The Behavioral Economics of Paying and Borrowing

by David S. Evans, Founder, Market Platform Dynamics

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Introduction

Many Americans, feeling chunky and lethargic from their Thanksgiving to New Year’s Eve eating binges, will be making resolutions to exercise more and eat less during 2011. Some will sign up for a health club. They could get day and monthly passes. But so confident they are that this will be the year they will run, bike, swim and pump iron that they take the annual package. Most will go a few times before reverting to the happy life of watching television, playing video games and communicating with friends from their easy chairs over Facebook. Some will make the same resolution next year and spend even more money on the latest exercise, eating or other life-improving plan that they will soon abandon. Humans can be shortsighted, impulsive, inert and optimistic.

That is what behavioral economists have found at least. They use a combination of economics and psychology to consider how consumers behave and why. They rely heavily on experiments. Some of these are make-believe exercises in a consumer laboratory. People are offered junk food and health food under different circumstances to see what drives choice. Others are large-scale randomized studies involving real market choices. Some employees are given the choice to opt into a retirement plan, while others are given the choice to opt out. The comparison reveals how market rules affect decisions. Still, others are based on studies of complex markets. A look at the health club industry reveals a business built on impulsive consumers who systematically overestimate their own willpower.

Researchers in this field have focused a considerable amount of effort on consumer financial products to understand how consumers make decisions that involve calculating future values and probabilities. That has led them deeply into studying credit cards and increasingly into all forms of payment instruments. Drazen Prelec and George Loewenstein pioneered this field with their 1998 paper on mental accounting. [1] Their basic idea was that people weigh the pain of paying against the value of consumption. Subsequently, economists and psychologists have examined matters ranging from the extent to which credit cards increase purchases at the point of sale to how consumers make decisions over which kinds of cards to get and how to use them. They’ve also looked at why people engage in seemingly odd behavior, like paying finance charges when they have money sitting in the bank earning low interest rates.

After presenting an overview of the field of behavioral economics, this article describes some of the key research on consumer paying and borrowing.

Behavioral Economics

Developments collided in the 1970s to ignite the new field of behavioral economics, as
psychologists started focusing attention on how consumers make economic decisions. A paper by Daniel Kahneman and Amos Tversky showed that the way choices are framed to consumers can have enormous consequences on what they decide to do. [2] Their basic insight was that consumers focus on gains and losses in making decisions, and they hate losing a dollar more than they like gaining a dollar. Changing the benchmark against which people are calculating changes can put more emphasis on the gains than the losses. Shortly after their work, economist Richard Thaler published a paper that identified a number of departures from the standard economic assumption that people behave rationally. [3] Many of these were just common sense. People have trouble with self-control and make choices that they will obviously come to regret. However, by assembling these anomalies, Thaler made a strong case that economists needed to understand how people behaved and why, rather than just assuming that people were human calculators.

In the past 30 years, research by behavioral economists has built on these early insights. [4] Some of the research is based on “laboratory experiments” that studies how people – often students since that is who academics have ready access to – behave in a controlled setting where they are giving particular choices. For example, a researcher might ask students to choose whether they would like to have a chocolate bar or an apple tomorrow at noon and then give them the opportunity to change their mind right before noon the next day. People say they want the banana tomorrow but then take the chocolate when the time comes to actually eat it. Other research is based on more realistic market experiments. In a classic experiment, researchers observed consumers making choices over marmalade and jams with two different displays – one with many choices and the other with few. People bought more jam when they had fewer choices. Still, other research looks at actual markets. A famous one involves health club memberships where people are usually given a choice of paying by the month or joining for a year. Many people join for the year when they would be better off joining by the month. Even after they realized that they seldom go, they don’t switch to a better plan.

While many questions remain unanswered, there are some key points that have a great deal of empirical support from the work that has been done. How choices are framed and the contexts in which choices are put are important. When people are asked about public health programs, for example, they make different choices when the results are framed as how many lives will be saved by various programs rather than how many deaths will occur under various programs. They also tend to choose selections in the middle and to focus on attributes that permit numerical...
comparisons. As the marmalade experiment demonstrated, there is a great deal of evidence that people face choice overload. With too many choices, they may even decide not to do anything. People also don’t like to make decisions. As a result, they tend to go with defaults that do not require them to actually do anything. One of the famous experiments found that people value an item more if they have it than if they need to buy it. Students who were given coffee mugs demanded more to sell them than students who were not given coffee mugs but were asked to buy them. [5]

Some of the most important findings of behavioral economics concern how people make decisions that involve costs and benefits that are going to take place over time. People tend to be short-sighted and impulsive. They may place a lot of value on consuming things immediately, even though they will come to regret that. This leads to the famous “time inconsistency” problem that is demonstrated by the chocolate/apple experiment. Today, people want to make the healthy choice for tomorrow. When tomorrow comes, they go for the junk food. That is an impulsive choice they will regret the next day. Many choices over time require calculating present values and assessing probabilities. It turns out that human brains are not very good at this. People also look at the bright side. They are view themselves very favorably and are overly optimistic about the future. Most people believe they are better than average drivers and will be high-income earners. (Of course, in the popular media, this is known as the Lake Wobegon effect after the mythical town from Garrison Keillor’s show, where all the children are above average.) While this may seem like common sense and trivial, it turns out to have important ramifications for consumer borrowing. The behavioral economics literature suggests that people may tend to borrow too much, because they are short-sighted, underestimate how much it is going to cost them and overestimate their ability to repay in the future.

Humans, of course, are not all short-sighted all of the time, and that holds true for many of these other oddities of consumer behavior. The literature finds a great deal of heterogeneity. People vary in how much they depart from purely rational behavior. We all have friends who waver from hot-tempered to cold and calculating. People also vary in their ways of thinking over different products – great perhaps at evaluating credit card offers but not so good at evaluating the lifecycle costs of different air conditioning systems. Happily, we get better at making choices
and perhaps in controlling our primal urges as we get older. This brings up a related point: Many people recognize their own imperfections and try to do something about them. There’s the proverbial lock on the refrigerator door, but more money has been made by Weight Watchers for planning every meal.

Paying and Borrowing

In the United States, where the card industry was born, people flocked to charge cards in the 1950s and 1960s and then increasingly to credit cards in the 1970s and 1980s. Debit card use started increasing rapidly in the mid-90s as a result and the use of these cards. Today, most people have debit cards, and many of those people also have credit cards. There is a paradox, though, which has stimulated a lot of research. Consumers are almost always better off paying with their credit cards than their debit cards. With a credit card, they can get rewards and the free use of funds for up to two weeks. That is especially true for revolvers – about 60 percent of American households – who are disciplined in paying off their bills every month. The growth of prepaid cards makes consumer choices even more puzzling: Why put out money sooner than you need to?

There are several answers to this paradox, which provide insights into how consumers use these products. One involves mental accounting. People use different payment instruments to help them sort out their budgets. They use debit cards for example, for the day-to-day necessities of life. They reserve credit cards for big-ticket items, even when they are planning to pay these off at the end of the month. Debit cards provide the same accounting function as cash and checks but the convenience of cards. A related point concerns double-entry mental accounting. People incur pain from paying and need to balance that off against the benefits they are going to receive. In many cases, they prefer to pay before they are consuming things, because then, they can consume pain free. Putting a payment on a credit card makes more sense from this perspective when the benefits are long-lived and off in the future.

Another answer concerns liquidity management. This explanation argues that there are perfectly rational reasons to use these different forms of payment. People receive payments in lumps – a weekly, bi-weekly or monthly paycheck, for example. They also face lumpy obligations, such as emergencies, home repairs and improvements, as well as having to buy consumer durables. Liquidity is costly to obtain, since it involves applications to lenders, and the approval and obtain of loans available is uncertain. Thus the use of debit and credit cards, as well as the decision to sometimes finance purchases, is part of household management.

Recent work in this area has focused on the paradox of “borrow high, lend low.” People have money in various demand deposit and savings accounts earning low interest while simultaneously carrying high-interest rate loans on their credit cards and other lines of credit. The average household spent $100 – based on data from the early 2000s – on interest payments they could have avoided by simply using funds from other accounts. This is really no
different than businesses that have cash on hand while at the same time raising money from the bond and equity markets. The reason for it is that people value having enough liquidity to pay for lumpy expenditures and handle emergencies.

Credit cards are an important financial product, especially for Americans, as almost 80 percent of consumers have one. People have to choose among these relatively complex products and then make financing decisions. This is probably one of the most controversial aspects of the behavioral economics literature. A fair reading of the literature to date indicates that many people choose credit cards intelligently and use them responsibly. Recent papers have also found that people get better at making sound decisions over time. They get more experience and get smarter. At the same time, other people tend to be short-sighted, impulsive and over-optimistic about whether they will repay and their willingness to repay.

These customers can be the relatively more profitable ones for card companies, and that is the kind of person issuers pursue. Sophisticated consumers game the system, for example, by flipping balances between low-APR cards. Unscrupulous consumers pay their bills on time, get increasing credit lines and then play an endgame of tapping into those lines fully and defaulting. Meanwhile, unsophisticated consumers end up paying more in interest and fees than they would if they were smarter. In some sense, this is no different than many industries. Gullible car buyers end up subsidizing savvy ones.

Researchers have increasingly applied the theoretical and empirical techniques of behavioral economics to marketing and product design issues in financial services. One study looked at the effect of gifts on deposits. Working with a bank, the researchers did experiments involving different combinations of gifts. They found that giving people gifts increased balances, and the effects persisted for some time after the gifts. Importantly, the gift programs generated net present value, as the returns outweighed the cost of the gifts. Surprise gift programs were particularly effective. Banks should avoid starting out with a great gift if they cannot keep it up. People can look a gift horse in the mouth if it is a worse horse than they used to get.

The literature is mixed on whether particular payments instruments lift retail sales. A number of studies have found that people spend more if they have a credit card. Part of the explanation for this result is that credit tempers the pain of paying in our mental accounting. Cards can also reduce liquidity constraints and reduce transaction costs, which is a more traditional

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explanation. According to some anecdotes, New York cabbies have ended up getting bigger tips from riders that pull out plastic. A sophisticated experimental study found no evidence of credits cards increasing sales. The researchers rigged an insurance company cafeteria. Some employees were able to use a credit card to pay for their lunches, while others had to pay cash. There wasn’t significant difference in how much the two groups spent. Of course, this result may be specific for paying for a routine expense, such as having daily lunch.

Late fees really work at keeping cardholders in line, according to a study of 4 million monthly credit card statements. The authors found that penalty fees provided effective negative feedback. People who paid penalties for being late or over their limits were less likely to pay another penalty because they got their spending habits in order. Consumers are also forgetful. The authors found that the effectiveness of penalties declines by about 10 percent a month, as people forget about the pain. Behavioral economics has also analyzed the effectiveness of different types of advertising. One study experimented with different marketing messages for a lending product for more than 50,000 consumers in South Africa. It found that including a photo of an attractive woman increased demand as much as dropping the advertised interest rate by 25 percent. Giving people more choices decreased demand as did suggesting particular uses for the loan.

**Conclusion**

Behavioral economics is not without controversy. In particular, a number of legal academics have used some of the findings concerning borrowing behavior to argue for strict regulations of consumer products. One of the most controversial suggestions is that the government should tax “sin goods,” like junk food and cigarettes. The argument is that people will actually benefit from these taxes, which will discourage them from engaging in impulsive behavior. The idea is my lean, middle-age self will thank the government for pricing those Big Macs out of my reach as a younger man. Legal academics have used similar analyses to argue the stiff regulations of consumer lending products. [6]

Many economists continue to debate whether behavioral economics really has much value.
While these anomalies about human behavior make for interesting chatter at cocktail parties, perhaps they are more the exception than the norm. Especially when it comes to money, a lot of people seem rather careful.

Letting policymakers devise regulations to discourage people from doing stupid things is also fraught with problems. Bureaucrats could snuff out a great deal of fun, from reckless skiing to wolfing down a porterhouse, on the grounds that people will ultimately regret having engaged in a life of abandon. After all, one man’s vice is another man’s virtue. Moreover, regulators are human, too. They are subject to the same behavioral oddities as everyone else. Government employees aren’t likely to make more rational decisions than anyone else.

Yet the fact of the matter is that behavioral economics provides extremely useful practical tools for helping businesses, especially financial ones, design products and devise marketing approaches. Already, there are many insights from this field that payments professionals can use in their day-to-day work. Behavioral economics provides an analytical framework and a set of empirical tools that can be used to explore new issues that come up. By combining the insights of human psychology and the rigor of economics, it can help businesses better understand their customers.

Endnotes


[5] As with any field of science, continuing research challenges older findings and their interpretations. For example, recent work has questioned whether there really is an endowment effect.