EPISODE 75

Money & Behaviour: Understanding Investing from a Psychological Perspective with Daniel Crosby

[INTRODUCTION]

[0:00:05.3] Benjamin Felix: This is the Rational Reminder Podcast, a weekly reality check on sensible investing and financial decision making for Canadians. We are hosted by me, Benjamin Felix and Cameron Passmore.

[0:00:14.6] Cameron Passmore: This is Episode 75 and we have a terrific guest this week in Dr Daniel Crosby who is a behavioral finance expert.

[0:00:23.4] BF: He was fantastic and he's currently the chief behavioral officer at a firm in the US called Brinker Capital but prior to that, well, I think one of the books was released while he was there but he's written two books, the second one he started before he started working in the industry directly but he's written two books about behavioral finance but he's got a PhD in psychology from Brigham Young University.

He takes a very scientific approach to the behavioral aspect of investing and he cites the study for every opinion that he has which is obviously what we like.

[0:00:53.8] CP: I've actually had a number of clients ask us to get him on the podcast we're pretty happy to have him join us. He also hosts a podcast called Standard Deviations and he's on a lot of other people's podcasts which is how he gets information about his book out there.

[0:01:07.5] BF: One of the things that we talked about, I'm always self-conscious talking about is the value of financial advice and I don't like talking about that on the podcast because I don't want it to come across as a sales pitch but Daniel started talking about it and he's spitting out data. On how bad people are at doing their own investing so I guess it's a disclaimer, we're not trying to pitch the value advice, but the data were there and Daniel is talking about it.

[0:01:30.5] CP: Didn't you love his comment about overconfidence? He said, if we see the world as it is, we wouldn't be nearly as happy as we are.

[0:01:37.6] BF: The whole discussion on overconfidence was fascinating. Anyway, as everyone knows, if you want to talk about the episode or give us some feedback, the best way to do that is by commenting on the post, Episode 75 at rationalreminder.ca and we'd love to ese your comment there.

[0:01:52.8] CP: With that, enjoy Episode 75 with Dr Daniel Crosby and thanks for listening.

[INTERVIEW]

[0:02:06.2] CP: Dr Daniel Crosby, welcome to the rational reminder podcast.

[0:02:10.1] Daniel Crosby: Hey, it's great to be here, thanks for having me.

[0:02:12.8] CP: Yeah, we're so excited to have you join us, we've been following you for a long time and the mission of our podcast is to help investors with rational information. Of course, their first question to ask you is, how rational are humans?

[0:02:26.1] DC: Well, it's interesting, in one respect, not very rational. When we talk about being maximizers of economic utility, getting the most we can out of our dollars and making the best decisions possible. I mean, I think the only fair answer is that we're not very rational at all when you hold human behavior up against that as your yard stick but you know, I'm also a believer, I was a clinical psychologist for years before I entered the world of finance.

One of the things that I found was that clients would come in and their stories would be pretty crazy to me, you know, they would come in with this presenting concerns or these worries that you were sort of like how in the world did you get here, how did you get to the point where this seemed like a good idea and when I sat with him and I listened to their stories and I figured out where they came from, everything eventually made sense.

Now, that' snot to say that was what they needed to do, I mean, they needed to make better decisions, they needed to make different decisions, but everyone's behavior made sense when you had enough context. I think both of those things are important to keep in mind. Yeah, we're not great with money, right? We're not great with money, there's many ways that we get it

wrong, but I think it's also important to be a little bit humane and say look, you know, people aren't crazy or doing things just for crazy sake. This all makes sense in context.

When you sit with someone and listen to their story, you're going to be on the road to figuring out how to get them where they need to be.

[0:03:56.8] BF: Totally agree and the behavioral side of giving advice like in our relationships with people that are listening to us. That part is super important and can't be forgotten but are there any good strategic ways to take emotion out of financial decision making without upsetting people?

[0:04:14.3] DC: Yeah, there's a couple of ways that I think we can do it. One, I think that's kind of counterintuitive is to turn emotion on its head. You know, there's all these investor biases, cognitive biases that we academics have sort of highlighted and brought to the forefront but if you're presented with the crossroads of either needing to change a behavior or roll with a behavior and they'll both get you to where you want to go, I say, you always roll with the behavior.

You know, a great example is the Save More Tomorrow program that was pioneered by Richard Thaler and Shlomo Benartzi and others. They observed about humankind that we're lazy, that we're prone to follow the status quo and all of those things can get us sideways with money if they're not sort of applied in a correct way. But they took this tendency and they turned it on its head and so they said, look, we're going to take this laziness, we're going to take this propensity to fall prey to the status quo and we're going to lock that in a good way.

We're going to auto enroll people in a retirement savings plan and we're going to auto escalate that plan over the years as they make more money and so that tendency to be lazy and status quo prone, we're going to use it for good. Mostly, emotion is bad in investing. I mean, we could talk about a million ways with that emotion is bad but there's also ways to use emotion for good and it's specifically around tying financial decisions to values.

An example from my first book, I talked about a study where parents who looked at a picture of their children for five seconds before making a financial decision were 200% more likely to save and save for a rainy day, right? That's irrational, right? In a purely rationalistic sense that makes

no sense. You should just do what you need to do regardless of whether or not you looked at your kids but that emotional valiance, we kind of turned it on its head and allowed it to work for the investor's benefit.

Yeah, there's ways to overcome emotion that we can talk about like working with an advisor, automating your investment process, those are all good things but I think it's under discussed that we can even take something like emotion to have it work for our good as well.

[0:06:33.4] CP: That's so fascinating. It certainly clarifies something that you stated in your book *The laws of Wealth* where you mentioned that an advisor that keeps me from making five big mistakes over my lifetime has more than earned their money.

[0:06:46.0] DC: Yeah, you know, the chapter two of *The Laws of Wealth* is all about the research about why you should work with a financial advisor and there's actually a new study out this week that buttresses many of the findings from *The Laws of Wealth*. Quickly, they were that on average, people who work with a financial professional did about two to 3% better per year than those who didn't.

That's interesting. Two to 3% for the average person, that doesn't sound like a big number but when you consider that a diversified portfolio is probably going to get seven or 8% per year over long periods of time, 3% is nearly half the benefit of that portfolio. Research out of your very own Canada found that people who had had a long-term relationship with an advisor had about 2.73 X the wealth of those who had not and it wasn't because the advisors were so great at picking stocks. It's because they put them in a sensible portfolio and they kept them from blowing up basically.

They kept them from fear and greed and other negative emotions and they prevented this handful of catastrophic mistakes that you mentioned there and you know, interestingly, I'm the son of a financial advisor and so I grew up watching my dad go to work, he's still working but watching my dad go to work when I would watch him as a kid, he would go with a lot of purpose, understanding that he was helping everyday people live better lives.

The studies also showed that people who worked when advisor were happier, they were more contented, they felt more prepared and they had greater global peace of mind at rates that were

dramatically above those who didn't work with an advisor. I think working with an advisor has dollars and cents value certainly, but it also has quality of life value that I think we give enough credence to.

[0:08:40.5] BF: That's interesting. I'm always hypersensitive about talking on the podcast about how people should work with an advisor because that's what we do and I don't want to come across as a sales pitch but it's interesting to hear you talk about this. From a scientific perspective, you are a scientist and obviously, a lot of discussion about whether those studies are valid but from a scientific perspective, you believe that to be true? People on average benefit from financial advice?

[0:09:03.4] DC: Yeah, I think there is not much debate about it. You have to make sure that your fees are commensurate with the value you're providing. I mean, there certainly is a small subset of financial advisors whose fees and practices are so egregious that they nullify any benefit that's there to be had but assuming you can avoid that small minority of people and I give a sort of a checklist for beginning to do that in *The Laws of Wealth* which my wife said that was her favorite part of the whole book.

It was a funny moment for me. She reads it and I go okay, what was your favorite part thinking it was going to be one of these lofty arguments, I thought I had made. She's like, I like the checklist. I like the checklist of how to choose a good advisor because if I ever get hit by a truck, she's going to know how to choose someone to manage our money.

Yeah, I do believe that. I mean, we've got results now from Vanguard, from Morningstar, from Envestnet, from our work at Brinker Capital. I've observed this anecdotally and I've observed this in my own family. We have a family member who had millions and millions of dollars and was forced into an early retirement because of a health crisis.

They were unadvised, their money was unadvised but they were very well off and so you know, no one was too worried about them. While they invested in Las Vegas real estate, private deals around Las Vegas real estate in 2005 and lost every single penny they had.

I mean, this person was the doctor, they had worked hard, they had saved, they had done everything right and one dumb decision cost them seven million dollars and so that's just an

anecdotal example of what we find imperially which is if their advisor had saved them from one poor decision, if they had had an advisor, you know, it would have been the difference between prosperity and ruin for them. In some respects, I find those numbers to be conservative.

[0:10:55.3] CP: One of the biases that many people are aware of is overconfidence. Can you talk about how big a deal overconfidence is when it comes to making money decisions?

[0:11:05.3] DC: Yeah, it's the biggest deal, there's like 177 different behavioral biases at my last count but overconfidence is sort of the granddaddy of them all because overconfidence is the bias that begets all other biases. It's the bias that enables every other bias because being a good behavioral investor means telling yourself, admitting to yourself that you're just a susceptible to making poor decisions as the next person which is you know, a form of humility and once you're able to do that, you diversify.

You get professional help, you do all the things you ought to be doing but overconfidence says hey, yeah, I know this is a problem for humanity at large but I'm different or I'm special. In a very real sense, overconfidence, if you could root that one out, all the others begin to die off a bit and yet overconfidence is really central to our happiness. If we view the world as it actually is, we'd be much less happy than we are, I think. I'm employed now but I was for many years an entrepreneur.

Entrepreneurship is universally and exercise in overconfidence. Every single time someone starts a business, it's a bad idea, probabilistically speaking. Like 90% of businesses fail, every time you start a business, you're doing something that doesn't make much sense from a strict probability standpoint. Starting a restaurant is even dumber from a strict probability standpoint and yet, we're glad people start restaurants, we're glad people start businesses and so in a respect, overconfidence helps us get through the day.

I think we, as men in particular, evidence of dramatic levels of overconfidence and if I hadn't had the overconfidence that I have, I never would have talked to my wife because I had no business talking to her, right? If I had seen myself as a truly was, you know, I'm glad I talked to my wife, I'm glad I started a business, I'm glad I wrote a book, I'm glad I did all these things but my advice is sort of to be overconfident in other parts of your life, right?

Hey, you think you're better looking than the next guy? Good for you, whatever. We're going to not question the voracity of that. But you have to leave overconfidence aside when it comes to investing because it's very dangerous.

[0:13:29.6] BF: How do you do that? Because from our experience and this is major selection bias because the people that we see that have decided that they can't do this on their own are usually people that have been burned or burned themselves. How do you overcome overconfidence without the incident that loses you your confidence?

[0:13:47.2] DC: Yeah. That's an interesting observation, right? You would ideally not have to get bitten for this to happen. I think it requires an understanding of what got you here won't get you there and understanding the domain specificity of confidence. Let me take that out of shrink jargon. A lot of your clients are inevitably going to be successful entrepreneur, successful professionals, doctors, lawyers, dentist, whatever, right?

The skills that made you a great dentist or made you a great tech entrepreneur are not the same skills that make you a great investor. In fact, I write in *The Laws of Wealth* about what I call Wall Street bizarre world which is this tendency for the rules of finance to be sort of 180 degrees of the rules of everyday life.

You know, you think of something like fitness, if you want to be stronger, you go lift more weights and run more miles and spend more time in the gym. If you want to be more knowledgeable, you read more books, you go to more school. But on Wall Street, the more you do, the worst the outcomes.

There's research that shows, the more financial news people read or watch, the worse their returns. We know from research from 19 different countries and every single country trading activity and checking your account is linearly, negatively correlated with performance. The most active traders got six and a half percent the less per year than thee least active traders.

It's a weird thing that in much of life, study and activity and action are what moves the ball forward and in investing, it's patience and complacency and even blind neglect. I mean, there's really some great studies about the best performing accounts are the ones that are forgotten or their accounts from people who are dead.

This understanding that the rules of investing are 180 degrees from the rules of everyday life, I think it really encourages you to shed some of that overconfidence and to bring some like you guys in.

[0:16:04.7] BF: That all makes sense and definitely aligns with what we see anecdotally but do you think that in general, there's a bias for people to overcomplicate things when it comes to investing?

[0:16:14.0] DC: No doubt. I think even outside of investing, you know, there's this notion that complex dynamic things can only be solved within an equally complex dynamic system, right? What's fascinating is, when you look at a stock market, there's effectively an infinite number of inputs, right? Into everything from what a farmer in Russia is doing to what president Trump is tweeting and every other thing in between is an input into the stock markets.

It's effectively infinite the number of variables that contribute to the complexity and dynamism of the stock market. That being the case, anyone who will study statistics could tell you that to avoid over fitting, right? To avoid over precision, the thing that you need is actually a simple elegant solution.

It makes again a kind of intuitive sense that yes, the stock market is very complicated so the thing that I need to beat the stock market is computers that operate at lightning speed and a cadre of CFAs and PhDs and yet, these highly sophisticated, highly educated, highly resourced investors are routinely beaten by grandma and grandpa doing nothing because of this idea of over fitting and this strange reality that a complex dynamic system ironically and paradoxically actually needs a very simple solution.

[0:17:46.2] CP: Wow, what a great answer. Can you talk about how people and investors are affected by the decisions that are being made by people around them? Be it friends or colleagues?

[0:17:58.5] DC: I'll cite some research I came across recently. I spend a lot of time with the diet and exercise literature because I find that it reflects investing in meaningful ways. Both of them have some fairly simple rules that are enormously difficult to follow. If you think about diet and

exercise, it's like move your body more, eat less is effectively the two step solution for physical fitness and yet, it's much easier said than done and you know, in investing, we know supposed to buy low, sell high and all these other platitudes we have but are tough to do.

One thing I read about diet recently was that the best predictor that was a study of people who had lost weight. That the two best predictors of having lost weight were first of all, regular check ins, regular weigh ins, people had data and they were accountable, and they were checking in.

That's not a shocker. The second piece though was whether the five people closest to them had gained or lost weight was the best predictor of their own weight gain or weight loss. It's indicative of how we behave for many things like weight or wealth or happiness, there's no objective benchmark. What we do is we benchmark to the people in our lives, the people around us and we behave the way that they behave.

People are enormously impacted by this and there's actually a very specific reason why this is the case in doing research for my new book, *The Behavioral Investor*. I came across this research that talks about the size of the brain is two to three percent of your body weight. It's pretty small.

But in terms of metabolic spend and in terms of how many calories your brain burns, it burns about 25% of the calories you burn in a given day. You've got this tiny part of your body that's expending an enormously outsized influence on your caloric burn and so effectively, your body is always trying to get your brain to chill out.

Your body is always trying to get your brain to do a little bit less work and one of the primary means by which we can reduce our cognitive load is to just do what other people have done. You'll see commercials that say you know, nine out of 10 dentists choose Crest and you're like, great. I'll use Crest then because I don't want to think about it, right?

Or, if Joe Montana uses this dandruff shampoo then so will I. You know, you relying on what other people do and relying on expert opinions is one of the ways that we reduce cognitive load which is good and bad, right? It helps us offload some thinking which is as good or bad as the advice that we're receiving.

You know, financial planners are beneficiaries of this but then you know, so are the moron talking heads on financial cable news. So your decisions are going to be as good or as bad as the people you surround yourselves with and the kind of advice that you are getting.

[0:21:06.1] BF: So there's been this major shift in Canada for sure and I think in the US as well where there's this big do it yourself investing movement. If you go online, the dialogue has sort of working with a financial advisor is an objectively bad decision. Do you think there is a relationship between the kind of herd mentality that we are talking about and people maybe not seeking financial advice, which as we talked about earlier is maybe a good thing for a lot of people?

[0:21:31.8] DC: It goes back to misapprehending how people really behave in ascribing excessive rationality to people. So, there is a cost to working with a financial advisor. Of course, a financial advisor is going to feed their family. They are going to get paid for the effort they are exerting. So in that respect, whatever your advisor is charging you directly erodes your performance. So put that in column A but this assumes that your performance with and without that financial advisor would be the same.

And that is almost universally not the case. This recent study by Vanguard showed that people who worked with a financial professional were better at staying the course and made better decisions. They were less likely to fall prey to home bias. You know I spent three months in Canada last year, in Western Canada, had an absolute blast but one of the things that I observed was that Canadians fall prey to what people all over the world fall prey to and people in the US to.

But it is less of a problem here because the US is more economically significant and this is called home country bias, right? So the Canadians that I met on average had anywhere from a third to a half of their holdings in Canadian equities and that can be a dangerous place to be because the Canadian equity market only represents like four or 5% of the world market and so advisors in this Vanguard study helped people overcome home bias.

So Morgan Housel, who I respect a lot, has this saying and I think he made it up and now I am citing him and making it up but it is anecdotally true. He says that 10% of people can do it themselves, right? 10% of people really can do it themselves, save the money and be just fine

and stay the course and not panic. He says 10% of people are degenerate gamblers basically even working with a financial advisor they are not going to be able to keep them on them on the straight and narrow.

They just can't be told anything, they're going to blow themselves up and then the 80% in the middle really need the advice of a financial advisor. That is anecdotally true to me and what is weird here though is if you are hearing this and you go, "You know what? I am probably in that 10% that can do it myself." I would tell you that you are probably not because there's going to be an inverse relationship between how good you think you are, how disciplined you think you are and how disciplined you actually are.

Going back to this over-confidence conversation we had earlier. So, you know the weird irony is the 10% who can actually do it themselves because they are humble and patient, I think they might not realize that they were that 10%. So that is my take on that. Yes, there is a cost to it but you know quoting Warren Buffett, "Price is what you pay, value is what you get" and the research all points to clear value when it comes to working with a financial professional.

[0:24:38.4] BF: Yeah that makes a lot of sense. On the over confidence thing, I listened to a talk that you had posted on your podcast channel. You said something along the lines of every man thinks he is three sit ups away from dating a supermodel. I thought that was pretty funny.

[0:24:50.2] DC: Yeah, I think it was two sit ups away. I mean three seems like a lot of work, right? That was actually, I can't take credit from that one that was actually a study of 700 men that found that a 100% of the men in the survey – let's see, let me get it right. A 100% thought they were friendlier than average. 95% thought they were smarter than average and 94% thought they were more athletic than average and so I mean these are not how averages work guys.

[0:25:22.2] CP: So I have a question for you about people that may have had a huge increase of the net worth for a variety of different reasons. Can you talk about how big changes in net worth might affect their personality or their investment traits?

[0:25:36.5] DC: Yeah, so there's – I will speak to the conventional logic first and then I will try to give some research on it. So the conventional logic is that money doesn't change who you are.

It just makes you more of whatever you were before. So if you are a jerk, you're a jerk on steroids if you have lots of money and you know, if you were kind before now you can be kind with the backing of some extra cash to be kind with. So that is an interesting sort of observational piece.

There is not a ton of research on this, but I want to talk about one study that was done that talked about how nice a car was and how friendly people were. So it is kind of a brilliant study. They set people up in a pedestrian crosswalk, right? So people are waiting across the road. They observed how likely a car was to stop for them and then they calculated the value of the car in regressed it against their likelihood to stop. So basically, if someone in a Hyundai going to be more likely to stop for you than someone in a Bentley versus someone in a Camry or a BMW or whatever, right?

And so what they found was the nicer the car the lower the tendency to stop. So there was some inference that as we get more money, we get more entitled, we get less humane and we get less compassionate. So that is the only study that I am aware off in that direction. I will say, however, this study was done in the US and Canadians are better at stopping for pedestrians than anyone I have ever seen when I was in Canada, people would stop half a mile off if you were in a pedestrian crosswalk.

Where in the US they'll just knock your head off. So, shout out to Canada for being thoughtful no matter what car you're driving.

[0:27:28.8] BF: I have lived in Boston and various cities in Canada and I can anecdotally confirm that what you are saying is true. Boston is a scary place to cross the street.

[0:27:36.6] DC: We were in Calgary and I mean people would be a mile off and they would stop to make sure we could safely cross. It was really, really something.

[0:27:47.0] BF: Yeah, one of the things that we talk about on the podcast a fair bit and we've actually taken quite a bit of heat for criticizing it is the financial independence retire early movement. Can you speak to that movement maybe just in general from the psychological perspective? Why do people want to do that and why do they get upset when we criticize it?

[0:28:06.3] DC: So first of all, why are you trying to draw me into this heat you're getting? So the way that I think about the FIRE Movement, the Financial Independence Retire Early Movement, I sort of tease it into two constituent parts. So one element of the FIRE movement is educating people around managing fees, having high savings rates, embracing minimalism, issuing want and consumerism that part to me is ambiguously good. That is nothing but good news.

There is a second piece to it that I have observed in some but not all FIRE devotees, which is this idea that work is so gross and onerous that you just have to get in there and gut it out and get out as fast as you can, and I think that that's kind of an unfortunate way to look at work. I like my job and I will continue to do my job for a very long time because it is work that I am passionate about and I wish other people could have that too.

So the FIRE movement has done a lot to teach correct principles about money management, about investing, about saving and about minimalism. I think that is all good stuff. I just think it can be paired with finding work that isn't soul sucking and I think that is the ideal combination. I think that is the ideal combination that everyone is looking for because all of the research on retirement suggests that there is a lot of sadness that a company's do in many cases.

And I think we need to understand that when we look at the elements that were predictive of happiness, you know there is this five-factor model of happiness and one point that everyone always thinks of is what we'll call positive experiences. It is like fun, right? Like going to Disney Land or like going to a concert or whatever. That is fun we all get that that's fun and we want to retire so we can do more of that and less being in a cubicle.

I get that. That is a good place for your head to be at but two of the other five elements of happiness are engagement, which is like doing deep meaningful work and advancement, which is being more today than you were yesterday and so I think that any good retirement plan addresses the psychological as well as the financial elements of retirement and so any good retirement plan if going to include some sort of work like whether it is pottering in your garden or upping your golf game.

Or moonlighting as a consultant, it is should include engagement and advancement because that is a big part of what we crave as human kind.

[0:30:54.1] BF: So that model is called the PERMA model for our listeners and it is something that we have talked about in the podcast in the past. The way that you described it is exactly where I see the disconnect, where Cameron and I see the disconnect in, it's that lack of engagement if you are not working but to be fair to our listeners, we have a lot of the feedback that we have gotten is that people don't really want to do nothing. They just want to do something that they are more passionate about but may make them less money.

[0:31:16.1] DC: Well yeah and I think for FIRE it's catchy but I think it is a bit of a misnomer because a lot of the FIRE folks that I know are not really retired at all, they are just doing the work that they want to do and good for them. You know they saved hard, they got out of the rat race at 40 or 45 or whatever and now they are running a blog and doing a travel blog or whatever like good for you. That's still work it is just not corporate work.

Now I mean I have my own ambition. Look if it were up to me, I would write a book every year and that would be how I made my living, but the pay is garbage. So I continue to save and work hard until such a time as I could fund my life exclusively on writing.

[0:31:56.3] CP: So another topic we have to ask you about is risk and risk is something that means different things to different people. It could be volatility, the portfolio could be chance of loss and it is something we all have to deal with. How do you think investors should define and look at risk?

[0:32:14.2] DC: So I think if you are working with a financial professional, the sort of risks that you talked about like volatility risk and permanent loss of capital risk, I think those will be – you know if you are working with someone who is competent at all those are fairly easy to minimize and to manage. So I would from my place of having a hammer and seeing everything as a nail, I would say that people should be most worried about behavioral risk.

You could have a portfolio that was perfectly managed with respect to volatility and max draw down and still through your own behavioral shenanigans make that null and void and I had Jim O'Shaughnessy on my podcast, famous quant investor, had Jim O'Shaughnessy recently and I talked to him about his fellow quantitative asset managers and he said in the great financial crisis that are about two thirds of them broke their own model.

So you know the whole point of being a quantitative asset manager is to sort of root out behavioral bias and yet these people sort of broke with their discipline at the very moment when they needed their discipline most and so in addition to max draw down, in addition to volatility, I think investors need to be worried about behavioral risk as sort of a third unspoken, unconsidered risk.

[0:33:39.3] BF: One of the things we talked about with a lot of people is that volatility is a pretty good measure of risk and a very short term like if you need the money soon but over the very long term, volatility is not a great measure of risk.

[0:33:49.9] DC: Yeah, one of the chapters in my book in *The Laws of Wealth* is called "Risk is not a Squiggly Line" and it is this taking on this notion of volatility as a direct proxy for risk because you look at many things. You look at stocks notably, right? I mean stocks are no doubt volatile but over the long term, they whip their less volatile counter parts in every conceivable category. So to someone with a long time horizon, a well balanced portfolio and a good advisor, I think behavioral risk is your biggest impediment and volatility risk is very little concern at all.

[0:34:29.6] BF: Yeah, I think that makes a lot of sense. I think the risk is not a squiggly line is a line that I am definitely going to use in the future. Okay, so on the topic of risk sort of tangentially related I guess, if you had to choose between making a long term bet on a factor and our listeners I think generally know what we mean we say a factor would you prefer to make a bet on a behavioral factor or a risk based factor?

[0:34:53.1] DC: So I am going to maybe take the middle path here and say any factor worth considering is at its heart behavioral. So I think enduring factors, I write about in *The Behavioral Investor*, I write about an enduring factor has three qualities. It is empirically observed right? So you see it in the data. It is philosophically sound because we see things in the data like the Super Bowl predictor, it's like the AFC or the NFC went well that is what the market is going to do.

And historically it's been a very good predictor but philosophically it is nonsense. So even though it is in the data you know not to mess with it. So it needs to have empirical support, it needs to have philosophically intuitive and then it needs to have a behavioral component to it

because if you look back over the history of the market there had been all sorts of factors and anomalies, calendar effects, different types of arbitrage that we have observed and they quickly go away.

Because if there is no behavioral difficulty that corresponds to it that accompanies it, it is easy to just arbitrage it away by folks with fast computers and so any good factor, you look at stuff like value and momentum and things that are really endured over the long term, they all have a strong behavioral component to them. So I would say it is a little bit of a false distinction and you would always want a factor, a risk factor that has a behavioral core to it.

[0:36:27.0] BF: Yeah, it is interesting. A lot of the main factors like if we look at the value or profitability even momentum, they all have both of those. There is a logical risk-based explanation but there is also a behavioral explanation that you could apply. I just want to follow up on that question. You mentioned it but I want you to expand on it a little bit more. When we are looking at data, you can find whatever dividend paying stocks is one of my favorite examples that have outperformed over the long term.

Empirically that is obvious but theoretically, the explanation is not that they are dividend payers. It's that they have excess exposure to other factors. Can you just speak briefly to the importance of having a theoretical underpinning when you are making a decision based on empirical data?

[0:37:06.3] DC: Yeah, I think this is the most revelatory part of that three part thing that I talked about and I think it is the most underutilized. You know we have this I think modern humanity has this obsession with analytics and data but you look at the Fed. So the US Fed releases 45,000 pieces of economic data each year. If you regress 45,000 pieces of economic data against each other, you are going to get a lot of spurious correlations.

A lot of stuff is going to look significant that is totally insignificant. I talked about the Super Bowl indicator. There was a long period of time in which moves in the S&P 500. We're moved at a 96% correlation with the production of butter in Bangladesh and it's like if you're not tuned into this theoretical piece, you are going to go, "Oh look, I am going to go start a hedge fund that trades Bangladeshi butter futures" or whatever and it's a total nonsense idea.

And so having a theoretical underpinning is just absolutely essential and you know it keeps you honest through times like what we are experiencing now, which is value has had a tough run and if you are not theoretically bought into something like value and I am, you would say, “Oh well this was dumb. I am out. This doesn’t make sense anymore” but I think value is poised for greatness and I think 100 years from now our children’s-children’s children will still be studying value as a factor.

Because I think it is so behaviorally informed that it is not going anywhere. So this theoretical underpinning is absolutely essential for you to separate wheat from chaff when looking at factors.

[0:38:52.7] BF: I totally agree, and this is a conversation that we have all the time. Well, the dividend example like I said is my favorite one. It seems obvious empirically but there is no theoretical basis to back it up.

[0:39:02.4] CP: Our last question is always the same, one that I am dying to hear your answer as an accomplished person in this field and an author, how do you define success in your life?

[0:39:12.4] DC: So I define success as time spent with family. For me, wealth is all about having all sorts of degrees of freedom and so for me wealth and success are about being able to say no to the things that I don’t want to do and to be able to say yes to things like the date I took my daughter on last night to go see a concert or spending time with my son or my other daughter or my wife. So for me, one of the benefits of having been in steeped in this literature is you really begin to see what money does and what money doesn’t do and money can buy the absence of sadness.

It can save you from hunger and you know it can save you from cold and hunger and things like that that will make you sad but it can’t make you happy and so for me, success is all about time spent with loved ones and being able to say no to things that are unimportant to me and yes to the things that that matter most.

[0:40:14.5] CP: Yes, so Daniel, thank you very much for joining us on the podcast. This has been a really interesting interview and I thank you very much.

[0:40:21.8] DC: Yeah, it's been my pleasure. Thanks for having me.

[END]