

## SOCIETY

## Special Report: Persuasion

# Nudging grows up (and now has a government job)

Ten years after an influential book proposed ways to work with — not against — the irrationalities of human decision-making, practitioners have refined and broadened this gentle tool of persuasion

By Bob Holmes 02.01.2018

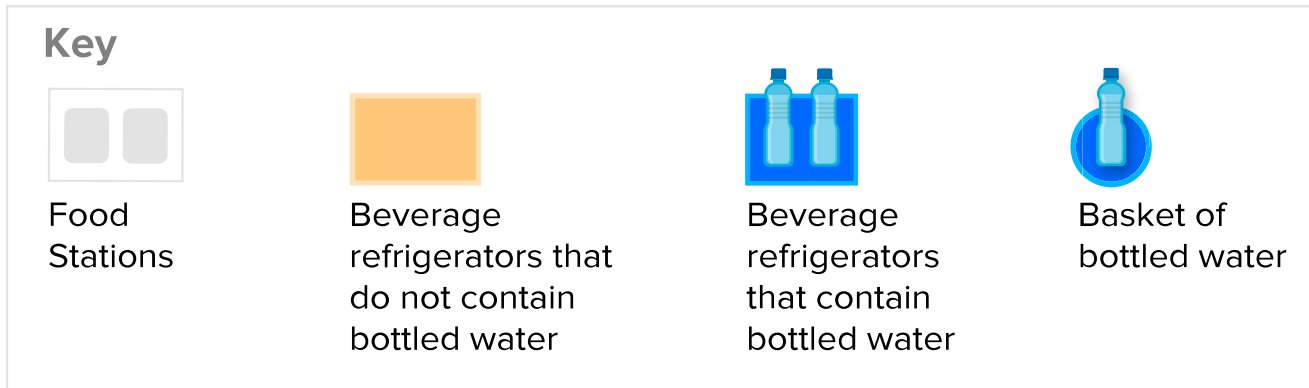
**E**very day, 20 Americans die because they need an organ transplant and no donor organ is available. More than 100,000 people are now on transplant waiting lists in the United States alone. The public overwhelmingly supports organ donation — yet barely half the population has registered as donors. We just never get around to it, somehow.

That's not the only place where our actions don't match up to our good intentions. We promise ourselves that we'll eat a healthier diet and exercise more, yet more than a third of American adults are obese, with a medical price tag approaching \$150 billion annually. We know we should be putting money aside for a more comfortable retirement, yet the median American family has saved just \$5,000. So often, it seems, we need a bit of help to do what we know we should.

That's where nudging comes in. Nudges — tiny changes that have surprisingly large effects on how we act — [offer policymakers a way to gently push us toward doing the right thing](#): Automatically sign up drivers as organ donors, or enroll employees in the company retirement plan, unless they opt out. Put the fruit at eye level and hide the cake and candy somewhere inconspicuous. These nudges work because real-world humans don't make decisions like coldly rational Mr. Spocks, but like flawed, idiosyncratic Captain Kirks. Nudges are essentially ways to harness our less-than-rational behaviors to help ourselves, or those around us.

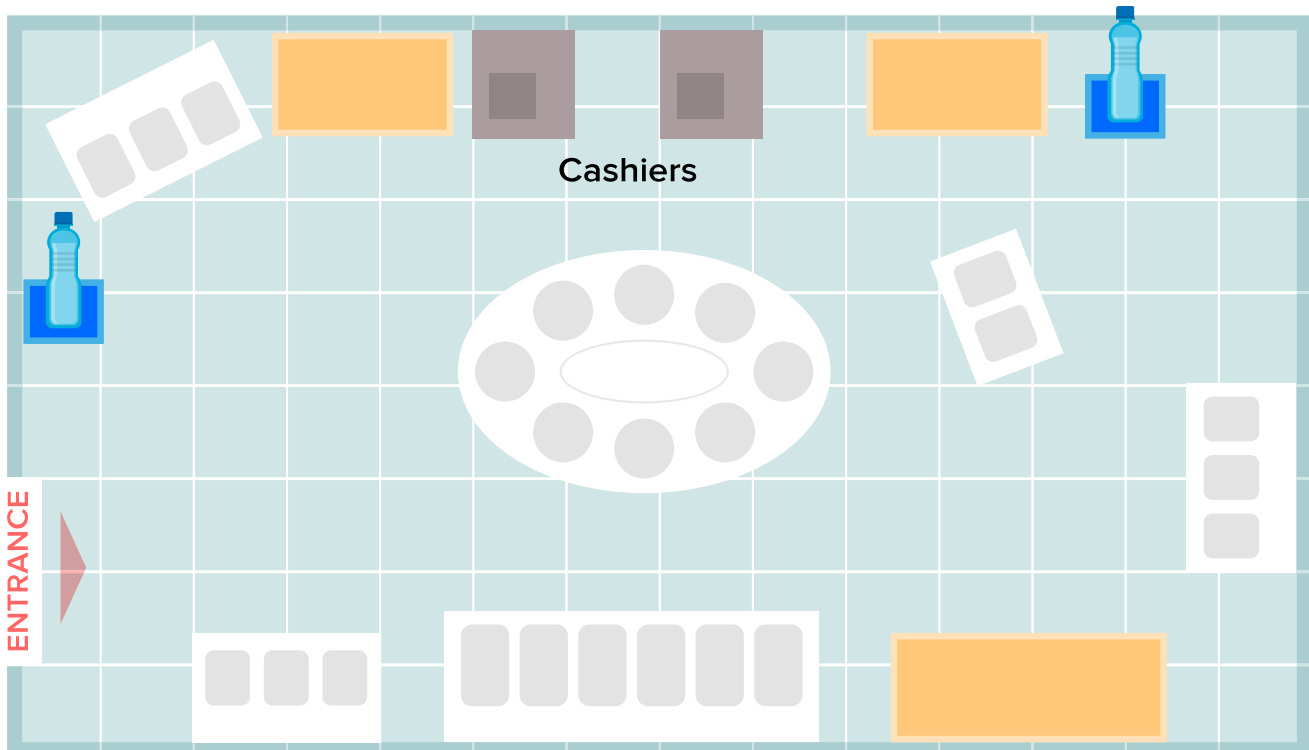
## Make it easy

When persuasion is the goal, a well-tailored nudge can do a lot. Making the desirable behavior convenient is one of the most powerful tools in the nudging repertoire.



### Phase 1: No nudging

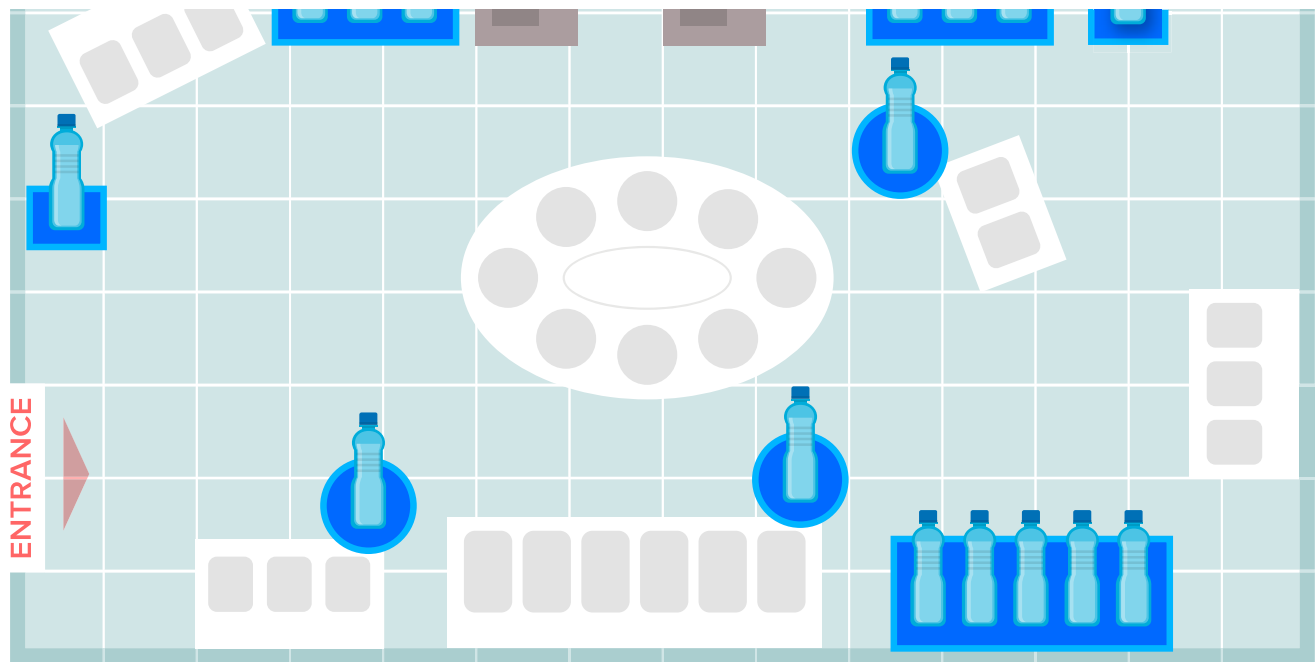
A typical cafeteria layout makes sweetened drinks easy to find and forces consumers to hunt for the bottled water.



### Phase 2: Nudging

In an experiment, simply making it easier to find the water increased bottled water purchases by more than 25%.





SOURCE: A. N. THORNDIKE ET AL / AMERICAN JOURNAL OF PUBLIC HEALTH 2012

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The idea first came to public view a decade ago through the best-selling book *Nudge*, by [economist Richard Thaler](#) and [legal scholar Cass Sunstein](#). Nudging's profile rose even higher last fall, when Thaler, of the University of Chicago, was awarded the [Nobel Prize in economics](#) for introducing irrationality — and hence, nudging — into that overwhelmingly rational field. Nudges offer gentle, non-coercive — and, best of all, [cost-effective](#) — ways to guide people toward better choices. And governments and other nudge specialists around the world have jumped on the nudging bandwagon. “The biggest change is the sheer explosion of initiatives, from private and public sectors alike,” says Sunstein, of Harvard University.

At last count, more than 60 government departments and international agencies have established “nudge units” tasked with finding and pulling the right behavioral levers to accomplish everything from increasing retirement savings to boosting diversity in military recruits to encouraging people to get vaccinated against flu. The United Kingdom's Behavioural Insights Team, one of the first and largest such units, has expanded from a handful of people in 2010 to about 100 today, with global reach. Clearly, nudging has moved into the mainstream.

THE MIND

## Feeling the pressure

## In promoting health, when to tiptoe — and when to stomp?

SPECIAL REPORT: PERSUASION →

But that growth is not the only thing that has changed in the past decade. As nudgers gain experience, they are getting better at analyzing behavioral obstacles and designing nudges to overcome them. At the same time, they have begun to expand the domain of nudging beyond mere procedural tweaks, toward redesigning entire government programs to take into account behavioral insights. This broader philosophical shift in governance, experts say, may be nudging's most significant contribution.

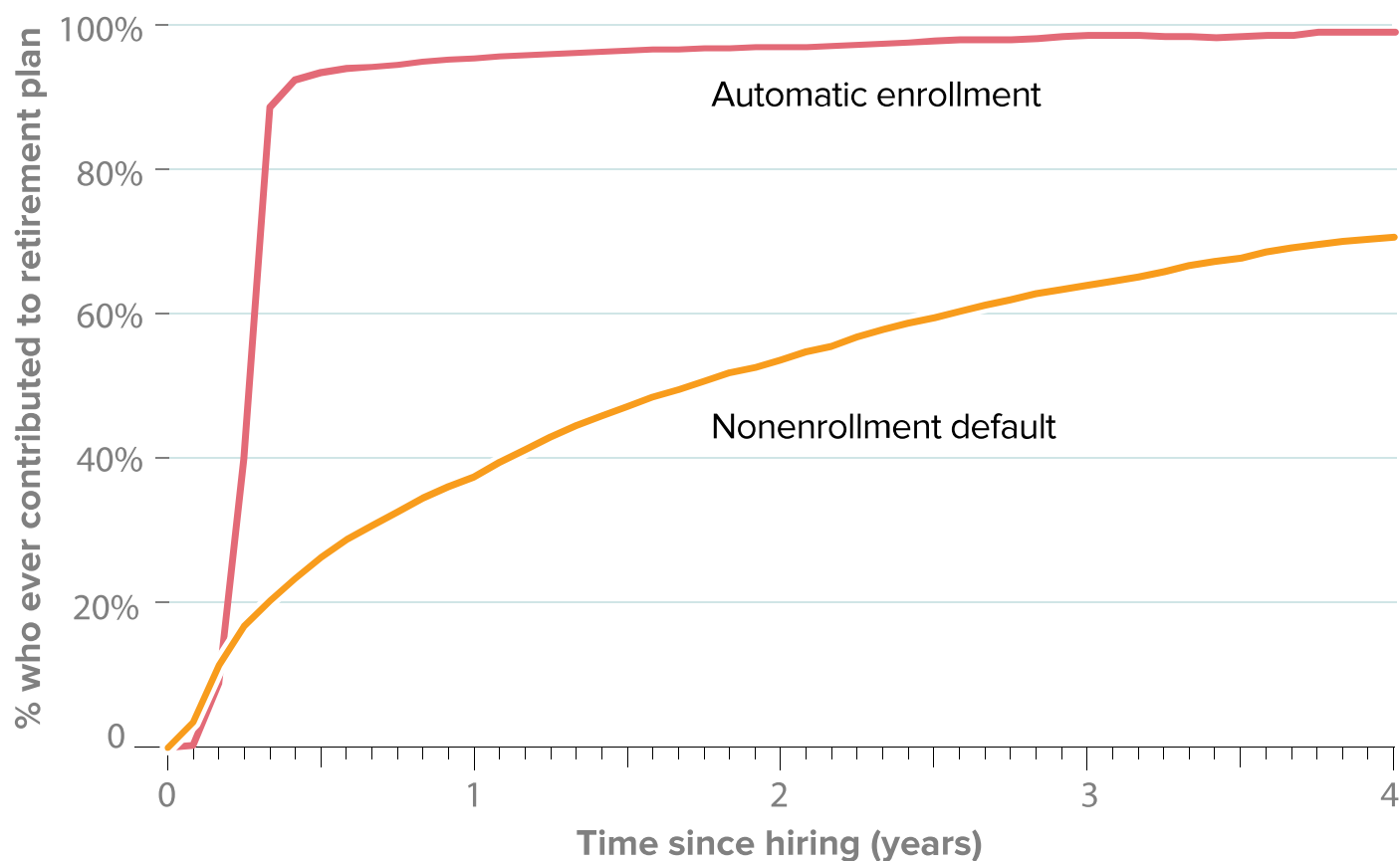
### Context and details matter

One of the biggest lessons from a decade of practical experience is that nudging is harder than it looks, says economist Pete Lunn of the Economic and Social Research Institute in Dublin, Ireland's independent nudging think tank. Tiny differences in context can mean that a nudge that works well in one circumstance can fail miserably in another. For example, appealing to social norms, through a letter pointing out that most people pay their taxes on time, [cut the number of tax delinquents](#) in the UK nearly in half, from 32 percent to 17 percent, and similar reductions have been seen in several other countries. But not all. “We've done experiments like that in Ireland, and guess what? Social norm manipulations don't work here,” says Lunn. “I genuinely do not know why, but I've seen it in multiple studies, to the point where it cannot be a coincidence.”

Often, too, seemingly insignificant changes in a nudge can send vastly different messages to nudgees. One reason people often fail to save for retirement, for example, is that they are reluctant to give up spending power today for future rewards. To bypass that obstacle, Thaler and his colleagues proposed offering people the chance to earmark part of their next raise for retirement savings — a “save without cutting back” nudge that, over time, [boosted savings](#) from 3.5 percent to 13.6 percent of earnings. That's impressive, but it only works if done right. If companies offer both options at once — now or later? — [savings actually go down](#), not up, one study found. The dual-option scenario “sends a signal that maybe my employer doesn't think that saving for retirement is very urgent,” says Craig Fox, a behavioral decision theorist at the University of California, Los Angeles, who cofounded the Behavioral Science and Policy Association, a professional group for nudgers.

## Nudging past procrastination

If people have to act to enroll in retirement savings plans, many never get around to it. Changing the default so that they are automatically enrolled (unless they opt out) dramatically increases the number of people who save.



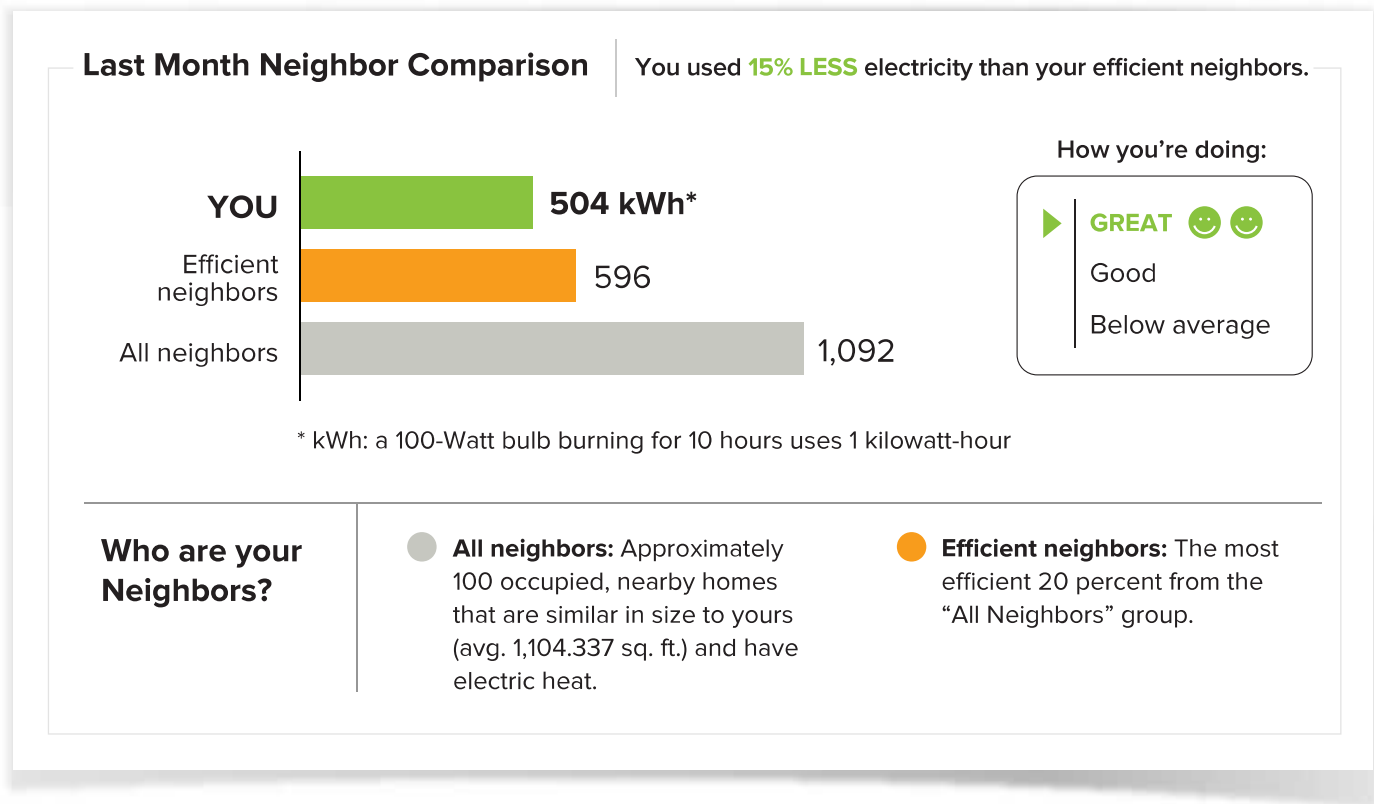
SOURCE: J.J. CHOI / *AR FINANCIAL ECONOMICS* 2015

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Even the most trivial details of a nudge can matter. Telling householders how their consumption of electricity compared to their neighbors' was enough to nudge heavy users to cut their power use by about five percent. But the information actually increased power consumption by those who used *less* power than average — unless, that is, researchers [included a smiley face](#) on the electricity notice to praise and encourage continued thriftiness.

## Well done!

On utility bills, householders who are told they use less electricity than their neighbors will often increase their usage — unless they also see a smiley face to let them know they're doing a good job.



SOURCE: BLOGS.ORACLE.COM

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Surprises like these — and every behavioral scientist has their own stories to tell — have led to another key step in the evolution of nudging: the realization that testing is a crucial part of the process. “We're doing more large-scale experiments, which is what we have to do to figure out what works in the wild,” says Katherine Milkman, a behavioral economist at the University of Pennsylvania's Wharton School of business. Governments still sometimes balk at the time and money such experiments demand, but many agencies increasingly accept that testing for effectiveness before rolling out a nationwide program can save embarrassment later.

## Targeting behaviors



IMAGE CREDIT: TEXTBOOK EXAMPLE

## How humans are predictably irrational

Classical economics and public policy assume that people will always make rational decisions in their own best interest. But real human behavior is messier, as behavioral scientists have found. Here are some of the ways that our decision-making departs from pure rationality:

- We don't like change. Most people accept the default option when given a choice, which makes setting a beneficial default one of the most powerful nudges available.
- We hate losing more than we like winning. Framing incentives as “you will lose your bonus if you don't meet your goals” motivates us more than “you will get a bonus if you meet your goals.”
- We're unrealistically optimistic. That's why people buy lottery tickets, and why it generally takes longer than you think to finish a project. Most people also expect their marriages and businesses to fare better than average.
- We overvalue evidence that comes readily to mind. That means we overestimate the risks of dramatic events like terrorist attacks and murders, and underestimate the risks of less talked-about and less dramatic events like car accidents.
- We like to behave as others do. Reminding taxpayers that most people pay their taxes on time makes them more likely to do so too — whereas telling them that the

government wants to reduce the number of late payers has the opposite effect, by making it seem like late payers have plenty of company.

- We become overloaded when offered too many choices, and often do nothing at all. Simplifying the alternatives — such as by lumping health insurance plans into “gold,” “silver” and “bronze” categories — can nudge people to act.
- We procrastinate, especially when doing the right thing involves inconvenience or hassle. This means we often need to be nudged into doing things that are ultimately in our own best interest, such as saving for retirement.

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Because what works is so context-dependent, experienced practitioners say there can never be a standard recipe for choosing the right nudge to use in any particular situation. Instead, nudgers will need to dig into the details of each case. Nonetheless, researchers are zeroing in on a general approach for building good nudges.

The key first step in the process sounds obvious, but isn't: Identify exactly what behavior you're trying to change. “There's been a recognition that whether a nudge succeeds really depends on whether you have developed a good understanding of the problem,” says Pelle Guldborg Hansen, a behavioral scientist at Roskilde University in Denmark, who heads the Danish nudge unit.

Consider the problem of encouraging more people to donate their organs after death. Typically, people need to give explicit consent on a donor form, usually when they renew their driver's license, but relatively few people do so. A classic nudge addresses this by changing the default so that everyone is presumed to have given consent unless they explicitly opt out — and this does, in fact, dramatically increase the proportion of people listed as organ donors. But the Canadian province of Ontario found that this didn't translate into more organs actually being used for transplants, because it solved the wrong problem. Doctors in Ontario still sought consent from next of kin before harvesting organs — and getting that consent was the real bottleneck in the process, says Dilip Soman, a behavioral scientist at the University of Toronto. So now Soman's team is working on a different set of nudges, such as mailing “conversation cards” to newly registered donors to help them discuss their wishes with family members.

Once nudge designers have targeted the behavior they really want to change, the next step is to identify the barriers that keep that behavior from changing, says Brigitte Madrian, a behavioral economist at

Harvard. If people fail to act on their own wishes (such as to eat healthier meals), is that because they forget to act at the appropriate time, don't know what steps to take, or lack the willpower to follow through? Each will require a different nudging technique — in this example, they could be reminders, information, and committing to a plan of action, respectively. If, on the other hand, changing behavior requires overriding an in-the-moment preference (such as saving for retirement or getting a flu shot, neither of which is desirable in the short term), the likeliest nudges might involve providing more information about the benefits, or adding social pressure to conform.

Based on their analysis of the particular case, practitioners should ideally choose several potential nudges, then test them all to identify which one works best. The nudge finally chosen for deployment may look simple, even obvious. But, notes Hansen, that superficial simplicity hides an enormous amount of work behind the scenes.

## **Ethical issues**

Even when done well, nudging carries a strong whiff of paternalism, especially when governments use it to override people's usual behavior and guide them toward what the government thinks they should be doing instead. The implications of that have not been fully examined. “There are legitimate questions about the ethics of nudging that we're only starting to look at now,” says UCLA's Fox.

Consider, for example, nudging to encourage higher contributions to retirement savings. Most people benefit from higher savings, but a few — such as those who don't expect to survive for a lengthy retirement — might be better off with lower contributions. Is it acceptable to nudge in this case, knowing that it will harm some people?

To address this ethical problem, a few behavioral scientists are beginning to develop ways to personalize nudges for individual circumstances. Workers in the United States, for example, receive a maximum government pension if they begin at age 70 but instead can elect to take smaller monthly payments as early as 62. Most are better off in the long run if they wait, but almost half choose the earlier, smaller payouts, says Eric Johnson, a psychologist at Columbia University. The situation seems ripe for a nudge — for example by pointing out how much money a retiree stands to lose through early claiming. But encouraging everyone to wait will hurt the minority who are unlikely to live long enough to recoup the benefits. “There really is potential harm if you just do a one-size-fits-all nudge,” Johnson says.

So Johnson and his colleagues are developing a system of tailored nudges that help guide each individual to a better decision. Those who visit Johnson's experimental website and answer just few simple questions about their gender, health and parents' longevity provide enough information about

life expectancy to yield informed advice (and appropriate nudges), he finds. In other experiments by Johnson's team, questionnaires can help nudge people toward appropriate choices of [health insurance plans](#) and other financial decisions.

The need for tailored nudges may be widespread. Older people, who are seasoned but less mentally nimble than they once were, may make better choices if not overwhelmed by too many options, Johnson says. In contrast, younger people, who have less life experience to draw on, may do better with — and can handle — more detailed explanations and choices.

Behavioral scientists are also learning to find better lever points for their nudges. To get more people to use generic drugs, rather than functionally identical but more expensive branded versions, nudgers are finding that rather than trying to influence patients (through informational advertisements, say) it is easier to focus on the prescribing habits of doctors. “The doctors are making a single decision about treatment in a controlled clinical environment, mediated by electronic record-keeping systems, which is a perfect environment for nudging,” says Fox. Sure enough, a study that had doctors' prescriptions default to generic drugs unless they specified otherwise [boosted the use of generics](#) to 96 percent from 40 percent.

# Steering the doctor

Physicians often prescribe more expensive brand-name drugs out of habit. A simple nudge increases their use of cheaper generic equivalents.

## The nudge: Defaulting to generic drugs

1. The physician searches for a medication's brand name

New order

Medications (1 Order)

**BuPROPion HCI (WELLBUTRIN) 100 MG Tab**

Starting 11/11/2017, 1 TABLET 3 TIMES DAILY, Disp-90, R-3, DAW,

Start Date:   End Date:

Sig:   
(300 char max.)

Dispense:  Refill:   Dispense as written

2. The software fills the prescription with a generic drug...

New order

Medications (1 Order)

**WELLBUTRIN 100 MG Tab**

Starting 11/11/2017, 1 TABLET 3 TIMES DAILY, Disp-90, R-

Start Date:   End Date:

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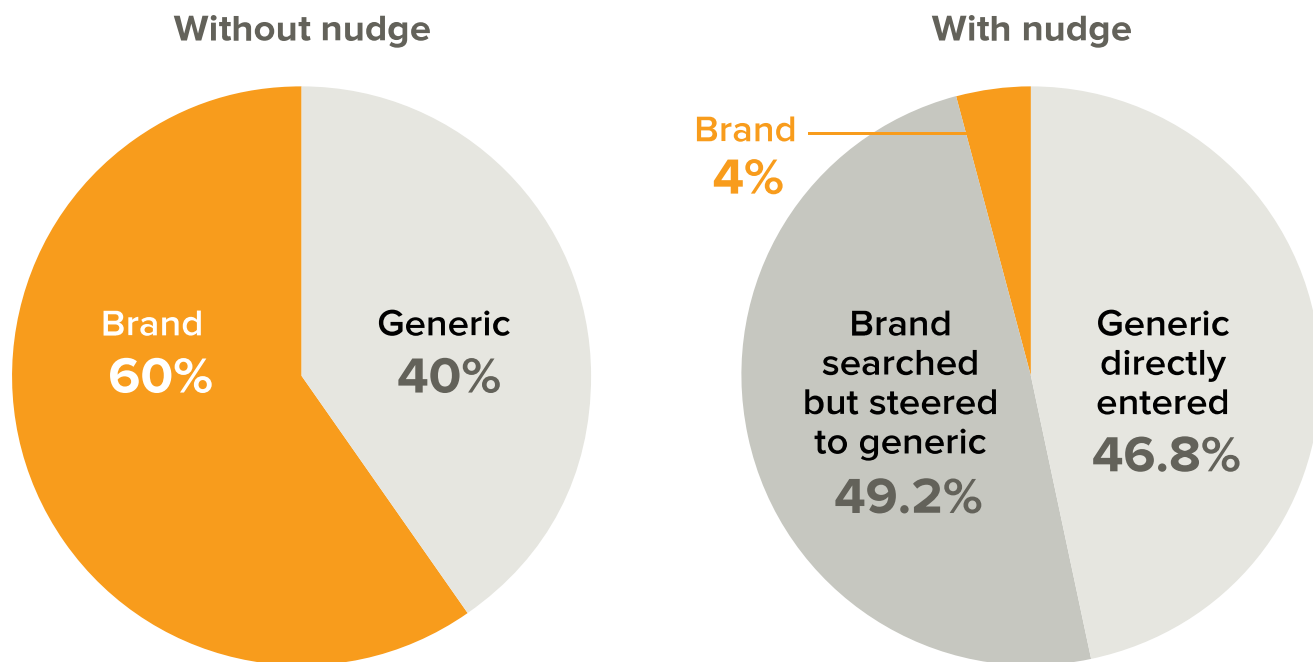
Dispense:  Refill:   Dispense as written

3. ...unless the physician specifically requests otherwise



## The outcome: Cost savings

Only rarely do physicians override the generic substitution.



SOURCE: S. MALHOTRA ET AL / JAMA 2016

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### Nudging the nudgers

In recent years, this search for better lever points has led many nudge practitioners to take a broader view of the policy landscape. Nudges, as they were first conceived, used behavioral insights to improve the implementation of existing policies by helping people make better choices. But as nudging matures, researchers are beginning to use the same behavioral principles to guide the development of the policies themselves. “We haven't seen a lot of that yet, but I think that's where the potential for greatest impact is,” Madrian says.



IMAGE CREDIT: TEXTBOOK EXAMPLE

## A catalog of nudges

Behavioral scientists have developed an extensive toolbox of nudges — that is, ways to influence people's behavior so they're more likely to act in their own best interest, while still offering them the freedom to choose. Here, [according to nudge pioneer Cass Sunstein](#), are some of the most effective:

- Set defaults, such as automatic enrollment in [pension plans](#) or organ-donor programs, but allow people to opt out if they wish.
- Simplify or clarify forms and procedures so that people face less hassle and are less likely to give up.
- Provide reminders that an action is due, so that people do not overlook it.
- Put optimal choices first in a list of options. All else being equal, people are more likely to choose the first item on the list.
- Put optimal choices where they are most visible, such as displaying healthy foods at eye level in a cafeteria.
- Add relevant information, such as calorie counts in fast food restaurants.
- Appeal to people's aversion to losing something they already have (such as, “You will lose \$50 if you don't conserve energy”).

- Ask people to commit to specifics of a plan of action, such as when and where they plan to vote.
  - Prime people to have a desired mindset, such as by reminding them of the need for honesty before they fill out a form, or prompting them to think about their retirement before committing to a savings plan.
  - Suggest an amount for a payment or contribution (“Do you want to give \$100 to this charity?”). Such “anchoring” tends to focus people's choices somewhere near the suggested value.
  - Tell people what others do (for example, “Most people pay their taxes on time”). This puts [social pressure](#) on them to do likewise.
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Behavioral economists know, for example, that if people have too many options to choose among, they are more likely to make poor choices through sheer information overload. Thus, they say, disclosures for mortgages, investments, telecommunications plans and other complex offerings could be standardized into formats proven to be easy for customers to understand and compare, improving the ability to make sound decisions. The country of Colombia, for example, has [revamped regulations for communications providers](#) so that mobile phone contracts now take an average of 12 minutes to read instead of 6 hours and 15 minutes. The new contracts also give clearer notice of costs and services.

Behavioral insights can even modify the political process itself. Residents of the island of Jersey in the English Channel can now give the government their views on important local issues such as taxation and environment through an [automated chatbot](#) on Facebook that was designed with behavioral principles in mind. “You can do this on your terms — on the bus, at home, on Saturday,” says Simon Day, cofounder of Apptivism, the startup company that designed the chatbot. Each chat session is short and focused, provides personalized feedback to the user, and can easily be shared online — all features shown to nudge users toward greater engagement. The approach yields three to four times more participation than conventional ways of gathering public opinion, Day says. The company has similar pilots underway with a Scottish regulatory agency, a UK political party and several nonprofit organizations.

Apart from ethical concerns about manipulating people's decisions, nudging has few detractors. After all, nudges generally have to prove themselves in tests before they are rolled out into the wider society, so any failures — which still turn up in perhaps 10 to 30 percent of attempts — are readily weeded out.

The greatest risk, according to several leading behavioral scientists, is that nudging's booming popularity is attracting people who lack the training to do the job properly. The Internet is full of nudge consultants with no background in behavioral science, notes Lunn. "I think that presents a challenge," he says. "Like anything that becomes popular, you can sell versions of it that don't work."

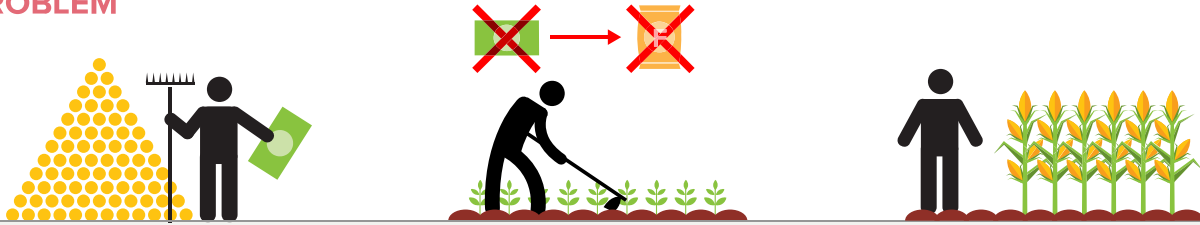
The other criticism often leveled at nudging — one that at least some practitioners, such as Lunn, share — is that its gentle tinkering may not be powerful enough to take on society's big issues, such as poverty, obesity and political polarization. But even gentle tinkering, if persistent enough, can make a big difference, say others. "We have this intuition that a big problem needs a big solution," says Piyush Tantia, co-executive director of Ideas42, a nonprofit behavioral design lab based in New York. "But the mistake we make is to take a big problem like poverty or racism and think there's one big solution. That's not the case. Poverty breaks down into hundreds of little problems that you have to solve to crack it. Once you break it down like that, many of the problems can be solved with a nudge."

Researchers at the [Abdul Latif Jameel Poverty Action Lab](#), headquartered at the Massachusetts Institute of Technology, have conducted nearly a thousand controlled trials of strategies — many of them nudges — that can help lift people from poverty. Poor farmers in Kenya, they find, often lack cash to buy fertilizer at planting time, so barely a quarter of them use it. But if the farmers were offered a chance to pre-purchase fertilizer at harvest time, when they have the cash, [fertilizer use rose](#) to 38 percent. An earlier study showed that fertilizer can boost incomes by more than 10 percent. A separate study found that putting water chlorination dispensers at village water wells [increased social pressure to chlorinate](#) compared with giving people chlorine supplies to use at home. The result was much higher chlorination rates and, hence, less waterborne disease.

## All in the timing

Poor Kenyan farmers often would like to use fertilizer but lack the cash to buy it when they need it. Prepaying for next year’s fertilizer at harvest, when they have money, can make a big difference in yield, and hence income.

### THE PROBLEM



**1 After previous harvest,** when farmers have cash, they aren’t thinking about buying fertilizer because they don’t need it immediately.

**2 Growing season** When it is time to apply fertilizer to crops, farmers may not have enough money left to buy it.

**3 Harvest** Yields are poor.

### THE SOLUTION



**1 After previous harvest,** farmers are offered the opportunity to purchase a voucher for fertilizer, and free delivery.

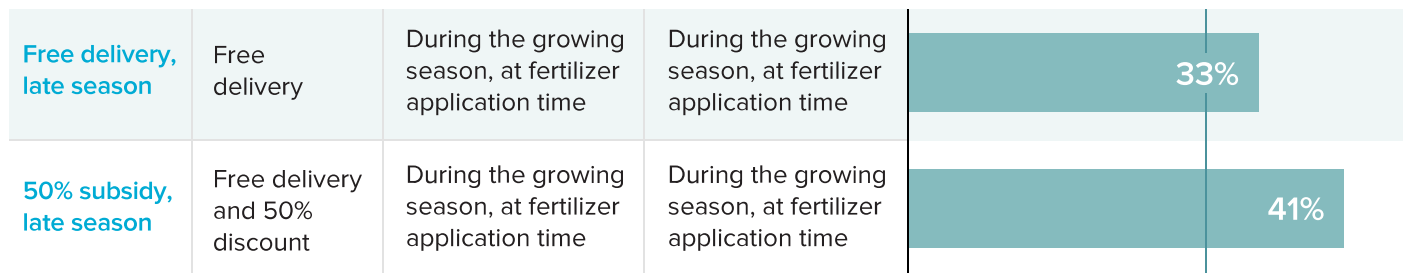
**2 Growing season** Fertilizer is delivered and applied to the crops.

**3 Harvest** Yields are better.

## The importance of convenience

Catching farmers at the right time for their fertilizer purchase boosts fertilizer use nearly as much as a 50% discount on the fertilizer price.

	Incentive	Timing of fertilizer purchase	Timing of fertilizer delivery	ADOPTION RATE	
No intervention	None	During the growing season, at fertilizer application time	During the growing season, at fertilizer application time	28%	
The nudge	Free delivery	Immediately after previous season’s harvest	Farmer chooses		38%



SOURCE: ABDUL LATIF JAMEEL POVERTY ACTION LAB

5W INFOGRAPHIC / KNOWABLE

In the end, though, nudging's biggest contribution to the world of governance may come not from the nudges themselves, but from catalyzing a change in the whole mindset of government. Where once governments and their economists designed policies based on political ideology — just listen to almost any policy debate in the US Congress — the popularity of nudging is pushing some toward a more empirical approach. “It has helped to embed a culture of experimentation inside policymaking. And that is something that is definitely new,” says Faisal Naru, a public policy adviser for the Organization for Economic Cooperation and Development in Paris, and one of the leaders in the nudging world.

Colombia, for example, went on to completely [redesign its regulations](#) for the telecommunications industry to be more consumer-friendly. In South Africa, the Western Cape government has embedded its nudge unit — and hence its experimental ethos — at the heart of the government, in the Department of the Premier. And in Finland, Prime Minister Juha Sipilä is leading an effort to [promote experimentation](#) in everything from recycling initiatives to guaranteed basic incomes. Citizen suggestions and crowdfunded tests are welcome, and failures are expected — last October, the government even celebrated an International Day of Failure to normalize this possibility. The result, both in Finland and eventually elsewhere, may be more effective and less ideologically bound policies.

Nudging, in other words, is nudging governments toward a more evidence-based, scientific style of governing. In these contentious times, that can only be a good thing.

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