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The Council of Psychological Advisers

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Abstract

Findings in behavioral science, including psychology, have influenced policies and reforms in many nations. Choice architecture can affect outcomes even if material incentives are not involved. In some contexts, default rules, simplification, and social norms have had even larger effects than significant economic incentives. Psychological research is helping to inform initiatives in savings, finance, highway safety, consumer protection, energy, climate change, obesity, education, poverty, development, crime, corruption, health, and the environment. No nation has yet created a council of psychological advisers, but the role of behavioral research in policy domains is likely to grow in the coming years, especially in light of the mounting interest in promoting ease and simplification (“navigability”); in increasing effectiveness, economic growth, and competitiveness; and in providing low-cost, choice-preserving approaches.

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INTRODUCTION

Many nations have some kind of council of economic advisers. Should they also have a council of psychological advisers (Schwartz 2012, Thaler 2012)? Perhaps some already do. Consider four initiatives from the United States:

1. In 2010, the Federal Reserve Board adopted a regulation to protect consumers from high bank overdraft fees (12 C.F.R. § 205.17; Fed. Reserve Syst. 2009). The regulation forbids banks from automatically enrolling people in overdraft protection programs; instead, customers have to sign up (Willis 2013). In explaining its action, the Board observed that studies have shown that “consumers are likely to adhere to the established default rule, that is, the outcome that would apply if the consumer takes no action” (Fed. Reserve Syst. 2009, p. 59038). The Federal Reserve Board also referred to the phenomenon of unrealistic optimism, suggesting that consumers might well underestimate the likelihood that they would not overdraw their accounts (Fed. Reserve Syst. 2009, p. 59044).
2. In 2014, the Food and Drug Administration (FDA) proposed to revise its nutrition facts panel, which can be found on almost all food packages. Aware that it was obliged to identify the market failure that the regulation would address, the FDA stated that the new label could “assist consumers by making the long-term health consequences of consumer food choices more salient and by providing contextual cues of food consumption” (US FDA 2014a, p. 6). The FDA noted that the “behavioral economics literature suggests that distortions internal to consumers (or internalities) due to time-inconsistent preferences, myopia or present-biased preferences, visceral factors (e.g., hunger), or lack of self-control, can also create the potential for policy intervention to improve consumer welfare” (US FDA 2014a, p. 6).
3. In 2010, the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) adopted aggressive fuel economy standards for motor vehicles. Most of the benefits of such standards come from economic savings for consumers, which raises a puzzle:

Why can't consumers choose fuel-efficient cars if they want? In answering that question, the government invoked behavioral research suggesting that "consumers appear not to purchase products that are in their economic self-interest" (US EPA & US DOT 2010, p. 25510). It offered a catalog of hypotheses based on psychological research:

- a. Consumers might be myopic and hence undervalue the long term.
 - b. Consumers might lack information or a full appreciation of information even when it is presented.
 - c. Consumers might be especially averse to the short-term losses associated with the higher prices of energy-efficient products relative to the uncertain future fuel savings, even if the expected present value of those fuel savings exceeds the cost (the behavioral phenomenon of "loss aversion").
 - d. Even if consumers have relevant knowledge, the benefits of energy-efficient vehicles might not be sufficiently salient to them at the time of purchase, and the lack of salience might lead consumers to neglect an attribute that it would be in their economic interest to consider.
4. In 2014, the FDA proposed to assert authority over a range of tobacco products. In explaining its action, it emphasized that there are "opportunities for regulation of tobacco products to enhance social welfare for the population at large. Time inconsistency exists when consumers use lower rates of discount for consequences far in the future than for consequences close to the present. Time-inconsistent consumers make current decisions that they would not make from the perspective of their future selves" (US FDA 2014b, p. 10). The FDA added, "Consumers may suffer from time-inconsistent behavior, problems with self-control, addiction, and poor information, which prevent them from fully internalizing the benefits of reducing tobacco use" (US FDA 2014b, p. 15).

The above examples should make clear the significant role that psychological research has played in important policy domains in the United States. Initiatives based on psychological research enlist tools such as default rules, simplification, disclosure, and social norms, and they can be found in areas that involve fuel economy, energy efficiency, environmental protection, health care, education, financial products, smoking, and obesity. The Consumer Financial Protection Bureau, created in 2010, is particularly interested in using psychological research to protect consumers in financial markets (consider its mantra—"Know before you owe"). Psychological findings, and behavioral science more generally, have become an important reference point for policymaking in the United States.

In 2010, the United Kingdom created the Behavioural Insights Team, with the specific goal of incorporating an understanding of human psychology into policy initiatives. On its website (<http://www.behaviouralinsights.co.uk/about-us>), the organization states:

We coined the term "behavioral insights" in 2010 to help bring together ideas from a range of inter-related academic disciplines (behavioural economics, psychology, and social anthropology). These fields seek to understand how individuals take decisions in practice and how they are likely to respond to options. Their insights enable us to design policies or interventions that can encourage, support and enable people to make better choices for themselves and society.

The Team uses behavioral insights to promote initiatives in numerous areas, including smoking cessation, energy efficiency, organ donation, consumer protection, tax compliance, and compliance strategies in general. The Team has enlisted the acronym "EAST" to

capture its approach: easy, attractive, social, and timely (<http://www.behaviouralinsights.co.uk/publications/east-four-simple-ways-to-apply-behavioural-insights/>).

The results of the Team's work include many substantial successes (for a catalog, see <http://www.behaviouralinsights.co.uk/publications>). For example, (a) a psychologically informed approach increased tax payment rates from delinquent taxpayers by over 5 percentage points, (b) a message designed to prompt people to join the Organ Donor Registry added 100,000 people to the Registry in a single year, and (c) automatically enrolling individuals in pension schemes has increased savings rates for those employed by large firms in the United Kingdom from 61 % to 83 %. In 2014, the Team moved from the Cabinet Office to become a partly privatized joint venture, a self-described "social purpose company" owned by the government, the Team's employees, and Nesta (an innovation charity). Other nations have expressed keen interest in the work of the Team, and its operations have significantly expanded. The idea of "nudge units," or behavioral insights teams, is receiving worldwide attention.

In Germany, Australia, Denmark, Sweden, Canada, Singapore, Israel, the Netherlands, South Korea, and Mexico, among other countries, psychological insights have been enlisted in discussions of environmental protection, financial reform, energy policy, corruption, and consumer protection. In 2014, the United States created a behavioral insights team of its own, called the White House Social and Behavioral Sciences Team. It is run by the White House Office of Science and Technology Policy and is engaged in a range of projects designed to test the effects of various policies, with close reference to psychological research.

Behavioral science has drawn considerable (and growing) attention in Europe more broadly. For example, a European Commission report, *Green Behavior*, enlists behavioral science to outline policy initiatives to protect the environment (Eur. Comm. 2012; <http://www.inudgeyou.com/resources>). The Organisation for Economic Development and Cooperation (OECD) has published a Consumer Policy Toolkit that recommends a number of initiatives rooted in behavioral findings (OECD 2010). In the European Union, the Directorate General for Health and Consumers has also shown the influence of psychology and behavioral economics (DG SANCO 2010). Private organizations, notably including the European Nudge Network, are producing creative and imaginative uses of behavioral insights to promote a variety of environmental, health-related, and other goals (see <http://www.inudgeyou.com/resources>, <http://www.greennudge.no/en/>). Emphasizing relevant psychological work, Singapore has initiated a large number of reforms in this domain (Low 2011).

There has been particular interest in using the relevant research in the areas of poverty and development (Banerjee & Duflo 2012, Mullainathan 2007), with considerable attention from the World Bank. Behaviorally informed approaches might help combat corruption and inefficiency and make existing programs more effective, in part by combating low take-up rates and improving well-motivated but counterproductive initiatives that are not alert to human psychology (cf. Mullainathan & Shafir 2013).

A central reason for the mounting influence of psychology is that it has complemented, and in some ways complicated, the conventional emphasis on the importance of material incentives. No one denies that actual and perceived costs and benefits matter. But the word "perceived" is important; it is necessary to understand how people will actually respond to material incentives. Sometimes their responses surprise policymakers. If people do not pay attention to an incentive, it may have little or no impact, even if it is large in economic terms (cf. Chetty et al. 2012), and inertia, inattention, and procrastination might render an incentive irrelevant. Consider, for example, the fact that large numbers of people do not refinance their mortgages, even though they have a great deal to gain from doing so (Keys et al. 2014).

Officials are increasingly aware that they should explore the importance of the social environment, sometimes described as “choice architecture” (Thaler & Sunstein 2008). Even when the material incentives seem small or nonexistent, changes in choice architecture can have large effects on outcomes (Thaler & Sunstein 2008, Wansink 2014). Suppose, for example, that healthy foods are made easily accessible. If so, people are more likely to choose them. According to one study, making food more difficult to reach (as, for example, by varying its proximity by 10 inches or altering the serving utensil) produces an 8% to 16% decrease in intake (Rozin et al. 2011). This finding has implications for the problem of childhood obesity, which is, in part, a product of the easy availability of unhealthy foods (Wansink 2014). What is easily available and what commands attention also matter for policies involving smoking, alcohol abuse, and even happiness, which has also been receiving significant official attention (Dolan 2014). Subjective well-being very much depends on social design (Dolan 2014). There are implications for discrimination and inequality as well. When job candidates are evaluated together rather than independently, the incidence of sex discrimination is reduced, thus suggesting the possibility of nudges that would reduce discrimination of diverse kinds (Bohnet et al. 2012).

Psychologically informed initiatives often have major consequences. For example, automatic enrollment in savings programs can have far larger effects than significant economic incentives—a clear testimonial to the potential power of choice architecture and its occasionally larger effect than standard economic tools (Chetty et al. 2012). If people are asked to sign self-report forms at the beginning rather than at the end—an especially minor change—the incidence of honesty might increase significantly (Shu et al. 2012). Default rules can have a substantial impact in the environmental area, with large effects on public health (Sunstein & Reisch 2014). Obesity can be significantly reduced by nudges (Wansink 2014); consider the notion that “[b]ecoming slim by design is easier than trying to become slim by willpower” (p. 1). There is even a possibility of increasing happiness “by design,” at least if we focus on the overriding importance of where our attention is directed (Dolan 2014).

The catalog of potentially effective choice-preserving interventions, which is large and growing, includes (a) default rules (such as automatic enrollment in various programs involving education, health, food, and savings); (b) simplification (perhaps radical) of existing requirements; (c) insistence on active choosing; (d) reminders (e.g., by email or text message); and (e) priming (perhaps by emphasizing a relevant feature of the situation or some aspect of people’s identity) (for a longer list, see Freedom-Preserving Tools or “Nudges” sidebar). Favoring some mandates (e.g., fuel economy standards) or instituting bans on psychological or behavioral grounds is also possible if the welfare calculus so suggests (Bubb & Pildes 2014, Sunstein 2014).

A great deal remains to be learned, especially about the effects of reforms on large populations, across cultures, and on potentially distinctive subpopulations. One of the most important developments in recent years has been the emphasis on rigorous testing of policies to identify their effects. The use of randomized controlled trials at official levels is growing (Sunstein 2013a), and such trials are often essential for policymaking. At present, the findings from psychological research suggest:

1. Default rules are an especially promising tool, combining effectiveness with preservation of freedom of choice.
2. In some cases, required active choosing may be preferable to default rules insofar as it counteracts the problem of inertia while also responding to the risk that policymakers may err if they rely on default rules.
3. Simplification often pays large dividends, in part because it reduces burdens on people’s bandwidth (Mani et al. 2013, Mullainathan & Shafir 2013), potentially increasing uptake of

FREEDOM-PRESERVING TOOLS OR “NUDGES”

1. Establishing default rules (e.g., automatic enrollment in programs, including education, health, savings)
2. Simplifying and easing of current requirements (in part to promote take-up)
3. Requiring active choosing (requiring people to make an explicit choice)
4. Prompting choice (people are asked a question without having to answer)
5. Simplifying active choosing (asking people whether they want to choose or instead to rely on a default rule)
6. Enhancing or influencing active choosing (e.g., asking people to choose but using order effects or loss aversion to influence choices; alternatively, enlisting authority to influence people)
7. Making contexts or policies easily navigable, with pointers and guides
8. Providing reminders or accessible counts and accounts (e.g., by email or text message, as for overdue bills; reminder apps; health-related wristbands, watches, or apps)
9. Priming (perhaps by emphasizing a relevant feature of the situation, such as its effect on an individual’s future self, or an aspect of people’s identity, such as their inclination to be honest)
10. Eliciting implementation intentions or commitments (e.g., “Do you plan to vote?”)
11. Anchoring (starting with certain figures, e.g., “Do you want to give \$200 to this charity?”)
12. Using social norms (emphasizing what most people do, e.g., “Most people plan to vote,” “Most people pay their taxes on time,” or “Most people are eating healthy these days”)
13. Ordering effects (e.g., what people see first on a website or in a room; asking people to sign forms on the first page)
14. Enlisting loss aversion (e.g., “You will lose X dollars if you do not use energy conservation techniques,” or alternatively, and a bit beyond a nudge, a small tax (e.g., a five-cent tax for plastic grocery bags))
15. Increasing ease/convenience (e.g., making low-cost options or healthy foods visible)
16. Framing (e.g., “90% fat-free” versus “10% fat”; loss frame versus gain frame)
17. Providing disclosures (as in calorie counts or traffic light systems for food)
18. Issuing warnings, graphic or otherwise (as for cigarettes—might counteract optimistic bias)
19. Providing literal or figurative speed bumps or cooling-off periods (as for waiving rights)
20. Using formal precommitment strategies (as in Save More Tomorrow)
21. Offering automatic enrollment with precommitment (e.g., automatic enrollment in Save More Tomorrow)
22. Using visual effects, colors, picture, signs, noises, fonts (e.g., to promote highway safety or attention to one’s future self, as in virtual aging through online programs)
23. Decreasing vagueness and ambiguity through the use of plain language (e.g., MyPlate, not Food Pyramid)
24. Attracting or reducing attention, including through drawing attention to certain product attributes or through product placement (e.g., through cafeteria design)
25. Using moral suasion, increasing fun, or triggering a sense of responsibility
26. Using checklists (as for doctors or administrators)
27. Reducing paperwork (including prepopulation or elimination of forms)
28. Giving comparative information (to overcome comparison friction)
29. Informing people of the nature and consequences of their own past choices (“midata”)
30. Jointly rather than separately evaluating goods/people (to help reduce discrimination)
31. Structuring choices (as through pointers or eliminating rarely chosen options)

important programs and reducing serious burdens on ordinary people (especially—but not only—the poor).

4. Policymakers can fruitfully enlist social norms in the service of public goals, because people are more likely to engage in desirable behavior if they are informed that most people engage in desirable behavior.

5. Disclosure can be helpful, but only if it is psychologically informed (Loewenstein et al. 2014b).
6. Cognitive accessibility (sometimes described as salience) greatly matters, in part because people have limited attention (Dolan 2014).

Notwithstanding the lessons learned from psychological research, it is important to acknowledge that the idea of a council of psychological advisers, or of psychologically informed policymaking, might produce political concern, possibly even alarm. Indeed, prominent uses of behavioral science have sometimes proved controversial (Rebonato 2012, Sunstein 2013a). The goal of increasing simplification and navigability is unlikely to raise serious concerns, but any form of paternalism might run into real objections (for very different perspectives, see Conly 2012, Rebonato 2012). As discussed below, transparency and openness are exceedingly important. The idea of behaviorally informed policymaking also raises significant institutional challenges. The relevant concerns and issues of paternalism and institutional design are briefly explored in the section titled Politics, Paternalism, and Institutional Design (see also Rebonato 2012, Thaler & Sunstein 2008).

DEFAULT RULES

In many contexts, policymakers can promote social goals with sensible default rules that preserve freedom of choice and that avoid the cost, rigidity, and potential unintended harmful consequences of coercive approaches, such as mandates and bans (Sunstein & Reisch 2014, Thaler & Sunstein 2008). Because of their unique importance, I devote special attention to default rules here (for interesting applications, see Dolan 2014, Wansink 2014).

Automatic Enrollment and Default Rules: Examples

Savings. Many people do not save enough money for retirement. What can be done? In the United States, the default rule has long been nonenrollment in pension plans; employers have asked employees whether they want to opt in, and the number of employees who enroll has often been low (Gale et al. 2009, Madrian & Shea 2001). In response, many employers have changed the default to automatic enrollment, by which employees are enrolled unless they opt out. The results have been dramatic. With an opt-out design, many more employees enroll than with an opt-in design (Chetty et al. 2012, Gale et al. 2009), even when opting out is easy. Automatic enrollment has increased the anticipated savings for all groups, in particular Hispanics, African Americans, and women (Chiteji & Walker 2009, Orszag & Rodriguez 2009, Papke et al. 2009). As noted, default rules can have much larger effects than significant tax incentives (Chetty et al. 2012), which is a genuine puzzle from the perspective of standard economics but a far less surprising finding from the standpoint of psychology.

Drawing on these findings, the Pension Protection Act of 2006 {Pension Protection Act of 2006, Pub. L. No. 109–280, 120 Stat. 780 [codified in scattered sections of 26 and 29 U.S.C. (2012)]} encourages employers to adopt automatic enrollment plans through a series of steps. In explicit recognition of the behavioral research, President Obama directed the Internal Revenue Service (IRS) and the Treasury Department to undertake initiatives to make it easier for employers to adopt such plans (IRS 2009, Obama 2009a). As a result of both private and public action— informed by psychological research—automatic enrollment in pension plans (along with automatic escalation, sometimes under the rubric of “Save More Tomorrow”) has been growing rapidly (Benartzi 2012, Benartzi & Thaler 2013).

Many other nations are using automatic enrollment in pension plans. In 2007, New Zealand introduced the idea of “KiwiSaver,” whose principal feature is automatic enrollment. Within four

years, the result of the initiative was to increase pension coverage by nearly 50 percent (Lunn 2014). As noted, similar success has been found in the United Kingdom, and Denmark has also experienced substantial increases as a result of automatic enrollment (Chetty et al. 2012).

Green energy. Many people have been interested in increasing consumers' use of green energy—energy sources that do not significantly contribute to air pollution, climate change, and other environmental problems. Although such energy sources are available in many places, relatively few choose them [notwithstanding the fact that in response to questions, many say that they would do so, as noted by Pichert & Katsikopoulos (2008)]. The point certainly holds in Germany (Pichert & Katsikopoulos 2008). However, two communities in that nation have long shown strikingly high levels of green energy use—in a recent period, well over 90%—in dramatic contrast to the level of participation in green energy programs in other German towns, which in the relevant time period was approximately 1% (Pichert & Katsikopoulos 2008). The reason for the difference is that in the two communities with 90% participation, individuals are automatically enrolled in green energy programs and must opt out if they choose not to participate.

In many contexts, environmental and energy-related goals could be, and to some extent are being, promoted through green default rules (Sunstein & Reisch 2014). For example, a double-sided printing default rule for printers is likely to save a great deal of paper and indeed to have a larger effect than a significant tax on paper use (for citations and discussion, see Sunstein & Reisch 2014).

Health care. In an important provision, the Affordable Care Act requires employers with more than 200 employees automatically to enroll employees in health care plans—but it also allows employees to opt out {Pub. L. No. 111–148, 124 Stat. 119 [2010] [codified in scattered sections of 26 and 42 U.S.C. (2012)]}. This provision will not be in force without implementing regulations, but the expectation is that they will appear in 2015 or 2016. When employers automatically enroll employees, there is far less pressure on [healthcare.gov](http://www.healthcare.gov) and other mechanisms by which people might comply with the insurance requirement (known as the individual mandate) on their own.

Consumer rights. In a number of areas, policymakers have attempted to protect consumer rights through the regulation of default rules. Recall the action of the Federal Reserve Board that forbade automatic enrollment in overdraft protection programs (Willis 2013). Under the Credit Card Accountability Responsibility and Disclosure Act of 2009, companies are forbidden to impose fees on cardholders who go over their credit limit unless cardholders agree to opt in to authorize that practice (Willis 2013). In Europe, Article 22 of the 2011 Consumer Rights Directive explicitly bans the use of prefilled boxes in online payment forms: “If the trader has not obtained the consumer’s express consent but has inferred it by using default options which the consumer is required to reject in order to avoid the additional payment, the consumer shall be entitled to reimbursement of this payment” (Eur. Parliam. & Counc. Eur. Union 2011, p. L304/81; Lunn 2014).

School meals. Under federal law, poor children are eligible for free lunches and breakfasts at school. Unfortunately, many poor families fail to sign up for the relevant programs, perhaps because of the burdens involved in doing so—a special problem in light of what researchers describe as the limited cognitive bandwidth of the poor (Mani et al. 2013, Mullainathan & Shafir 2013). In response, the National School Lunch Act authorizes and promotes direct certification of eligibility, thus reducing complexity and providing a form of automatic enrollment (Healthy, Hunger-Free Kids Act of 2010; <http://www.fns.usda.gov/school-meals/healthy-hunger-free-kids-act>) {Pub. L. No. 111–296, 124 Stat. 3183 [codified in scattered sections of 42 U.S.C. (2012)]}.

Under the program, children who are eligible for benefits under certain programs are directly eligible for free lunches and free breakfasts and hence do not have to fill out additional applications (<http://www.fns.usda.gov/school-meals/healthy-hunger-free-kids-act>). In 2011, the US Department of Agriculture (USDA) issued an interim final rule that provided school meals for up to 270,000 children (USDA 2011a). The total number of school children now enrolled in the direct certification program exceeds two million (<http://www.fns.usda.gov/direct-certification-national-school-lunch-program-state-implementation-progress-school-year-2012>).

Risks of Default Rules

It should be accepted that default rules can be badly chosen or misused by both private and public institutions. A central question—at the intersection of psychology, economics, and policy—is whether the relevant rule is one that informed individuals would select (Sunstein 2015b). But that question might not be easy to answer, and some choice architects might not even ask it. Both standard economics and psychology identify reasons that markets might produce harmful default rules, at least when they are not visible or easily accessible to consumers. Self-interested actors might promote default rules that benefit them rather than choosers, and such rules might nonetheless “stick.” As a result, people might experience serious welfare losses. Companies might enroll consumers in programs that do not suit their interests, and governments might do the same.

REQUIRING ACTIVE CHOOSING

Public officials and outside observers sometimes do not like default rules because they might not fit diverse situations or might be harmful or even manipulative (Rebonato 2012). We need to learn much more about people’s reactions to such rules (Brehm & Brehm 1981, Loewenstein et al. 2014a). To the extent that the concerns are warranted, policymakers should consider a different approach: Avoid any default rule, and prompt or require active choices (Carroll et al. 2009, Sunstein 2013b).

Active choices, which ask or require people to select among various options rather than be defaulted into an alternative, result in far higher levels of savings than a default rule that requires people explicitly to opt in (Carroll et al. 2009). With respect to savings and health care, for example, an employer might reject both opt out and opt in and simply require employees to indicate their preferences. Such an approach should have significant results. If inertia and procrastination are playing a significant role, then active choosing may be better than opt in. In such circumstances, active choosing increases the likelihood that people will end up with their preferred outcomes. For that reason, there is a strong psychological argument for requiring active choosing (Sunstein 2015a).

Active choosing may also be favored over opt in when public officials lack relevant information. In such circumstances, the chosen default rule might prove to be damaging (Rebonato 2012; Sunstein 2013b, 2015a). When the default rule is no better than a guess, it might lead people in the wrong direction. The same point argues against a default rule when self-interested private groups have managed to call for it even though it is not in the interest of those on whom it is imposed (Rebonato 2012).

Active choosing might also be better than opt in when the members of a relevant group are highly diverse and thus a single approach will not fit their variable situations. In such contexts, a default rule might also be harmful because the power of inertia, or the force of suggestion, may mean that many people will end up in a situation that is not in their interest. In addition, active choosers take responsibility for their choices, and their sense of responsibility might have significant effects on their own future (for example, in making them more committed to taking

care of their health) and also on family members (to whom it might greatly matter, for example in the context of end-of-life care, that the relevant decision is made actively rather than passively).

It is also true that active choosing can have significant disadvantages. Active choosing may impose unjustified or excessive burdens in situations that involve unfamiliarity or great complexity, so that people lack information or experience (Sunstein 2013b, Thaler & Sunstein 2008). These burdens should not be underestimated; they can take a serious toll (Mani et al. 2013, Mullainathan & Shafir 2013). Such burdens include not only the time (and potentially resources and emotion) required for people to obtain relevant information and to make the choice, but also the resources that must be expended to ensure that they actually make it. As compared with a default rule, active choosing increases the costs of decisions, possibly significantly. Active choosing also might increase errors, possibly significantly, in unfamiliar and confusing areas. In such situations, opt in or opt out might produce better outcomes for people.

When public officials have good reason for confidence that a particular default rule will fit with the informed preferences of the relevant group, and thus promote its interests, it may be preferable to select that default rule rather than to require active choosing (Sunstein 2015b). Personalized default rules, by virtue of their accuracy, are especially promising on this count.

SIMPLIFICATION

A great deal of psychological work demonstrates that complexity can have harmful effects (including indifference, delay, and confusion), potentially reducing compliance or decreasing the likelihood that people (including the poor) will benefit from various policies and programs (Mullainathan & Shafir 2013). Complex forms can be especially troublesome on this count—a point that is often insufficiently appreciated by policymakers, who can frequently achieve their substantive goals through simplification.

Consider two examples, both with significant policy implications. (a) Simplification of a complex form for financial assistance for college can have the same effect, in terms of increasing program participation, as a significant boost in economic incentives—in the thousands of dollars (Bettinger et al. 2009). (b) Homeowners can save a great deal of money by refinancing their mortgage to obtain a lower interest rate, but in the United States, \$5.4 billion has been recently lost as a result of the failure to refinance, largely because of the psychological burden imposed on homeowners by the relatively complex requirements (Keys et al. 2014).

A particular area for further study involves the effects of cognitive load, which imposes a kind of bandwidth tax that has particularly harmful effects on poor people (Mani et al. 2013, Mullainathan & Shafir 2013). Although the US Paperwork Reduction Act of 1995 was designed to reduce form-filling burdens, policymakers have only recently identified the connection between those burdens and the bandwidth problem. If psychologically informed policymakers can increase participation in important programs through simplifying paperwork requirements, or even achieve the same goals that would otherwise be achieved only through large expenditures, there is a clear advantage to simplification (Mullainathan & Shafir 2013, Sunstein 2013a). In a related vein, when people stand to gain significant amounts of money from redeeming coupons or certificates, they are unrealistically optimistic about the likelihood that they will take the trouble to mail in the relevant forms; the only intervention that appears to work is to make redemption easier (Tasoff & Letzler 2014). As the authors put it, “Everyone believes in redemption,” but whether people will actually seek redemption depends on whether it is simple for them to do so (Tasoff & Letzler 2014).

In recognition of the underlying psychological and behavioral research, the US government has taken a number of steps toward simplifying and shortening the Free Application for Federal

Student Aid (FAFSA), reducing the number of questions and allowing electronic retrieval of information (OMB 2010). In addition, a special initiative permits online users to transfer data previously supplied electronically in their tax forms directly into their FAFSA applications. These steps are intended to simplify the application process for financial aid and thus to increase access to college; such steps are enabling many students to receive aid for attending college when they previously could not do so. A great deal remains to be done to simplify FAFSA; a very short form, perhaps just two pages or less, might be sufficient. Related steps might be taken in many other domains, especially those designed to help poor people, where well-intended and seemingly innocuous paperwork burdens can be counterproductive (Mullainathan & Shafir 2013). Prepopulation of forms may seem technical, but it could have big benefits.

In 2011, the Office of Management and Budget drew on psychological research in calling for simplification of programs, focusing in particular on small business and benefit programs (Sunstein 2011a). The request drew attention to the potential harms of complexity (in the context of financial products, see Bar-Gill 2012), noting that the process of renewing or applying for benefits can be time-consuming, confusing, and unnecessarily complex, thus discouraging participation and undermining program goals. Agencies sometimes collect data that are unchanged from prior application forms; in such circumstances, they might be able to use, or give people the option to use, prepopulated electronic forms (Sunstein 2011a).

And indeed, imperfect take-up of existing benefit programs, including those that provide income support, is partly a product of behavioral factors such as procrastination and inertia (Keys et al. 2014; cf. Mullainathan & Shafir 2013, Tasoff & Letzler 2014). It follows that efforts to increase simplicity, including automatic enrollment, may have substantial benefits (Mullainathan & Shafir 2013). In the United Kingdom, significant results have been obtained in increasing the payments of fines, largely by making it easier and more convenient for people to do so and by sending reminders by telephone and text (Lunn 2014).

The UK's Office of Gas and Electricity Markets (OFGEM) has undertaken a number of initiatives to simplify regulatory burdens on both industry and consumers. In the aftermath of the deregulation of energy markets, many consumers made poor choices, which in some cases resulted in costly tariffs imposed by incumbent suppliers (Lunn 2014). The OFGEM initiatives propose to simplify how energy retailers provide information about rate tariffs to consumers, with the goal of enhancing and informing consumer choice (Lunn 2014).

SOCIAL NORMS AND CONFORMITY

Because the behavior of others provides information about what is normal or appropriate, individuals might well imitate that behavior (Cialdini et al. 2006). In fact, social norms can operate as the equivalent of defaults, with observed choices spurring imitative behavior (Huh et al. 2014).

If, for example, people learn that they are using more energy than similarly situated others, their energy use may decline—reducing pollution as well as consumers' costs. The same point applies to health-related behavior. It has long been understood that people are more likely to engage in healthy behavior if they live with or work with others who so engage. The behavior of relevant others can provide valuable information about sensible or appropriate courses of action. Informational cascades are a possible consequence as people rely on, and thus amplify, the informational signals produced by the actions of predecessors (Hirshleifer 1995). Similarly, those actions can provide information about what others will approve and disapprove.

Psychological research suggests that efforts to use social comparisons can alter decisions and significantly reduce economic and environmental costs. In the private sector, these points are being put to creative use. Opower, an American company that makes impressive use of behavioral

economics, specializes in providing people with social comparisons, above all through its innovative Home Energy Report. Opower's endeavors have had a major effect. More than four million households now receive Home Energy Reports, and people are saving hundreds of millions of dollars as a result (see <http://www.opower.com> for details).

These points have implications for many domains. For example, social norms can be enlisted in efforts to increase tax collection and to reduce violations (Hallsworth et al. 2014). In the first of two careful experiments from the UK Behavioural Insights Team, Hallsworth and colleagues sent letters to more than 100,000 citizens in 2011. All of the letters noted that the recipients had not yet made correct tax payments, but different versions of follow-ups were sent. The first said, "Nine out of ten people pay their taxes on time." The second version said, "Nine out of ten people in the UK pay their taxes on time." The third stated, "Nine out of ten people in the UK pay their taxes on time. You are currently in the very small minority of people who have not paid us yet." The fourth did not refer to social norms, but added, "Paying tax means we all gain from vital public services" such as the National Health Service, roads, and schools.

The letters were exceedingly effective. Overall, those who received one of these letters were nearly four times more likely to pay their tax bill than those who did not. The most effective letter was the third: In less than a month, it produced \$3.18 million in additional revenue. If that letter had been used across the entire sample, it is estimated that it would have produced an additional \$18.9 million.

Hallsworth and colleagues' second experiment involved nearly 120,000 taxpayers and more than one dozen different letters. Some of the letters referred to a general norm about existing practices: "The great majority of people in the UK pay their tax on time." Other letters were more specific: "The great majority of people in your local area pay their tax on time" or "Most people with a debt like yours have paid it by now" (Hallsworth et al. 2014).

Some of the letters referred to what people in the United Kingdom think taxpayers should do: "The great majority of people agree that everyone in the UK should pay their tax on time," or "Nine out of ten people agree that everyone in the UK should pay their tax in time." Some of the letters emphasized that people could save money by paying now rather than later: "We are charging you interest on this amount."

With this experiment, Hallsworth and colleagues replicated their earlier finding: "Norm" messages have a large impact. Finally, highlighting a penalty that would increase over time made it more likely that people would pay. Within a period of about three weeks, Hallsworth and colleagues were able to generate approximately \$15.24 million in additional tax revenue. Note that letters of this sort are not expensive to produce and send, so the benefits of the intervention are easily justified. In other contexts, reminders have had significant effects, and they appear to work best if they are personalized (Lunn 2014).

An understanding of social norms and conformity also helps to explain political polarization in a way that can be relevant to political actors of all kinds. For example, social psychologists have explored the phenomenon of group polarization, which means that people in deliberating groups tend to end up in a more extreme point in line with their predeliberation tendencies (Sunstein 2009). If members of one like-minded group (say, people who are left of center) speak only with one another, and if members of another like-minded group (say, people who are right of center) speak only with one another, severe divisions might be expected. An understanding of group polarization thus casts light on political divisions in many democracies. It also helps explain why some groups become quite extreme and even prone to violence (Hardin 2002).

The implications for the problem of groupthink, understood in the light of recent psychological findings, help to show how institutions can elicit, or fail to elicit, important information (Sunstein

& Hastie 2015). A pressing challenge is to devise strategies, especially—but not only—within governments to prevent polarization and herding (Sunstein & Hastie 2015).

DISCLOSURE

Actually Informing Choice

Examples. In numerous cases, disclosure requirements have been psychologically informed, especially since the early 2000s. Central examples include legislative efforts to require disclosure of the potential savings from energy efficiency and of information that bears on health. Some disclosure initiatives have drawn directly from psychology and behavioral science, emphasizing the importance of plain language, clarity, and simplicity, and of ensuring that any advice is actionable. But in the disclosure area in particular, existing knowledge is inadequate, and many gaps remain to be filled (Bubb 2014, Loewenstein et al. 2014b).

Nutrition. In the domain of nutrition, a number of disclosure requirements are in place. For example, in 2011 the USDA issued a final rule requiring provision of nutritional information to consumers with respect to meat and poultry products. Under the rule, nutrition facts panels containing information about calories and total and saturated fats must be provided on the labels of such products (9 C.F.R. § 317.309).

The rule reflects an understanding of the importance of the framing. If a product includes a percentage statement such as 80% lean, it must also include the fat percentage. This requirement should prevent the confusion that can result from selective framing; a statement that a product is 80% lean, standing by itself, makes leanness salient and may therefore be misleading. As noted, and more important still, the FDA has proposed new rules to govern nutrition facts panels, and those rules explicitly refer to the behavioral literature, which informs the content of the proposals (US FDA 2014a).

Credit cards and consumer financial protection. Behavioral science played a role in informing the Credit Card Accountability, Responsibility, and Disclosure Act of 2009 (Credit CARD Act of 2009) {Pub. L. No. 111–24, 123 Stat. 1734 [2009] [codified in scattered sections of 15 and 16 U.S.C. (2012)]}, which is designed in large part to ensure that credit card users are adequately informed. Among other things, the Credit Card Act of 2009 prohibits an increase in annual percentage rates without 45 days’ notice, prohibits the retroactive application of rate increases to existing balances, and requires clear notice of the consumer’s right to cancel the credit card when the annual percentage rate is raised.

Evidence suggests that the Credit Card Act of 2009 has saved US consumers an estimated \$12 billion annually. Moreover, one small nudge—requiring disclosure of the interest savings from paying off balances in 36 months rather than making only minimum payments—has saved consumers an estimated \$170 million annually (Agarwal et al. 2014).

More generally, the US government’s Consumer Financial Protection Bureau has a central goal of designing disclosure policies that will actually inform choices, as captured in the slogan “Know before you owe.” The Consumer Financial Protection Bureau has taken steps to simplify disclosures for student loans, credit cards, and mortgages. In the process, it has taken careful account of psychological and behavioral research about the harmful effects of complexity (Lunn 2014).

Health care. The Patient Protection and Affordable Care Act of 2010 {Affordable Care Act of 2010; Pub. L. No. 111–148, 124 Stat. 119 [2010] [codified in scattered sections of 26 and 42 U.S.C. (2012)]} contains a large number of disclosure requirements designed to promote accountability and informed choice with respect to health care. Indeed, the Affordable Care Act is, in significant part, a series of disclosure requirements, many of which are meant to inform consumers and to do so in a way that is alert to findings from psychological research. Under the Affordable Care Act, for example, a restaurant that is part of a chain with 20 or more locations doing business under the same name is required to disclose calories on the menu board (for a discussion of the empirical complexities and the mixed evidence about the effects of disclosures, see Loewenstein et al. 2014b). Such restaurants are also required to provide in a written form (available to customers upon request) additional nutrition information pertaining to total calories and calories from fat, as well as amounts of fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, dietary fiber, and protein.

Similarly, section 1103 of the Affordable Care Act calls for “[i]mmediate information that allows consumers to identify affordable coverage options.” It requires the establishment of an Internet portal for beneficiaries to find information about affordable and comprehensive coverage options, including information about eligibility, availability, premium rates, cost sharing, and the percentage of total premium revenues spent on health care rather than on administrative expenses.

Implementing a provision of the Affordable Care Act, the Department of Health and Human Services (HHS) finalized a rule to require insurance companies to provide summaries of relevant information to prospective customers in clear, plain language. The rule mandates the provision of basic information, including the annual premium, the annual deductible, a statement of services that are not covered, and a statement of costs for going to an out-of-network provider (Healthcare.gov 2011).

Smart disclosure. In the United States, psychologically informed initiatives have focused on the idea of smart disclosure, which is designed to help consumers know about their own choices (Kamenica et al. 2011). Smart disclosure is based on the understanding that it can be costly for consumers to obtain that information, in part as a result of inertia; it helps if information is made available in downloadable, machine-readable formats (Sunstein 2011b). In the United Kingdom, the “midata” initiative aspires to give consumers more access to their consumption data, with the goal of allowing members of the public to analyze their data via software applications and to use the analysis to improve their decision-making (Lunn 2014; <https://www.gov.uk/government/policies/providing-better-information-and-protection-for-consumers/supporting-pages/personal-data>). Under the UK Enterprise and Regulatory Reform Act 2013, the government has the authority to compel businesses to release consumer data; to date this has not been done, and the government is hoping for businesses to release their data voluntarily.

It should be clear from this brief survey that the recent disclosure requirements are wide-ranging. Although such approaches have considerable promise, the jury is still out on their effects (Bubb 2015, Loewenstein et al. 2014b).

How, not only whether. As psychologists have emphasized, disclosure as such may not be enough; regulators should devote care and attention to how, not only whether, disclosure occurs (Loewenstein et al. 2014b). Clarity and simplicity are often critical. If disclosure requirements are to be helpful, they must be designed to be sensitive to how people actually process information.

A good rule of thumb is that disclosure should be concrete, straightforward, simple, meaningful, timely, and salient. If the goal is to inform people about how to avoid risks or to obtain benefits, disclosure should avoid abstract statements (such as, for example, of “healthy eating” or “good

diet”) and instead clearly identify the steps that might be taken to obtain the relevant goal (by specifying, for example, what specific actions parents might take to reduce the risk of childhood obesity).

In 2010, the HHS emphasized the importance of clarity and cognitive accessibility in connection with its interim final rule entitled “Health Care Reform Insurance Web Portal Requirements,” which “adopts the categories of information that will be collected and displayed as Web portal content, and the data we will require from issuers and request from States, associations, and high risk pools in order to create this content” (US Dep. HHS 2010) (for the web portal, see <http://www.healthcare.gov/>). The preamble to the interim final rule is behaviorally informed in the sense that it is directly responsive to how people process information:

In implementing these requirements, we seek to develop a Web site (hereinafter called the Web portal) that would empower consumers by increasing informed choice and promoting market competition. To achieve these ends, we intend to provide a Web portal that provides information to consumers in a clear, salient, and easily navigated manner. We plan to minimize the use of technical language, jargon, or excessive complexity in order to promote the ability of consumers to understand the information and act in accordance with what they have learned . . . [W]e plan to provide information, consistent with applicable laws, in a format that is accessible for use by members of the public, allowing them to download and repackage the information, promoting innovation and the goal of consumer choice. (US Dep. HHS 2010, p. 24471)

If not carefully designed, disclosure requirements can produce ineffective, confusing, and potentially misleading messages. Psychologically informed approaches are alert to this risk and suggest possible improvements. For instance, automobile manufacturers are currently required to disclose the fuel economy of new vehicles as measured by miles per gallon (MPG). This disclosure is useful for consumers and helps to promote informed choice. As the EPA has emphasized, however, MPG is a nonlinear measure of fuel consumption (US EPA 2009). Consider the fact that an increase from 10 to 20 MPG produces more savings than an increase from 20 to 40 MPG, and an increase from 10 to 11 MPG produces savings almost as high as an increase from 34 to 50 MPG. Many consumers do not understand this point and tend to interpret MPG as linear with fuel costs (see Larrick & Soll 2008).

A closely related finding is that because of misunderstandings about the MPG measure, consumers tend to underestimate the cost differences between low-MPG vehicles and tend to overestimate the cost differences between high-MPG vehicles (Allcott 2011). Recognizing the imperfections and potentially misleading nature of the MPG measure, and referring to the psychological literature, the Department of Transportation and EPA chose a new label to respond to the psychological and behavioral research (US EPA 2009).

This approach calls for disclosure of annual gasoline costs, and it also requires a clear statement about anticipated fuel savings (or costs) over a five-year period (compared to the average vehicle). The statement of fuel savings (or costs) should simultaneously help counteract confusion over the MPG measure and inform consumers of the economic effects of fuel economy over a relevant time period (US EPA 2009).

In a related vein, and informed by psychological research, the USDA has abandoned its food pyramid, which was used for years as the central icon to promote healthy eating. The food pyramid has long been criticized as insufficiently informative; it does not offer people with any kind of clear path with respect to a healthy diet. According to one critical account, “Its meaning is almost completely opaque . . . To learn what the Food Pyramid has to say about food, you must be willing to decipher the Pyramid’s markings . . . The language and concepts here are so hopelessly abstracted

from people's actual experience with food . . . that the message confuses and demoralizes" (Heath & Heath 2010, pp. 61–62).

Aware of these objections, and after an extended period of deliberation, the USDA (2011b) replaced the Food Pyramid with a new, simpler icon (a food plate named MyPlate) consisting of a plate with clear markings for fruits, vegetables, grains, and protein. MyPlate is accompanied by straightforward guidance, including, "Make half your plate fruits and vegetables," "Drink water instead of sugary drinks," and "Switch to fat-free or low-fat (1%) milk." This approach has the key advantage of informing people what to do if they seek to have a healthier diet.

The tendency toward unrealistic optimism (Bar-Gill 2012, Sharot 2011) may lead consumers to downplay or neglect information about statistical risks associated with a product or an activity. If they do, there is a psychological argument for a more graphic kind of disclosure, designed to make the risks associated with the product less abstract and more vivid and salient. For example, the Family Smoking Prevention and Tobacco Control Act of 2009 {Smoking Prevention Act; Pub. L. No. 111–31, 123 Stat. 1776 [codified at 21 U.S.C. 301 et seq. (2012)]} requires graphic warnings with respect to the risks of smoking tobacco, and the FDA finalized such warnings for public comment, with vivid and even disturbing pictures of some of the adverse outcomes associated with smoking. The compulsory warnings were invalidated in court (on free speech grounds), but the government has issued its own graphic warnings, which may well be having significant effects.

Psychology, Spurring Competition

Straightforward and simple disclosures should facilitate comparison shopping and hence competition. Drawing on social science research, the US Treasury Department's account of financial regulation emphasizes the value of requiring that "communications with the consumer are reasonable, not merely technically compliant and nondeceptive. Reasonableness includes balance in the presentation of risks and benefits, as well as clarity and conspicuousness in the description of significant product costs and risks" (US Dep. Treas. 2009, p. 64). The Treasury Department's analysis goes on to say that one goal should be to

harness technology to make disclosures more dynamic and adaptable to the needs of the individual consumer Disclosures should show consumers the consequences of their financial decisions [The regulator] should mandate or encourage calculator disclosures for mortgages to assist with comparison shopping. For example, a calculator that shows the costs of a mortgage based on the consumer's expectations for how long she will stay in the home may reveal a more significant difference between two products than appears on standard paper disclosures. (US Dep. Treas. 2009, p. 65)

Similarly, the US Consumer Financial Protection Bureau is authorized to ensure that "consumers are provided with timely and understandable information to make responsible decisions about financial transactions" {Dodd-Frank Act 2010; Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111–203, 124 Stat. 1376 [2010] [codified in scattered sections of the U.S.C. (2012)]}. The Bureau is also authorized to issue rules that ensure that information is "fully, accurately, and effectively disclosed to consumers in a manner that permits consumers to understand the costs, benefits, and risks associated with the product or service, in light of the facts and circumstances" (Dodd-Frank Act 2010, 12 U.S.C. § 5532). Note that new technologies make it possible to inform consumers of their own choices and usages, an approach that may be especially important when firms have better information than consumers do about such choices and usages.

The Bureau is authorized to issue model forms with “a clear and conspicuous disclosure that, at a minimum—(A) uses plain language comprehensible to consumers; (B) contains a clear format and design, such as an easily readable type font; and (C) succinctly explains the information that must be communicated to the consumer” (Dodd-Frank Act 2010, 12 U.S.C. § 5532). In addition, the director of the Bureau is required to “establish a unit whose functions shall include researching, analyzing, and reporting on . . . consumer awareness, understanding, and use of disclosures and communications regarding consumer financial products or services” and “consumer behavior with respect to consumer financial products or services, including performance on mortgage loans” (Dodd-Frank Act 2010, 12 U.S.C. § 5493).

In the same general vein, the Department of Labor issued a final rule requiring disclosure to workers of relevant information in pension plans. The rule is designed to require clear, simple disclosure of information about fees and expenses and to allow meaningful comparisons, in part through the use of standard methodologies in the calculation and disclosure of expense and return information (29 C.F.R. § 2550.404a-5).

A final rule of the Department of Education promotes transparency and consumer choice with respect to for-profit education by requiring institutions to provide clear disclosure of costs, debt levels, graduation rates, and placement rates (US Dep. Educ. 2010a). The rule states that relevant institutions must disclose, among other things, the occupations that the program prepares students to enter, the on-time graduation rate for students completing the program, the tuition and fees charged to students for completing the program within a normal time, the placement rate for students completing the program, and the median loan debt incurred by students who completed the program. These disclosures must be included in “promotional materials [the institution] makes available to prospective students” and be “[p]rominently provide[d] . . . in a simple and meaningful manner on the home page of its program Web site” (34 C.F.R. § 668.6; US Dep. Educ. 2010b).

As noted, a great deal of work remains to be done on disclosure policies and in particular on when they are likely to be effective (Bubb 2015). But it is clear that disclosures that are attuned to how people process information are far more likely to succeed than those that are not (Bubb 2015, Loewenstein et al. 2014b).

ATTENTION AND COGNITIVE ACCESSIBILITY

Psychological research suggests that it is often possible to promote policy goals by triggering people’s attention and making certain features of a product or a situation more accessible to consumers. As a simple example of the importance of cognitive accessibility, consider alcohol taxes. There is evidence that when alcohol taxes are specifically identified in the posted price, increases in such taxes have a larger negative effect on alcohol consumption than when they are applied at the register (Chetty et al. 2009, Finkelstein 2009). Of course incentives matter, but in order for them to matter, people must pay attention to them (Dolan 2014). Sensible policies, especially those that involve disclosure, are highly attentive to the importance of cognitive accessibility.

With respect to smoking prevention, for example, triggering attention to adverse health effects is a central purpose of disclosure requirements. In the context of smoking, graphic warnings are designed for immediate cognitive accessibility. Similarly, the US Occupational Safety and Health Administration has issued a regulation requiring chemical manufacturers and importers to prepare labels for hazardous chemicals that include pictograms and signal words that can be easily understood by workers (29 C.F.R. §§ 1910, 1915, 1926). Well-designed labels trigger attention; they make relevant factors salient to those who will see them.

Or consider the area of energy efficiency. The energy paradox refers to the fact that some consumers do not purchase energy-efficient products even when it is clearly in their economic interest to do so. Empirical work suggests that nonprice interventions can alter decisions and significantly reduce electricity use by making the effects of energy use more accessible. Evidence indicates that such interventions can lead to private as well as public savings (Howarth et al. 2000). Consider, for example, the fact that energy costs are generally visible only once a month, when people are presented with the bill. Efforts to increase the cognitive accessibility of such costs, by displaying them in real time, can produce significant savings.

POLITICS, PATERNALISM, AND INSTITUTIONAL DESIGN

Policymakers work, of course, amid political constraints. While behavioral insights teams, using psychology, are increasingly popular (and have been created in the United States, the United Kingdom, and Germany, among others), no nation currently has a self-described council of psychological advisers, and at least one reason is political: Some citizens would be acutely suspicious of, and probably even alarmed by, the very idea. Is such a council helping government to manipulate its citizens by exploiting human psychology to steer them in what it considers to be the right direction? Does government have any business using psychology to manipulate people (Rebonato 2012)? In some nations, including the United States, policies that incorporate psychology and behavioral economics have sometimes been controversial and have triggered adverse political reactions, in part because of the fear of manipulation on the government's part (Sunstein 2013a). In many nations, active discussions are underway about whether use of the relevant research might be threatening to liberty or self-government.

Campaigns and Governance

In political campaigns, of course, the key goal is to convince people to vote for one's candidate, and on that count, the use of psychology is well established, not least as part of get-out-the-vote-strategies (Nickerson & Rogers 2010). We know, for example, that if people are asked to describe their implementation intentions (their specific plans to execute their goals), they are more likely to act as planned, and if the identity of people is triggered (for example, as voters), they are more likely to act in accordance with that identity (Nickerson & Rogers 2010). In campaigns, most observers agree that it is legitimate to try to persuade people, and to date, the use of psychological research has not created serious negative reactions. Modern campaigns sometimes do have something like a council of psychological advisers, whether or not its members include people with psychological training, and any candidate would be well advised to be informed by psychological research.

In actual governing, however, the use of psychology can be more controversial, and the public reaction has sometimes been more skeptical. In the United States, the United Kingdom, and Germany, for example, some critics have wondered whether the use of psychology and behavioral science, and the idea of nudging, might count as an objectionable interference with freedom and dignity and might show a kind of disrespect for citizens.

Problems, Not Theories

One lesson for policymakers is that it is generally best if psychologically informed approaches are problem driven and concrete rather than theory driven and abstract. In other words, it is preferable to begin not with high-level theory but rather with identifiable problems—for example, waste, fraud, corruption, health care, obesity, poverty, consumer protection, crime, and pollution—and

to consider which tools might help to reduce them. Social scientists, and academics more generally, often focus on the development and testing of theories and on the generation of interesting and original ideas. In government, that approach is (to say the least) not ideal. In all probability, a council of psychological advisers with that orientation would be promptly disbanded. It is far better to focus on current policies that are hurting people, or not helping them, and to see how such policies might be improved—or better still to identify serious problems that citizens are now facing and to see how those problems might be addressed.

When a context is difficult to navigate, a reform that increases navigability is a good idea (Norman 2013). Increased navigability, and decreased confusion, should not be controversial. If a nation faces a problem of low participation rates in pension plans, automatic enrollment is a potential solution, and it does not much matter whether psychology lies behind the policy. If the problem is one of low take-up, simplification ought not to be especially troubling (Tasoff & Letzler 2014). If the goal is to help poor people to become self-sufficient, a focus on cognitive or bandwidth limits, and on the adverse effects of programs that strain those limits, might move policy in better directions (Mullainathan & Shafir 2013). With respect to healthy diets, a disclosure requirement that informs consumers is far better than one that confuses them; the fact that psychological research helps to explain and clarify consumer reactions is not a problem. (It is important to note that those nations that have some kind of nudge unit, or behavioral insight team, do include people who have psychological or behavioral training and who are able to bring that training to bear.)

It is necessary, of course, for any uses of psychology—for example, to inform default rules or disclosure requirements—to be open and transparent rather than covert and hidden. In democratic societies, citizens are entitled to know what their government is doing and why. In the United States, for example, uses of behavioral science have been open and subject to public scrutiny, usually through the official process for obtaining public comment (Sunstein 2013a).

Paternalism and Psychology

In some nations, approaches might be highly controversial if and because they are paternalistic (Rebonato 2012). (Not incidentally, the diverse reactions to paternalistic approaches, across nations, might themselves be subject to empirical research, including psychological research; some nations, such as Denmark and Singapore, appear far more comfortable with paternalism than others, such as the United States and Germany.) But as we have seen, many psychologically informed policies are intended simply to help to make life more easily navigable, and there is nothing paternalistic about that. Indeed, increased navigability is a large goal of many recent reforms. Consider, for example, the rejection of the confusing Food Pyramid and efforts to make regulations simple to understand. Insofar as the goal is to increase navigability, paternalism need not be involved in any way (Norman 2013).

It is true that some people, including the present author, have defended forms of libertarian paternalism (Thaler & Sunstein 2008), which preserve freedom of choice while also steering people in a certain direction. Examples include disclosure of information, warnings, and default rules, all of which allow people to go their own way (see also sidebar Freedom-Preserving Tools or “Nudges”). A reasonable debate is certainly possible with respect to that form of paternalism (Rebonato 2012, Sunstein 2013a). If the goal is simply to protect human welfare, there may even be a credible argument for coercive paternalism (Conly 2012), and libertarian paternalism, which can produce significant benefits at low cost, often has strong welfarist justifications.

Much could be said on this topic (for detailed discussion, see Conly 2012). Two central points favor libertarian paternalism over libertarianism. The first is that decades of work in psychological and behavioral sciences have shown that on occasion, human beings do err, reducing their own

well-being in the process (Kahneman 2011, Thaler & Sunstein 2008). If, for example, people suffer from “present bias,” or display unrealistic optimism (Sharot 2011) or procrastinate, their lives might be improved or perhaps even saved by helpful information, warnings, reminders, or default rules. Impressed by the psychological findings, some people have argued for coercive paternalism on the ground that it can improve people’s welfare and even their autonomy (Bubb & Pildes 2014, Conly 2012). But it is not necessary to go so far as to urge that freedom-preserving approaches can be helpful.

The second and more fundamental point is that some form of choice architecture is unavoidable (Thaler & Sunstein 2008; cf. Norman 2013), and hence both private and public sectors are likely be nudging people even if they claim not to be doing so. Those in the private sector are frequently aware of that fact, and whether or not they consciously invoke psychological research, their choices about order, colors, sizes, noise, and placement will reflect at least implicit psychological judgments. For example, Wansink (2014) has demonstrated that the order in which cafeterias display items affects choices. If the government issues forms, discloses information, or maintains the website, it will be creating choice architecture and thus influencing what people will do. Those who purport to reject libertarian paternalism must grapple with the extent to which social influences, and perhaps certain forms of paternalism, are inevitably in place (Conly 2012, Thaler & Sunstein 2008). If choice architecture is inevitably in place, and if it nudges, it is useful to wish it away.

To be sure, it would be possible for a government to attempt to minimize the number of nudges (Glaeser 2006, Rebonato 2012). Should it? The answer ought to depend on judgments about both welfare and autonomy. At the very least, there is a strong argument that soft forms of paternalism often promote welfare and that autonomy is not jeopardized (Sunstein 2013a). To be sure, manipulation should be avoided, and transparency is exceedingly important. People should not be deceived or fooled. To make sensible evaluations, it is best to investigate particular initiatives and details rather than to proclaim in the abstract (Conly 2012). A testing question is: Of the psychologically informed policies cataloged here, which, exactly, are objectionable as illegitimate paternalism? Another testing question: Who would prefer a policy that pays no attention to the psychology of the people it is supposed to benefit?

Institutional Design

Institutional questions must also be addressed. We could imagine a system in which existing officials and institutions use an understanding of psychological findings. For example, the relevant research could be enlisted by those involved in environmental protection, in health care, or in combatting infectious diseases and obesity. Officials with well-established positions—like my own as Administrator of the White House Office of Information and Regulatory Affairs, from 2009 to 2012—might be expected to use that research, at least on occasion. If such officials have genuine authority, they might be able to produce significant reforms simply because they are not akin to a mere research arm or a think tank but on the contrary have line authority. This was the essential pattern during the first term of the Obama Administration.

A different approach would be to create a new institution—a behavioral insights team, a nudge unit, or something akin to a council of psychological advisers. The advantage of such an approach is that it would have a dedicated team that would be specifically devoted to the relevant work. If the team could conduct its own research, including randomized controlled trials, it might be able to produce important findings (as has in fact been done in the United Kingdom, and similar efforts are underway elsewhere). The risk of creating such a team is that it could be akin to an academic adjunct, with no ability to initiate real reform. Authority greatly matters. In this domain, one size

does not fit all, and different nations can reasonably make different choices. But it is noteworthy that many nations (as noted, the United States, the United Kingdom, and Germany are prominent among them) have concluded that it is worthwhile to have a dedicated team. Of course the two approaches might be complementary.

WELL BEYOND INCENTIVES

Many officials are aware that if the goal is to alter behavior, it is best to alter material incentives. When the price of a certain activity increases, there will usually be less of that activity. But psychologists have shown that for material incentives to work, the incentives have to attract people's attention, and to make policies sensibly, policymakers have to combine an understanding of incentives with an appreciation of human complexity, the power of nudges, and the nature and inevitability of choice architecture. Sometimes people's responses are quite different from what was anticipated (Loewenstein et al. 2014b)—often in degree, and sometimes even in direction.

An understanding of human behavior helps to uncover a series of new tools. It also shows the great importance of increased simplification and (perhaps above all) navigability (cf. Norman 2013). There is no substitute for empirical testing, and we should expect a significant increase in randomized controlled trials in the coming decades. We may not see nations creating councils of psychological advisers, but all over the world, governments will enlist psychological findings, and behavioral science more generally, in the interest of achieving policy goals.

SUMMARY POINTS

1. Psychological research is having a large and growing impact on public policy in the United States, the United Kingdom, Denmark, Germany, Canada, Mexico, and many other nations.
2. Default rules can have important effects on social outcomes while preserving freedom of choice.
3. Simplification often pays large dividends, in part because it reduces burdens on people's limited bandwidth, potentially increasing uptake of important programs and reducing serious burdens on ordinary people (especially, but not only, the poor).
4. People are far more likely to engage in a certain behavior if they believe that other people are engaging in that behavior.
5. Disclosure can be a valuable, low-cost, regulatory strategy, but it must be attuned to how people process information, and we need to learn far more about its actual effects.
6. Cognitive accessibility (sometimes described as salience) greatly matters to social outcomes, in part because people have limited attention; relevant areas include health, crime prevention, and highway safety.
7. Important questions have been raised about the relationship between the uses of psychology and paternalism; one answer is that such uses should generally preserve people's freedom of choice.

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Provides an overview of what is known, and what is not known, about the effects of disclosure requirements.

Provides an empirical treatment of how green default rules have very large effects on social outcomes.

Provides an ethical critique of uses of psychology to steer people in preferred directions, with a strong emphasis on liberty and active choosing.

Explores how people suffer from or benefit from unrealistic optimism.

Provides a detailed treatment of how psychology works inside government, with discussion of psychology and behavioral science in general.

Discusses approaches that preserve freedom of choice but that nonetheless channel people's decisions in directions that will improve their welfare.

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12 C.F.R. § 205.17
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29 C.F.R. § 1910 (2013)
- Occupational Safety & Health Administration Occupational Safety and Health Standards for Shipyard Employment
29 C.F.R. § 1915 (2013)
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29 C.F.R. § 1926 (2013)
- US Department of Agriculture Nutrition Label Content
9 C.F.R. § 317.309 (2013)
- US Department of Agriculture Reporting and Disclosure Requirements for Programs that Prepare Students for Gainful Employment in a Recognized Occupation
34 C.F.R. § 668.6 (2013)
- US Department of Labor Fiduciary Requirements for Disclosure in Participant-Directed Individual Account Plans
29 C.F.R. § 2550.404a-5 (2013)