By Robin Robinson

BEHAVIORAL ECONOMICS

The study of cognitive mechanisms that influence decision-making and behavior can provide valuable insights for industry marketers.

Have you ever made a decision — health or otherwise — and on reflection, you couldn't be sure what drove you to make it? That's called being human. It's that characteristic — making decisions based on emotions or gut instinct rather than logic — that is at the heart of behavioral economics. To successfully influence consumers' choices, marketers need to understand how they are making their decisions and align marketing strategies so that the brand becomes a natural choice.

Multiple studies over the years have established that behavior is not always the result of careful deliberation and perfect logic and is instead often driven by intuition, emotion, and a myriad of other subconscious factors. Recent Nobel Prize winner Richard Thaler, a University of Chicago professor and founding father of the field of behavioral economics, has proven that individuals consistently make illogical choices that sabotage their economic interests while simultaneously believing their actions are totally rational.

Unlike a historical economic theory that assumed humans were well-informed and perfectly logical when making decisions, Dr. Thaler's work showed that not only is that not the case, but people can be illogical in systematic ways. Accounting for those patterns can help explain why people sometimes seem to act against their best interests. Being able to predict this behavior before it happens means there could be ways to nudge people into making the desired decision — whether it's a better health choice, like taking medication or exercising, or a consumer choice in selecting one brand over another.

While Dr. Thaler's work predominantly focuses on predicting decision-making in finance as well as how to use the technique to shape public policy, his premise that people are irrational in predictable ways has significant implications in the world of marketing.

"We have started to understand better that we, as social beings, are highly influenced by those around us and our physical environment, and as researchers, we've paid less attention to these elements than they deserve," says Jeanette Hodgson, global head of qualitative strategy, Kantar Health.

Behavioral economics — or behavioral science as it is frequently called in life sciences — allows marketers to use this knowledge to trigger the right motivations at the right times to nudge people in the right direction.

"When these behavioral theories are applied to a healthcare setting, what we often see are improved outcomes," says Boris Kushkuley, executive VP of multichannel marketing and consulting, Intouch Solutions.

For example, most people who smoke, or are overweight, or don't take medications as prescribed are aware of the potential consequences of their behavior, but immediate gratification subconsciously outweighs long-term benefits, even though these could be huge.

"For years, we assumed that if only we could provide patients with credible information, we could count on them to make rational decisions about their health choices," Mr. Kushkuley says. "But just as we realized 20 years ago in the field of economics, when it comes to their health, people are susceptible to similar biases that often defy logic and facts."

Applying concepts like biases can make it possible to create messaging, tools, programs, and campaigns that speak to people in the most effective way. Other examples include designing opt-in enrollments, choosing the right wording for a call-to-action, designing programs that incorporate concepts such as "habit loops" and "temptation bundling." Behavioral economics can help you target marketing efforts; choose communication channels; identify new services, products, and audiences; and design messaging.

Ms. Hodgson says this will require a shift in thinking and an acceptance of the two methods that people use to make decisions, called system 1 and system 2. System 1 thinking consists of fast, intuitive reactions and instantaneous decisions that govern much of our lives. System 2 is the deliberate type of thinking involved in focus, deliberation, reasoning or analysis, such as calculating a complex math problem, exercising self-control, or performing a demanding physical task.

"We have to learn to embed system 1 thinking into both qualitative and quantitative research and accommodate nonrational parameters into quantitative assessment of

FAST FACT

A CORE TENET OF BEHAVIORAL ECONOMICS IS THAT BEHAVIOR IS CONTEXT DEPENDENT AND INFLUENCED BY HOW WE PERCEIVE OTHERS AND OURSELVES IN THAT CONTEXT, AND THE PHYSICAL LIMITATIONS IMPOSED BY IT.

Source: Kantar Health

decision-making," Ms. Hodgson says. "Currently, life-sciences functions move predominantly within a rational orientation, assuming that all decisions are weighed and the pros and cons are analyzed rationally. As researchers, we gain maximum benefit by embracing behavioral economists' theories and explanations of seemingly irrational behaviors and layering insights from a variety of perspectives."

Nudges and Choice Architecture

As behavior modification programs are starting to gain traction among forward-thinking healthcare providers and insurers, leveraging behavioral economics principles becomes crucial in order to understand human biases, use irrational motivators, and deploy instantaneous "nudges" to course correct patients' behaviors.

"We are only at the beginning, but pressure to deliver improved long-term outcomes while containing healthcare costs forces key stakeholders to rethink the importance of motivating patients and actively influencing their behavior," Mr. Kushkuley says.

"Nudges" are changes to the way choices are framed or presented and can be very effective for changing physician and patient behavior. These nudges can be particularly effective in a healthcare environment and can dramatically improve treatment outcomes. Clinical studies show that in some categories, such as osteoarthritis, the combination of medication, a wearable tracking device, and a smartphone behavior modification app can almost double the effect of the medication. Small nudges delivered in real time that remind patients to take medication, be physically active, or avoid certain activities can slowly help to create "habits" that can be reinforced by association with positive motivators.

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CHRISTINE LEMKE
Evidation Health

From Patient Focus to Social Focus: What Makes People Tick

For some time, the industry mantra has been 'patient centricity,' i.e., putting the patient first in everything it does. However, the typical approach has been to focus on the individuals themselves, and the industry has largely ignored other factors influencing behavior. A Kantar Health paper describes a new approach to understanding patients, which includes not only the individual perspective but also the social-cultural and the environmental perspectives. In doing so it reframes the approach from a patient-specific focus to a more social perspective.

The research conducted was centered on IBS, but the methodology is foundational and repeatable in a variety of health conditions, ailments, or diseases.

The Qualitative framework that informed the research design incorporates three perspectives. They are defined below:

- **The Individual Context: Who I am** — People are heavily influenced by their own personal attitudes, perceptions, beliefs and emotions — rational or irrational, conscious or sub-conscious. This is the traditional field of investigation using a wide range of enabling techniques to reveal an individual's beliefs, values, and motivations. Kantar's researchers incorporated a number of lateral questioning approaches to explore emotions and higher-level drivers to behavior in the context of IBS.
- **The Social-cultural Context: Where I Belong** — A sense of belonging and alignment to a certain group of people or values, or lack of alignment with those patients reject, has a considerable influence on how they behave. In Kantar's IBS study, despite the social, emotional, practical, and economic impact of IBS being very clear, the subliminal perceptions and associations with the condition that researchers found in the cultural narrative (social media, blog posts, general media and brand advertising), minimizes the seriousness of the condition, thereby ensuring that patients keep their disease quiet. This exacerbates a negative spiral for sufferers.
- **The Environment Context: Where I am** — Physical context impacts behavior and the way people relate to illness will differ according to the context in which they find themselves. Kantar researchers saw and heard the varying impact that IBS has, depending on the role the person is playing in any given context: home, work, social etc. Similarly, the context, content, and nature of the dialogue that healthcare professionals have with individual patients will determine the side of themselves they bring to a consultation and will influence the interaction they have in the moment. The study revealed that by layering insights from multiple sources and incorporating a variety of approaches, it is possible to gain a much more profound insight into what really makes people tick and mitigates against a one-sided perspective of reality.

Behavioral Economics May Increase Flu Vaccination Rates

A new study suggests that a simple behavioral economics technique known as active choice may be able to help increase the percentage of people who get flu shots. In the study, researchers from the Perelman School of Medicine at the University of Pennsylvania programmed electronic health records (EHR) to alert care providers when a patient was eligible, and prompt them to choose to accept or decline a flu vaccination order. Results showed a 6% increase over clinics that did not use the alert system, representing a 37% relative increase in vaccinations from the prior year. The study was published online in the Journal of General Internal Medicine.

"Our results indicate that this simple intervention could be an effective and scalable approach to use the design of electronic health records to increase the rate of flu vaccinations, which are estimated to prevent millions of flu cases and tens of thousands of related hospitalizations every year," says study lead author Mitesh Patel, M.D., an assistant professor of medicine and health care management in Penn's Perelman School of Medicine and The Wharton School. Dr. Patel is also a staff physician at the Crescenz VA Medical Center, and director of the Penn Medicine Nudge Unit, whose work is supported by the Penn Center for Health Incentives and Behavioral Economics.

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"Many of the decisions that physicians and patients make have shifted from pen and paper to digital environments such as the electronic health record and patient portals," Dr. Patel says. "This presents a significant opportunity to test ways to design choice architecture within these environments to improve healthcare value and outcomes."

Behavioral science allows us to form a deeper understanding of the drivers of behavior and better identify levers for change.

JEANETTE HODGSON
Kantar Health

As pharmaceutical manufacturers realize that treatment efficacy depends on adherence to medications as well as lifestyle changes, more medications will come with comprehensive patient-support programs that will include real-time interventions. The introduction of artificial intelligence and machine learning will give us even more opportunities to continuously evaluate what works for each individual and how to tailor behavior modification programs to their specific needs, Mr. Kushkuley says.

"Interventions need to take place in real time, at the moment when flawed decisions are made, and most importantly these interventions should leverage biases that are hard-wired in us by nature," he says.

Outside of healthcare, lifestyle nudging is already being implemented. Examples of nudging can be observed in supermarket layouts that encourage healthier eating options, or musical stairs in shopping centers to encourage people to walk upstairs rather than ride the elevator.

"This type of tactical intervention will continue and be adopted more broadly by foundations and other vested healthcare bodies," Ms. Hodgson says.

Additionally, technology has improved patient tracking by being able to pinpoint what people do rather than what they say they do.

"Smartphones have enabled us to conduct more in-the-moment research allowing us to get close to a respondent's reality in the moments that matter, for example, when a disease reminds a patient it's there," Ms. Hodgson says. "Technology provides access to the situation, environment, exacerbating factors, how people feel, think, and behave in the moment and the consequences of actions taken."

She cautions, however, that there may be a backlash against this type of tactic on moral grounds or by those recognizing that choices, including their own, are being "nudged."

Choice architecture is another area of behavioral economics that can significantly affect patient therapy selection and refers to the practice of influencing choice by changing the manner in which options are presented to people.

A number of studies show that as more choices are introduced, consumers tend to fall into a trap of indecision and procrastination. Limiting choices to the most important ones, and, even better, offering a default option, can significantly increase the probability of action while still allowing a customer to make his or her own choice. This is especially important in the field of healthcare, according to an Intouch Solutions report.

Patients are understandably afraid of making a wrong choice. The stakes are too high. So, they delay the decision, often with negative consequences to their health.

Many physicians are still under the assumption that patients make decisions based on rational factors, so they tend to provide them with tangible information and education and expect that to be sufficient.

"It's a problem that doctors largely ignore the other factors influencing behavior, which behavioral scientists have taught us are so important," Ms. Hodgson says.

A similar dynamic applies to healthcare professionals. After the introduction of a new class of medications, they often delay changing a patient's treatment, subconsciously falling into a trap of uncertainty and sticking with an old and proven, yet possibly less effective medication.

Improving Patient Outcomes

With the increase in the use of digital trackers being used by all types of patients, it has become easier to identify behavioral traits of health populations.

According to reports by Evidation Health, healthcare professionals and research scientists have long understood that behaviors can play a significant role in patient outcomes. In some

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BORIS KUSHKULEY
Intouch Solutions

cases, those factors can even help predict how likely it is for an individual to get sick in the first place.

As more patients become "connected," the data needed for that analysis is becoming more widely available. Patient-generated information from wearables and mobile devices is growing rapidly, Evidation Health's report concludes.

"Consumers are sharing their digital footprint through wearables, sensors, and apps, and we need to listen, so we can better help them navigate their day-to-day health journey," says Christine Lemke, co-founder and president of Evidation Health.

Traditionally, clinicians use self-reported data to screen and measure patient behavior. Digital activity tracker-based behavioral data may enrich and supplement this self-reported data, and can potentially help detect and track symptoms in time.

For example, Evidation conducted a recent study (Based Behavioral Characteristics Associated with Comorbid Mental Health Illness Symptoms Among Individuals With Diabetes) of individuals with diabetes who were prone to mental health issues (MHI).

The goal was to understand whether there are significant digital activity tracker-based behavioral characteristics that can help identify individuals with MHI symptoms in a population of individuals with diabetes. The preliminary results indicate that tracking rates, consistency, and intensity of step counts and sleep duration can help identify behavioral traits associated with self-reported symptoms of MHI in a population of individuals with diabetes.

"Behavioral economics — or behavioral psychology — provides a toolkit we can use to predict and design effective ways to intervene to improve health outcomes," Mr. Kushkuley says. "In recent years with emergence of electronic health records, wearable devices, and better statistical analysis we can track patient behaviors and their impact on health risks, prevention of diseases, and compliance with treatment. Access to nuanced, real-time data allows us to follow and analyze these behaviors to pinpoint opportunities that have the biggest impact."

The messenger, social norms, feedback, salience, emotion, how messages are framed, are just some of the other factors marketers need to be taking into account. To successfully create better outcomes, patients often need tailored goals, support, and a feedback loop regarding achievement of goals, much like the Weight Watchers' program, Ms. Hodgson says. Feedback loops create an opportunity for tailored messages or coaching and incentives, all in a timely manner.

The timing of new discoveries as well as acceptance of behavioral science could not be better. Insights coming from any field of research are particularly valuable if they are actionable.

"The fact that we now have unprecedented access to real-time, digitally driven behavioral data coupled with advances in artificial intelligence and machine learning, allows us to anticipate development of much more effective therapeutic approaches that go far beyond dispensing medications," Mr. Kushkuley explains. "A holistic approach to treating health conditions that includes a nuanced understanding about what motivates patients will dramatically change the way healthcare is administered and ultimately will lead to better outcomes." PV

Choice Architecture is Created Through Setting Defaults, Framing, or Decoy Options

DEFAULT: The default application concerns removing barriers and making the desirable behavior as easy as possible. For example, providing an opt-out option as opposed to opting in. In countries where people are required to opt out if they don't want their organs donated there is almost 100% participation in the programs, compared with countries that require an opt-in for organ donation, where rates are much lower.

Some of the opt-in countries have tried to increase donations. The Netherlands, for example, accompanied the creation of its national registry with an extensive educational campaign and a mass mailing (of more than 12 million letters in a country of 15.8 million) asking citizens to register, but this failed to achieve the consent rates seen in the opt-out countries.

FRAMING: Framing refers to the choice of words being used to highlight one choice over another. Choices can be worded in a way (subliminally) that highlights the positive or negative aspects of the same decision, leading to changes in their relative attractiveness. Different types of framing approaches include risk choice framing (e.g., the risk of losing 10 out of 100 lives vs. the opportunity to save 90 out of 100 lives), attribute framing (e.g., beef that is 95% lean vs. 5% fat), and goal framing (e.g., motivating people by offering a $5 reward vs. imposing a $5 penalty). Choice of words is significant and how these words are framed changes understanding and impacts responses. It is important for communication strategy development but also for how researchers frame their questions.

DECOY: The decoy effect is just what it sounds like. Several options are provided that include a high-price, low-value product compared with other items in the set, expected to distort the choice toward a targeted item. This low-value choice is not expected to be chosen in certain sets (i.e., where there are three options): its purpose is to provide a reference point for another item, which has both high price and high quality.

Source: Kantar Health