

PRINCIPLES OF BEHAVIORAL ECONOMICS

Prof. Sujata Kar

Department of Management Studies

IIT Roorkee

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Lecture 16

Hello, and this is the course on principles of behavioral economics. We are now discussing effects. So, in the previous module, I discussed framing effects alongside heuristics. Now, I'm going to discuss menu effects and expectation effects. The menu effect is a type of framing effect, which refers to how people choose from several options on a menu rather than how each option is described.

There are a number of different types of menu effects, all of which involve different choice heuristics. Seven are discussed in this topic, and two others will be discussed in modules on mental accounting since they involve aspects of risk, uncertainty, or ambiguity. So, they are more related to the concept of mental accounting. The types of menu effects that are discussed are listed here. Attraction or decoy effect, preference for the salient, compromise effect,

choice avoidance, momentum effect, vicarious consumption effect, and confusion. So, we begin with the attraction effect. This effect involves the principle of reference dependence. As we have already discussed, framing plays the most important role because of reference dependence. Dan Ariely refers to this effect as the decoy effect.

Alternatively, he calls it a decoy effect since it has become a much used marketing practice. He opens his first chapter of his book Predictably Rational with an example relating to the subscriptions of The Economist magazine. There are three options on the menu, one year online subscription for \$59, one year print subscription for \$125, one year online and print subscription for \$125. So you can see that the two prices are same here, but here it is one year only print subscription, but in the third we have one year online plus print subscription. So when asked to 100 MIT Sloan's students, the outcome was internet-only subscription for \$59 was opted by 16 students.

Print only subscription for \$125, 0 students and print and internet only subscription, 84 students. So you can straight away count the percentages. 84% went for print and internet subscription for \$125. So of course you understand that when for \$125, you are getting two things, then why you will be paying \$125 for the only thing, one thing.

So that's why the choice is zero here. And of course, one more important point to be noted that the percentage is much greater for the third option. Now, when there are only two options or later on when the individuals were the same set of students were asked or given only two options, the outcome were 68% went for the internet only subscription for \$59 and understandably the rest 32% went for print and internet subscription for \$125. So now there is a drop in the percent.

So those individuals who earlier opted for this \$125 subscription in the second instance they opted out when all three options are presented, options 2 and 3 are more easily comparable because they have the same price and differ only on quality since option 3 offers more in quality it is safe to dominate option 2. Option 2 was print only subscription for 125. Option 3 was print as well as online subscription for 125 but when offered options one and three only consumers are not sure which one to choose because there is a trade-off between price and quality and they may prefer the cheaper and less profitable option one. Ariely suggests that the second option is offered merely as a decoy. This is an example of preference reversal as well

so as I just say that initially a large percentage opted for \$125 subscription but then when only two options were presented then they opted for -- a majority opted for the first option. So for some of them, there must have been preference reversal. These effects have significant marketing implications. It is a widespread practice in marketing strategy offering consumers decoys that firms do not really want them to buy.

So you put an item on the list which you actually do not want the consumers to buy because you would be putting a much more lucrative offer maybe at a similar or same price or maybe slightly higher price so that people would be compared to go for the higher priced one leaving the lower priced one untouched. So this is how you can actually influence consumers preferences or choices. We can generalize about the practice by saying that if a firm has two main offerings on the menu A and B but A is more profitable, the firm can encourage consumers to buy A by extending its offerings to include a decoy, which we can label A-, where A- is obviously inferior to A, but pretty much comparable to A,

and as a result of which, this may influence the consumers by comparing A and A- to go for A. Evidence suggests that people simplify complex decisions by choosing a salient option. And from there comes the concept of preference for the salient. This may apply to supermarket shoppers. For example, when faced with a large shelf filled with different brands, although the factor of limited attention is also important there.

But then, how do you choose from, you know, a large shelf filled with different brands? So you go for something that appears to be salient. A 2000 study showed that investors prefer to buy stocks of companies that are currently in the news, even if the news is bad. So basically, the things that are getting prominence, that are becoming salient, they are picked up. Being first on a list of options is often a considerable advantage because, again, that takes the most prominent position and becomes the most salient one.

In the case of financial markets, in 1981, American Airlines found that travel agents booked the first flight that appeared on their computer screen 53% of the time and a flight that appeared somewhere on the first screen almost 92% of the time. This caused the airline to manipulate the order of flights as they appeared in the booking system to increase profits. And this ultimately led to complaints from other airlines and intervention from federal governments. That is because there has been manipulation.

But they observed that the first flight that appeared on the computer screen was booked 53% of the time. And a flight that appeared somewhere on the first screen was booked almost 92% of the time. So this is crucial information. The first-on-the-list heuristic also applies to voting in the political arena. Another 2008 study conducted in California found that there was a significant advantage for a candidate in being first on the list among those who are contesting.

The advantage was greater for minor party candidates compared to those from major parties, suggesting that voters use irrelevant information when they lack other informational cues. So basically, a minor party candidate might-- people might not have much information about a minor party candidate. So the advantage was greater for minor party candidates just because the candidate appeared first on the list. And that's why he or she got prominence or it became a salient point for people to vote for him or her.

The order of items on a list can be relevant in more complex ways. For example, a 2012 study reported that when differing brand options are listed in descending price order, people tend to choose higher-priced items. While when options are listed in ascending price

order, people tend to choose lower-priced items. So when the items are like in descending order, so for example, we start with the highest price and go down to the lowest price.

On the other hand, we have ascending order when we start with the lowest price and go up to the highest price. What has been observed is that in descending price order, people tend to choose higher-priced items. So people are choosing prices that are higher on the list. Then, when options are listed in ascending order, people tend to choose lower-priced items. Again, items that are higher up in the list.

The authors suggest that the reason for this phenomenon lies in the association between price and perceived quality for branded products, combined with reference dependence. So here, alongside the idea of preference for the salient or preference for a prominent item in terms of their appearance. There could also be the impact of perceived quality for branded products, at least in cases where prices are arranged in descending order where consumers compare items with others earlier on the list.

Next, we talk about the compromise effect. This effect refers to the finding that people frequently choose intermediate options in terms of price that represent a compromise or middle option in the menu. This phenomenon is sometimes described as resulting from extremeness aversion, so there is a list of items where you neither want to be at either of the extremes. You neither want to be at the top nor at the bottom, so you want to avoid the extremes, and as a result, you are somewhere in the middle.

So this is what the compromise effect is: a tendency to avoid options at the extremes of the relevant dimension. A high-end brand might try to drive business to their expensive products by introducing a super expensive product. Although the super expensive product might never sell, it could make the expensive product stand out as an attractive compromise between the cheap and the super expensive one. Low-end brands might try to do the same by introducing super cheap products. Again, the super cheap products at one extreme will not be sold or will not be purchased by many.

But then people would be comparing between a super cheap one and a more expensive one and take a position in the middle. So this is how they would compromise between having a very expensive product or a very cheap product. This may be how we got diamond-studded swimsuits, which actually land at one extreme on one end of the spectrum and swimsuits made out of materials that degrade in the presence of sunlight, salt, and chlorine on the other. So this actually belongs to the other extreme.

So they both exist in the market, and there are very few takers of these two extremes. Most people actually buy products that lie in between. The fourth effect is choice avoidance. This is another counterintuitive finding, sometimes referred to as the paradox of choice. Marketing managers may feel that they are both maximizing profits and benefiting consumers by offering them a greater range of choices.

But the end result may be that consumers avoid the choice altogether, which often means not purchasing any item in the range. For example, a 2000 study compared the behavior of consumers who were offered the opportunity to taste six jams so this was a simple choice treatment with consumers were offered the opportunity to taste 24 jams so that's a much more difficult choice treatment because you have to choose the best one from a large number of options. This makes it a more complex process for our minds to handle. They found that although more consumers stopped to sample jams

when there are more choices so when there are 24 jams on display as sample then more customers stop by in order to taste them substantially fewer actually buy jams so four compared with 31 customers so if 31 customers stop by then only four customers purchase while if fewer jams are on display then possibly the percentage of individuals who finally buy was much larger compared to those who came to taste them. A 2010 study found that inexperienced investors invested less when presented with too many choices, though the opposite was true for experienced investors.

So experienced investors needed more choices. But if I am not very experienced with investing in the stock market, then I would probably not like to be bombarded with a large number of options. Let me go slow. Let me choose from a few. One, make certain decisions.

Decision-making becomes much more difficult. When a novice is presented with a large number of options. Evidence suggests that making complex decisions is stressful, and people may try to avoid this stress. A 2007 study proposed a theory that post-decisional regret is related to the comparison between the alternative chosen and the union of the positive attributes of the alternatives rejected. So the alternatives rejected, you consider them and consider the positive aspects of them.

A union of them implies that you basically consider all the positives of the rejected items together and then compare them with the option that you have chosen. This, of course, contradicts the standard model's view of opportunity cost, which considers only the positive attributes of the next best alternative rejected. A flip side to the above situation,

which again represents a paradox, is that people are averse to single-option offers. So we neither want too many options. We do not want just one option.

A 2013 study found that when only a single option is offered, DVD players in this study, people were more inclined to defer purchase, so then they would wait for more and more options to be available, then they will make a decision. So they will defer the purchase, but there are two extremes: too few options are not liked, too many options are not liked either. Then we talk about the momentum effect. This effect occurs when an initial purchase provides a psychological impulse that enhances the purchase of a second unrelated product. A 2007 study reported experimental evidence that

The purchase likelihood for a second target item, say a keychain, increases with the purchase incidence of an initial unrelated driver item, which is, say, an educational CD. So, this is a driver item in the sense that in the experiment, individuals are supposed to buy an educational CD. But they end up purchasing a second target item, which is completely unrelated to the educational CD, say, for example, keychains. This increased likelihood was not caused either by complementarity between the two items or by a consequent reduction in transaction costs. Next, we talk about the vicarious consumption effect.

A study related to the choice of food items has shown that adding a healthy item to the list of available options has the perverse effect of causing people to choose less healthy food items than otherwise. Apparently, the mere presence of the healthy food option vicariously fulfills nutrition-related goals and provides consumers with a license to indulge. And finally, we talk about confusion. A final behavioral deviation concerns confusion.

This does not reflect a preference but is really an effect of cognitive failure. Examples include mistaken trades of stocks. For example, confusing MCI with MCIC. Both are basically stocks. And mistaken voting in elections.

You wanted to vote for someone. Maybe the names are similar. They are placed so close to each other that you end up voting for someone else instead of the individual you wanted to vote for. Votes are placed for candidates whose names are adjacent to the intended candidate on the ballot, as a result of which these kinds of mistakes may take place. So, this is basically

a failure of our cognitive processes or the brain's processes to do what we initially wanted to do. So that is what is called confusion. Next, we talk about expectation effects. So far,

we have been talking about menu effects and we discussed seven different types of menu effects. These primarily relate to the items presented on a menu.

Next, we talk about expectation effects. This is another problem with neoclassical modeling. It concerns the effect of expectations. There is some evidence that high expectations of happiness can lead to disappointment. This emerges particularly from the 2003 study regarding people's plans for the millennium celebration in 2000.

So when the previous millennium was coming to a close, many people were extremely excited and planned grand celebrations. Those who spent the most time, effort, and money tended to be the least satisfied. It seems that the reference point phenomenon is again relevant here. Of course, in this case, it can be argued that the disappointment or lower utility after the event may be more than offset by the higher utility associated with the anticipation of the event. So, you basically expected much higher utility from the event.

Your anticipated utility was much higher, but then there was disappointment, or there could be disappointment for various reasons. It's just a matter of one night. You spend a lot of time and effort anticipating a huge celebration. There were also some rumors that the world would be destroyed completely at the end of the millennium.

So all sorts of things were there. There were huge expectations for that last night of December 31, 2000. But what happened is that there might have been anticipatory expectations or anticipatory utility—a huge amount of that—but there were disappointments as well. So lower utility once the event had passed; you just realized that maybe there was nothing great about it. So there could be substantial disappointment, and that might have been more than offset by the higher utility associated with the anticipation of the event.

So if higher utility could offset the lower utility, then you would still be overall happy, but if it is not the case, then there will be overall disappointment. This leads to a consideration of a further related omission from the neoclassical model relating to anticipatory utility. Again, we will get back to anticipatory utility while discussing mental accounting. The essential point here is that

anticipation of pleasure can itself be pleasurable with the result that people may defer the pleasurable experience in order to prolong the anticipatory utility. We actually had talked about this previously also—that when we buy lottery tickets, there is anticipatory utility in the expectation that I may win. There would be daydreaming that what if I win the money

and then what are you going to do with the money? People actually wanted to defer the declaration of the result because they wanted to enjoy more of that daydreaming situation, specifically when the probability of winning the lottery was pretty low. A 2013 study titled 'When Wanting Is Better Than Having' finds that materialistic people experience a hedonic high before purchase due to the expectation that a particular product will transform their lives in some significant manner, and after purchase, there is a hedonic decline. So those who are materialistic—in the sense of wanting to possess more and more things—probably tend to have more hedonic high before the purchase. But after the purchase, you get accustomed to it.

You see that nothing is going to change your life drastically. Maybe certain things make you happy for a few days, but after that, you get back to normalcy. That's why they tend to have a steep hedonic decline. However, such a pattern in utility was not found to occur with people low in materialism. So when you are low in materialism, neither a purchase is going to make you extremely happy, nor will owning it make you extremely sad—like, 'Okay, nothing is happening to me.' So you understand that.

Even after the purchase, nothing is going to happen—nothing is going to change drastically in my life. So as a result, neither the excitement reaches its peak, nor does the disappointment strike you hard. There is another aspect of the expectations effect, which is described well in Ariely's book *Predictably Irrational*. The examples he reports all show that the utility you derive from activities or consumption depends on your expectations, as does your behavior in general.

When you believe beforehand that something will be good, therefore, it generally will be good. And when we think it will be bad, it will be bad. So he has actually given many—he has talked about many experiments extensively. We really do not have the time or scope to talk about them in detail. If you are interested, you can go through the book.

They are a pretty interesting read, as well as an easy read, and give a lot of insight into what the expectations effect means. How expectations change our behavior, to what extent behavior can be changed due to expectations, and so on. A 1996 study performed an experiment which showed that after a group of subjects were given a word unscrambling task involving words related to the concept of the elderly, like Florida, bingo, and ancient, their walking speed was substantially slower than a control group that had not been primed with such words.

This experiment therefore indicates the importance of subliminal messages in prompting expectations as well as the effect of expectations on behavior. A second example of expectation effects also has important policy implications related to pricing. In a 2008 study using a placebo for reducing pain subjects were administered electric shocks in two consecutive treatments but given a drug purported to be a painkiller before the second treatment. Sure enough, the subjects reported less pain in the second treatment compared to the first, even though the drug was actually a vitamin C capsule. So as we observed, the pill was not supposed to have any impact on the patients, but nevertheless, they

felt better just because of their expectations. The interesting point was that in a following test, the subjects reported a very different response according to the advertised price of the pill. At a price of \$2.50, almost all the subjects experienced pain relief. But at a discounted price of \$0.10, only half of them did. So it's the same tablet.

But when we mention the price, we associate some quality with a higher price. And we think that it is going to be more effective compared to the same product being sold at a cheaper price. And we consider it to be of inferior quality, and we do not consider it to be very effective. While the study described above involved examining self-reports of pain, a subjective measure, another study in 2005 examined the behavioral effect of different prices in an objective way. This study involved the use of an energy drink, SoBe Adrenaline Rush, to see if the price paid had an effect on actual performance.

Performance in this case was measured in terms of the ability to solve anagram word puzzles. It was found that not only did the student subjects drinking the regular-priced beverage report less fatigue subjectively, they were also able to perform significantly better on the word puzzles than a group who drank the same beverage discounted to only about a third of the regular price, although no better than a control group who did not consume the drink. So here, there are three groups: one who had or drank the high-priced

drink that is the regular price. Then we had a discounted drink, and then there was a third group which did not drink anything. Ideally, the drink is not supposed to or might not have much impact on performance. So the no-drink and the high regular-price drink groups had similar performances. But the individuals who went for the discounted drink or had the discounted drink performed much lower.

So though it is the same drink for these two groups. So it all depends to a large extent on expectations. That's all probability. The authors could establish or the study could establish.

Another area where expectation effects are important is with the performance of branded products.

A 2015 study concluded that the use of status brands improves performance by consumers, as might be expected from the studies discussed so far. So again, we relate prices with quality, and accordingly, that may add to our confidence and may increase our performance. There was a twist to this outcome. The consumers took the credit for the improved performance themselves. This is an interesting example of overconfidence.

So again, it could be deciphered that their confidence came from using the status brands, but then the consumers ascribed all the credit to themselves. The authors speculated that the psychology underlying this effect is that the status of the brand improves self-esteem, which in turn reduces task-induced stress, which then leads to an improvement in the performance of many consumers. However, the findings of this study conflict with those of another study in 2013,

The study found that although consumers may rate branded products more highly and be prepared to pay more for them, their performance may be lower. In this case, the authors speculate that consumers rate their performance relative to other users and that using the abilities of high-status brand consumers as a reference point can lead to low expectations regarding one's own abilities. With this, I come to the conclusion of this module. These are the references.

Thank you.