

Why You Decide the Way You Do

For executives, making good decisions is essential. New research offers insights into factors that can affect the decision-making process.

BY BRUCE POSNER

HOW DO PEOPLE process different inputs and make complicated decisions? Variations on this question have engaged researchers for many years, with broad implications for a variety of individuals. But the topic is of particular interest to business executives, who must frequently make decisions.

Researchers have long sought to shed light on the inner workings of the human brain and the way people make decisions. In recent years, curiosity about the decision-making process has heated up, attracting academics from fields as diverse as neuroscience, management, behavioral economics and psychology. Here are highlights of a handful of recent scholarly articles that offer intriguing insights into decision making from several disciplines.

1. The Advantage of Psychological Distance

Information overload is a fact of modern life, making many common decisions (such as choosing a cellphone plan) unbearably confusing. Although choice offers options to consumers, too many choices or too many features per choice can cause people to delay decisions or make less-than-optimal choices. Recent research into how individuals process information offers some promising suggestions for dealing with information overload. The key may involve “psychological distancing” — removing oneself from the morass of details surrounding a decision and considering the choices on a more abstract level.

As authors Jun Fukukura, Melissa J. Ferguson and Kentaro Fujita explain in their article in the *Journal of Experimental Psychology: General*, such distancing



THE LEADING QUESTION

What strategies can improve decision making?

FINDINGS

- ▶ If you face information overload, psychological distancing can be helpful.
- ▶ A willingness to ask for advice on difficult problems can increase your perceived competence.
- ▶ For minor, day-to-day choices, you may not need to deliberate carefully to achieve a satisfactory choice.

Too many choices or too many features per choice can cause people to delay decisions or make less-than-optimal choices.



(which can be either temporal or physical) can help people to filter out the less-vital details and enable them to focus on the gist of the matter. The authors tested several aspects of how psychological distance

influences decision making. In one study, they asked some participants, who were students from Cornell University in Ithaca, New York, to write about a car they would buy next year, and others to write about a car they would buy tomorrow. (A control group

was not given a writing task.) Participants were then given information to read about 48 individual features (such as mileage, handling, year and trunk capacity) of four different cars — twelve features per car — and had only seven seconds to absorb each piece of information before the next piece appeared on a computer screen. Participants were then asked to choose the car they thought was best. Those who had written about the future before receiving information chose the best car (the one whose features were considered most important to people in an earlier pilot) significantly more often than participants who had written about a near-term purchase (69% vs. 40%) or those in the control group (39%).

In another test of psychological distancing, the researchers randomly assigned one group of individuals to write for three minutes about the previous day and another group to write for three minutes about a day about a year earlier. Then they presented participants with sets of information about the features of the four different cars; a computer screen displayed information about the features of one car at a time, and the participants learned about the cars at their own pace. When the participants were done reading, they were asked to select the car they would buy and to characterize the memory strategy they had used. Those who had written about the past selected the best car at a much higher rate than those who had written about recent occurrences (59% versus 34%) or members of the control group (29%), who had not done a

writing task. What's more, those participants who had written about the past reported relying on "gist memory" — in other words, memory about the gist of a matter — significantly more often than the others. The researchers found that mind-sets involving psychological distance enabled participants to organize related product features better.

To be sure, psychological distancing isn't appropriate for every situation. In instances where people are expected to recall and piece together specific details (for example, jury trials or investigations), it may be harmful. But in many circumstances involving information overload, it can result in better decisions.

2. Balancing Exploration and Exploitation

Scholars have argued that companies can develop greater ambidexterity as they search for better ways to balance practices supporting optimal "exploitation" of existing opportunities and those promoting "exploration" of new ones. Although much of the research on corporate ambidexterity has been focused on how companies can best achieve ambidexterity, less attention has been paid to how the cognitive processes of *individual* managers can shape performance on a broader level. New research by Daniella Laureiro-Martínez, Stefano Brusoni, Nicola Canessa and Maurizio Zollo shifts the discussion. In an article published in *Strategic Management Journal*, the authors describe how different regions of the brain control different cognitive activities.

Exploitation, the authors explain, is behavior that optimizes performance in current tasks, and exploration is behavior leading to disengagement from current tasks to search for alternatives. Exploitative decisions take place in areas of the brain associated with reward seeking and involve learning by doing. Exploration choices, by contrast, activate the brain's

REFERENCE

J. Fukukura, M.J. Ferguson and K. Fujita, "Psychological Distance Can Improve Decision Making Under Information Overload via Gist Memory," *Journal of Experimental Psychology: General* 142, no. 3 (August 2013): 658-665.

REFERENCE

D. Laureiro-Martínez, S. Brusoni, N. Canessa, and M. Zollo, "Understanding the Exploration-Exploitation Dilemma: An MRI Study of Attention Control and Decision-Making Performance," *Strategic Management Journal*, in press, published electronically February 28, 2014.



The job of ‘choice architects’ is to understand decision costs (including how confusing the decision is) and the costs of errors (what happens when people decide in a way that’s detrimental to them or to other members of a group).

attention control and executive functioning regions, which are tasked with managing new situations.

The researchers studied the decision-making behaviors of 63 people who had at least four years of experience making managerial decisions. Participants were asked to sit at computers and play a game, the purpose of which was to accumulate points that could be traded for cash. Following a brief warm-up, they played the game while lying inside a functional MRI scanner that took images of their brains. The game featured four slot machines that awarded points according to rules that changed from trial to trial; each participant played a total of 300 trials. However, the changing rules were never spelled out; participants were expected to learn about them through experimentation. Participants could choose to pursue an option they were familiar with (exploitation) or explore a new one (exploration).

The researchers compared the choices of study participants (the number of exploration and exploitation choices, and the number of times they switched between the two) and their decision-making performance. The authors found significant links between greater activation of regions of the brain associated with attention control and better performance in the game, which supported their hypothesis that increased attentional control is linked to better decision-making performance. In this study, participants who did less exploration generally performed better, but, more broadly, the authors concluded that “superior decision-making performance relies on the ability to sequence exploitation and exploration appropriately and to recognize when to switch to exploration.”

3. How to Tee Up Choices

When does it make sense to let people make active choices on their own, and when is it preferable to design default rules that “nudge” people in a certain direction (for example, to become an organ donor or to use energy generated by wind)? In modern

societies, individuals face a barrage of complicated choices: how to set up retirement accounts; how much to save; whether to waive collision coverage on rental car agreements, and so on. Decisions take time and attention, and people are busy. Default rules determine what happens if people choose to do nothing.

Depending on what you are trying to achieve, changing default rules can be a particularly powerful tool that institutions have, argues Harvard Law School professor Cass R. Sunstein — “perhaps more effective than significant economic incentives.” Writing in the *University of Pennsylvania Law Review*, Sunstein examines the rationale for default rules and why and when organizations would use blanket rules instead of allowing individuals to make their

own choices or establishing personalized rules based on a person’s individual profile (for example, using demographic data). Default rules, he explains, don’t impose mandates or bans. Rather, they steer people in a particular direction (while offering opportunities to opt out), producing outcomes that institutions want at costs that are lower than economic incentives. By contrast, requiring individuals to make their own choices can impose high costs in terms of the time it takes to learn about the options. The job of “choice architects,” according to Sunstein, is to understand decision costs (including how confusing the decision is and how heterogeneous the pool of decision makers is) and the costs of errors (what happens when people decide in a way that’s detrimental to them or to other members of a group).

In Sunstein’s view, the most desirable default rules are “informed chooser defaults,” which align with what most well-informed people would

REFERENCE

C.R. Sunstein, “Deciding by Default,” *University of Pennsylvania Law Review* 162, no. 1 (December 2013): 1-57.

choose. Such defaults appeal to those interested in “efficiency, welfare, autonomy or fairness.” (On the other end of the spectrum are default rules that are either badly designed or intentionally misleading; with so-called “negative option marketing,” for example, companies offer people “free” products, then enroll them in programs with a monthly fee unless they make the effort to opt out.) Even when it’s possible to develop default rules that are geared to individuals’ personal needs and tastes (as in algorithms that use your past choices in books or music to make recommendations), Sunstein argues that there may be an argument for preserving a system based on active choosing. Why? In some areas, he believes, active choosing promotes learning in ways the defaults do not, which may generate long-term benefits.

4. Going With the Flow

When you have a decision to make, you may assume that you should focus rationally on the choices and select the best one. Legal and economic decision-making theory generally argues for carefully considering each option and then picking the one that delivers the highest expected value. The advantage of this approach is that the decision will reflect your intentions, and you will be less likely to

have post-decision remorse — or so the theory goes.

But new research suggest that people who make decisions more spontaneously — by allowing their thoughts to wander until they arrive at a

choice that they feel drawn to — can be as satisfied with their decisions as those who choose more deliberately. Writing in *Frontiers in Psychology*, researchers Colleen E. Giblin, Carey K. Morewedge and Michael I. Norton describe research they conducted that included comparing the satisfaction levels of a set of study participants who were instructed to use deliberate choice to select one of five art posters, versus another set of participants who were instructed to let their minds wander until the poster they felt most drawn to randomly came

to mind. As a point of comparison, the researchers also included a group of participants who had posters randomly assigned to them.

It turned out that those who chose posters using mind wandering generally liked and valued their selections as much as those who deliberated over their choices in a more controlled way. Perhaps not surprisingly, both groups of participants who got to choose their own posters were generally more satisfied than those who had posters randomly assigned to them.

The authors concede that mind wandering is probably not suited for making weighty decisions, such as whether to convict a defendant in a trial or to go ahead with a medical procedure. But for minor, day-to-day decisions (for example, whether to take this flight or that flight, or try this jam or that one), mind wandering may be a less onerous way to sort through the options than careful deliberation — and chances are you’ll be just as satisfied with the outcome.

5. Does Deciding to Seek Advice Signal Weakness?

If you face a tough problem and are concerned about how others view you, do you ask for advice, or do you try to find an answer on your own? Many people are hesitant to seek advice, however useful it might be, for fear that others will think less of them. But according to authors Alison Wood Brooks and Francesca Gino of Harvard Business School and Maurice Schweitzer of the Wharton School of the University of Pennsylvania, “concerns about appearing incompetent may be misplaced.” Asking for advice can actually elevate how others see you, they found, especially when the problem is a difficult one.

In a forthcoming article in the journal *Management Science*, the authors found that it was common for individuals to worry that reaching out for advice would make them appear less competent. Task difficulty influenced the effect asking for help had on perceptions of competence. When tasks were seen as difficult, the individual seeking advice was actually viewed more competently — presumably as someone who recognized his or her limitations and wanted to do well. However, when the tasks were seen as relatively easy, seeking advice

REFERENCE

C.E. Giblin, C.K. Morewedge and M.I. Norton, “Unexpected Benefits of Deciding by Mind Wandering,” *Frontiers in Psychology* 4 (September 2013): 598.

REFERENCE

A.W. Brooks,
F. Gino and
M. Schweitzer,
“Smart People
Ask for (My)
Advice: Seeking
Advice Boosts
Perceptions of
Competence,”
Management
Science (in press).

did not negatively affect perceptions about competence (nor, the researchers noted, did it have a positive effect).

In addition to establishing a connection between people’s willingness

to ask for advice and others’ perceptions of their competence, the authors found that *whom* people ask for advice makes a difference in how they are viewed. In one study, participants saw people who asked *them* personally for advice as generally more competent — but that didn’t extend to people who asked some other person for advice. Advisers who consider themselves knowledgeable in an area are flattered to be asked about it and view the advice seeker more positively for asking. But the authors’ research also indicated that, if advice seekers solicit input in areas where the adviser clearly lacks expertise, this can undermine perceptions of competence.

6. Past Success Doesn’t Predict Future Improvement

When people see or experience a winning streak, they often assume that the performance will continue to improve — and make decisions based on that assumption. But this belief may be flawed, particularly if individuals are viewing initial absolute performance as a precursor of subsequent performance *improvement*. Researchers Clayton R. Critcher and Emily L. Rosenzweig found that while positive results are often consistent with one another (for example, strong midterms often point to high final exam scores), performance *improvement* can be a different story. In fact, they write, success may be a negative predictor of future performance improvement, in part because it is easier for people who initially perform poorly to improve substantially through learning than it is for those who perform well from the start. In addition, statistically, those with very low and very high performances initially are likely to grow less far apart in subsequent performances.

The authors conducted several studies to gauge how people factor past performance into their

expectations for the future. In the first study, they asked participants (drawn from University of California, Berkeley students) to play a game of darts. The scores for the initial round were recorded, after which participants were invited to bet on whether they expected their scores in the second round to improve by a certain threshold number of points. Those who had done better in the first round generally bet higher amounts that they would beat the improvement goal than those who did worse. This did not serve them well: In reality, the better the participants’ score in the first round, the less likely they were to improve their score by the required amount in the second round.

In another study, the researchers set out to test more generally whether people view past performance as a broad indicator of future performance improvement. The vehicle they chose to examine was high-yield bond mutual funds. They presented participants with performance data about 12 funds and asked them to predict how likely the individual funds were to improve over their June 2012 performance in July 2012 and to express their level of confidence about the improvement in the form of a bet. The predictions generally fared poorly. As the authors note, “Initial rate of return was highly negatively correlated with the change in return for the next month.” However, as in the other study, the participants showed signs of relying on a “performance heuristic,” where they saw success as a predictor of the likelihood of future performance improvement. This cognitive shortcut, while easy to follow, led them astray.

Bruce Posner is a senior editor at MIT Sloan Management Review. Comment on this article at <http://sloanreview.mit.edu/x/56216>, or contact the author at smrfeedback@mit.edu.

Reprint 56216.

Copyright © Massachusetts Institute of Technology, 2015.

All rights reserved.

REFERENCE

C.R. Critcher and
E.L. Rosenzweig,
“The Performance
Heuristic: A Mis-
guided Reliance
on Past Success
When Predicting
Prospects for
Improvement,”
Journal of
Experimental Psy-
chology: General
143, no. 2 (April
2014): 480-485.