

## Mohnish Pabrai's Lecture to University of Puerto Rico's MBA Class on September 26, 2016

Interviewer: Today's guest has been firmly identified with Warren Buffett, not just in returns, but also in charity. He invested \$100,000 in seed capital from his savings to start his business TransTech, this returned to a cool \$20 million when he sold out in 2000. His value investing equity fund performance returned to a cumulative 517% from 2000 when his astounding yield was disclosed publicly by Forbes in 2013. The comparable return to S&P 500 index investors over the same period was paltry 43%. Born in Mumbai to the son of an itinerant magician, he was nearly frightened out of going into business on his own by his father's ill-fated attempts at entrepreneurship, this phobia persisted even after finishing a valuable engineering degree at Clemson University. We owe our gratitude to his father who pushed him to go out on his own for, if not, I would not have the great honor to say that the University of Puerto Rico Student Alumni Association welcomes one of the greatest value investors in the world, Mohnish Pabrai.

Mohnish: Thank you for the warm welcome. I wish my kids and wife were here to hear that. They've gotten me some brownie points. Well, it's a pleasure to be here and true honor, and it's always great to be in San Juan. What I wanted to do today is to show some ways you guys are Guinea pigs, because I've never given this talk before which kind of makes it interesting for me. As Professor Scott mentioned, "I'm a huge fan of Warren Buffett and Charlie Munger, especially Charlie Munger. Charlie Munger talks about something known as the latticework of mental models." These are kinds of idiosyncrasies in our brains which kind of distort reality for most of us because we've gone through millennia in terms of evolution. It's a huge advantage if you are aware of these distortions and can leverage them. Charlie has given a speech called Psychology Human Misjudgment, and there's a video on YouTube and PDFs on the websites, so I encourage you to go through those. What I wanted to do today is, I think Charlie talks about maybe 30 mental models. I'd like to go into three mental models. In all of those 30, these are three that have had a significant positive impact on my life. None of the three were kind of obvious to me when I got going. I hope some of them are valuable to you and can hopefully have some trajectories change in terms of kind of how you go about life if you will.

The first mental model and I think I encountered this probably close to 19 or 20 years ago. I read a book, and it's a very kind of unusual book called Power Versus Force, which was written by kind of a new age guy in Arizona, David Hawkins. He had an unusual thesis in the book. What he said was that "if I lie to you and in your conscious state, you don't know I'm lying to you in your subconscious state, you

do". What David Hawkins said is that if we put some kind of meters on your body, you would register an impact to your muscles going weak, what do you call going weak when I'm lying to you, or when someone is lying to you. The reverse of that is that if someone is saying the truth to you, then you tend to feel good being around that person. I've never tested whether the muscular reactions are there or not, but we know some of this to be true kind of anecdotally. For example, if I go to buy a used car from some used car dealer, I don't know what part he's telling me is a lie or whether all of it is a lie. But what I do know is, I don't feel great being around that person, okay? If I go meet, let's say the Dalai Lama, I probably feel very nice being around the person, even if he's not saying much, I feel good. In many ways I've experienced that with people like Warren Buffett and Charlie Munger and such.

What Hawkins said is that there is a log scale in terms of lies versus truth. If I buy into what he's saying, for example, he will say that if I dyed my hair or put on a toupee or something, it's a lie. It'll probably make the people interacting with being slightly less positive about the interaction. If I wear fancy clothes, it's a lie. Basically, the lies and truth are not so much related to just what we say. It's about the entire experience. The flip side is that when you say the truth and people really kind of go strong and they like it. First, I found the whole theory of this lies versus truth kind of interesting. What I started doing about 20 years ago is I started running experiments just around people around me. One of the changes I made is, I was generally, I would say, a truthful person, but I tried to get rid of what I would call the small white lies, if you will. I found that they had very huge positive impacts. For example, let's say my wife and I are about to go out for a dinner movie date. She gets dressed and she says, how do I look? Let's say, for example, I'm not wild and crazy about a dress she's wearing. The old Mohnish would've said, you look great, let's go. The new Mohnish says, well, you could put on a different dress, it could be better, blah, blah. Of course, the immediate impact of saying something like that is the date might be history, we might not be going out. That happened a few times. But what also happened is, what I realized is that the relationship became stronger because now I think that most times when I'm asked something by her she has a very high degree of confidence that usually, she's going to get a very straight answer, even if it's not the answer she wants to hear. One of the quirks of all these lies and truths is that humans don't care, and this is kind of strange, but humans don't care what the truth is. They care that you do tell the truth.

Let's say, for example, and what I mean by this is we as humans understand that all of us are flawed, we make mistakes, and we have our bad habits and such. To the extent that we are transparent about them, it makes the humans that you're interacting with in David Hawkins terms go strong. For example, the extreme example would be, let's say someone commits murder, and in court they're honest

and say something happened. There was spur of the moment, there were passions flying high, whatever explains what happened and owns the crime and says, I did this, I'm sorry, whatever is all exactly what they truly feel versus someone who does the same act and goes in court and tells the court what his lawyer tells him to tell him, which is, either plead the fifth, or I have nothing to say, or I didn't do anything.

Humans are much more able to forgive even very egregious crimes if the person coming forth is honest. What I've repeatedly found in 2008 my funds during the financial crisis were down a lot. We lost two thirds of our value, much more than the indices in that year. When I was writing my letter to partners, seeing what happened, I could have taken two approaches. One approach I could have taken would have been let's say the old Mohnish would have said, look there's the financial crisis. Everything's been marked down. All our stuff got marked down, things will recover. Okay? That's one way I could kind of present it, which is put the blame on some external event. The second way I could deal with it, which is the truth, yes, we had the financial crisis, which led to a decline in our values, but there are also these mistakes I made and go into some detail on the mistakes and kind of what happened. It's not black and white that it happened because of an external event. I was personally responsible for stupid things that I did, which caused these losses, right? Obviously, I took the latter approach because I've been testing this theory for a long time. I hadn't committed murder. Like I just told you, it's a much lower crime than murder. Quite frankly, the reaction I found was extremely benign. I think there's like 500, 450 or 500 families that have invested with us. I probably got like two phone calls and maybe a couple of emails about the whole thing, even those were mostly, supportive and whatever. I didn't really kind of get much in terms of people being upset or whatever else. I don't want to make this talk political, but we have, I think, an event which is going to have more viewership than the Super Bowl tonight.

We'll carefully tread into politics for a second. I think Donald Trump's made a statement along the lines that he could go on Fifth Avenue and shoot a bunch of people, and it would have no impact on his ratings. I may be missing the quote somewhat, but he's made some statement which sounds outrageous, if you will. He's right. What happens is his ratings don't get affected. You can call him the Teflon candidate, bounces right off. Why does it bounce right off? Well, my theory of why it bounces right off is plays into the same powers as force, which is "humans are sick and tired of politicians giving them political, well-packaged talk about what's going on". With my theory or David Hawkins theory, most of them can see through it. What they appreciate, I think the folks who are Trump supporters, I think what they appreciate is the breath of fresh air. They appreciate the candor. Trump is exactly right, what people appreciate is that he's not saying whatever he's saying

because some PR firm told him that's what you should say. In fact, he does the exact opposite. The PR firm tells him whatever to say, and then he just goes there and does whatever he wants to do. I'm sure if I was advising Donald, I would tell him tonight, just be yourself. Don't try to be someone else, be yourself. Amazingly, President Obama gave two words of advice to Secretary Hillary Clinton. He said just two words. He said, "Be yourself".

I think that if she is herself, which may be somewhat difficult for her, but let's say if she is, I think she'll get a lot of points for being like that. In my opinion, we are seeing that kind of play out in the real world. There are a lot of students here, which is great. What I wanted to say to the students about the truth versus lies is the thing that you should start experimenting with, because at your age, you can make changes, and start getting rid of the small white lies. Basically, sometimes it's uncomfortable. Sometimes you are afraid you might offend someone, bite the bullet. What I've always done is, not always, but for at least a couple decades, if I have to choose between truth and diplomacy, I choose the truth. It's painful at times. It's uncomfortable at times, but it has huge payoffs. The second is that the world doesn't run based on contracts or written legal documents. I know my lawyer is here, it doesn't run on that basis. But it runs on trust. Almost everything in the world works on trust. What happens is that as you go up the law curve, the truth law curve, and you become more and more truthful, what happens is that you become more and more trustworthy. Trustworthiness is a huge advantage in the world to have, and it takes time. It may take someone who has known you for 5, 10, 20 years to finally understand this is a very highly trustable person. The difference between someone who lies 10 out of a hundred times versus one out of a hundred times versus one out of a thousand times is exponential in the rewards.

If you are lying one out of a hundred times versus one out of a thousand, the impact on your life would be exponential in terms of what the payoffs are. What I would encourage you to do is give it a try, which is that as you go about living your life, just try to push the boundaries of your comfort level. Especially when you're asked questions which either lie or a white lie or a diplomatic answer or non-answer kind of gets you out of it. Try to kind of confront it head-on, and you might be surprised. That's the first model. I found it has hugely positive impacts. What I've seen is that there's a compounding effect. I've been doing this for, I would say, I was an honorable guy even before these changes. But after the changes, what has happened is that the degree of trust that people have has been a huge tailwind and it continues to be a tailwind. It's something that's very easy and simple to do, and I'd encourage you to do that. The three models I'm going to present are not really particularly connected to each other, but I thought they were all three that might add some value to the folks in the room. That's the first model.

The second model is the model on compounding. Einstein said that compounding was the eighth wonder of the world. We all learn about interest rates and growth of things over time and different things like that. But I think that it is a huge advantage if you can understand the power of compounding and if you can do a bunch of math related to compounding in your head. What I'm going to do is just kind of throw out some terms, and some of the math actually that we're going to do. I've not done it myself, so I'll be doing it on the fly which will be kind of fun. I'll take one example from a letter Warren Buffett wrote to his investors in the 1950, I think it was like 58 or 59 and he said that the Indians, the American Indians who were based in Manhattan, what was Manhattan in New York in 1626, it's rumored that they sold the island of Manhattan to the Dutch for \$24.

That was the sale price. Of course, when people hear that, they say, with \$24 the Indians got taken for a ride and such. But let's say the minute Indians, I think there was a minute Indians who did that. Let's say the minute Indians had trust officer or investment officer in 1626, and the Dutch came to him, and this deal was on the table of \$24. You could sell this undeveloped island. He would probably think about, well, what are my alternative uses? If we don't do the deal or what else can we do? He'd probably run some numbers, and he would've probably concluded there was a fantastic deal, and why is it a fantastic deal? Let's say that \$24 in 1626, the Indians were able to take that and invested at something like 7% a year, for example.

What would that \$24 be today if it were invested at 7%? Let's do the math without any pencil or paper. We have something known as the rule of 72, which some of you may be familiar with, which is that if I have a 7% interest rate, I can take 72 divided by seven, it's approximately 10, which says that in 10 years, at a 7% interest rate, the money will double. Okay? Basically, if in 1626 they sold for \$24 in 1636, they would have \$48. In 1646, they'd have \$96 and so on. It'd keep doubling every 10 years. Basically, if you take a hundred-year period you get two to the power of 10, two to the power 10 is a good number to know. It's 1024. Let's throw away the 24, because that makes the math a little harder. We have 1000, so in a hundred years, whatever they have increases a thousand times. If in 1626 they got 24, in 1724, they have 24,000. Okay? In 1825 they have 24 million. By 1925, they have 24 billion. 2025, which is nine years from now they have 24 trillion, right? Now, we are about 10 years away from the 24 trillion, and 10 years is double. Today they would have about 12 trillion, right? We did the math without a calculator, which is great. Well done, Mohnish okay. The thing is, you can do the math yourself also without, and the important thing with compounding is to have the fluency to do it in your head, because it's very important to be able to do this in your head because it has huge impacts.

\$24 in 1626, 7% compounded is today 12 trillion. What is the value of undeveloped? Let's say Manhattan today, the land of Manhattan, if it had no buildings on it, and or let's say, let's put it this way if I were to go and offer to buy everything in Manhattan and then I subtract the cost of the buildings, which is the land value, because undeveloped land, would the land be at 12 trillion, right? The answer to that also is very simple. The entire wealth of the planet, every man moving child, everything they own is 300 trillion. The entire wealth of the United States is 80 trillion. It is very unlikely that something like 15% of that 80 trillion is just Manhattan land. I think Warren calculated that he I think he calculated in the 1960 or something, it was 12 and a half or 12 billion or something. It was less than 12 billion, something at 10 billion.

You might get to a few hundred billion maybe in value on a good day. The Indians basically sold Manhattan at a rate where if they had held to date, they had held that land till today, and they did the deal today, they would've basically lost several trillion in value by not doing the deal. Now, of course, the trust office of the minute Indians was an idiot in terms of investing, and he didn't get them to 12 trillion. But that's a different story. We'll get to that later. How do we get \$24 to become 12 trillion, right? Let's break that apart. There are two factors that lead to the 12 trillion. The first factor is the length of time, okay?

Length of time is a very important variable in how much your money grows. The second factor is the rate at which it grows, right? What we found is that even at a or not a very high rate, 7% is below the S&P is done, you get some astounding results. Now, recently, I don't know whether you saw in the news, there was some older gentleman who passed away somewhere in the northeast. He was a librarian you know, just a middle-class librarian all his life. When he passed away, he gave the college where he worked \$4 million. Everyone was surprised that this guy who was very much a middle-class ordinary guy had got \$4 million saved up. Of course, these journalists wrote the article, don't know how to do math, and they didn't attend the lecture that we're just having. They didn't understand kind of how things work to get 4 million. Let's take a situation, okay? Let's say there's an 18-year-old, and let's say this 18-year-old has very few skills, and he only gets a minimum wage job, right? He is making something like 15,000 per year, working 2000 hours. Let's say for example, he's able to save something like 10%, maybe hard, but let's say he is living at home, et cetera, saves 10% of that 15,000 before taxes because he can put in an IRA or something. His actual kind of after-tax income might decline by a thousand if he's working someplace, whether an employer match. Some of you students will get employer matches and such in retirement accounts. You might have to save less to get more.



If this person is 18 years old, saves \$1,500, and let's say he keeps putting 1500 every year into a retirement account, and let's say for example, that he gets something like a 7% return on that money. Let's say that his income goes up very modestly, like his income is only going up by 2% a year, and when it goes up by 2% a year, his savings go up by 2% a year. Instead of saving 1500 next year, he saves \$1,530. It goes up very slowly. When he retires 50 years from now, which is at the age of 68 he is at that point, 50 years later, making less than 50,000 a year, didn't have any significant growth in income just barely kept up with inflation and such. What would that person have at the age of 68? Well, let me make it easy for you. The first year, the first year when he saves the 1500, he's got 50 years. We know it's 7%. We know it doubles every 10 years. We know it's two to the power of five, we know two to the power of five is 32, and we know what 1500 times 32 is. He's got 48,000, right? The first, what he saved at 18 at the age of 68 is 48,000 ages of 19 maybe somewhere like that. But you get the point as you go on, the result is to make it simpler for you is a little over a million dollars. Okay? The librarian is not making 15,000. He's got a white-collar job. He's probably making somewhere less than a hundred and maybe more than 40 or 50,000 somewhere in that range.

He paid attention when they were talking about compounding in math class. He makes four times what the guy with the minimum wage makes, without doing anything esoteric, he ends up with a very significant network. The question is, why doesn't everyone end up wealthy when we retire? Because there's not much required to become wealthy. You just must follow a certain game plan and you'll be there. In fact, at the age of 68 the guy was making less than 50,000. He could start withdrawing 50,000 or more per year from that account, and it would outlast the rest of his life because he'd have a 5% withdrawal rate and you got a 7% earnings rate. The money would keep growing. He'd probably end up making a \$4 million donation to another school or something. Compounding is a very important element to understand. Again, what matters is it makes a huge difference if that person starts at the age of 18 versus 28. Huge difference. My younger daughter interned last year at a place, and got paid close to \$5,000 during the internship, and she has no expenses and such, so the money was just sitting there. I said you can open an IRA. I got her to open an IRA, and then I said, if you trust me, you can give me power of attorney and I can invest the money in you. One time she was flying back from New York, she was very tired, and I just sort that \$5,000 you gave me at the age of 18 it's, I put it into one stock, because we can take some risk because you just 18 don't need the money.

Probably that stock doubles or tripled in the next two or three years because my best stock pick. I said let's say it doesn't even double or triple, let's say it goes at 15% a year or something. 15% rule of 72 every five years, things double, right? I

ran the math for her, and I said, what are \$5,000 become at the age of 68, right? You've got 50 years to the power of 10. You got 10 doubles. You've got a thousand you get to a thousand times the 5,000 which is 5 million. I said, "Momachi, you worked one summer and in the age of 68, you'll have 5 million from the summer work, but then the next summer you're going to work again, and that'll become \$5 million at the age of 69, and at some point you're going to graduate and you might make more than \$5,000 in a year, and you might actually save a few thousand dollars".

I said, what's your net worth at the age of 68? I gave her some number, and by, it was like two in the morning, I picked her up from the airport, and she was asleep, and she was wide awake, you know? Oh, like, how did that happen? What's going on? The thing is, it's two pieces. The length of the runway is important, right? 50 years number of doubles, it's all about the number of doubles. This is how Buffett thinks about it. How long did it take things to double. If you asked Warren Buffett, Mr. Buffett, I'm the genie from Aladdin, you could have any wish you want, what would you like? What would he say? He says, I only want one wish, which is that when I'm dead. They look at me, they say, Man, he was old. Okay? He just wants to not die for as long as possible. It's not like he loves all of us on planet Earth is why he doesn't want to die. He wants to compound, and he wants to keep compounding for as long as he can. I think in his case, he's 86 and he started his compounding journey at the age of 11. He understood compounding, I think age eight of nine or 10. And I think at 24 or something, he told his wife that we are going to be wealthy beyond our dreams. We are going to have more money than we won't know what to do with it. We have got a plan for what are we going to do with all this extra cash?

His wife thought we could buy a house. We don't have money to buy a house. He thinks we're going to get super wealthy. What's going on? Of course, they did. Compounding is a very important element no matter what your profession or you know, calling in life ends up being, it's very important to have the fluency in math. Very important to understand the concept of the runway and the length of time it takes to double and compounding rate. Don't take the retirement account of 401K, IRA, pull out the money and go on vacation, you know the time value destruction of that is huge. That's the second model. The very quickly, the third model is that the key, like Professor Brown mentioned the key to the things related to developing your full potential or reaching some of your goals may be related to being an entrepreneur at some point, being able to do things on your own and that sort of thing.

Of course, one of the difficulties that come up in being an entrepreneur is that most of us don't have any resources. We don't have, we don't have a rich uncle, I just told



you, put the money away into this account, don't put it out. We don't have anything to really go out and create things. How do we get a business off the ground? It's important to know kind of how to get a business off the ground. I used this model when I was trying to get my first business off the ground. There are 168 hours in a week, 24 times seven. If you go to work for some company, typically they expect you at least 40 hours a week. You might have another five or seven hours or so in commute time, and so on, maybe 50 hours a week.

There's still 118 hours left in the week. In fact, if you take out time for eating and sleeping and, other things, you will find that there are clearly at least another 40 hours available to you, which can be used in several different ways. When you're thinking of starting your entrepreneurial journey, one simple thing you can do is, so one of the biggest things I tell people is when you're going to start a business, do not quit your job. That is the dumbest thing you can do. Someone is paying your rent, someone is paying for the groceries, someone is paying for those dinner dates, keep it going, don't turn off the faucet, right? But what you do is you start working on your startup on the second 40 hours. You have weekends, you have evenings, you have mornings before you go to work. You have all kinds of time do that. At some point when the business is getting some traction where you think you can see the light and you've got revenue and cash flow and all of that, then you can go and hand in your resignation. I was, I think, 24 years old when I had an idea for my first business, and I didn't have any money. I was basically just working and working on my business on evenings and weekends. But one of the things I decided is I used to always get great performance reviews. I was doing a good job. I said, I no longer care about performance reviews. That's irrelevant to me. I said, what is my objective? My objective is, and I hope my staff is not listening to this, but my objective is to work just enough so I don't get fired, okay?

Be just slightly above firing level. Like I don't need to really burn the midnight oil. I don't need to kind of go way overboard. I just need to make sure that they feel he's not so bad we want to get rid of him, but he's not a star, right? I did this, it took 11 months from the time I started working on business till the time I was ready to hand in my resignation. We had clients and projects and all that. I was ready to handle it. I went to my boss, and I told him, I have this business, and it was not competitive with what they were doing, and it's working now, and I'm going to resign. I had a meeting with my boss and his boss, and they said Mohnish for 11 months we were wondering what happened to you, like we said, there's this guy with a great star doing something. We couldn't figure out what was going on. I said, yeah, my idea was to be just about firing level, right? He said, exactly, we discussed whether we should get rid of you? We said, no, he's not so bad. I said, exactly, I calibrated it just above, just above the level that you would, you would get rid of me. Of course,

they were of course very supportive, and I was very honored. I had to give two weeks' notice. I can leave in two weeks, but I told them, listen, I'll stay if you want me to. They said, can you stay a month to do transitions I said, no problem. We did that. Actually, the thing is I left; I left that company in 1991.

I started Pabrai Funds in 1999, and I think in 2001, both my boss and his boss became investors in Pabrai Funds. It was 10 years after I had left the company. Of course, I stayed in touch with them. That is part of the, going back to the first model, which is the trust model, right? That you must, and of course even when I was leaving, I was very honest with them about, hey, yeah, is exactly right. I was a useless worker, but slightly above meeting slightly above your firing criteria and such. That's the third thing, which is that and I tell this to my daughters that if you ever decide to go into business for yourself, you can do this you know, second 40-hour thing five times, and you can fail five times. That's perfectly fine because I had tried two or three times before when I was 24, nothing ever got traction, but there was no downside. I still, in my job, I maybe had spent three or \$4,000, we shut whatever we were doing down, and then a few months there was another idea, and eventually one idea had traction and went from there.

The idea is that you find people, like Warren says, like admire and trust. You figure out ideas that you think make sense, you can obviously work on them. It's a high probability that if you keep doing that a few times, one of those will hit and there's no risk because there's most things that most young people will do today is technology related, IT related, app related, iPhone related, et cetera. None of these things need capital. It used to be in previous businesses, you need a lot of capital. A lot of businesses you can start today don't take capital; they take what's between your ears. That's the third model that use the 168 hours and then takes it from there. That's really the three thoughts I wanted to share with you, and I hope I didn't go too far over. Thank you very much.