

# EDUARDO ANDRADE:

## EMOTIONS AND CONSUMER BEHAVIOR

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BSJ

Professor Eduardo Andrade received his Ph.D. in Marketing from the University of Florida in 2004 before coming to the Haas School of Business. He studies the impact of emotions on consumer decision making. One of his studies published in 2009 shifted the concept of emotions from transient effects to long-term processes and his recent work is moving into the burgeoning field of decision neuroscience, which uses neuroscience tools to study economic decision-making. When Berkeley Scientific Journal spoke with him in 2010, this latest project was only starting, but we were able to discuss his research in emotional judgment and marketing.

BSJ: Thank you for letting us interview you! The first thing we want to ask you is: what sparked your interest in your research? What made you interested in targeting emotions through marketing?

Andrade: I was a doctorate student in 2002-2003 and while taking a course in social psychology I read one book chapter about how emotions influence the way we think. It was a review of what we knew back then. It was a 1996 chapter by two very famous authors and they talked a lot about how emotions influence the way you process information, how you recall information, things like that. In the 30-page document there was just one little part about how emotions influence actual behavior. I found that kind of surprising. Since I'm in the marketing department and we are interested in consumer behavior it makes sense to try to understand that. And that's how I started studying this topic. The research question I addressed was when & how people consume in order to change their emotions. People go shopping to feel better, people eat to feel better, people drink to feel better, things like that. It seems

so obvious to relate this to consumption that we could do two things: one, we could apply this to marketing and the other is to use marketing to help understand the basic phenomenon – emotion regulation.

BSJ: Was it a relatively new field back then?

Andrade: Yes and no. The topic of emotions in psychology has been there forever. It was born with psychology itself. In consumer behavior, however, it was relatively new. What was known until then was more about how one evaluates things differently based on his current state. For instance, if I'm feeling a little bit happier, I provide more positive evaluations of many things, and the reason is because I misattribute my feelings to whatever I'm evaluating. That's a very well established finding. There was hardly anything emotion regulation with consumption, and that's where I decided to go. There was a lot of work on psychology back then, but if you compare what it was 15 years ago to what it is now, there has been an explosion. What is impressive is how much more we know in just

a 10-year period. The number of people in different domains working and trying to understand how emotions are related to behavior in general is incredible: not only psychologists, but also sociologists and neuroscientists. Just yesterday, I talked to PhD student in neuroscience at Stanford who was interested in something I was doing and wanted to see if we could collaborate. I work on emotions and she is a neuroscientist interested in risk, but I'm interested in how fear influences risk-taking. There is this network of people who come from completely different disciplines who are all trying to understand how human behavior works, what the main drivers of human behavior are, and how much emotions play role.

BSJ: How do you apply emotion to marketing?

Andrade: Multiple ways. For instance, a fundamental question is: why do we approach things that most people would perceive as aversive or that would produce negative feelings? It turns out that in marketing and consumption, that is the perfect place to try to understand this dilemma, because people are doing this not because they want to earn more money, but for the pure sake of entertainment. There are scenarios in which marketing, or rather the consumption experience, is the right place to address a purely theoretical question. Every October I get phone calls from the press asking me to give opinions about horror movies, because Halloween's coming and I wrote a paper on horror movies. Horror movies are becoming more and more horrifying. So why do people expose themselves to this sort of experience, or what happens when they are exposed to this – that was the first question we tried to ask. It's an interesting question and it is obviously related to marketing.

To address this issue, we brought our research subjects to the lab and made them watch horror movies. Among them there were horror movie fans and horror movie foes. We asked them to rate what they were feeling on a scale just below the screen while they were watching it. If you look at people's rating of their level of fear, whether they are horror movie fan or horror movie foe, if it's a fearful enough video, both were quite scared. You cannot, if you look at the graphs of their report on their level of fear, tell who is who. That was something that surprised us.

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*“The main thing we are trying to ask is this: why people would expose themselves to what others would perceive as something aversive?”*

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For another group, we asked them to report their feeling of happiness or pleasantness. Here is where you see a huge difference: those who hate horror movies around zero all the time, and those who love horror movies going up from time to time. Another nice observation is that the most horrifying scenes were also the most pleasant ones among horror movie fans. There is a huge positive correlation between fear and pleasure. Literature in psychology addresses mixed emotions. It is not that people are feeling one emotion or another—they are able to experience these two emotions, and both need to be there. If you have either just fear or just pleasure, it isn't going to work. You need a certain level of fear or else the experience will be dull.

This is readily applied to marketing. When you get to industry, they will ask one question: how do I grow the market? It's like asking, 'How do I convert a horror movie foe into a horror movie fan?'

So, in another study we selected only those who hate horror movies and tested what is called psychological distancing. Those who hate horror movies put themselves too much into the movie and that is preventing them from having fun. So how can we make the consumer detach himself but still enjoy the horror movie? In particular, in this study, we displayed the passport pictures of the actors next to the screen where the horror movie was playing. The horror movie foes then find it easier to realize that it is just a movie and can enjoy it more. The ideal thing is to get into an optimal level where you are not too distant, where you aren't going to have any fear, but you are also not too close to the movie in which you will get too many nightmares.

BSJ: Do you know how they make that disconnect at the right level in a horror movie?

Andrade: Within the movie, it's more complicated. In the current shows and DVDs they have a lot of these cues. They have bloopers and outtakes. If horror movie foes watch all of these before the actual movie, it may allow them to enjoy watching a little bit more. Of course it depends on the movie—there are movies where no matter what you do, you'll be scared!

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*“We know that very subtle changes in your emotional states can make you buy more or less... The key is that companies want to manipulate you using this.”*

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BSJ: Trailers are the main vehicle to market a movie. Have you noticed any changes in trailers to help consumers detach themselves from a movie before they even walk in to the theater?

Andrade: I think what is happening is that consumers are becoming much more adapted to horror films. We can relate this in the way you grew up with video games: the access to violence that you had is probably not the same as what I had and it's probably not the same as what your kids are going to have. There is this level of adaptation that is really horrifying. Imagine Alfred Hitchcock—he was very horrifying! But relatively, now might be dull to many young consumers. And because you are ten, twelve years old when you have access to these very threatening scenes, it's becoming easier to adapt. Even movies like Harry Potter have quite a bit of scary scenes and they are rated for mostly everybody to watch. Protective frames are now present naturally because people are being raised in a vicariously scarier environment.

BSJ: So they have acclimated to that level of fear. There is desensitization to violence or gore. Do you think that it is positive or negative toward our emotional impact or how we experience emotions?

Andrade: Whether it is good or bad is beyond my research. But that the people are getting more adapted and less sensitized to violence seems to be true. Whether this helps or hurts you is a very interesting question that other people are currently researching.

BSJ: Would you claim that fear is one of the most commonly targeted emotions in marketing?

Andrade: There are many emotional states that matter to marketer, but fear is a very interesting one. One thing we are investigating now is the impact of fear on financial decisions. If you look through newspapers, they talk about this all the time: fear has led to selloff in the stock market. We decided to directly test this. And one thing that we observed that is particularly true is that fear makes you pessimistic about other people's behavior. Since fear is an

emotion and emotion is a human quality, I am much more likely to project my emotion into what I will do rather than what the computer will do. We ran experiments in which we induce fear where people are asked to play stock market games. This stock market type of game is called “cash-out.” They see the value of a stock— they come into the lab, they have a set amount of money, their money is converted to a stock, and the test is when to decide to sell the stock.

Imagine that the participant is in front of the computer and we tell him that he can sell the stock whenever he wants. He sees the graph increasing and decreasing and has to decide when to cash-out. In each round he is asked whether he wants to keep playing or cash out. Next what we test is whether fear will make him sell the stock earlier: taking the safe option. This is dependent on how the value of the stock is computed. If I tell him that the value of the stock is being randomly computed by the computer, fear has no impact whatsoever. If I tell him that the value of the stock is being computed by everyone's decision in the room, then fear has a huge impact. Statistically speaking, his prediction of the other person should be as random as the prediction by the computer because he has never met this person. But, it is more likely for him to project what the other person is going to do and become more pessimistic about his behavior than what the computer is going to do.

BSJ: So emotions are basically a human-to-human connection? That is when they are most powerful?

Andrade: It's not the only case, but that is when they are most powerful, yes. When there are social interactions, emotions can play a huge role, for better or for worse. We have other studies where we ask people to play games in which they are facing each other. It is a dictator or ultimatum game. The subject comes to the lab, is randomly assigned to be the sender or the receiver and is then matched with some other person in the lab. He's not told who the other person is; he'll never know. The sender receives \$10. And the sender has to decide how much he wants to share with the receiver. Whatever he decides, is carried over and that is the end of the game. The receiver has no say whatsoever. The sender is in front of a computer screen, “interacting” with someone he or she doesn't know and will never meet, and is asked how much he wants to give to the receiver and how much he wants to keep for himself. Theoretically, they should keep the whole amount and give zero, but people don't do that. People give a little bit of money, but not half. There's some notion of fairness, despite the fact that in economic terms there are no adverse consequences of not being fair. But people feel a little guilty and don't do that. The problem

with these games is that because they are anonymous, they take away the face-to-face human, natural, social interactions.

So, we decided to add webcams. The difference was that in one situation the sender is seeing the receiver while he has to type the offer and in the other situation, the sender sees the receiver for fifteen seconds, waits a minute and then types the offer. When do you think the sender gives more money?

BSJ: When you are face to face while making the offer.

Andrade: You are totally right. Despite the fact that in both cases the sender and receiver see each other. But it is much harder to be selfish when staring at the receiver and he's staring back.

BSJ: To go more into consumer decisions, I've seen research on how emotions affect choices consumers make in terms of products they buy.

Andrade: One thing that we know is that emotions influence us many times without us realizing it, and consumers are not an exception. We know that very subtle changes in our emotional states can make us buy more or less, can make you buy A versus B. The key is that companies want to manipulate you using this. The consumer does not want to be manipulated. The company usually has the wrong assumption, which is that the stronger the emotion the stronger the impact. That's not necessarily true. It might well go the other way around. Weaker emotional indulgences can produce strong effects. And the reason is that when they are weak, the consumer doesn't realize he is being manipulated, and as result, does not try to correct for it. When it's very strong, the consumer's defense mechanism operates. Another thing we know is that the emotional state does not need to be there at that point in time to produce an emotional impact. For example, imagine that you are seeing a humorous advertisement. When you see the ad and find it is very funny, you laugh. But when you go buy the product, you're not laughing anymore. So, does the emotion you felt before matter? What we have observed is that it does because of the following pattern: you are watching the funny ad and form an impression of the product. When you get to the store, you're not feeling the emotion any more but you can still retrieve the evaluation. And that evaluation has been biased by your previous emotional assessment. And that influences your decision. You have what is called the 'long term impact of short term emotions.' Recalling these assessments later on influences decision-making.

BSJ: What causes the irrationality in decision making? Can that be attributed to emotions?

Andrade: Yes. One thing that we know is that our premises are not as stable as we would have expected or as standard economic theory would predict. So very subtle changes in our emotions make or change our preferences and can even change preferences over things that are really meaningful. Another thing that happens is that if I know that my emotions can influence my behavior, I may also expect that my emotions can influence your behavior. If I am negotiating with you, should I pretend to be angrier or should I pretend to be happier? And when should I do one versus the other? And we have studies where we show that people deliberately fake their current emotions to extract more minor negotiations. And, sometimes, it works!

Especially in the case of anger; anger leads you to get more. Some people don't believe this because anger breeds anger and this is bad for both the individual and society. But if you have a good reason to be angry and the partner knows it, it works.

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*“Very subtle changes in our emotions make or change our preferences over things that are really meaningful.”*

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BSJ: Is there a way to harness emotions to make decisions more fair? For instance, can you think of a way to train people to create a fair economic decision?

Andrade: There has been a lot of work on emotion related to that. Anger can lead to more fair behavior, but it is not necessarily more rational. Also, some emotional states, can lead to making everybody feel like they won. When the people of the group are happier, there tends to be more social interaction and everyone tends to win. It's less clear about negative emotions. It's less clear whether what is important is the matching, meaning we have the same mood or the appearance of being happy. We really don't know the answer to this question for sure. But one thing we do know is that happiness often leads to more cooperation.

BSJ: After conducting research on emotions and understanding these results, does this personally affect you, say, when you are going to the grocery store?

Andrade: (laughs) I don't often go to the grocery store, so I guess I'm not the ideal consumer, which is ironic for someone who studies consumer behavior. But, everyone who does work with consumer behavior is aware of these biases. If we keep thinking about this we simply freeze and not do anything. So I'm not sure if it makes us better or smarter consumers, but it does make us different consumers. But in many circumstances, I don't think we pay that much attention and we tend to overestimate how much we really know. Maybe they are still fooling us and we don't even realize it. It keeps you thinking about not only emotions, but promotional tactics and such. There are several examples. Sometimes supermarkets put a display a little bit away from the shelves, and customers' first intuition is that this is on sale. Often, it's not. This type of tactic I personally can resist, but others such as the subtle aroma of certain foods, I think cannot control.

BSJ: Then there is the example of milk always in the back of the store.

Andrade: Yes, that's right. There are countless examples of these tactics, which are kind of entertaining. For example, if the music playing is slow, then people tend to walk more slowly. The lighting has an effect on how much people blink. The smell makes a difference. The display makes a huge difference. For example, displays for kids—they are at levels so that kids can pick it up and beg their parents to buy it.

BSJ: Have there been any practical applications of your research, such as companies calling you and asking how to advertise to appeal to consumers?

Andrade: Yes. There has been interest, for instance, on how we can promote recycling and even hand washing (both are actually huge problems). Does pride or shame matter? How can we induce and test them? And so on? We are working on this right now but I'm can't much more at this point.

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*"The concerns in industry are not the same as the ones we have in academia. The incentives aren't identical. They want to maximize profit in the long-run. We want to publish papers."*

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BSJ: How do you quantify something as abstract as emotion? Is it always based on a scale?

Andrade: There are a couple ways of doing this. One way is how you've already described it, which is the use of subjective ratings and of several scales. People

are usually good at reporting their emotions this way. But there might be some biases that can affect how the participants will respond. They might tell you what you want to hear rather than what he or she is feeling exactly. Other alternatives use physiological measurements, like heart rate, skin conductance, etc. This has the benefit of obtaining more valid information about the experience but you don't know exactly what that experience means. My heartbeat may be an honest response, but does it tell you that I'm afraid or in love? There are limitations. Also, brain activation can be measured directly and certain areas of the brain or patterns of activation are associated with one particular emotion or with more general feelings, but the brain is not built such that there's a "guilt" area or a "shame" area or a "pride" area. There are compromises between these methods. If you ask a person how they are, they may or may not tell you the truth, but if you measure the brain, you may not be able to identify the exact emotion experience. My guess is that research on emotion and brain activation will improve dramatically very soon, which will help us learn what certain patterns of activation mean. That will be huge.

The other way of assessing emotions is simply by manipulating people's emotions in a valid way. If I tell someone that they have to give a speech ten minutes from now, in a room full of strangers, they're going to become anxious.