

Federal Judicial Center  
In Session: Leading the  
Judiciary Episode 8  
Making Smarter Decisions Under Pressure

Lori Murphy: Hello. I'm Lori Murphy, assistant division director for Executive Education at the Federal Judicial Center. Welcome to a podcast focused on executive leadership in the federal judiciary.

In today's episode we're discussing a common responsibility for court executives, making good decisions under pressure. From an uncommon perspective, poker. It turns out that we can learn a lot from professional poker players about how to make better decisions and even how to become better thinkers.

Our host for today's episode is my colleague Michael Siegel, senior education specialists for Executive Education at the Federal Judicial Center. Michael, take it away.

Michael Siegel: Thanks, Lori. Today we're talking with Annie Duke, former professional poker player and business consultant on the behavior of decision-making and author of *Thinking in Bets: Making Smarter Decisions When You Don't Have All the Facts*.

Ms. Duke has devoted her career through the study of decision-making under pressure combining her academic studies in cognitive psychology at the University of Pennsylvania with real-life decision-making at the poker table. She's the only

woman to have won both the World Series of Poker Tournament of Champions and the NBC National Poker Heads-Up Championship. She's also the co-founder of the Alliance for Decision Education, an organization dedicated to improving lives by empowering students to be better decision-makers in the modern world. Annie Duke, thanks for joining us.

Annie Duke: Thanks for having me.

Michael Siegel: Tell us about motivated reasoning, how this gets us in trouble and how we can combat it.

Annie Duke: So here is like one of the biggest problems that we have as decision-makers. We think that information is in the driver's seat. In other words you tell me some fact or I read some fact or whatever, and then I process that thing that you've said in some sort of objective way. After doing that vetting of the thing that you've said and this objective processing of the thing that you said, I then revise my belief accordingly. So that's kind of like intuitively what we think we do, but what we actually do is that we have beliefs and then we process information in light of the beliefs that we have.

Two of the best ways that I can sort of get that across is through two biases. One is confirmation bias which is that we know this information that confirms beliefs that we already have so we actually sort of pick and choose from the world. I mean

like not on purpose, right? It's just kind of the way our minds work. We pick and choose stuff that agrees with us.

Then the other thing that we have is something called disconfirmation bias which is that, if you tell me something that disagrees with the belief that I have, I'll work really, really, really hard to discredit it. If something agrees with me, my standard is could it be true. And if something disagrees with me, my standard is must it be true. Those are two really different standards. And that's kind of like motivated reasoning in a nutshell, that we reason in a way to support our belief. We don't reason in a way to try to figure out what's true.

So how do we combat this problem? Because obviously this is like the classic echo chamber problem. It's the classic group think problem. What I suggest is this wanna [phonetic] back tool. It gets you to start to think now hold on a second. It's kind of, as you go through, I think you can group the questions into two categories. The first is why do I know this thing that I know. Is this thing that I know accurate? So it's like where did I learn it, what's my evidence, why do I know it. So those are all things that are sort of like internal auditing of your belief. It makes you do that thing.

But then it also does this really wonderful thing, which is it pops you out of your own perspective to imagine what your

belief looks like from somebody on the outside. In other words, it makes you ask yourself what does the person who wants to bet with me know that I don't know. We can kind of divide this into things that are coming from inside your own perspective that you're trying to sort of now figure out, wait a minute, let me think about my perspective. Is my perspective accurate? But then also it makes you examine somebody else's perspective. And both of those things are really, really good things to do in order to make your beliefs more accurate.

Michael Siegel: That's great. So I'm assuming that confirmation bias has a lot in common with self-serving bias. Or are they different?

Annie Duke: Yes, it actually does. That's a very great connection. I don't think anybody's ever made that connection on a podcast before. Thank you. That's amazing. So yes. Self-serving bias I really do feel like is this big extension of kind of motivated reasoning and in particular, as you just said, confirmation bias. If we think about this idea that we reason about the world in order to protect our belief, one of the main beliefs that we want to protect is that we feel pretty good about ourselves. That we're good decision-makers. We're competent. That we're smart. That we're special. That we're distinct from other people. You can kind of think of all these things that have to do with our self-narrative.

So here's the problem as we reason about the outcomes of our lives. It's: What do we do when we have a really bad outcome? How do we square that with this kind of like central belief that we have about ourselves, that we're competent and we're good decision-makers and we do things right and we're smart?

If we have a bad outcome, then it's hard to square that with it partly because we sort of kind of don't want to really accept that that could partly be because we did something wrong. So what happens is that we fall into this pattern which is, when we have a bad outcome we say, well, that was just because I got unlucky. Because unlucky becomes the sort of like escape route, right? It's like the escape hatch from that bad outcome. It was because I made a decision or my belief was wrong or anything like that. Instead we can just say, well, that was just because I got unlucky.

If we have a good outcome, we do actually the opposite. We say, well, that was because I'm a great decision-maker. Because again, if a good outcome came from luck, then what that would mean is that we wouldn't get to take credit for it. That again, to the point related to confirmation bias, we really want to be able to take credit for that stuff. Now obviously it can't be the case that every good thing that's ever happened to you is because of your amazing skillful decision-making and every bad

thing that has ever happened to you is because of luck, but that's kind of the way that we process the world.

Michael Siegel: Early on in your book you suggest that decision-making resembles poker much more than it resembles chess. Help us understand why the analogy to poker is more apt.

Annie Duke: Sure. So poker has two elements that chess is missing. Obviously the game of chess has a tremendous amount of complexity, but it doesn't have a tremendous amount of uncertainty. So the two aspects of uncertainty that poker has that don't have a very strong influence in chess is first of all hidden information. There's this very prominent sort of hidden information in poker which is that your opponents' cards are faced down. So while you might know the cards that you're holding, you don't know, you can't see what the cards are that your opponent is holding and you have to sort of try to guess at that. You have to sort of take a swipe or an estimate on what they're holding as you're trying to make your decisions. You can see how that's different than chess because in chess I can see my opponent's whole position.

If you think about the decisions that you make in life, as far as hidden information is concerned, it looks a lot more like poker than it does like chess because for most things that we're deciding about we don't have perfect information. We can't see the whole board. We don't know everything that we need to know

in order to figure out what the possible responses are to any decision that we make. So that's kind of the first piece, is this hidden information piece.

Then the second thing that is much more prominent in poker than it is in chess is the influence of luck. So if I play a hand in poker, there are certain things that I have control over that are elements of skill. Like what hand do I play? How do I play it? Do I choose to raise, or fold, or call or whatever? What I don't have control over is the turn of a card. So I could be playing a hand. Say the very best hand that I could have, like two aces. And you could have a hand that's in very bad mathematical shape. Against my holding two fives, you're only going to win that hand a little over 18 percent of the time.

We can put all of our money in the middle of the table into the pot, and now there are five cards that are going to get dealt down into the middle and neither of us has any control over what those five cards are. It's actually that luck element that will determine ultimately whether on that particular hand you win or you lose. Because if you're going to win the hand 18 percent of the time or so, that means that 18 percent of the time a card is going to come down that's favorable to you. And neither of us has control over whether that particular hand is one of that 18 percent or one of the 88 percent.

What it means is that if all I know is the outcome of a game -- like you and I played chess and I lost. I go tell my friend, hey, I played and I lost. If I say which one of us played better, they know it's you. They don't need to have seen the game. They don't need to have watched the play. They don't need to know anything to know that you were the better player in that particular game.

But if I go tell them that we played poker for an hour and I lost to you playing poker, who do you think was the better player? They would say I don't know. How could I know? I would need to see the play. That's because I could lose for reasons that don't have to do with my own decisions. I could lose for reasons that don't have to do with my own skill for most in the game.

Michael Siegel: You suggest that good poker players and good decision-makers alike are much more comfortable with uncertainty than the average person and that this quality helps them be more successful. Would you elaborate?

Annie Duke: Yes. There's a lot of things that really can hang us up. As decision-makers, that can really hamper us. But let me focus on two things, one which is retrospective and one which is prospective. In the retrospective sense, I think that we all have this problem as decision-makers that the way that we kind of learn, the way that we become better decision-makers is



through our own experiences. We make decisions and then something happens, and then we learn from that thing that happens and we go and we improve our decisions going forward.

But the problem is that any single outcome that you might get not only doesn't tell you very much about whether a decision is good. It can often tell you kind of the wrong thing because there is this uncertainty, because a decision never has a guaranteed outcome. When you make a decision, it defines a set of outcomes that could occur. Like you go through a green light, you get through safely. You'd get in an accident. You'd get in a really serious accident. Your car could stall. There are a variety of things that could occur there and what happens is determined by luck.

What that means is that it's really hard to work backwards from a single outcome to try to figure out what the quality of a decision is. But because most of us are really uncomfortable with uncertainty, that's exactly what we do. So basically we do this thing. Like if it turned out well, that must mean the decision was good. If it turned out poorly, that must mean the decision was bad. This is called resulting where you take the quality of the result in order to figure out the quality of the decision.

We tend not to do that. We tend not to go back and kind of reconstruct what the decision was in terms of the mathematics of

the decision. Instead we just say, well, here's this thing I know. I know that the decision turned out really disastrously poorly. Because I can see very clearly what the quality of the outcome was, and so I'm going to use that as if it's a certain signal for what the quality of the decision was.

Here's the problem when you aren't comfortable with the uncertainty, with the uncertain relationship between outcomes and decision quality and you start to treat outcomes as a certain signal for decision quality, you learn a lot of really bad lessons. It's really hard to go back because of all the hidden information, because of this retrospective problem to figure out whether a decision was good or bad, and so we ignore the uncertainty in that relationship when we act as if there's certain relationship.

So that's one of the first big differences between poker players and really, really excellent decision-makers and like the rest of us - is that poker players and great decision-makers really understand that one outcome doesn't tell you very much. That you actually need to go dig down into what the decision process was in order to actually understand anything. So that's kind of the retrospective.

Prospectively, I think that a lot of us get into basically one extreme or another where we either are people who say, well, I just go with my gut. That's how I make a decision, I just go

with my gut. Or we go to the other extreme and we're totally caught in analysis paralysis. I think that both of these problems, being not thinking it through and being way too fast and thinking it through ad nauseam and never being able to decide, I think both of these problems are coming from not being comfortable with uncertainty.

So what I hear from people who are more like on the gut side is, well, I can't know anyway. Right. So this is like this hidden information problem, right? Like I don't have perfect information and the probabilities are unknown. How could I possibly sit down and figure out how are things going to turn out? What are the chances of those things turning out? Since I can't know, my decision or the things that I make a decision about are more like an art than a science, and so I just go with my gut.

If I can't have a certain answer, then I'm not even going to estimate and I'm just going to wing it. I'm going to keep searching for more and more and more and more information so that I can try to approach being 100 percent sure even though that's completely impossible. But I'm just going to keep trying. I'm going to go ask more opinions. I'm going to keep researching more things. I'm going to keep trying to get more information because I'm not comfortable with making the decision unless I'm as sure as I possibly can be. Obviously that's

tortuous. It really, really, really slows you down. It makes it very, very hard to be an effective and decisive decision-maker.

Both mistakes are really bad. You want to try to figure out a way to get into a Goldilocks position where you're exploring what it is that you don't know. You're trying to gather information, but there's some point at which you realize I know as much as I really need to know in order to be willing to make this decision. Even though I'm not 100 percent sure of the way it will turn out, I'm confident enough. And in order to get to that Goldilocks spot, you have to be okay with the fact that sometimes stuff isn't going to work out the way you want. Sometimes you're going to find out some new piece of information that you didn't know at the time, and that's just the nature of the world.

Michael Siegel: You suggest in the book that, as decision-makers, we want to collide with past and future versions of ourselves which is a form of mental time travel. Help us understand what you mean.

Annie Duke: There are two ways that we can think about the way that we process information. One is from the inside view. The inside view is really that, like coming from our own perspective. Things that are particular to our own situation driven by our own particular beliefs and very often driven by

our own wants and needs in the moment. So it's really kind of like coming from the inside out, like inside of our own wants and desires and beliefs out.

The outside view is the way that somebody on the outside would view our situation. There are other ways to get to the outside view. A great way to do that is this mental time travel. So a lot of the problems that we have with our decision-making is that we really get caught up in the moment. We get emotional. We can only see things as they are in this second and we're not really good at saying what is this going to look like in the future. I think that this is actually just a really good tool. What happens is that we get really caught up in kind of what's happening now and we tend not to see the long view.

Another way you can think about that is that when you're doing planning, like if you're trying to do a strategic plan or you're trying to figure out what the best way forward is, the obstacles that are in your path right in front of you are the things that you tend to get really heavy-focused on. You tend not to actually go and project yourself into the future so you can sort of see what the whole path would have to look like.

It's like if you're standing at the bottom of a mountain and you're looking up trying to figure out the best way up. That's actually a pretty bad view for figuring that out because

you can only see the base. But if you could get to the top of the mountain somehow and look back down and say, okay, now let me look at what the best place way up is, you're going to find a much more efficient path. You're going to more clearly see the obstacles that are in your way. You're going to more clearly see how you might avoid those obstacles. You can do this with any kind of decision and any kind of strategic plan.

If I'm thinking about making a decision, I can imagine. Like let's say it's a decision where the outcome is going to matter in three months, I'm going to find out the outcome in three months, I can say to myself let me imagine that. Three months from now this decision turned out really well. Why do I think that happened? Let me imagine it's three months from now and the decision turned out really poorly, let me imagine why that happened. That now allows you to get a broader perspective, like a more 10,000-foot view. It allows you to see the obstacles better.

Just so the listeners know, if you do this thing where you say it's succeeded, it's called the backcast. If you project into the future and you imagine that it failed, it's called a pre-mortem. The pre-mortem is actually much more important to do than the backcast, going back to what you said, because of confirmation bias. We're pretty good at imagining success, but we tend to avoid trying to imagine failure. But if we imagine

failure, it actually reduces the chances of the failure particularly if we do it in this time travel kind of way.

Michael Siegel: Fascinating. You suggest we can leverage the powerful emotion of regret to make better decisions. How so?

Annie Duke: Very often what happens is we don't think enough about, if I make this decision in a week, do I think that I might regret it? So we want to ask both questions. Actually, we want to ask them as a pair. Do I think that this is going to have some sort of effect on my happiness? Like do I think that I'm going to be just as happy as I would otherwise no matter what the result is? If the answer's yes, that tells you that the stakes of the decision are pretty low. You can just go ahead.

But sometimes you're about to do something because they're caught up in the moment. If you took a moment to figure out and do this time travel, figure out in advance do I feel like this is something that I'm going to regret, usually you can actually get a better handle on not doing the thing if the answer to that is yes. This kind of situation comes up all the time where we just don't take a moment and say I imagine waking up tomorrow. I imagine it's a week from now or I imagine it's a year from now, do I think I'm going to regret this decision? I think very often the answer is yes and we just don't realize it. So what

happens is that the regret comes after the fact. We'd rather have it come before the fact because, if we really explored it before the fact, we prevent a lot of bad decisions instead of regretting a lot of bad decisions.

Michael Siegel: Very interesting. Annie, when court leaders are faced with decision-making under stress and with imperfect information, how should they proceed?

Annie Duke: Let me go through three things. The first thing, number one, is this. Always think about what are the actual stakes of this decision. I think that very often, particularly when we're under time pressure and we're confronted with a decision, we get really stressed out because we don't think about is this particular decision really going to have any effect on how my job goes or how things go in a week or a month or a year. And I think very often we find out the answer to that is no.

One of the things that we can do in order to sort of explore that is, first of all, just sort of think about that. Like what are the stakes of the decision? Often they're lower than you think. You can think about whether the decision is reversible. Very often, yes, it's the case that we have to decide right this minute. That's really stressful. But if you say to yourself if this doesn't go well, can I reverse course easily, then that can really take the stress off. There are



lots of decisions for which you can actually reverse course pretty easily. That's kind of number one, is to sort of think about those issues. Like am I going to be happy in the future? Is this something where it's a reversible decision, what Jeff Bezos will call two-way door decision where I can actually kind of roll back the clock and change course really easily? And that helps take the pressure off.

Thing number two. Somebody, a really wonderful professor at Wharton, told me this one. His name is Abraham Wyner. He said the most wonderful thing to me which is, if a decision is really hard, that usually means it's easy. Let me explain what that means because I think it's a really wonderful concept. Once the answer is very similar, in other words the options are so close that you're having a difficulty deciding between the two, it really kind of means that it's actually an easy choice because you're going to be happy either way and you should just flip a coin.

Then the third strategy is to realize that decisions, the options that you have under consideration, should be thought of as relative to each other but not in the absolute. That kind of goes way back when we were talking about the analysis paralysis problem. It's that if you have like three options and you have to decide and you're under pressure, we get caught up in the fact that because I'm under pressure and I don't have enough

time I can only get to a certain level of certainty about this particular option.

So maybe I can only get to like 60 percent on this being the right choice, that really hangs us up because we're thinking about that as an absolute. But if you think about it compared to the other options that you have available, all of a sudden you get a lot of clarity around that decision. So if you're 60 percent on A as I said, 25 percent on B and 15 percent on C, all right, if you had more time maybe you could get past 60 percent. But it doesn't really matter because that option is so clearly better than the other options available.

So when it comes to decision-making, one of the keys to de-stressing yourself under time pressure is to become a relativist rather than an absolutist. Always think about your options relative to the other options that are available to you and not relative to some strange, unattainable, impossible standard of I need to be 100 percent certain about this option.

Michael Siegel: That's so helpful. All three of these are helpful. I was thinking on the hard decision being easy about two candidates, for example, for a position that are very, very close and you probably could be okay with either.

Annie Duke: Yes. That comes up all the time where people then get into like hours-long meetings trying to sort between the two. But the thing is that there are so many unknowns.

Think about that, like how can you know for sure if a candidate's going to be good when that candidate has never worked for you before.

Michael Siegel: Exactly.

Annie Duke: Like you never actually had them as an employee before. And that's true of both candidates.

Michael Siegel: Right.

Annie Duke: So what we're trying to do is dig around into like, well, I want to be certain. Like I'm going to be really sad if the candidate that I hire turns out to be not so great. Then I'd be like why didn't I hire the other candidate. Well, because there's no way for you to know how that person is going to be in the job until they've actually been in the job. This is all sort of forecasting. So if you think, well, if candidate A was the only candidate that I have under consideration, would I hire him, if the answer to that is yes; and, if it's I would hire candidate B, the answer to that is yes, then they're very close. Don't spend five hours in a meeting trying to sort through the two.

Michael Siegel: Thank you so much. This has been very enlightening.

Annie Duke: Thank you.

Lori Murphy: Thanks, Michael. And thanks to our listening audience as well. If you're interested in learning more about

Annie Duke and her book *Thinking in Bets: Making Smarter Decisions When You Don't Have All the Facts*, visit the Executive Education page on [fjc.dcn](http://fjc.dcn) and click or tap on podcasts.

Produced by Jennifer Richter and directed by Craig Bowden.

I'm Lori Murphy. Thanks for listening. Until next time.

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