

THE CHRONICLE

of Higher Education

The Chronicle Review

[Home](#) [Opinion & Ideas](#) [The Chronicle Review](#)

March 14, 2010

To Choose or Not to Choose

Sheena Iyengar shakes up psychology, starting with a jar of jam and now with a new book

By Evan R. Goldstein

When Sheena S. Iyengar was a graduate student in social psychology at Stanford University in the mid-1990s, she liked to visit Draeger's Market in nearby Menlo Park. Although she is blind, Iyengar, a slight woman with ink-black hair, thrilled at the multitude of products on offer: 3,000 cookbooks, 500 varieties of produce, 250 types of cheese, 150 vinegars, 75 olive oils, and nearly 250 mustards. A gourmand, she enjoyed the dozens of tasting booths scattered about. Rarely, however, did she purchase anything—and that struck her as odd. The reigning paradigm of American culture touted the benefits of individual choice. But if choice is good, Iyengar wondered, why did having so much of it leave her feeling so overwhelmed?

If you've ever been dazed trying to weigh the pros and cons of various toothpastes—Do I need cavity protection? What's an enamel shield? Should I use peroxide whitening?—you know the feeling. For most of us, the sensation is fleeting. But Iyengar, now a professor of business at Columbia University and author of the new book, *The Art of Choosing* (Twelve), decided to investigate. She persuaded the store manager to let her set up a tasting booth near the entrance. Every few hours, the booth alternated between offering samples of six and 24 flavors of jam. The results were startling: The table with 24 attracted more visitors but the table with six jams prompted a greater proportion of people to buy (30 percent of those who stopped at the six-flavor booth bought a jar, while only 3 percent at the 24-flavor booth made a purchase).

Intrigued, Iyengar and her adviser, Mark R. Lepper, devised a series of studies that replicated the problem of too much choice. In one experiment, subjects were asked to pick from among six types of Godiva chocolate, while another group chose from among 30 varieties. Those who were given more options were less satisfied with their decisions.

The findings, published in 2000 in the *Journal of Personality and Social Psychology*, complicated the way scholars think about

choice and established 30-year-old Iyengar, the lead author, as one of the most inventive research psychologists of her generation. "We knew choice was good, and we knew that autonomy was an incredibly important value, so we assumed that if two is better than one, 200 is better than 195," says Barry Schwartz, a professor of psychology at Swarthmore College. The implications are significant, adds Schwartz, who has himself written about choice, notably in *The Paradox of Choice: Why More Is Less* (Ecco, 2004). "One of the central justifications for the free-market system is that it caters to free choice. Sheena's work challenges that basic premise and, therefore, the organization of American society."

The news media pounced. References to the "jam problem" began popping up in *The New York Times*, *The Wall Street Journal*, *USA Today*, and elsewhere; National Public Radio described Iyengar's scholarship as an "assault on the sacred cow of American culture." The conservative commentator Rush Limbaugh denounced the jam study as the work of, as Lepper recalls it, "pointy-headed intellectuals who fail to understand the essential wisdom of the marketplace, capitalism, and entrepreneurship." In 2005 the journalist Malcolm Gladwell featured Iyengar's work in his best seller *Blink: The Power of Thinking Without Thinking* (Little, Brown). Before long the central concept—too much choice can be a bad thing—had gained traction in the corporate world, appearing on internal documents at management-consulting firms like McKinsey & Company, which instituted the 3 x 3 Rule: Never present a client with more than three options at a time.

Over the past decade, the jam study has proven to be an irresistible nugget of social-science research, the sort of big counterintuitive idea that everybody can relate to. "It took off like wildfire," says Iyengar, who is routinely told about the jam study by people who have no idea about its origins—or the identity of its authors. "It's like a juicy piece of gossip that everybody keeps repeating." According to Martin E.P. Seligman, a professor of psychology at the University of Pennsylvania, the study has become "the bulwark of the irrational-choice literature."

That literature begins with a donkey. The 14th-century French philosopher Jean Buridan argued that, forced to choose between a pile of hay and a bucket of water, a hungry and thirsty animal—immortalized as Buridan's Ass—would be paralyzed by indecision and die.

Buridan's thesis gained credence during the cognitive revolution in the middle of the 20th century as scholars, particularly

psychologists, began to study the brain and its limitations, raising a number of issues related to choice. Leon Festinger developed the theory of cognitive dissonance (why we are uncomfortable holding two contradictory ideas simultaneously); Herbert A. Simon introduced the concepts of satisficing (the human search for adequate rather than optimal solutions) and bounded rationality (the idea that our mental calculations are restricted by several factors, including a lack of information, time, and cognitive ability); George A. Miller helped further clarify the boundaries of thought in his famous 1956 paper, "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information," which showed how the mind falters when forced to weigh more than seven pieces of information.

In the 1960s, that line of inquiry dovetailed with research being undertaken in the area of avoidance learning. At Cornell University, Seligman began a series of experiments that, Iyengar says, "fundamentally changed the way we think about control." Pairs of dogs were led into cubicles, where they were subjected to synchronized electrical shocks. In each pair, only one dog could end the shocks, by tapping a side panel with its head. The dog with no control began to exhibit signs of anxiety and distress and ultimately became nonresponsive, a phenomenon known as "learned helplessness." The studies suggested that the absence of control is debilitating, and the provision of control—and therefore choice—empowering.

Then, in the 1970s, the psychologists Daniel Kahneman and Amos Tversky began publishing a body of work that, according to Schwartz, "defined the field of behavioral decision making." By identifying biases that lead to systematic errors, Kahneman and Tversky revolutionized our understanding of human irrationality. (In 2002, Kahneman was awarded the Nobel Memorial Prize in Economic Science for the work he did with Tversky, who died in 1996.)

But whereas Kahneman, Tversky, and their direct intellectual descendants—many of them behavioral economists—have focused on the cognitive flaws that influence the choices we make, Iyengar's research has taken up slightly different questions: Is choice always good? Is the desire for choice universal? And what are the limits of choice? In a series of studies—on, among other things, religion and optimism, enrollments in 401(k) retirement-savings plans, and how perceptions of choice vary between cultures—Iyengar has opened up the study of choice.

Her experiments have also looked at the psychological costs associated with making unpleasant decisions, like whether to discontinue life-sustaining treatment for an infant. Doctors have historically taken a paternalistic approach to their relationship with patients, making such anguishing decisions for them. In France, that is still the case. In America, however, since the 1950s, a doctrine of "informed consent" has placed more control in the hands of patients.

So are Americans better off? Along with Simona Botti, an assistant professor of marketing at the London Business School, and Kristina Orfali, an associate clinical professor of bioethics at Columbia, Iyengar compared how French and American parents of children who were removed from respirators were coping. The three researchers found that while the Americans struggled with guilt and resentment, the French were much more at peace with the decision to let their children die.

"When confronted by tragic choices, individuals are likely to be better off if those choices are either physically or psychologically removed from them," Iyengar and her collaborators concluded in a paper last year. They called for a nuanced approach that takes into account how people benefit from not making such agonizing decisions. "The medical professionals I've heard from agree that there is a problem," Iyengar says, "but no solution."

"Iyengar's work is brilliant and has had a profound impact," says Daniel Gilbert, a professor of psychology at Harvard University. "It has shown us that there are cognitive and emotional costs to decision freedom." Hence the scholarly accolades—the best-dissertation award from the Society of Experimental Social Psychology, and a five-year, \$688,000 grant and Early Career Award from the National Science Foundation.

While she has not been alone in showing the complexity of choice, Iyengar has had far more impact on public perceptions than her predecessors did. The glorification of choice has deep roots in American culture, which emphasizes individual liberty. As Iyengar wrote in a magazine article, "From Locke to Mill, from Rousseau to Jefferson, choice has been hailed as an inalienable human right, an essential human need." She has upended that entrenched perspective. In an e-mail message, Gladwell likens Iyengar to Steven D. Levitt, the University of Chicago economist of *Freakonomics* fame, in that they both have "the knack of asking the really interesting question and using science, in a rigorous way, to answer it."

Iyengar and Gladwell, a staff writer at *The New Yorker*, first met in 2005 after he gave a talk at Columbia. She told him about a multiyear study she was conducting with the economists Raymond Fisman, Emir Kamenica, and Itamar Simonson to determine what men and women desire in a mate. Among other things, the experiments revealed that women of all races strongly prefer a romantic partner of the same race and—this will probably come as a surprise to no one—that women place more emphasis on a mate's intelligence, while men tend to favor physical attractiveness. Those insights were gleaned from speed-dating sessions: Students looking for love gathered at a bar on Broadway across from the Columbia campus every few months to have four-minute conversations. Attendees who hit it off were then provided with each other's contact information. Gladwell attended the next session as an observer. A scene from the evening appears as a fun vignette in *Blink*. Iyengar and Gladwell stayed in touch, and when she began to think seriously about writing a book, she reached out to him for advice. A few days later, she received an e-mail message: "I spoke with my agent and she is interested in you," Gladwell wrote.

"That sealed the deal," Iyengar says with a laugh. "I had Malcolm Gladwell's agent." She pronounces his name slowly, drawing out each syllable. "Now I had to write the book."

The Art of Choosing is written as a story, along with excursions into related areas of research, including biology, philosophy, and public policy. Because the book is aimed at a popular audience, the tone is playful—Iyengar even describes a visit to one of India's most famous astrologers, who assures her that the book's success will "far exceed" her expectations—and the text thick with pop-culture references: *The Simpsons*, *The Office*, Stephen Colbert. "Knowledge should be a public good, and I want my ideas to have as much exposure as possible," she tells me, sitting ramrod straight at a small white table in her tidy office at Columbia. The place is sparsely decorated: a few bookshelves, a small black sofa, a desk, a blank dry-erase board. She is dressed in a collarless, well-tailored white blouse and black skirt. Her dark, cloudy eyes move constantly as she talks.

In an early chapter of *The Art of Choosing*, Iyengar surveys the biology of choice. An innate drive, our penchant for choice reveals itself at an early age. In one experiment, a string was tied to the hands of infants; when tugged, it would make music play. Later, when researchers began playing the same music for the same amount of time but at random intervals, the infants became irritable. "These children didn't *only* want to hear music," Iyengar

writes. "They craved the power to choose it."

Now, however, our lives are awash in choices, both trivial and consequential. In 1949 a typical American supermarket carried 3,750 items. Today the number is close to 45,000. Baskin-Robbins boasts a "flavor library" of ice creams that exceeds 1,000; Netflix offers hundreds of thousands of DVD's; Amazon.com lists 24 million books; and cable television provides hundreds of channels. "The expansion of choice," Iyengar writes, "has become an explosion of choice." And almost certainly, the magnitude of choices we face has outstripped our cognitive ability to choose wisely.

"Choosing is a creative process, one through which we construct our environment, our lives, ourselves," Iyengar says in her book. "If we ask for more and more material for the construction, i.e. more and more choice, we're likely to end up with a lot of combinations that don't do much for us or are far more complex than they need to be." In certain situations, she argues, we benefit from having our choices limited. When Sweden switched its social-security system from pensions to defined-contribution plans, in 2000, it started a big advertising campaign to encourage workers to create their own investment portfolios by choosing from among 450 mutual funds. Those who failed to do so were automatically enrolled in a default plan designed by the government. An analysis by the economists Henrik Cronqvist, of Claremont McKenna College, and Richard H. Thaler, of the University of Chicago, found that those who had customized their investments underperformed their counterparts in the default plan by 15 percent after seven years. In short, inexpert choosers sometimes do best when they rely on experts to choose for them.

At other times, the sheer complexity and volume of choices deter people from choosing at all—even when that choice is important, as it was in 2003, when President George W. Bush added a prescription-drug program to Medicare. He praised the reform as a way of giving people more choice. "A modern Medicare system must offer more choices and better benefits to every senior," he said. Indeed, Alaskans, for example, were confronted with 47 different plans; Pennsylvanians and West Virginians had to choose from among 63. Of the 17.5 million seniors who were required to enroll, nearly a third failed to do so. Why? Many reported feeling overwhelmed by the number of options. As Iyengar puts it, "choice itself became a major obstacle to enrollment."

Understanding the costs of choices, the author says, comes

naturally to her. "They are rooted in my upbringing."

"I have been thinking about choice since I was very young," she explains. "As a Sikh-American, I was made aware of the differing expectations people have about choice." Her life was governed by the strictures of Sikhism; choice was circumscribed by tradition. While some of the rules were trivial—like wearing underwear at all times, even in the shower, and going to the temple—others were not. "All good Sikh children had their marriages arranged," Iyengar says. That's the way it was for her parents, second cousins who met for the first time on their wedding day. Her classmates at public school were, unsurprisingly, horrified at that. "They thought it was the most awful thing that could happen to a person," she recalls, noting that her own views were conflicted. "I had a hard time thinking of it as awful, but I didn't think of it as normal." (Her marriage to Garud Iyengar, an associate professor of industrial engineering and operations research at Columbia, was not arranged.) Though school was a struggle—"I was the butt of all jokes, the butt of all pranks," she says—it was also a revelation. While the Sikh world stressed duty, America promoted personal preference. Iyengar marveled at how her non-Sikh peers considered choice a birthright. She began carrying out small acts of rebellion, at least by Sikh standards: "I wore sleeveless dresses and skirts, I showed cleavage, I dated ..." she trails off. "However," she adds with a smile, "I didn't do drugs."

Iyengar's understanding of the limits of choice was shaped in a more profound way. As soon as she could walk, she began bumping into things: furniture, people, parking meters. At first she was thought a klutz. An ophthalmologist had a different explanation: retinitis pigmentosa, a genetic condition that progressively destroys the eye's ability to take in light. By the time she reached high school, Iyengar was completely blind. (Her younger sister, a lawyer in Washington, is also blind.) "My parents were very sensitive about my blindness, and they didn't want it known," says Iyengar, who was born in Toronto and raised in a heavily Sikh enclave in Flushing, N.Y., and, later, Elmwood Park, N.J. Her parents feared that if word got out, it would be difficult to find their daughter a suitable husband. "It was," Iyengar pauses, placing her tightly clasped hands on the small table in front of her, "traumatic."

One day Iyengar's parents came across an article in *Reader's Digest* about a blind psychologist. "They decided that this was my future. I remember riding in the car with my father, who loved going on long road trips, and he would tell me, 'When you grow up, you'll be a clinical psychologist. That will be good for you—all you'll have to

do is listen and talk." A restless entrepreneur, her father liked to say that he came to America with a dollar in his pocket, but his daughter says he never held any job for long. He invested in fads; he imported Persian rugs. In 1983 he collapsed on a sidewalk and died of a heart attack, leaving behind debts and a warehouse full of ginseng, amethyst, and Persian rugs. (Years later, Iyengar's dowry was paid for by those rugs, which cover the floors of the Morningside Heights apartment she shares with her husband and their 5-year old son, Ishaan.)

When it came time to apply to college, Iyengar's high-school guidance counselor told her not to bother. Go to community college and get on Social Security disability insurance. Instead she enrolled at the University of Pennsylvania's Wharton School. Recalling the guidance counselor's advice, Iyengar still gets upset. "At every stage of my life, there have been people like that," she says. Pressed to explain, she collects her thoughts for a few moments. "It has always been a struggle to choose what limitations I should accept," she begins tentatively. "In America there is this ideology where you don't ask *if* you can do something, you ask *how* you're going to do it. That ideology is untrue—there are times when I have to accept that I can't do something—but it has encouraged me to test the boundaries."

At Penn in the late 1980s, Iyengar impressed her professor, the psychologist Jonathan Baron, with her doggedness. "I use a lot of graphs in my lectures," Baron tells me. "Sheena would remember what graphs I used, come to my office after class, and ask me to draw them with her hands. It worked: She got an A in the course."

At the time, Seligman's lab was a magnet for the most ambitious psychology students. "Marty was the man to work with," Iyengar says. "To gain entrance to his world was a coup." An undergraduate, she knocked on Seligman's door. "Come up with a research project," he told her. "If I think it's worthy, we'll do it." Since learning about his famous dog experiments, Iyengar had wondered whether being an observant Sikh—with all the decisions she wasn't allowed to make—might contribute to a sense of helplessness. She proposed looking at the relationship between optimism and religious observance. For the next two years, she began every weekend at a mosque or synagogue at sundown on Friday night and ended it at a church on Sunday. She interviewed more than 600 people. "It was a massive amount of work," Seligman says. "I wouldn't have expected a sighted undergraduate to be able to pull it off."

Iyengar found a positive correlation between religion and optimism: The more religious a person, the more hopeful he or she is likely to be. As Seligman puts it, "Reform Jews and Unitarians are depressed and pessimistic; Orthodox Jews and Calvinists are bright-eyed, bushy-tailed, and hopeful. The finding was quite uncongenial to everything I believed." The more authoritarian the religion, in other words, the more optimistic the adherents. Why should that matter? It complicated the longstanding belief that people who have more control over their lives enjoy greater well-being and happiness.

At Stanford, Iyengar put that paradox in cultural perspective. "We all want and need to be in control of our lives," she explains. "But how we understand control depends on the stories we are told and the beliefs we come to hold." In 1995 she spent several months at Kyoto University studying how Japanese and Americans view choice. In one experiment, she asked a total of 100 American and Japanese college students to write down all the aspects of their lives in which they liked having a choice, as well as those aspects in which they preferred not to choose. The Americans, Iyengar reports, "expressed nearly limitless desire for choice in every dimension of their lives." Not one Japanese student, however, wished to have a choice all or nearly all of the time. "Before Sheena's work," says Shinobu Kitayama, a professor of psychology at the University of Michigan at Ann Arbor, "it was not well understood that choice is so cross-culturally variable."

Among scholars there is no longer much debate that too many options can make people less likely to choose and less satisfied by the choices they make. There is, however, a growing debate about what have become known as "choice-overload effects": What causes people to become overwhelmed? Why are such effects not consistently replicable in experiments? Can people be trained to become better choosers?

According to a recent paper in the journal *Psychology & Marketing*, there is "a discrepancy between the growing number of publications that report a demotivating effect of too much choice on the one hand and empirical data showing the opposite effect or no effect on the other hand." The authors—Benjamin Scheibehenne, of the University of Basel, in Switzerland; Rainer Greifeneder, of the University of Mannheim, in Germany; and Peter M. Todd, of Indiana University at Bloomington—tried and failed to repeat several experiments, including the jam study. "The too-much choice effect is less robust than previously thought," they conclude. In an e-mail message, Todd writes: "Researchers who

have tried to replicate this finding have not always been able to, and there are many studies showing the opposite motivating effect of many options. Thus, the demotivating outcome is at least elusive, and we still need to uncover the conditions under which it is more or less likely to appear."

In a meta-analysis of 50 choice-overload experiments to be published in the *Journal of Consumer Research*, Todd and his colleagues report finding almost no evidence of a correlation between the number of options and a subject's ability to choose. "It's not the case that more is always worse," says Scheibehenne, adding that scientists don't yet know what conditions do cause a decrease in motivation and satisfaction. "We need a better understanding of how people make decisions." Though he insists his work is not meant as a critique of Iyengar, when I ask her about the paper, she characterizes it as an "outright attack." "I am sympathetic to the view that choice can be a positive force in our lives," she says, sounding exasperated, "but we should acknowledge the limitations." Schwartz calls the forthcoming paper the most substantial critique of choice-overload that he knows of. "My sense is that it is a real and important effect. But as the research unfolds, that may turn out not to be true."

Others are less generous. In a response to Scheibehenne and his co-authors that is under review by the *Journal of Consumer Research*, Alexander Chernev and Ulf Böckenholt, of Northwestern University's Kellogg School of Management, along with Joseph Goodman, a Ph.D. candidate, argue that the meta-analysis is fundamentally flawed. To begin with, they accuse Scheibehenne and his co-authors of simplifying the choice-overload hypothesis to the point of distortion. "No one is arguing that more choice is worse," Chernev says. "What Sheena, myself, and others do argue is that more choice is worse under certain conditions, and we are trying to understand those conditions." Chernev also believes that the meta-analysis is plagued by multiple statistical, analytical, and interpretive errors. One thing is for sure: The last word on the debate has not been published.

It is an awkward coincidence that the controversy has flared up at the very moment that Iyengar's publisher is releasing *The Art of Choosing* with a multifaceted marketing campaign. Over the next few weeks, Iyengar will be reviewed or interviewed in the *New Scientist* and *Worth*, in *Reader's Digest* and *Elle*, where she will share a page with Jane Fonda and Jennifer Lopez, part of an annual package on "successful and interesting women in the culture," says

Ben Dickinson, an editor at the fashion magazine. CBS's *Sunday Morning* recently filmed a segment; Iyengar is chatting up the folks at National Public Radio and appearing with Mehmet C. Oz, the Oprah-anointed self-help guru, on his radio program. Brian Grazer, one of the most successful producers in Hollywood—the man behind *The Beautiful Mind*—has requested a meeting with Iyengar. She has signed up with a high-profile speaker's agency and will soon deliver her first talk for TED, an organization that brings together big names from the worlds of technology, entertainment, and design.

Gladwell, for one, is heartened by Iyengar's creeping ubiquity. "If the general public is ever going to be engaged more fully in what goes on in social science—which I think is a critical step in creating informed and thoughtful public debate—it will be because they've been drawn into that world by people like Sheena."

Evan R. Goldstein is a staff editor at The Chronicle Review.

Copyright 2010. All rights reserved.

The Chronicle of Higher Education 1255 Twenty-Third St, N.W. Washington, D.C. 20037