



Behavioral economics: what it is and three ways marketers can use it

by Paul Conner

Behavioral economics has recently taken marketing by storm, showing that consumer decisions and behavior can be quite curious, even fascinatingly irrational. Research results like the following have impelled the behavioral economics movement:

When given a choice, 73 percent of a sample of college students chose a Lindt Truffle for \$0.15 versus a Hershey's Kiss for \$0.01. However, 69 percent chose the Hershey's Kiss for free versus the Lindt Truffle for \$0.14. In each case, the students stood to save \$0.14 by choosing the Hershey's Kiss but the Hershey's Kiss was not favored until it was completely free.¹

In a recent shopper behavior study, a significantly higher percentage of shoppers chose a bundled food offering that included a standard snack item and a decadent condiment for \$2.00 off the decadent condiment versus \$2.00 off the combination as a whole.²

In each of these studies, consumers' decisions were inconsistent with what rational economic theory would predict. Rational economic theory - founded in maximizing expected utility - would have predicted that the percentage of people buying each option would be equal because the expected utility of each option was the same: a savings of the same amount of money.

But in these studies this didn't happen. Why not? Behavioral economics.

What is behavioral economics?

Although the term "behavioral economics" can be traced back as early as 1958³, its most prominent awareness has evolved from the more recent works of (among others) Daniel Kahneman⁴,

Amos Tversky⁵, Richard Thaler⁶, Cass Sunstein⁶ and Dan Ariely^{1,7}. Behavioral economics phenomena have emerged and are thriving because researchers have found anomalies in rational economic theory's predictions of economic (for our purposes, consumer) behavior.

According to behavioral economists, the reason for these mispredictions is that rational economic models do not take into account the realistic context involved in decision-making, including environmental and psychological factors.⁸ Environmental factors include external elements such as objects present; people and relationships present; atmospheric conditions; and what's happening around us. Psychological factors include who we are (e.g., our demographics, our personalities, our attitudes, etc.) and how we physiologically, cognitively and emotionally process the environment.

A brief definition of behavioral economics phenomena, then, is as follows:

Behavioral economics phenomena refer to observed consumer preference and purchase dynamics that run counter to rational economic theory predictions by taking into account environmental and psychological factors that influence consumer decisions.

In addition to this definition, substantial evidence exists to support emotion as a strong, if not the essential, psychological factor that drives behavioral economics phenomena - like the abrupt reversal of the Hershey's Kiss share when offered for free. Support for emotion driving behavioral economics phenomena is nicely explained by Daniel Kahneman's System 1 and System 2 processing.⁹ Kahneman states that when humans, who are con-

stantly faced with decisions, encounter environmental stimuli that contain cues toward making effective decisions, two systems operate to process those stimuli. System 1, the automatic, intuitive, impulsive system that includes initial emotional reactions (that we are often not even aware of), quickly evaluates the cues to provide a first answer to what we should do. System 1 processing has evolved from our animal ancestors that decide not so much by cognitive deliberation but by automatic instinct (again, which involves emotional reactions). Humans, however, also have System 2 processing. System 2 processing refers to deliberation and thinking that take place in the cortex of our more highly-evolved brains.

Looked at this way, behavioral economics phenomena often occur when System 1 processing dominates System 2 processing. In other words, we behave based on initial emotional reactions rather than deliberative thinking about our best options. Therefore, a free Hershey's Kiss is much more emotionally charged when processed by System 1 than a one-cent Hershey's Kiss, even in situations when we are saving exactly the same amount of money.

System 1 processing leads to a variety of heuristics that humans use to make decisions. Heuristics are emotionally-based rules of thumb that allow us to quickly make decisions. They operate because 1) we have a natural need to quickly evaluate our environment and decide how to behave (which evolves from our fundamental need to survive) and 2) we strive to alleviate the cognitive stress involved with System 2 processing.

Three things marketers can do

There are many behavioral economics phenomena that marketers can use to more effectively sell their products. Among others, these include phenomena such as The Attraction Effect; Loss Aversion; Anchoring and Adjustment; The Certainty Effect; and Temporal Discounting. Detailing each of these phenomena is beyond the scope of this article but understanding behavioral economics phenomena as a whole can help direct marketers' efforts for myriad business applications. Here are three.

1. Frame promotions, deals and bundles

Using the Hershey's Kiss and decadent condiment examples from earlier, perhaps the easiest way to use behavioral economics phenomena is to find effective ways to frame particular promotions, deals or product bundles. The Attraction Effect, Mental Accounting and The Certainty Effect provide excellent opportunities.

The Attraction Effect is the phenomenon whereby preference for and subsequent choice of a targeted item in a two-item choice set is enhanced by adding a third item (called a decoy) that is similar to, but "dominated by," the targeted item for an important attribute.¹⁰ For example, established and tasty brands of food products are more and more competing with - and losing share to - lower-priced but less-tasty store-brands in two-item choice sets. Many of these established and tasty brands also have less-tasty varieties (e.g., "lite"). The Attraction Effect says that placing the similar but less-tasty variety alongside the tastier established variety will enhance its attractiveness, preference and subsequent choice and share versus the less-expensive, less-tasty store-brand.

Mental Accounting is the phenomenon whereby people place different emotional values on items they spend their money on, even if they cost the same amount of money.⁶ For example, spending \$3.99 on a greeting card can have a much different emotional value than spending \$3.99 on a jar of mayonnaise. As in the decadent condiment example, spending money on some items that are considered more hedonic can evoke feelings of guilt for purchasing them. Applying discounts to more hedonic items can counteract the guilt activated by buying them, therefore enhancing sales.

The Certainty Effect refers to the irrational overweighting of the value of outcomes that are certain versus those that are only probable.⁴ For example, people largely prefer to receive \$20 if they are certain of receiving it than \$25 if there is only an 80 percent chance of receiving it. This runs counter to rational economic theory's prediction that because the net value is the same, these should be equally preferred. One way to frame promotions via The Certainty Effect is to appeal to tested track records of success, particularly versus new players in the choice set. Messages, direct and indirect, of the longstanding history of your brand, of the breadth of your brand's acceptance and of your brand's superior quality through rigorous testing and statistical results all serve as examples. Another well-used Certainty Effect tactic is shown in the Hershey's Kiss example: offering something for free. With free there is certainty that the consumer will not be experiencing the pain of losing money. (Loss Aversion, another behavioral economics phenomenon, also comes into play here.)

2. Set price expectations

Perhaps the most challenging issue faced by marketers is how much to charge for products and services. The behavioral economics phenomenon of Anchoring and Adjustment can help set price expectations for the best results.

Anchoring and Adjustment refers to the influence of an irrelevant number or non-numerical value on subsequent judgments and behavior.¹¹ In Anchoring and Adjustment the "anchor" serves as a reference point and people "adjust" their subsequent judgments and behavior from that anchor. For example, a classic study found that among people who were asked to recall the last two digits of their Social Security number, those with higher numbers paid more for a bottle of wine than those with lower numbers.¹² Obviously, the Social Security numbers were rationally irrelevant to the value of the wine; however, humans were in need of a heuristic reference point so System 1 dominated, giving System 2 a rest.

Anchoring and Adjustment can be used to set price expectations and influence choices of higher- or lower-priced products. For example, if a targeted price of a product in a grocery store aisle is \$3.99 and this is relatively high among competing products, displaying a bundled offering on the aisle's end-cap that includes similar products for \$4.99 or \$5.99 anchors the price-point higher than the targeted product, making \$3.99 appear more reasonable. Conversely, if your product is priced lower, anchoring that expectation with lower numbers - even something as arbitrary as low-numbered product codes - could help you better compete against higher-priced competitors.

3. Target the right people

To this point it may sound like behavioral economics phenomena affect all people the same way in all situations. For example, you may be thinking that all you have to do is anchor your target with higher numbers and everyone will pay a higher price. Unfortunately, this is not the case. Much behavioral economics research shows conditions in which, and people for which, certain phenomena apply and don't apply.

For example, studies have shown that *Temporal Discounting*³ - the phenomenon whereby people lessen the value of benefits delivered in the future - is more prevalent among people who have inconsistent present and future self-identities.¹⁴ It's as if they're buying for a stranger, not themselves. In addition, consumers who have a high need for uniqueness have been shown to be influenced differently by *Social Conformity*¹⁵ than consumers who do not have a high need for uniqueness.¹⁶

The application for marketers is to choose targets wisely based on the behavioral economics phenomenon in play. For many of the moderating consumer traits (e.g., future self-identity and need for uniqueness), item batteries exist to identify people who have them. Using such batteries in studies to further identify and target the right consumers is a wonderful idea.

A final word of caution

There are virtually hundreds of ways marketers can use behavioral economics phenomena. Hopefully this article starts you down the right path. A final word of caution is important. Behavioral economics phenomena emerge from rigorous science, examining actual consumer choices in experimental studies. As you explore ways to frame promotions, set price expectations, set defaults, prime goals, choose targets or whatever your marketing activities, take the time to develop and experimentally test hypotheses. This can save - and even make - you money in the long run. And who knows, perhaps you'll discover (and become famous for) an entirely new behavioral economics phenomenon!

Editor's note: Paul Conner is vice president, behavioral science,

at Sentient Decision Science Inc., a Portsmouth, N.H., research company. He can be reached at info@sentientdecisionscience.com. This article appeared in the March 26, 2012, edition of Quirk's e-newsletter.

REFERENCES

- ¹ Ariely, D. (2008). *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. Harper Collins.
- ² Sentient Decision Science (2001). Hedonic Bundling Study.
- ³ Angner, Erik and Loewenstein, George F., Behavioral Economics (January 14, 2007). In *Handbook of the Philosophy of Science: Philosophy of Economics*, 641-690, Uskali Mäki ed., Amsterdam: Elsevier,
- ⁴ Kahneman, D. and Tversky, A. (1979). Prospect Theory: An Analysis of Decision Under Risk. *Econometrica*, Vol. 47, No. 2., 263-292.
- ⁵ Tversky, A. and Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185, 1124-1131.
- ⁶ Thaler, R.H. and Sunstein, C.R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. Caravan.
- ⁷ Ariely, D. (2010). *The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and at Home*. Harper Collins.
- ⁸ Wilkinson, N. (2008). *An Introduction to Behavioral Economics*. Palgrave MacMillan.
- ⁹ Kahneman, D. (201). *Thinking: Fast and Slow*. Farrar, Straus and Giroux.
- ¹⁰ Huber, J., Payne, J.W., and Puto, C. (1982). Adding Asymmetrically Dominated Alternatives: Violations of Regularity and the Similarity Hypothesis. *Journal of Consumer Research*, Vol. 9, 90-98.
- ¹¹ Slovic, P. (1967). The relative influence of probabilities and payoffs upon perceived risk of a gamble. *Psychonomic Science*, 9, 223-224.
- ¹² Ariely, D., Loewenstein, G., and Prelec, D. (2003). Coherent Arbitrariness: Stable Demand Curves without Stable Preferences. *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 73-105.
- ¹³ Frederick, S., Loewenstein, G., and O'Donoghue, T. (2002). Time Discounting and Time Preference: A Critical Review. *Journal of Economic Literature*, Vol. XL, 351-401.
- ¹⁴ Ersner-Hershfield, H., Garton, M.T., Ballard, K., Samanez-Larkin, G.R., and Knutson, B. (2009). Don't Stop Thinking About Tomorrow: Individual Differences in Future Self-Continuity Account for Saving. *Judgment and Decision Making*, 4:4, 280-286.
- ¹⁵ Sherif, M. (1936). *The psychology of social norms*. New York: Harper.
- ¹⁶ Irmak, C., Vallen, B., and Sen, S. (2010). You Like What I Like, but I Don't Like What You Like: Uniqueness Motivations in Product Preferences. *Journal of Consumer Research*, Volume 37, electronically published, April, 2010.