



The following is the transcript of an interview conducted on June 23, 2008, by Scott Schroeder, principal of rabble+rouser, with Dan Ariely, behavioral economist with MIT and author of a new book called *Predictably Irrational: The Hidden Forces That Shape Our Decisions*.

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**Scott:**

We're talking today with Dan Ariely, behavioral economist with MIT and author of a new book called *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. Dan, if you could describe for our audience a little bit of what a behavioral economist is and what you do, that would be terrific.

**Dan:**

Behavioral economics is something that looks very much like standard economics in terms of the questions that we're looking at. But we have a different starting point and we have a different ending point. In standard economics people start by assuming that people are rational. And then you say, "OK, so what are the consequences of this assumption?" In behavioral economics, we don't assume that people are rational, we actually observe people. Mostly we observe them in the lab at a very controlled situation but also in the field and saying, let's look at what decisions people actually make and let's think about the consequences of those.

I'll give you one example: let's think about time and savings. If you go to a standard economist and you say, "Why don't people save enough for retirement?" they will tell you it's a nonsense question. You can't, "not save enough." If people are rational, they're doing the right thing, which they're assumed to do. What does it mean, "not saving enough?" Now, a standard economist might say people might not save a lot, but it doesn't mean that they're not saving exactly the right amount. In fact, it's assumed that they're saving the right amount.

Behavioral economists would say, "Well, there could be a lot of reasons why people are not saving enough." It's hard to think about the future when we have the present where we're tempted by chocolate cakes and bicycles and vacations and so on. And, as a consequence, we have a lot of reasons why it's hard to think about the future. In a way we don't take these actions and so that's the difference.

Now you come to the step of implementation. If you believe in standard economics, then you suggest you just leave people alone and they will do what's best for them. If you believe in behavioral economics, you say, "Well, there are all kinds of things that when you leave people alone they don't do well." In fact, then, you need to think about how can you help them, how can you improve things, what can you do to make things better? And in some sense the standard economics view is more generous to people because it says people are rational and wonderful and so on. Behavioral economics perspective says people are mistaken. While behavioral economics is more morbid from the perspective of looking at human rationality, it's also more hopeful, I think, in the sense that it tells you that you can build, actually, a better world. If we understand where people fall short, you can also think about how we improve things.

**Scott:**

OK, well, one of the things our audience is concerned about as brand marketers is the importance of branding and how can branding play a role in consumer behavior. One of the examples in your book that I loved was the test you did of Pepsi vs. Coke. Could you talk about that for a moment?

**Dan:**

Yes, so the real issue is in what sense did branding change experience? Everybody knows the Coke vs. Pepsi challenge right? So Pepsi used the Pepsi challenge and they found that people liked Pepsi; and then Coke did the Coke challenge and they found that people liked Coke. Well, if you look deeper into that you'll see that Pepsi was doing blind taste testing. So people took two white cups and tried them out and said I like the one on the right or I like the one on the left. When Coke did their tasting it was not blind—you could see which one was Coke and which was Pepsi. Could that be the difference? Well, it turns out it is. When people drink Coke and they know it's Coke, they like Coke better. When they drink Coke and Pepsi and they don't know which is which, they like Pepsi better. In fact, it's the story of New Coke. Do you remember New Coke?

**Scott:**

Yes, I do.



**Dan:**

What happened with New Coke is a very nice story because Coke went ahead and did a really systematic study of all the different concentration on this brown formula with sugar and so on and they varied it systematically and they got a lot of people to try and taste all of these things and they found out the final winning equation, which was sweeter than the original Coke and, in fact, it was much closer to Pepsi than Coke. And then they put it in a Coke can and people hated it.

In the experiment that I'm going to describe to you next, the Coke Pepsi challenge was taken to new heights and new costs. So this was a study using an fMRI (Functional Magnetic Resonance Imaging) machine. Basically, what this machine does is this: as you're lying in this fMRI, and as you see things and taste things and think, there are pictures taken of the blood flow in your brain that tells you which part of the brain is working and which part of the brain is not working.

So here's what happened. People are lying there on the magnet and they drink either Pepsi or Coke. Of course, they couldn't move their hands, it was brought into their mouth with a little hose and they either knew it was Coke or Pepsi or they didn't know. So sometimes they had the blind tasting and sometimes they had the non-blind tasting.

And here's what happened. When you drink brown sugary stuff, the pleasure center of your brain gets activated—this is something called the nucleus accumbens—this is part of our emotional brain; it's a part of the brain that we share with the rest of the animal kingdom. It's a very primitive, ancient part of our existence. And it doesn't really matter. You can't tell the difference from Coke and Pepsi, at that level, as to how the brain reacts to pleasure of this liquid.

But here's what happened. Most of the people in the sample declared to love Coke more than Pepsi. Now I'm sure that there are some people that do the opposite, but these people like Coke more than Pepsi and the frontal part of the brain, the place just above your eyes, was more activated when they drank Coke and knew it was Coke. So, in some sense, the pleasure center of the brain reacts equally to Coke and Pepsi. The front part of the brain for these people reacted more for Coke than for Pepsi. Now this is a part of the brain that's in charge of higher order association, hypothesis, higher cognition, metaphor association and so on. But interestingly enough, it has a dopamine receptor. Dopamine is one of the chemicals produced in the brain. It has a projection from the front part of the brain to the nucleus accumbens, to the pleasure center of the brain. And basically what was happening is that the higher order association actually created greater pleasure. Not because of the liquid but because of the association.

**Scott:**

So it has something to do with, perhaps, their expectation that is created?

**Dan:**

Exactly. So the moment they expect something to be better, not in a conscious deliberate way but just in a very primitive associative way, it actually was better.

**Scott:**

Not to put you on the spot, could one conclude from that statement that the marketers at Coke have done a better job creating good positive brand expectations for Coke than those at Pepsi did? Or am I taking it too far?

**Dan:**

Oh, yeah, there's no question. I mean you can wonder, have they done a better job, is it a matter of history, do they have more experience, more chance to do it? So I don't know if you want to give them bigger raises than the ones at Pepsi. But it's clear that Coke, for this population that was tested, has an advantage that will be very hard for Pepsi to overcome. Because it's one thing to control what's in the drink, it's another thing to control what's in people's mind. And if you're saying that the final outcome is a combination of what's in people's minds and what's in the drink, you have a very hard barrier to pass that. Partially because it's not a deliberately thoughtful process.

**Scott:**

That's right, and there are things besides, for example, the word Coke and the trademark red that also influence the expectations and, therefore, the perceptions of a consumer when it comes to products and services.

**Dan:**

That's right, there are a lot of things, so I'm going to give you two more. We did a little study with beer and vinegar. So we took Sam Adams and we gave people two tastes of Sam Adams—one was a regular Sam Adams and one was Sam Adams with balsamic vinegar. And we said, try those two and see which one you like more, which one do you want the full glass of?



Now for half the people, we didn't tell them that one was Sam Adams and one was Sam Adams with vinegar. And it turns out that those people liked the Sam Adams with vinegar more. So it turns out that balsamic vinegar adds to the quality of Sam Adams.

But for some people, we told them in advance, look, this small cup has balsamic vinegar and this one doesn't. Try them both and tell us which one you want the full glass of. Now people hated the one with vinegar.

Now here's the thing—we usually think that our senses are how we experience the world. It turns out, it's not so much. It turns out, if you expect something to be good or bad, it's not that your senses teach you otherwise, in fact, it's the case that your senses comply with your earlier notion of what will be good or bad. So people had expectations that this will be terrible and so the consequence was that it was, indeed, terrible. And that's a very powerful idea.

So you could say, "Should I start doing beer with balsamic vinegar?" No, first of all, it's very expensive so it might not be financially effective. But even if it does make it better, the moment you have to put it on the ingredient list, it's going to make the beer less tasty.

**Scott:**

Because, again, you've changed their expectations.

**Dan:**

That's right, by the way we're doing something. Now, we're just starting. We're doing something. We're thinking about the old fashion buyers. So let me ask you the following: what would you prefer, stone ground flour or machine ground flour?

**Scott:**

Well, I would prefer stone ground flour, of course.

**Dan:**

I don't know if you use moisturizer, but let's say you did. Would you prefer moisturizer with aloe vera, cucumber, or mango, or would you prefer it with some petroleum products?

**Scott:**

I would pick the aloe vera, I believe.

**Dan:**

OK. Now, why is it that the moment you would taste those things or experience those things it turns out there is no question they will actually be better? The way you expect something to function, it will function this way. The most amazing experiment from my perspective on this is the one we did with painkillers and placebos.

Now, placebo is a wonderful thing and vastly misunderstood. So placebo for pain, it turns out, is real. What do I mean, "it's real?" It's that if you expect a doctor to give you an injection, or a pill, something to give you pain relief, the moment you get this injection or this pill, your body secretes pain relief.

So here's how it happens. You expect the doctor to give you a painkiller. The moment he injects it, your body prepares for this future and, as a consequence, releases opioids (substances much like morphine) into your blood stream. And all of a sudden, you experience pain relief. Now, if the doctor injects you with something, you get what they inject you, but you also get what you gave yourself.

Now, interestingly, close your eyes and say, "Please, please, please, can I get some pain relief?" and nothing happens. But the moment something external happens, your body is able to do it for you. Now that's basically an amazing idea. It says that our body is very, very active in the process of predicting the future and preparing for it. And if you think something will be better, it will be better. And if you think it will be worse, it will be worse.

**Scott:**

That sounds like a recipe for describing and supporting a lot of Eastern thought.

**Dan:**

Yeah, but it's true and we know the physiology of it. So we did the same thing. What about price? So we brought people to the



lab and said, “We have a new pain killer we call Veladone RX.” And we had pens with the logos, and we had people who looked like drug reps. We got the whole thing to look quite serious and then we connected people to a machine and gave them a set of electrical shocks.

We tried to figure out how many shocks they could take, how painful those were for them. And then we gave them a pain killer—we gave them Veladone RX, which in our case was actually vitamin C, but we didn’t tell them that, of course, we told them that it was a pain killer. And then we gave them 15 minutes to sit next to old *Newsweek* and *Time* magazines, so you really felt like you were in a doctor’s office. Then we measured their pain tolerance again.

Now the real thing that we manipulated was the brochure we gave them about Veladone RX. Half the people we told it was an expensive pill and half the people we told it was a cheap pill. Will that make a difference? Turns out it made a big difference. The people that got the expensive pill got much more pain relief than the people that got the discounted one. The moment we added a discount people doubted the quality of this and, as a consequence, had lower pain relief because their own body didn’t contribute much to the pain relief. And that’s really the role of marketing. If you think about it, marketing has multiple roles but one of them is...

**Scott:**

One of the things marketers can have an influence on is pricing, so that’s important to understand. You had a fascinating example about pricing and different service levels for *The Economist* in your book. In fact, you opened the book like that. Can you describe that to our audience briefly?

**Dan:**

This one is not so much about expectations. It’s about difficulty of comparing things directly to each other and the consequences this can have. So there’s an ad I saw one day in *The Economist*, it says, would you like to get an online version for \$59? And you know that sounds like a reasonable offer to me. Or would you like a print version for \$125? And this also sounds quite reasonable, you know the print version has advantages—you can take it, you can fold it, you could take it on the subway and so on. But then they had a third option which was \$125 like the one for the printed version but you get both the print version and the online version.

**Scott:**

So it’s the exact same price, but now it includes both.

**Dan:**

That’s right. Now, this again by itself is a sensible option. But it makes the other option, \$125 for the print only, seem quite ridiculous. Right? So why were they putting it there? So I called them up and said, “What were you thinking?” because it actually fits with much of our research. They didn’t tell me what they were thinking but instead they took it offline. So I never got to learn what they were thinking.

**Scott:**

But that didn’t stop you, did it?

**Dan:**

Ha. I’m used to people not reacting to me. And then I did the study I would have liked them to do with me. I printed a hundred copies of the original offer and saw what people took. And the majority took the combo deal. Nobody took the print only for \$125. So this was the best deal and nobody took the dominated option, the useless option. But because nobody took the useless option you could say, let’s take it away. Why would you waste print and space and people’s time and thought about an option that nobody wants? So I printed another 100 versions that had only the two options online only for \$59 or the combo deal for \$125.

**Scott:**

And the print only option wasn’t even in that.

**Dan:**

Wasn’t even in there. Now the online option became the most popular. And the combo deal from being the most popular became the least popular. You see, what is happening is that the \$125 for the print only was a useless option in the sense that you have no market share, in the sense that nobody really wanted it. But turns out it was incredibly useful in terms of helping people figure out what they wanted. In a world where we know what we want and how much we’re willing to pay for it, none of this would have



any impact. But if you think about it, it's incredibly difficult to figure out how much you're willing to pay for stuff. Think about a piece of chocolate, it's melting in your mouth, you smell the aroma. All of those things and then I'm suddenly asking you, how much is this worth to you in terms of money? You could tell me how much you paid for it; yesterday it was a surprise, market price, how much it was when you were a child. But what's the real value? So what do people do? We use all kinds of tricks to figure out how much we're willing to pay. One of these tricks is relativity; it's comparing it to other price with things that are similar. In the case of *The Economist*, the print only option gave people the idea the combo deal was a real steal.

**Scott:**

It was a bargain.

**Dan:**

It's a bargain. All of a sudden they're getting the online version for free.

**Scott:**

They're getting a \$180 value for \$120, or something like that.

**Dan:**

That's right. And its relative value—that's what's making people... It's the same thing in sales, you know, if I got to buy something today, why do I care about what it cost yesterday? I shouldn't, from a rational perspective...it's irrelevant. Unless you have some thought that it may be discounted in the future. It shouldn't really matter, but of course it does matter a lot. Why? Because we can't value things properly.

**Scott:**

You talked about an interesting concept. You referred to it as anchoring. You talked about how it is that people are willing to pay \$4 for a cup of coffee at Starbucks over a period of time, not so long as a matter of fact. Can you describe that a little bit?

**Dan:**

Yes. So the beginning part of this is the same as the one we just talked about. It's very, very hard to think about how much we're willing to pay for stuff, how much value we're getting for things. So what do we do instead? We do all these other little tricks. Let me first describe to you an experiment and then I'll talk about Starbucks or how it works. In this experiment I got people to tell me the last two digits of their social security number. So what's yours, for example?

**Scott:**

One zero

**Dan:**

OK, and Christina's, do you remember?

**Scott:**

Nine five

**Dan:**

You would take your number and translate it into dollars and you'll take her number and translate it into dollars. Then I would ask you, "Would you pay \$10 for each of those things?" and I would pass around some wine, computer accessories, and so on. And would Christina pay \$95 for each of those things? And each of you would say yes or no for each of the products. Then I would say, "Now let's do this for real and all of you submit a bid in an auction and the winner would get the product and everything will be for real."

**Scott:**

The winner is the person that bids the highest?

**Dan:**

That's right, and now you get to bid, Christina gets to bid, and everyone in the class gets to bid. Now the question is, will your social security number influence your bid? Now it's a crazy idea that it would, you being born with a low number, be stingy? You would spend little money and Christina would spend too much money on everything. But it turns out that's what happens. People with low numbers end up spending much less than people with high numbers.



Now, of course, it's not about the social security number. It's about the fact that once I get you to think about a certain category, in your case the \$10 category, your willingness to pay moves to that category. And if I get somebody else to think in the \$95 range, then they'll start thinking about purchases in that range. And it turns out that this thought that you do only for one time actually stays with you and can influence later decisions.

How will this look in the Starbucks world? Imagine it's 11 years ago. And, imagine you're walking down the street and you've been happily drinking coffee from Dunkin' Donuts and have been paying 50 cents for the pleasure, and you're running an errand and you're tired and hungry. All of a sudden you see Starbucks, you don't know what it is but you decide to go in.

You're shocked by the price, you never imagined that coffee could be this expensive, but you decide to buy a cup anyway. You buy a cup, you kind of like it, you go away. Three days later you pass by again, do you remember last time why you stopped at Starbucks, how thirsty you were, tired, crunched for time you were? Of course not. You have a hard time remembering the reasons for your actions or emotions but you do remember going in. So you say to yourself, well I've been to this place before, this must mean that it's a good decision for me to do it again. And, this is basically like taking your social security number and repeating these decisions and saying, oh yes, I'll pay \$10 for this.

It's basically an influence of your past decision on your next decision. And it turns out that three days later you do it again, and again, and again, and soon enough you don't even think whether \$3.00 or \$3.50 is a reasonable price or not. You just assume it is. Because you've done it so many times, it must be the right decision. And therefore it becomes a habit. You could ask the question, if that's the case, if first decisions really matter, how did Starbucks ever convince us to move from Dunkin' Donuts to Starbucks? After all we were used to spending 50 cents on a cup of coffee. And the big key to that mystery is that Starbucks wanted to prevent us from comparing them to Dunkin' Donuts directly.

**Scott:**

So they did it by creating an experience, is that right?

**Dan:**

That's right. So think about what they did. They sold us biscotti and French pastries and French presses to make coffee. They told us about single bean coffee, you couldn't find a donut to talk about, or a muffin, or chocolate chip cookie because they wanted us not to compare those things directly.

In the same way, when you go to a restaurant and you see the wine menu, you never think about the difference between these two bottles of wine and I could buy 4 gallons of milk. We just don't naturally compare it; we compare prices of wine-to-wine and milk-to-milk. They wanted us not to compare Starbucks to Dunkin' Donuts so they did a very different job. Interestingly enough, 10 or 11 years later we've all changed our perception of coffee in a very basic way. We don't ask ourselves whether it's worth it, so now they don't need the pretence anymore. They don't have French presses, they don't have French pastries, in fact, they have muffins and bagels and all kinds of things. They became much more like Dunkin' Donuts and now they can do it but I don't think they could of done it in the beginning.

**Scott:**

Well that's an excellent story of marketing and branding at work and what can be done from the business world that doesn't have anything to do with the manufacture of the product or its origin. So that's a terrific story. I appreciate your time very much, Dan. One last question that I had to ask and that is, there's an interesting concept that you raised in the book where you talked about the relationship—talking about how businesses treat customers in the context and the phrasing that you use—you talk about a comparison between social norms and market norms. I thought that there were some very interesting lessons in there for businesses in terms of how they treat their customers. Can you just talk about that for a moment?

**Dan:**

So the idea is that we live in two worlds and these two worlds have a slightly different set of rules. And maybe an easy way to describe it is, imagine me asking you to help me change a tire on my car.

**Scott:**

Or I think you used the Linux example.

**Dan:**

That's right. Linux is amazing because if you think about it, it's the only organization that Microsoft is afraid of because every-



body does things for free, it's quite incredible. How can they achieve that? Well it turns out that when we do things for free we think about it very differently. So if I ask you to help me change the tire on my car, and I offered you nothing for it and you'd probably be happy, you'd say, "Well, Dan seems like a pretty nice guy, let me help him out." But if I offered you \$2.00 for the privilege would you say, "Gee, I get to help Dan, plus I get \$2.00"? Of course not. The \$2.00 would replace your social motivation, and now you say, "Well, if we talk about money here, let's talk seriously, and I don't do anything for \$2.00. Give me a hundred and we can talk."

There's something interesting in which you can add money, but detract motivation. This is because we work in these two worlds—a social world and a financial world. The moment you add money to the equation, all of a sudden you can cheapen the social motivation and, sometimes, we all know it.

If I came to your house for dinner and I thought about spending \$50 on a bottle of wine, in economic terms this is incredibly inefficient. Because I don't know which wine you like the most, maybe there is something else you could use, so I should come to you and say, "Thank you very much for inviting me. I was going to buy you \$50 worth of wine but realized I don't know your utility function," and so on. "Here's \$50 in cash."

**Scott:**

Hahaha. Right.

**Dan:**

Clearly, much better from every economic perspective, but what will happen is this \$50 in cash would not endear me to you in any way.

**Scott:**

No, that would be an unusual event, you're right.

**Dan:**

Now what's happening here is that in real life, in personal life, we understand that we sacrifice economic efficiency for building a relationship. Businesses have this as well, when they build things with their customers and with their employees. You know if you worked for me, I could give you, let's say \$1,000 bonus or send you on a vacation that would cost me \$1,000. Giving you a bonus is economically more efficient—you know better what to do with the money. But I think that your loyalty and care to me would increase more if I gave you the gift.

**Scott:**

No question. When I've run sales incentive programs in the past, a trip is worth more than a bonus.

**Dan:**

I think it is also worth more. Not only is it motivating, but after the fact when people come back. Now you've worked for me, got \$1,000 in a bonus as a gift, and I ask you, "Would you stay this weekend a little longer or after hours?" Most likely, I would get more of your heart and mind.

**Scott:**

And it even does more than that because then the person who's won the award is around in the office, they talk about the trip, they talk about it for the next 6 months. So it really does garner more benefit than if you had given them a \$1,000 bonus.

**Dan:**

That's right, and now the same thing happens with customers. With customers we can cultivate a social relationship rather than a financial one. And then they would be more forgiving and caring and so forth. However, there is a trick and the trick is that if you violate a social relationship you stand to lose a lot. And you can think about a social relationship and one time you can mess something up and it can have huge consequences.

I'll give you an example of one of my friends that did a study in which there was a daycare where the parents were late. As an economist you say, "Here's what we'll do, if they're late we'll give them a fine." So every time the parents were late they gave them a fine of about \$3.00. Now what happened? The parents were much more late. Why? Because they were motivated more not to be late by guilt. They didn't want to look the schoolteacher in the eyes and say, "Sorry I'm late. I messed up your plan." But now you put the price on it for \$3.00. "Hey, I'll be 2 hours late."



**Scott:**

Because I'm paying for it anyway so it's not harming them. Interesting.

**Dan:**

So it basically moved from a social relationship to a market relationship. Now if they would of charged \$300, the parents would be more on time. But they probably also would of switched to a different kindergarten.

**Scott:**

Haha. Right.

**Dan:**

But here's what happened: After six weeks of this they realized this was not a good deal and they took the fine away. Now the question is, will guilt come back? And the answer is, no. Parents kept on being late.

**Scott:**

And once that became a habit, once they became accustomed to it, in they same way they became accustomed to paying \$3.50 for a cup of Starbucks, it was a habit that they just continued, without really thinking about it, probably.

**Dan:**

That's right. In this case once you reframe the relationship in terms of market norms, it's not a social thing that you have guilt, it's a pure exchange you can't get it back. So if you have a customer that you've nourished a social relationship, you say, "We care about you," and so on, and then you stick them with some late fines, it would be very hard to get over that. So you see, if I have a business relationship with you and you're late with your payment and I stick you with a \$40 surcharge for that, you know it's just business. But if I try to tell you, "No, I'm your friend, I really care about you, we're here together, I'm here to help you," and all of a sudden I stick you with a \$40 late charge, people would take it much more severely. And would completely leave immediately. So social relationships are very good, but they also mean higher level of demand on the provider's side.

**Scott:**

Fascinating. Well, Dan, I really appreciate your time today. Once again, we've been speaking with Dan Ariely who's the Alfred P. Sloan Professor of Behavioral Economics at MIT and he's been kind enough to talk about his new book *Predictably Irrational*. It's available everywhere and you can also learn more about it at [www.predictableirrational.com](http://www.predictableirrational.com). Dan, thank you very much, again, for your time today.

**Dan:**

Thank you. Take care.

**Scott:**

Bye-bye.

**Dan:**

Bye.