to be.

So that's kind of like that side of the equation, but then when you get somebody who's like looking at a menu in a restaurant. Then this weird thing happens. All of a sudden they're taking 15 minutes to choose whether to order the chicken or the fish. You're like, well, why is that happening? And it's because now they think there is a right answer and they ought to know it because it's about their own preferences. But the funny thing is there is that, first of all, you can't know because you don't have a time machine and you don't know if the chef is on or not, is the chicken going to be dry or not. You're still making a guess about your preferences. That's number one.

But number two, if you get it wrong, who cares? Like literally, you had some dry chicken, it has no effect on... impact on your happiness rather in the long run. So, we get these things weirdly flipped. So I would say like, that's the first problem with decision-making. I know it took a lot of time with problem number one, but that I think is one of the biggest problems is that we don't think probabilistically. We don't make explicit what's already implicit in the decision, at which point we can actually make predictions about those that allow us to tighten feedback loops. It allows other people to look at our predictions and offer their own ideas about what they think about, you know, what our assumptions are, and just doing that alone makes your decisions so much better. And people just don't do it.

**CHRIS:** Two quick ones on that, but before we go onto it, cause it's just fascinating. One, and this might sound flippant, it's not really. The restaurant example is great. Is that, is that why people want to know what other people are ordering?

**ANNIE:** Yes.

**CHRIS:** They want some sort of confirmation that they're making the right choice.

**ANNIE:** So they want to know what other people are ordering for a variety of reasons. One is that again, they think there's a right answer. So, if they can find out what other people are ordering, it helps them to figure out if they have the right answer. But the other reason is this and this, this actually speaks to another problem with decision-making is that we confuse a bad outcome with a bad decision. And in this particular case, look, I'll just ask: what's the first thing that comes to your head when your chicken is dry? I can't believe what a dumb decision. Why did I order the chicken? I should've ordered something else. You literally think it was a mistake. You think that you made a bad decision, which is absurd.

Because, I don't know, I've never had food from the chef or maybe it's a different chef today, or maybe I'm just not in the mood for it, or maybe it was, you know, they just overcooked it by mistake. I mean, there's all sorts of things that can have to do with that. But if you've actually asked everybody their opinion, there's a particular protection, there's a way to de-risk against bad outcomes. Not, not in the sense of actually lowering the risk of getting a bad outcome because it doesn't do much of that, more in the sense of de-risking in terms of the way that you feel about it, your, your career risk that's this actually gets into what people do, particularly in enterprise situations, is that if there was consensus around the decision, like if I asked everybody at the table, then I don't feel as bad that my meal came back yucky.

Because I'm not sort of the protection of the group having sort of agreed with the thing that I was ordering. So, now we can take that into an enterprise situation, right. Which is: when people are generally doing postmortems, they're pegging them to some sort of unexpectedly bad outcomes. Sometimes not even unexpectedly, just period, a bad outcome.

**STAN:** And I don't have that problem, Annie. The restaurants I go to you ask you, go up to the drive-in window and ask for a meal number one, two or three.

**ANNIE:** And it's always the same, right?

**STAN:** That's right!

**ANNIE:** That's another way to de-risk, by the way, just to order the same thing over and over and, and stick with the status quo and not get too innovative.

But yeah. So, with postmortems, what happens is, we say... we go into a postmortem and we have these words, like "blameless postmortem." That's very popular now, blameless post-mortem, you know, oh, we're doing a process dive. I don't care about the outcome.



But here's the problem. You're only doing it when you get a bad outcome. Okay. So, first of all, you're lying. You don't know you're lying, but you are. And second of all, what's, what's being asked of the people who you're having the discussion with this, for them to explain their decision process and defend how they modeled the decision. And when you get an unexpectedly good outcome, the mirror process is not generally happening.

“Whoa, this went 20% better than we expected. We really ought to dive into the way that we modeled this because there's some possibility we had this model wrong in particular, in either case we may have modeled the risk incorrectly.” So, but we don't do that on that side. We have champagne. So, so the question then is: if people sort of know, you're saying it's a “blameless postmortem,” but that's not the way I feel.

I feel like I'm having to defend my decision. There's only two ways to sort of get out of that situation. One is to order from a drive through window. In other words, to do the thing that you've always done in a situation that has very low risk of loss, but also what goes along with that, when you're playing these mini max strategies, which is really what that is, is that you also limit the upside in general. So, that's very bad. You don't, you don't really want to have people playing a mini math strategy, but it's a way to get out of it. If I just sort of never have anything particularly bad happen, I'm not going to be in that room.

But this is the bigger problem that goes to why does everybody ask everybody at the table for their opinion? Because the other way I can get out of this is everybody agreed. No good decision has ever come out of consensus, but it protects you in the room. Like, you know, every single person on the team agreed. We discussed it ad nauseum, and this is where everybody, this was the conclusion everybody came to, right? So, that's one way to get out of it, which is what's happening at that table.

The other way to get out of it, which is also what's happening at that table is people will continue to model the problem, collect information, and be doing analysis beyond the point at which they should already have decided. So, the question is: what are they getting out of that? Because you're losing a lot of speed and you're not actually changing what, what the option that you're deciding that you're going to take. And what you get out of that is when you get in that room, you get to say, look at all the modeling I did. Look at how much data I collected, look at, you know, the seven ways to Sunday that I happen to look at this.

So, you can see both of those in this microcosm of the restaurant. You're trying to gain consensus on what you're supposed to order. And you're essentially, you're essentially collecting data and modeling the problem of what to order beyond the point at which it makes sense. Which is really slowing you down.

Neither of those is good for decision-making.

**CHRIS:** You could do a marriage counseling on date, on dates.

**ANNIE:** Yeah, I mean, you know, what I say is when, when the, when the outcome doesn't matter much at all, just flip a coin.

**CHRIS:** Right, right. To that previous point you're making though around, sort of trying to reduce it to a yes/no and pivoting that gut instinct, uninformed observation here, but I'd be curious for your response. What I'll describe here, I don't think happens in the special operations world, military more broadly, because I think there's a teaming effect that reduces it. But I, you know, I do a lot of rock climbing and live in an area where there's lots of, you know, mountain biking, used to skydive, river sports, kayaking, those individual high-risk sports, the bell curve, so, you know, it's the safest with the, "I'm okay, but I'm not great." Novice people get hurt cause they do dumb things and, and the riskiest people are the best people. The deaths in those high-risk sports are the most experienced people. That's, you know, general observation. And I think it's cause they get to that, they push themselves that edge. They make that... they want to reduce it to one or zero and they go with their gut, which is just beyond the human capacity.

Do you, would you agree with that or you see it differently?

**ANNIE:** Yeah. I mean, you know, it's interesting. I mean, I think that, I think that that's true. I actually, if you saw *Free Solo*, which is Alex Honnold right.

I, I actually talk about him in my book because it's very remarkable that he found that attempt. So, particularly under those circumstances, because they are sort of trying to push the boundaries, but he, he really understood in that moment that, you know, live to fight another day was actually really important there and that he probably wasn't going to be okay getting up there.

So, you know, was he going to be able to come back the next year to, to complete the attempt, you know, it wasn't, that's probabilistic. It wasn't a hundred percent that he could, but I think he understood that it was 0% that he would be able to if he continued up because he was gonna fall.

You know, I don't know if this is, you'll have to tell me if this is true, but I read somewhere that, George Washington only won six out of... he, he won six battles and lost seven, so I, and on the seven he retreated, you know, and I, and I kind of think about this as the ultimate statement about why you need to quit, right?

Because if the long-term goal is to get up to the top of El Capitan, right, then pushing the boundaries on one attempt doesn't make a lot of sense, but this is what will happen, particularly when we're experts.

And kind of a parallel version of that happens in just general, like knowledge work, you know, for people who are subject matter experts, not, not necessarily when you're on the face of a mountain, but what you find, and this is wonderful work from Phil Tetlock who wrote a book called *Superforecasting*, but has a book from before that, which is called *Expert Political Judgment*, which I, I don't know if you've read it, but it's, it's an amazing book.



I'd really highly recommend that you read it. And what he found was that subject matter experts are often the least likely to incorporate new information, in order to change their model. In other words, the way that they'll incorporate new information is either to think about it in a way that confirms their big idea, their big worldview, or they'll come up with a way to reject the information altogether.

So, the way that I think about it is as, and this is true, whether it's rock climbing or whatever, is that as you get more expertise in it, you dig a deeper trench into your model of the world, so you get more and more entrenched in that. And what we really ought to be doing is climbing out of those trenches and sort of looking... taking a good look at the world.

And say, has anything changed? I've been down here, you know, has anything changed? Should I be changing my model of the world? Which of course is a form of quitting. Right. And, but what happens is that you pull all that information down deep into the trench and, and the example, one of the examples that he gives in that book is basically what happened a lot of people who are experts in Soviet Russia, and that they didn't see the fall of the wall coming. They didn't understand really what was happening. And they were, they got really bad. They just turned really bad at sort of predicting what was going to happen in terms of American-Russian relationships after that happened.

So, they had an issue, both in the run-up to it, and then post that because they just had such a strong model, which was the Cold War that when things started to thaw, they, they sort of couldn't see it. And it was newer people who came in, who were sort of fresher to the problem who were able to view that.

And I think this can happen to us, whether we're rock climbing or skydiving or trying to predict, you know, what's going to happen geopolitically, is that we have to be very careful to be allowing what's called either the outside view, which would be a statistical term for understanding like base rates and that kind of thing.

And also perspective taking like how do we... to, to use, um, the model that Phil Tetlock has: be less "hedgehog-y" and more fox-like. So hedgehog is one big idea. And you can think about that as a hedgehog rolls into a ball and won't let anything into it. And foxes are looking at things from every different direction and we need to just be making sure that we're finding a way to incorporate that worldview in. And I would go back to that original thing that we talked about, right. You know, Navy SEALs are being trained for such a specific thing, which is like grit, intuitiveness, you are willing to allow your body to endure things that other people will not tolerate.

So, this is what is being selected for, but then the people who are commanding those operations need to act like foxes and they need to be able to see the whole picture, see it from all sorts of different points of view. See the different outcomes that could occur, the different futures that might unfold. What are the bad futures that are sitting in there? What are the early signals that those bad futures might be unfolding? And when I see those signals, I must know in advance what the plan is going to be, because what I understand is that the, the soldiers that I have

selected for, will not quit in the face of those signals. So, I have to be the one who's planned that ahead and will pull it back and understand when do I allow that grit to go forward? And when do I sort of put a break on that and get that to pull back?

And that's all really, really hard. The more entrenched in your worldview that you are.

**STAN:** Yeah. You're taking this in some great directions, Annie. I do the hedgehog thing. Get up in a ball when my three granddaughters attack me and I found out I can protect myself. You know, I'm going to go back to something you said, because it obviously scratches an itch for me. You are absolutely right about George Washington.

**ANNIE:** I'm so glad! I wasn't sure if that was apocryphal or not. I'm so happy. Okay, good.

**STAN:** The difference was between him and other leaders, he understood that the mission was to win the war. And it didn't involve winning battles. It involved not losing the Continental Army. And, and that was great, But I'm also... I think you lived in Montana for a while, right?

**ANNIE:** Yeah, I did. I did.

**STAN:** Okay. Then we're going to go home for you because we're going to go to the battle of the Little Big Horn, because George Armstrong Custer, the cavalry commander of the seventh cavalry takes this force and he boldly attacks this Indian village that was way too big for him. And he got a bad outcome.

And we think that he was an idiot and whatnot, but in reality, if we look back, during the Civil War, this cavalry commander himself had led 11 charges against the Confederates and never suffered a single wound. And then in 1868 against another Native American tribe, he had done almost the exact same tactics that he used at the Little Big Horn at the Battle of Washington. And it had come out great. And so, whether that was a good decision or not, he'd gotten a great outcome. And so, you talk about starting to build his experience and his inclination and his hubris, how do we train leaders not to do that? Where do we start? What's the process?

**ANNIE:** Yeah. So, I mean, this is that that's actually an interesting case. So, I didn't know the history of that. So he, he given, given his past experience that what, what his choice was his battle plan may have been the best, best plan to choose. The issue is, do you keep running into that once you start to see that things are going wrong? So, the... what I like to do in order to get a really clear view of the different outcomes that can occur is there's a couple of things that you can do.

So, the first broad idea that you should lay on top of any process that you have is to make sure that the initial feedback that you're getting on the team is asynchronous and independent. This is really, really important. It's particularly important, by the way, in a military setting, because the hierarchy is so clearly set out even more so than it would be in an enterprise setting.

But it's very important in either setting. It's important in your personal life. So, as you're thinking about, even if it's just a brainstorm, right? What do you think the different outcomes might be? What do you think the probabilities of those are? What are the different tactics that you think are gonna work here?

What should their overall strategy be? Make sure that you're eliciting that those viewpoints independently, not in a group setting, because that's gonna, you know, I was talking to, the CEO of Hormel yesterday, actually. And he, he used a very good phrasing for it. He said, it's going to allow you to walk around the decision better. So, what, what, the way that you can think about that is: we're trying to get as many perspectives on it. We want to get a full 360 on the decision of every perspective there is. And we naturally are inclined to think that if we're doing that as a team exercise, that we're getting different perspectives. But if you do it in the room, as a team in the room, you won't actually elicit those perspectives for a couple reasons.

One has to do with hierarchy. People don't like to disagree with leadership. The other is that there becomes a really big order effect. You can, you know, the example that I give there is if you're thinking about settling a lawsuit and you say, okay, what does everybody think? And the first person says a hundred thousand. It's very clear that everybody's going to talk about it now is should you go more, less than a hundred thousand? And that the ultimate number is going to be somewhere in that vicinity.

If the first person says a million. Now you're going to be sort of indexed on a million and should it be more or less or whatever. And this is, well, you know, this has shown that you get anchored to whatever the first thing that said, and that's true in brainstorms. The first idea you talk about a lot, the second idea, you talk about a lot, and then you, you know, you run out of time in the meeting. So you want to always do just anything that you're doing you want to do asynchronously and independently, bring that together into some forum that has themes or ideas, or sometimes it's just people rating things yes or no, or giving forecasts, what's the probability of X or Y. You know, it might be, you know, point forecast with lower bounds and upper bounds, whatever it is that you're doing, get it independently.

Then the second thing is there's a particular decision exercise that you should do in that way in order to really figure out what is the best strategy in this particular case? And it's to do two and it's a pre-mortem basically, but you do it. And you ask two different questions. The first thing is: imagine that this has gone really poorly and we have lost and we have suffered a terrible defeat.

Why do we think that happened? So, this is just understanding what are the different ways in which we might lose, right? And you get everybody to do that, do that independently. Then as a separate exercise, you say, okay. So, imagine that we lost in this particular way, what were the signals that we overlooked? Where we could have figured that out earlier? And those things you write down and what this allows you to do is get a much better view of, in say in Custer's case, this has worked really well. We think we're going to do it, but imagine we use this same strategy. And we have suffered a defeat. Why do we think that happened?

So now, now you get a big view of that, and then you follow it with what are the early signals that we likely overlook? And then hopefully you get, you get to retreat more quickly in a Washingtonian kind of way so that you can come back and, and figure, figure out a way to actually win the war.

So that you're not just running headlong into something because it's worked in the past, right? Because otherwise what ends up happening is that you get into this habit of it worked five years ago, so let's do it. And that plays into what we talked about before and to what happens in postmortems, not pre-mortems, but postmortems, which is, if someone says, "Well, this worked six times before, of course, this is what I did."

Well, nobody should accept that as an answer. It should be, "but did you think about if you did the same thing, what are the ways it could turn out poorly? You know, were you thinking about what the signals of those things might be, so that you could actually figure out if there was a better way to do it, number one? And you don't want to encourage that kind of behavior. Obviously you wouldn't do that if it was low impact, if it was a restaurant ordering situation, but if it's a battle, you should care about it. Right?

And you want people to get out of this idea that just because it's worked in the past, doesn't mean we ought not to be exploring it because it still could go wrong.

But the other problem, and I think this is something that people really lose sight of, and this is something poker players have to really pay attention to is just because you're winning doesn't mean you're winning the most that you could be. So, there's all sorts of decisions that you can make that are good, and you're going to win to them. They're going to be positive expectancy, but it doesn't mean that you're generating the most alpha that you possibly could be. It doesn't mean that you're winning the most that you possibly could be. There could be other options which could be winning the exact same amount, but be less risky, for example. There could be other options that would win a lot more, and maybe carry the same risk with them. So obviously you'd prefer that. There may be other options that would win a lot more and be riskier, but you can afford the risk and you'd rather generate the excess returns. Right. But if you're not... and there might be decisions that would win more that you don't want to do because you can't afford the losses.

That's okay. But, but if, if you just assume what I've been doing has been working and you don't actually explore what the other options are for how you might approach the problem. You're never actually going to discover that. And there's people who are just leaving money on the table or happiness or health or whatever, all over the place, because they're not thinking that the thing they're doing is working really well may not be the best thing that they could be doing.

**STAN:** Yeah. I think that's really important. And when you mentioned risk, you obviously, you know, hit something I've been focused on. In organizations, there is a risk of the decision for the organization, whether we're going to go left to right, but also all the participants have an additional view of risk, their personal risk and what we found, Chris and I, and the sort of the

bureaucracy is there's often a tendency for people want to take a lowest common denominator solution that has worked before.

Because even if they overall outcome is bad, it's hard to criticize them because I followed doctrine or I did what General Washington did, you know, therefore it should have worked. Is that something you see in business?

**ANNIE:** A hundred percent and, and it gets amplified by this postmortem problem. If you're only ever getting in a room when you have a bad outcome, and you're asking people to defend themselves, well, this worked the last seven times we did it. Everybody agreed. This is the way we've always done it. And nothing's ever gone wrong in the past before. Why would you think that we would think there would be anything different that would occur? And you push people into these, these status quo options. And then you, we can pile on top of that, this really interesting kind of, it's like a tick of human nature, which has to do with status, this, this aspect of status quo bias, which kind of goes like this: this is a discussion that I have with people all the time.

So, we have this way that we view changing course as a decision and staying the course as not making a decision. But of course, staying the course is just as much of a decision as changing course. Right? We have a choice. Should we stay on the highway or should we take the exit? But we don't view it that way. And what comes along with that, is that it carries a different sense, it carries different, basically different loss of version with it.

So, so let me explain what I mean. So, I have this discussion with people all the time, who there say I'm in a job and I hate it. And I'm trying to decide whether I should actually make a decision to quit. It's like, okay, well, all right. Let's just, I'm not even going to go into that cause you're making a decision to stay, but, I'm trying to decide whether I should quit and go do something else. And I, because I really hate my job. And I'll say to them, well, what are you afraid of? Like, why are you afraid to quit?

Well, what if I quit? And I go do something else and it doesn't, and it doesn't work out and I'm miserable. So, I said, okay, that's kind of interesting. Right? Okay. So, you're afraid this is typical loss aversion, right? You're afraid to go do this new thing because you're, you're afraid that you're going to have a bad outcome. You're afraid of a loss that you might incur. All right. So, I always ask them the same question: so, in this job that you're currently in, imagine it's a year from now. What is the probability that you're really happy and the job is going great?

And of course, they've come... I know what the answer is, because they've told me they're miserable. So they say zero, there is no chance that in a year I'm happy in this job. I said, well, that's interesting. Okay. So, if you take this new job, what are the chances that you really love it versus what are the chances that you hate it?

Well, how can I know? I haven't taken that job that goes back to that original thing that I said, okay, well, take a guess. Is there more than a 0% possibility that you're going to be happy in this job? And they say, yeah, you know, and maybe they'll say, well, maybe it's 50-50 or 60-40, or

whatever. They'll give me a guess. I say, okay. So, if you stay in the job that you're in. You're never, like literally, it's a hundred percent of the time that you're unhappy.

If you stay in the, if you take this other job, sometimes you're unhappy and sometimes you're really happy. So, this is a time when we'd like to actually take on the risk. We want to, we like volatility. We should be volatility seekers here. Right. And then it's like, so why aren't you switching? Well, the reason is that if you have a bad outcome from the course that you're already on, you don't feel the same kind of regret.

It's a little bit like, well, what could I do? The world just happened to me. I didn't actually decide to be here. And if you switch, because it is active, you are committing an act, right. Then when you get the bad outcome, now you get that loss aversion, right? You're like you regret it so much and you just feel so bad even though you drastically increase your probability of being happy.

Now, once you lay it out to somebody like that, they're like, oh, what was I thinking? Of course I should switch. But people don't think about it that way. And it's this weird thing, right? If you just sort of go and drive your business into the ground, doing the thing that you did before, it feels better, then if you do some sort of innovation and it doesn't work, and that's the way you lose your business. Even though you would have, you'd lost your business anyway, because it was failing, you would just prefer to fail, just go down the path.

So that's true. Like on the enterprise level, it's true for the individual who's within the enterprise and not surprisingly because enterprises are collections of individuals and everybody's behaving this way. So, what happens is, you know, you, you have this kind of strange thing, which is, isn't it kind of a puzzle that Microsoft could kick IBM's butt so badly. IBM had all the money, they had all the smart people. They had all the eyeballs. They had the brand awareness, they had all of this stuff.

So how does that happen? How does Microsoft and Apple, these little startups come and kick their butts? Well, because they don't have a status quo yet. So, they're just... the expectation is we're just trying stuff. Some of it's going to work out. Some of it's not, it's all good. We're just going to go for it. And this allows them to drastically out-innovate IBM, which has a lot of pressure on it just to keep chugging along, doing the thing that it's doing.

Because even if the thing they're doing is ultimately going to fail, they prefer to do it that way. Then anybody sticking their neck out and saying, Hey, I think we should change course here and actually do this other thing. They're never going to do that. It takes someone fresh to the decision to do it.

So, one of the challenges that we have as decision-makers is to, is to actually figure out: how do we in our own lives incorporate that, that startup mentality to make sure that we're not just trying to exploit strategies that have worked well in the past, but then we're also have an exploration route open at all times, and that we're really paying attention and we're being really good scouts.



We're doing excellent reconnaissance and we're seeing how that landscape is changing and we're testing it and we're poking around it at all the time so that we don't end up in this status quo rut that's going to cause us to fail.

**CHRIS:** Annie, it's just fascinating. I'd love to ask one final question, really around, taking it down to the individual level. And, you can obviously say, say more about this, correct me if I get it wrong, but you, you came to poker in, for me, what seems like a non-obvious route, you're on this road, you know, you're, you're working to get your PhD. You decided to take a little time off and you get into, into poker. So I'm going to assume that you either knew and were confident, or you'd been told that the system surely, that you are, you're pretty brilliant person, right?

You're on this track academically, and then you find, I'm assuming, as I can apply these strengths in other ways. Again, oversimplifying assumption here, but poker, you've got to know the game really well. You've got to have a certain type or level of intellect, and you have to understand how to read people around the table to be effective or something like that. The selection of human capital is like the coin of the realm. Everybody's... from professional sports to the military to industry, everybody wants to get that exactly right. I don't think there's one single solution. The military gets a lot of attention because the gates, you know, that you put people through, but you're selecting for very specific things.

Are there a, how would you, how would you capture that in the poker world and on the human selection side? I'm sure you advise leaders on that all the time. How do you look at it? Do you, do you tell them, well, you have to figure out what theses quadrants are and start with one, or you have to know what the, what the Venn diagram center looks like, and you can start from any direction? How do you think about it?

**ANNIE:** Yeah. Gosh. So, all right. So, in terms of the poker thing, let me just say, I came to that slightly accidentally. I had already finished all the work for my dissertation at the only thing I didn't do was defend it. I was actually out on the job market, and I got sick, and I just need to take some time off and I needed some money.

I started playing poker, it turned out I had a knack for it. And I thought this is pretty fun. So, I kind of kept doing that for a while. But eight years in, I was already sort of back to cognitive psychology and started thinking about the conversation between the two. So, one, one of the things is that what I was studying when I was in graduate school was, was essentially learning under uncertainty.

I had a focus on first language acquisition, which is actually one of the best problems of how, how, you know, how does the human brain like deal with these uncertain systems and really, really, um, no pun intended, noisy feedback in order to, to be able to learn, but it was cognitive science in general.

So, I was also looking at, you know, judgment and decision-making and perception and taste and you know, all that stuff. When I think about what I was doing in poker, it was really just sort of a

real-world application of those problems. It's a very uncertain system. It's very, very noisy feedback, certainly in the short run. It's a place where cognitive bias can really dig in its heels.

The basically the more uncertain the feedback loop, the more biased you can be in terms of the way that you interpret that feedback, which is actually quite a big problem. So, and then when I started bringing those two together into my consulting work, like I feel like I've always sort of done the same thing my whole life it's just sort of in different phases. So that's just the answer, the poker part of things.

In terms of hiring, so I'm very much in the Daniel Kahneman camp here. So what I think about is: with, with some algorithmic support, obviously for understanding, you know, what are the qualifications, what are the things that you need in order to really increase... get the, sort of the best base rate on the, on the chance that the person is going to work in the organization, it gets, again, goes back to this idea of make explicit what it is that you're hiring for. Understand what that is before you start to interview the person. And then make sure you're getting multiple viewpoints, from the people who really matter in terms of that hire, in order to get the best result.

So, I'm a big creator of hiring rubrics. I really, really believe in them. The way that I do that is I make everybody write a job description, to start with, and they do it independently for the role that they're hiring for. And then I say to them, you're talking to a recruiter and you're trying to explain what is the type of person that you want, that you think would fit in this job? What are their qualities? And I elicit those in a whole bunch of different ways. And then I say, what are the near term challenges internally? It's essentially, then you just do a SWOT, basically. What are the near-term challenges that they're going to be facing internally? What are the external challenges that they might be facing? Obviously, that's role dependent. What are the long-term internal challenges they have to face and solve for? What are the short-term external challenges? So, you, you get, you sort of elicit all of that again independently. Then you bring that together into, you know, whatever it is, the four main qualities that you're hiring for, and then you create what are called mediating judgements.

So, the mediated judgements would be if you really care that the person is going to be a really cohesive member of the team, for example, the, and this is something that's a big value for you. The mediating judgments would be well, what does that mean for you, for someone to really be a cohesive member of this team? So, it might be things like open-mindedness, freely offers feedback in it in a, in a not disagreeable way, is open to other's feedback, very collaborative, right? It might be things like that, right. Where you're thinking about a broad feature of the person and then you have these mediating judgments, or what you might call detailed criteria, which are asking people to then give a rating of the person on.

And you do it in a very exact way on a scale of one to seven. How open-minded do you believe this person to be in a scale of one to seven? How good is this person at receiving feedback and in an open way? How proactive is the person in giving feedback in a way that is delivered in a way that people can hear? So on, so forth.

So, you're figuring out what those broad categories are. So, you know, as an example, you know, if you were hiring an investor, right, a category might, it would depend on the investor in what they were doing, but let's say that they were a VC and one of the big categories was you have to be attractive to founders, let's say. And then you would figure out what, or what does that mean for you? What do you think it means to be attracted to a founder? And then you would rate that. And you can include forecasts in that kind of thing. So now, you create a rubric that is here's the broad categories, here are the mediating judgments you're going to make.

Then you will then give a judgment of the broad category along with the rationale, some free writing, for why you gave that judgment of that category. Anybody who does the interview on, on that, that person fills that rubric out. And that rubric is then driving a discussion because subjective judgment here really does matter, right? Different organizations are different, but because you have elicited that feedback independently before they can talk to each other, now you will see the spread.

And you'll see, one person thinks they're very, very strong on a category where another person thinks they're not, and that drives the whole conversation so that you can understand where is this dispersion of opinion coming from, not with the goal to end up agreeing, but in a goal to just discover the information so that the people who ultimately have to make that decision have that.

So now what you're getting is: judgment sitting on top of data, right? You have data about the person, how many years of experience, so on, so forth, there's just certain things that they have to do in order to, to get gated into the final process, which is what this would be for. So, we've gotten me to the point where we want to make a decision yes or no about you.

And now you drive that discussion through, elicit the feedback in a precise enough way that we, that we can see, in advance, that there's dispersion of opinion on the team and do not talk about the places you agree. Talk about the places where there is disagreement in order to understand what the rationales are behind that disagreement so that that could get fed into the ultimate decider and they then make a choice. So, I don't know. I hope that answers your question, but that that's the way that I've run those processes.

**STAN:** Yeah. My description is that's an incredibly powerful approach. I'm glad no companies were doing it when I was first job seeking or I'd still be unemployed.

**ANNIE:** Me too. What did she do? The poker player. I'm not going to hire her.

**STAN:** But let me say that what we were trying to select for today was somebody who would make people think, Chris and I included, and Anna you've done that extraordinarily well. You've taken on the idea of risk and decision-making, and you've poked at them in a way that I think is good, because when we're comfortable about how we make decisions, unless we've been completely successful and everything we've ever done, we probably need that. So, what I just want to say is I have huge admiration for all you have done, but all you're sharing with everybody else and all you've shared with us today.

**ANNIE:** Thank you. Yeah, I really appreciate that. I mean, you know, for me, it's about, you have to stay on top of the world because the world doesn't stay the same.

**STAN:** Know, it doesn't.

**ANNIE:** So, you have to have a process that allows you to change with the world. And it just turns out that it's really hard to do on your own. I mean, I hope that what people have heard... I hope the biggest takeaway that people get from this is that if the three of us were to make a decision, we need to do a whole bunch of stuff independently, and then after we've done that independent work, share those opinions with each other, to drive a conversation between the three of us, which is not about convincing each other, you know, so that we become in lockstep in our points of view, but as rather about conveying our points of view so that we can understand the whole decision space.

And that's gonna allow you to see things so much sooner than other people who are spending their time talking in a group, because it feels good. Ooh, the energy of the group and creative, you know, and that kind of thing. Well, okay. That might feel good, but it's not going to get you to be able to change with a changing world.

And I hope if there's one thing that we've learned in the last few years, it's like, things are unexpected. You, you don't necessarily know what's going to come on the horizon. And if you don't create this muscle of agility that you can only get through, I have to know what other people are thinking, without infecting them with my own point of view and I have to want to with absolute curiosity, know why they think, what they think, assuming they're informed, and they're telling me this in good faith. That is the takeaway I'm hoping people are going to come away from. This is the world is just changing all the time and you can't do it on your own.

Those are the two big things.

**STAN:** That's perfect. Yeah. Well, thank you so much, Annie. I really appreciate it.

**ANNIE:** Oh my gosh. Thank you. Thank you.

**CHRIS:** You spend some time chatting with Annie, swapped books with each other. I only know her through reputation, but wow. What a fascinating person, right? She thinks incredibly deeply about this stuff, and it's cool that she has this practitioner approach from her time at a poker table, but you know, I've never made a \$100,000 bet in my life.

So, really interesting to see her hear her view on all of that.

**STAN:** Yeah, so many ideas there from quitting others. But the one that really jumped out at me is this idea that we judge our decisions based on outcomes. When in reality, our decisions have a probability value to them and we can make a great decision and have an absolute failure as an outcome.

And we tend to say, well, that was bad luck. We can have a lousy decision, have a great outcome, and we pat ourselves on the back. And the problem is I think we, as decision-makers, and we as organizations, through that confusion reinforce some bad habits. And we talked about Custer and other people who fell into similar traps.

But I think that that disciplined approach to how you think about a decision is the thing that I'll carry with me forever.

**CHRIS:** Yeah. That, that Custer and Washington analogy that, that came up there, I think is really interesting. And sort of challenges anyone as a leader to think, well, how do I, where and when do I fall into those camps, where one is hyper-focused on the long-term outcome and willing to press or retreat accordingly. You know, his, his idea, they just have to keep the army alive, versus another, for reputation reasons, personal bias, has just defaulted to, to, to aggression because it worked and then it didn't. And when it didn't pay the ultimate price.

And there's a, there's an interesting comparison there. And like, you know, I'm passionate about the climbing world, Alex Honnold vignettes that she shared, I didn't realize she had incorporated that into her book. And for those that know that sport and he, I mean, he might talk about it in the movie, but he certainly has written about it. He would argue that he knew the consequences were binary, right? Over 60 feet doesn't matter anymore.

Right. You're going to die, but he mitigated that risk as close to zero as possible. And so, he was saying, I'm going to, I'm going to control every single variable I can along the way, which he did, you know, he talks about how he did it most, you know, 0.00001% of the population could even come close to that.

He happened to be one of the people. Not really so-so, he was a, he was more of a Washington type mindset. And she talks about when he backed down and came back a year later. And we didn't talk about there, but in the film, the first person he talks to when he gets off the mountain is another famous free solo- or from a generation prior named Peter Croft.

And when he shares with Peter, what he had, he backed down. And the first thing Peter says is, oh, great job. Like, that's impressive. You made the right decision. Like there's no question about why he didn't ask why you did it. He just said, oh, that's great. Perfect. You made the right call. So, it's really interesting mindset to consider.

**STAN:** Yeah. The whole idea of risk too, and decision-making. One of the things I take away is if you want to be a good decision maker with risk, think a lot and make a lot of decisions.

**CHRIS:** That's right. A lot of, a lot of at-bats right. You can just, the ball slows down. Doesn't it. Well, great, great discussion.

We appreciate Annie for being on and excited to see her next book. She's really, really happy with it. She's been writing about this topic for years and the most happy with this, this latest piece. So, looking forward to it.

