

Behavioral Economics and Public Policy 102: Beyond Nudging[†]

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The United States, despite its affluence, faces a number of daunting policy challenges. We rank last among 16 wealthy peers in life expectancy, infant mortality, and obesity, and have taken very little action on climate change, despite the extremity of the threat it poses not only to future generations but even those alive today.¹ Complicating matters is that the causes of these policy problems are multi-determined and can be engaged at different levels of policy analysis. For example, while obesity is proximally due to the (persistent) intake of excessive calories, it can also be attributed to more intermediate causes such as innovations in food production and delivery which have lowered the cost of consuming (largely unhealthy) foods, to policy decisions such as the subsidization of corn (and hence corn syrup), or even to more deeply structural factors, such as the sociocultural forces that have promoted the availability of “super-sized” portions and physical inactivity. To combat obesity, a policymaker must decide whether to intervene proximally (e.g., mandating caloric displays), or more distally (e.g., reducing access to low-nutrient foods).

Economics offers a useful framework for thinking about policy. However, the traditional approach in economics, by assuming fully rational and perfectly informed individuals, assumes away many potentially problematic behaviors. Recognizing human limitations and their consequences, many policymakers have embraced

Behavioral Economics (BE) as an alternative framework. While traditional economics offers regulatory and price-based solutions to deal with market failures, such as those stemming from the presence of externalities (e.g., pollution or education), BE prescribes strategies, and rationales, for the use of policy to address the “internalities” (or “within-person externalities”) that stem from the failure of individuals to successfully pursue their own interests.²

In this essay, aimed broadly at students of policy and their instructors, we comment critically on the past, present, and future role of BE in public policy. We first describe the notable successes of early applications of BE which have typically involved proximal interventions designed to improve behavior. We then argue that BE can and should now aspire to influence the design of policies aimed at the deeper causes of policy problems. Through a set of guiding principles, and case-studies, we seek to provoke students of public policy to think about how to leverage the teachings of BE more fully to deliver policy solutions whose scope is commensurable with the magnitude of contemporary challenges.

I. The Birth and Early Successes of Nudge

The intellectual basis for applying BE to policy was formally articulated in two papers published in 2003. Titled “Libertarian Paternalism” (Thaler and Sunstein 2003) and “Regulation for Conservatives: Behavioral Economics and the Case for ‘Asymmetric Paternalism’” (Camerer et al. 2003), both papers advocated an approach to policymaking intended to benefit individuals not acting in their own self-interest, but which imposed minimal burdens on those already acting rationally. This approach, as the titles

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¹Relative rankings on health outcomes are taken from a 2013 report published by the Institute of Medicine and The National Research Council.

²Coined by Herrnstein et al. (1993), an “internality” is produced when an individual fails to consider the full impact of a behavior on her present/future utility.

of the papers suggest, was meant to appeal to both conservatives and progressives by promising to improve welfare while preserving freedom of choice. The specific type of policy espoused by this framework was popularized as a “nudge” by a later best-selling book of that title. Nudges, such as the strategic placement of fruits in the school lunch line, were defined as “any aspect of the choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives” (Thaler and Sunstein 2008, p. 6). These interventions, according to Nobel Laureate Daniel Kahneman, yield “medium-sized gains by nano-sized investments.”³

The intellectual foundation laid by these writings sparked a remarkable rise in the influence of BE on public policy, the most celebrated and widely adopted of which was the use of automatic defaults to sharply increase employee savings for retirement. In addition, a series of “informational nudges” applied simplification, social comparison, informational salience, and the reduction of “hassle” costs to improve medical adherence, parental school choice, efficiency of home energy use, and take-up of social benefits (see Madrian 2014). Regulators further applied BE to simplify disclosures associated with, for example, credit cards, insurance choice, and fuel economy, and even replaced the infamous food pyramid with a simpler “food plate.” Beyond the specific policies it inspired, the influence of BE is manifest in the establishment, growth, and global influence of the United Kingdom’s Behavioural Insights Team (BIT), which was charged with channeling evidence-based insights from BE to improve the design and implementation of policies. The successes of the unit led other nations, including the United States, to install similar institutions.⁴

While applauding these successes, and their role in cultivating interest in evidence-based and BE-inspired policy, we believe that BE should

not limit itself to proposing nano-size interventions that may not significantly address the more basic causes, or the magnitude, of contemporary policy problems. Returning to the earlier example of obesity, while interventions intended to nudge individuals into healthier eating may modestly improve diet (e.g., the caloric displays mandated by the Affordable Care Act (ACA)), such policies are not likely to address the structural supply-side dynamics or socio-cultural factors that have contributed to the recent rise in obesity. While nudges should remain an important part of the policy toolkit, insights from BE have the potential to expand this toolkit and more aggressively address the underlying causes of problems. Because these fundamental causes generally involve market failures due to externalities, imperfect information and competition, and widely recognized limits to consumer decision making, the policies emerging from such insights need not be more controversial than the policies espoused a decade ago by the initial set of papers.

II. Expanding the (BE) Policy Toolkit

We outline three principles to help guide policymakers in expanding the role of BE in public policy. The complexities of contemporary financial and health decisions, and the inability of individuals to navigate them, motivates a first principle: policymakers ought to move beyond the simplification of choice environments toward the simplification of the products and incentives that underlie such choices.

In recent years there has been an explosion in the complexity of decisions confronting consumers. One study which examined the complexity of 55,000 retail financial products (e.g., for savings and investment) offered to European consumers from 2002 to 2010 found that such products became increasingly complicated, and that this complexity was correlated with higher firm profitability, lower product yield, and was often concentrated in markets populated with less sophisticated consumers (Celerier and Vallee 2014). Consumers also face an expanded set of insurance options and credit instruments, including payday loans and complex mortgages—a large fraction of which include teaser rates. Doing little to allay the problem, and, in fact, likely exacerbating it, has been a parallel surge of lengthy, and for a majority of

³“Daniel Kahneman’s Gripe with Behavioral Economics.” *The Daily Beast*. <http://www.thedailybeast.com/articles/2013/04/26/daniel-kahneman-s-gripe-with-behavioral-economics.html>.

⁴As a point of disclosure, Loewenstein has had numerous interactions with the BIT, and is on its advisory board, and Bhargava has had a number of interactions with the Social and Behavioral Sciences Team in the United States.

consumers, incomprehensible, informational disclosures from firms.

In the midst of this growth in complexity, surveys of financial literacy indicate that most Americans do not understand financial concepts such as interest, inflation, expense ratios or diversification, and are unaware of the terms that govern their borrowing or the incentives facing those who provide them with products and services. Not surprisingly, these deficits predict a range of suboptimal financial behaviors with respect to investments, savings, credit card debt, choice of insurance, and mortgage delinquency (Hastings, Madrian, and Skimmyhorn 2013). Of particular policy concern is that the burdens of complexity may be greatest for the economically disadvantaged (Mullainathan and Shafir 2013). Simpler and more standardized products and incentives hold the promise of easing such burdens and reducing inequities.

A second principle is that policymakers should aggressively protect consumers from *behavioral exploitation* by firms. The traditional economic rationale for intervening in competitive markets to protect consumers is the existence of informational asymmetries. However, recent theoretical work (e.g., Heidhues and K szegi 2014) suggests that the presence of unsophisticated consumers may lead to a steady-state in which firms exploit consumer biases and inattention through, for example, the strategic use of product complexity or marketing.

We contend that the possible exploitation of consumer biases should broaden the conventional rationale for consumer protection. While economists generally favor disclosures as an efficient means of instituting such protections, given the practical limits of even well designed disclosures (c.f., Loewenstein, Sunstein, and Golman 2014), more aggressive measures may be required—for example, taxation, or the explicit regulation of choice. Policies of this type should not be particularly controversial when, in their absence, firms would be motivated to exploit consumers' weaknesses.

A third principle is that BE should be leveraged to improve the design and implementation of policies based on traditional economics. Given that an individual's behavior is determined not by actual, but perceived, incentives, BE points to a range of tactics that could enhance the efficacy of conventional economic incentives (Congdon, Kling, and Mullainathan 2011). For

example, the importance of fairness perceptions, emotion, and limited attention, implies that the behavioral response to a new tax may depend not only on the underlying demand elasticity, but on the salience, complexity, nominal incidence, and framing of the tax. Likewise, if wage expectations are subject to loss aversion, tiered unemployment benefits may be more effective than standard unemployment insurance in shortening unemployment spells (DellaVigna et al. 2014).

Beyond improving the design of policies, insights from BE could be used to help mobilize citizens, through education and persuasion, rather than simple nudging, in support of policies aimed at ambitious issues such as economic inequality or climate change.

III. Three Case Examples

Examples of policies that are poorly designed for real humans, or that fail to address the deep causes of unwanted outcomes, abound. We discuss three, intentionally disparate, examples of policy domains in which nudges alone provide inadequate remedies but BE, broadly conceived, could help to deliver more meaningful solutions.

A. Health Insurance

While BE is already an active and constructive participant in the domain of health, the insurance side of the market is a setting in which poor decision-making may require a bolder approach. In recent years, there has been a trend toward expanding the number of health plan choices available to consumers, often through public or employee-sponsored exchanges. The rationale for greater choice is to better enable consumers to choose appropriate plans and to improve prices and quality via provider competition. Neither goal is likely to be fulfilled if consumers make uninformed plan choices.

In our own recent research, we analyzed the insurance choices of over 50,000 employees of a large US firm which offered its employees an expansive, standardized, health plan menu in which nearly all low-deductible plan options were *financially dominated* by otherwise equivalent high-deductible plans (Bhargava, Loewenstein, and Sydnor 2015). A majority of employees, and especially low-income employees, selected dominated plans, which resulted in

unnecessary spending equivalent, on average, to 42 percent of annual premiums. Experiments reported in the paper suggest that these adverse choices were associated with a lack of basic health plan literacy, that targeted education had only moderate success in improving choice quality. In recognition of the difficulty of choosing between plans, the insurance exchanges of the ACA adopted a standardized online interface and organized plans into metal tiers that were linked to actuarial value. However, in another, ongoing project, we find that the metal labels, rather than facilitating more efficient choices, slightly worsened them.

A superior solution to attempts to simplify the choice interface, but not fitting the definition of a nudge, would be to mandate the provision of dramatically simplified and standardized insurance policies or to even restrict plan menus to include only reasonable options. A recent paper (Loewenstein et al. 2013) demonstrated not only that a simplified product of this sort could be understood by consumers, but indicated its feasibility; the simplified product was actually marketed by the insurance company that funded the research. The company's copay-only plan listed different prices for different services but eliminated the deductibles and coinsurance that are a major source of confusion. Requiring the provision of such a simplified product, and dictating its characteristics, would improve plan choice and increase the likelihood that firms compete on price and product quality.

B. *Privacy and Information Disclosure*

The Internet age, despite its many dividends, poses a grave challenge to individual privacy and, with that, critical questions for policymakers. Activities in which many of us routinely engage—e.g., e-mailing, texting, social media, Internet searches, cell phone and E-ZPass use—leave digital traces which make us vulnerable to commercial exploitation, discrimination, and unwanted monitoring. While the disclosure requirements favored by traditional economics should, in theory, enable individuals to safely navigate the increasingly complex privacy landscape, limited attention, motivated reasoning, and biased assessments of probability lead most to simply ignore such disclosures or, more worryingly, to infer that the presence of privacy disclosures implies non-existent

protections (Acquisti, Brandimarte, and Loewenstein 2015).

To the extent that privacy disclosures are mandated, the “informational nudge” approach would express them in a simple, vivid, and standardized fashion to heighten attention and understanding. However, given that even simplified information may be ignored or misinterpreted, simplified disclosures are unlikely to be sufficient. Rather, the optimal strategy to protect consumers in these settings with asymmetric interests may entail regulations that explicitly restrict firm use of information to purposes judged to be in the consumer's interest and consistent with reasonable expectations—a strategy recently adopted by the European Union.

C. *Climate Change*

BE has in recent years played a positive role in addressing climate change—for example, by providing input in the design of new fuel efficiency labels or the use of social comparisons to reduce home energy use. This role can and should be enlarged. Despite the severity of the threat posed by climate change, international and domestic efforts toward concerted action on climate change policy have largely failed.

Standard economic theory offers clues as to the causes of this paralysis. The notion of a free-rider problem helps to explain the failure of individuals and states to unilaterally change their behavior. Economic theory also provides regulatory and market-based solutions for dealing with externalities, such as a carbon tax, or a system of cap-and-trade.

Although the path forward is clear, the paucity of actual progress may be due, in large part, to psychological factors, such as motivated disbelief, the ostrich effect, confirmation bias, present-bias, adaptation, and intangibility. In a brilliant book titled *Don't Even Think About It: Why our Brains are Wired to Ignore Climate Change*, George Marshall (2014) draws heavily on BE to explain why individuals and nations are failing to act on, and in some instances even denying the existence of, climate change. Marshall then draws on the same research to identify strategies to capture the attention of the population and mobilize individuals and nations to take action.

Research on collective action shows how concentrated interests, such as energy firms, may

yield a strong political advantage over atomistic individuals. However, concentrated interests, such as tobacco companies, have in prior instances, with sufficient public backing, been surmounted. In conjunction with nudges aimed at facilitating environment-related behaviors, insights from BE could help to build sustained and informed public support for, and enhance the efficacy and palatability of, the traditional economic policies that offer the best hope for long-term solutions.

IV. Conclusion

In this essay we have discussed how BE has, and can continue to, influence public policy. While not dismissing prior successes, which have served as critical precursors, we argue that the structural causes underlying many policy problems, such as the increased decision complexity faced by individuals, demand more aggressive applications of BE. Stronger policy interventions should not be taken lightly, given concerns about overreach and unexpected outcomes, but students of behavioral public policy should be made aware of the full complement of policy tools—including taxes, subsidies, regulations, nudges, and educational campaigns—at their disposal. The principles in this essay can be applied far beyond our few examples to a range of policy domains in public finance (Congdon, Kling, and Mullainathan 2011), health (Volpp et al. 2011), and education (Lavecchia, Liu, and Oreopoulos 2014).

There are, in fact, examples of successful mergers between traditional and appropriately ambitious BE approaches. One, which we have already alluded to, is the set of policies which, in recent decades, helped to sharply curb smoking. Traditional levers such as taxes and bans, supplemented with more psychologically motivated measures—vivid warning labels, massive public health campaigns, and the more recent development of medical patches and devices designed to provide less harmful substitutes for tobacco—produced one of the most successful policy initiatives in US history. And, while nudges have commendably encouraged many employees to save, many others, particularly among the impoverished, confront retirement with little to no savings. For many of these citizens, Social Security, a heavy-handed policy conceived decades ago, remains the main and

most reliable source of financial security in later life.

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