changing the default—can help increase enrollments in savings plans. Now, a decade later, automatic enrollment and automatic escalation (a generic form of Save More Tomorrow) are affecting the lives and savings decisions of millions of people around the world.

A social psychologist will recognize both these strategies as brilliant reinventions of the classic Lewinian proposal for inducing behavioral change, which favors reducing the "restraining forces" over the "driving forces." To follow the Lewinian approach one begins by asking "why don't people already do what I wish they would do?" This question evokes a list of restraining forces, which the agent of change then works to reduce or eliminate. The idea is transparently correct when you are exposed to it, but it is also deeply counterintuitive. The standard tools that most of us use to change others' behavior are arguments, promises, and threats. It is much less obvious to look for ways of making it easier for the other person to do the right thing. Thaler and Benartzi developed a procedure that made it easy for the worker to commit to a higher saving rate in the future, which would start automatically at an auspicious time in the worker's career. Ending the commitment, in contrast, would require a deliberate decision and a modest effort.

In subsequent articles and in their international best seller, Nudge, Thaler and Cass Sunstein described an approach they called "Behavioral paternalism." The central idea is that it is legitimate for institutions of society to consider the best interests of individuals in structuring the choices that these individuals make—for example, about retirement saving. The goal is to make it easy and natural for casual decision makers to make sensible choices, while ensuring their complete freedom to choose as they will. This was read by all as a manifesto of the approach of behavioral economics in the UK. It is founded on the ideas that the rational agent model is unrealistic, that many decisions are made with little thought, and that it is appropriate to create a "choice architecture" that reduces the incidence of foolish decisions without reducing freedom.

We have known for a long time that the role of economics in formulating policy has significant consequences. During the heyday of the rational agent model, policies were formulated on the assumption that rational agents implied that they can be deterred by the expected disutility of being caught and punished. The probability of being caught and the severity of punishment have equivalent weights in this model, but not in reality: empirical research suggests that increasing the probability of punishment is far more effective in deterring crime than a corresponding increase of severity. In other situations, the rational agent model implies that agents need no protection against their own bad choices: choices freely made by rational agents deserve complete respect. To the surprise of most neoconservatives, complete respect is often extended to awful choices, such as those that lead to addiction to noxious substances, or to lives of destitution after retirement. Because psychologists are not trained to assume that humans are rational, they are likely to find this position unattractive and to recognize the risk that paternalism poses to the ideal of liberty. Nudge showed a way out of this dilemma: simple procedures that tend to bias people toward sensible and social beneficial choices without in any way abridging their freedom.

Nudge relied on psychology to highlight another objective that would be pointless if humans were fully rational in the role of consumers. Everyone recognizes that consumers need protection against predatory behavior, and there are many laws that are designed to provide such protection. However, the authors of Nudge documented many ways in which firms may take advantage of the psychological limitations of lazy and boundedly rational consumers, along with work by several other researchers, showed how simple regulations can constrain predatory (though not illegal) behaviors, such as formulating truthful contracts in'monopoly language and printing them in painstaking small print.

The publication of Nudge was immediately recognized as an important event. Sunstein became Director of the Office of Information and Regulatory Affairs (aka the "regulation czar") under President Obama, and Thaler became an advisor to a Behavioral Insight Team (colloquially known as the "Nudge Unit") established by the coalition government led by David Cameron in the UK. Organized nudge units are popping up everywhere around the world with the goal of establishing policies to help people make decisions that serve their best interest, and to protect them from exploitation in the market. The success of this enterprise can be measured as achievements of applied behavioral science in general, and of applied social and cognitive psychology in particular.

Unfortunately, because the two authors of Nudge were an economist and a jurist, respectively the implementation of behavioral economics and of behavioral law and economics, not only the ideas they produced themselves but also many of the contributions of cognitive and social psychology on which they had relied were labeled "behavioral economics" in the press. And so it came to pass that many applications of social and cognitive psychology came to be called behavioral economics, and many psychologists discovered that the name of their trade had changed even if its content had not. Quite a few of the authors of chapters in this book would be incorrectly described in the press as behavioral economists, because what they do develop is some of the fundamental theories and document some of the central findings on which Nudge, and related writings, have relied. This is not the outcome that most researchers, including the authors of Nudge, encouraged or viewed as desirable. Richard Thaler has always insisted on a narrow definition of behavioral economics as a distinctive approach of economics, and he would prefer to see "nudges" described as applications of behavioral science.

Labels matter, and the mislabeling of applied behavioral science as behavioral economics has consequences. Some are positive: behavioral economics has retained the cachet of economics, so psychologists who are considered behavioral economists gain some credibility in the policy and business worlds. But the cost is that the important contributions of psychology to public policy are not being recognized as such, and there is the very real worry that young psychologists will be put off from doing policy-related work because they do not consider themselves economists, even if they are. Behavioral economics is a fringe and regrettable that the discipline of psychology gets no credit for the most consequential applications of psychological wisdom, and that students of psychology, who ought to take greater pride in their profession, are left to wonder about the contributions of their discipline to society.

In fact, there is a lot to be done. Nudges are an effective way to use psychological insight in the design of policies that might generate greater welfare. But some policy issues will need a greater rethinking, a questioning of the fundamental assumptions, rather than nuanced design. When it comes to the memories of eyewitnesses, or to employees' ability to avoid discrimination, or to the budgeting challenges of the poor, behavioral research presents the serious possibility that we may want to rethink some fundamental concepts and question the basic assumptions of current policy. In other words, do more than merely nudge.

I hope this book helps steer us in the right direction in giving behavioral scientists a greater role in policy making around the world. The chapters of this book, written predominantly by psychologists, illustrate how much psychology has to offer to policy making, and an important conclusion that readers should draw from it is that modern psychology has agreed on some important aspects of both human nature and the human condition. Recent years have seen a convergence of views on the roles of cognitive and emotional factors as determinants of behavior—and therefore as targets for policy interventions that are proposed to modify people's circumstances or their actions. There is also a growing recognition of the role of social and cultural drivers of behavior, though many social scientists will still complain that psychology is insufficiently attuned to issues of culture and identity. The recognition of the huge power of situation, context, priming, and construal is common ground. We are all Lewinians now, and in the context of policy behavioral economists are Lewinian as well. The relationship between psychology and economics in the domain of policy was a central issue when psychology became one of the core disciplines in the Woodrow Wilson School at Princeton. It was a very different way it is still a dilemma, not because the disciplines are so alien, but rather because they are so close. The overlap of interests and methods is much greater than it was fifteen years ago. Indeed there are several domains in which members of the different tribes deal with similar problems in similar ways. The study of happiness is one of these domains, the study of inequality and poverty may be another. And there will be more. We need a common label for our shared activities. "Behavioral economics" is not a good label, simply because psychologists are not economists and are not trained to think about markets. "Social psychology" would cause similar difficulties to the economists, lawyers, and physicians who engage in Lewinian practice. A descriptively correct label is "applied behavioral science." I would be proud to be called an applied behavioral scientist, and I believe most of the authors of this book would also be happy to be counted as members of this club. This book is a fine illustration of the potential contribution of applied behavioral science to policy.

Notes

1. "We" refers to myself, Eldar Shafir, and Rob McCourt, who came to help us from the Goldman School of Public Policy at Berkeley.

2. Not only in the popular press. I am on record as describing Nudge as "the major accomplishment of behavioral economics." I was quite slow to recognize the importance I address in this foreword.
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Introduction
ELDAR SHAIFIR

If you look in the dictionary under policy, public policy, or social policy, you find definitions that amount to the following: a system of regulatory measures, laws, principles, funding priorities, guidelines and interventions promulgated by a person, group, or government for the changing, maintenance or creation of living conditions that are conducive to human welfare. Mostly what these measures, laws, principles, and interventions are intended to do is to shape society in desirable ways: to promote behaviors that yield outcomes conducive to human welfare. Successful policy, therefore, must depend on a thorough understanding of human behavior. What motivates and incentivizes people when they snap into action as opposed to procrastinate, obey or disobey the law, understand or misunderstand, act or fail to act on their intentions, care or do not care, attend or get distracted? How do they perceive their decisions and the options at their disposal? How do they think about what others are doing? These are all questions that must be addressed for the design and implementation of policies to prove successful.

In light of the centrality of behavioral assumptions to policy, it is remarkable how small a role the attempt to understand human behavior has played in policy circles, as well as in the social sciences more generally. It is particularly remarkable because, as we have now come to understand, much of our intuition about human behavior fails to predict what people will do. And policies based on bad intuitive psychology are less likely to succeed and can often prove harmful. As the economist John Maurice Clark pointed out nearly a century ago, if the policy maker does not seriously study psychology, "he will not thereby avoid psychology. Rather, he will force himself to make his own, and it will be bad psychology" (Journal of Political Economy, 1918).

Bad psychology comes in many forms. A naive understanding of incentives, for example, might suggest that paying people some small amount (rather than nothing) to perform a societally desirable act could only increase instances of that act; instead, it turns out that the loss of the "psychic" benefit of having been a good citizen (which is largely neutralized by the monetary remuneration) can, in fact, reduce take-up. Alternatively, presenting lineups (where suspects are observed concurrently) versus show-ups (where they are seen one at a time) may appear normatively indistinguishable, but we now know that the former leads to more false identifications than the latter. Similarly, having workers opt out of, rather than opt into, retirement savings accounts, looks like an inmaterial nuance, except that the former, for predictable reasons and for what amounts to very little cost, generates many more happy retirees than the latter.

A careful consideration of the role of psychology in public policy took many years to develop even after Clark's warning about the dangers of bad psychological assumptions. An important turning point was the behavioral critique of the economic assumptions underlying individual decision making begun by cognitive and social psychology in the 1970s. This was eventually reinforced by the economic profession's gradual, even if reluctant, acceptance of the behavioral critique and led to increased research applying behavioral insights to studies of choice and judgment in everyday life. Now, almost a half century after the emergence of the modern critique, the behavioral perspective occupies a respectable and increasingly popular niche in many graduate programs in economics, business, law, policy, and the social sciences more generally. And thus we have arrived at a point where it is only natural to explore how best to incorporate elements of the behavioral perspective into policy thinking.

The behavioral findings provide an alternative view of the human agent. Many aspects of decision making that the normative analysis assumes do not matter (such as how the options are described, as long as the same information is given) prove highly consequential behaviorally, and other factors that are normatively assumed to be of great importance (such as whether an intervention will help save 1,000 birds or 10,000 birds) are, instead, intuitively largely ignored. At the most general level, a couple of deep lessons have emerged that are of great potential relevance to policy makers: the relevance of context and the unavoidability of construal.
Human behavior tends to be heavily context dependent. One of the major lessons of modern psychological research is the impressive power that the situation exerts, along with a persistent tendency on our part to underestimate this power relative to the presumed influence of personal intentions and traits. In his classic obedience studies, for example, Milgram (1974) demonstrated the ability of decidedly mild situational factors to trigger behaviors on the part of regular citizens, such as the administration of punishment to innocent others, that were unfathomable to naive introspection. Along similar lines, Darley and Batson (1973) showed how seminar students on their way to deliver a sermon on the parable of the Good Samaritan were willing to walk right past an ostensibly insignificant man, dumped coughing and groaning, simply because they were running late. Minor contextual features were shown in these cases to override people's professed intentions and their deep-seated convictions. To the extent that such minor contextual features are able to transcend education, personality, and intent, policy makers appear to have powers of influence that they underestimate, may unintentionally misuse, and could, given some behavioral insight, exploit.

The second lesson, which is fundamental to the cognitive sciences in general, concerns the role of "construct" in mental life. People do not respond to objective experience, rather, they mentally construct, interpret, and understand (or misunderstand) their world. While this claim risks sounding deep, it is actually trivial, but with profound consequences: behavior is directed not toward actual states of the world but toward mental representations of those states, and those representations do not bear a one-to-one correspondence with the states they represent. In fact, the representations we construct may not even constitute faithful renditions of actual circumstances. Our visual experience, I can think of an example, is the product of complex processes that take raw visual input (say, a trapezoid when I look at a window from the side) and use contextual cues to represent what is "really there" (a perfectly rectangular window). Hence, those cues are misleading, we end up with a false representation, as in the case of well-known optical illusions. How we interpret attitudes and emotions is similarly a matter of construal. And, as it turns out, so is our representation of moral judgment and preference. We can only decide between things as they are represented in the three-pound machine that we carry about the eyes and between the ears. And those representations are the outcome of mental processes that, to some extent at least, have a life of their own.

For policy makers all this should be of utmost importance. Policies' success depends on human behavior. And behavior is determined not simply by what is available, but by what people know, perceive, understand, attend to, and want. Thus, well-intentioned interventions can fail because of the way they are construed by the targeted group. And the difference between success and failure can sometimes boil down to a relatively benign and normatively immaterial change in presentation and construal, rather than a complex and costly rearrangement of the available alternatives.

About fifteen years ago, we began a joint formal program of training in "psychology for policy" between the psychology department and the Woodrow Wilson School of Public and International Affairs at Princeton University. The endeavor was new at the time, and the results of the initiative were not entirely predictable. What were some of the more important policy questions to which a behavioral analysis could significantly contribute? Where in policy did misguided behavioral assumptions figure most prominently, where they were of lesser importance, and what exactly were they anyway? How was one to go about researching and communicating all this? And would it make a difference? As often happens when ideas gain momentum, an influential and interdisciplinary group of scholars had grown interested in research along similar lines and in issues of both behavioral and policy significance.

The present volume presents some of the more impressive outcomes of this important work, as conceived and summarized by many of the leading scholars in the field. The wide array of topics covered here should appeal to students of human behavior interested in real-world applications. More importantly, the chapters in this volume were prepared with an eye toward a sophisticated audience with no behavioral training. The application of experimental findings and concepts emanating from the behavioral sciences to the design and implementation of policy—call it "behavioral policy"—is an exciting and rapidly expanding new area of research and study. The present collection is intended to expose policy makers, practitioners, and government officials to the behavioral perspective on the design and implementation of policy. The contributors to this collection tend to be highly interdisciplinary in the broad sense that they have a broad perspective. Nonetheless, the sheer amount of material presented in this volume warrants some minimal organization in the hopes of facilitating the reader's task. Chapters are divided by general topics but are otherwise independent and can be read in any order; occasional cross-references occur when the materials of separate chapters are especially complementary. The aim of each chapter is to provide the reader with an overview of how research in the behavioral sciences might influence our understanding and the conduct of good policy in a particular domain. Ultimately, we hope the reader will come to see the foundational role that behavioral assumptions must come to play in shaping the successful design and implementation of policy.

The Chapters

The early chapters focus on behavioral issues that arise in the conduct of our social and political lives. They focus on policy-relevant topics ranging from the nature of intuitive social judgment and "automatic" social perceptions to the valuation of social belonging and concerns with identity, justice, and fairness; problems ranging from discrimination in the workplace to the numbing that comes with hearing about mass mortality.

A common thread running through these contributions is that the empirical findings are often in tension both with normative assumptions as well as with conventional wisdom; as a result, the authors explore the consequences for how we think about policy design and implementation. We tend to think, for example, that people's behavior largely mirrors their beliefs and that their choices are typically about tangible, value-maximizing outcomes. Thus, we might assume, those who are not prejudiced will typically not exhibit prejudiced judgment, and if voting is unlikely to have a tangible impact, people will not bother to vote. Similarly, the intuition that people who have not witnessed the victims before are less likely to care about these events, or that a given behavior is less effective in public health campaigns between White physicians and racial minority patients in health care settings. A central message that emerges from these discussions is that bias is expressed in subtle ways, as efficacious and as less effective interactions between physicians and patients, and as lower levels of rapport in employment interviews. In each of these cases, there is rarely an obvious act of blatant discrimination. Instead, the complex and often subtle nature of contemporary intergroup bias, for which traditional policies designed to respond to overt discrimination are ill suited, can have widespread impacts on intergroup interactions, often with different consequences for members of different groups. In their chapter, Susan Fiske and Linda Krieger consider the legal ramifications of examined gender discrimination, particularly as it plays out in employment contexts. They review recent behavioral and neuroscience research that challenges the traditional assumptions underlying much of the debate over discrimination law and policy. Decision makers, according to Fiske and Krieger, cannot always make optimal employment decisions, because, even when they consciously support equal opportunity norms, subtle, unexamined forms of gender bias may prevent them from accurately perceiving decision-relevant information, or from optimally using it to make employment decisions. Managers may explicitly endorse equal opportunity, but unexamined prejudices
might nevertheless derail their choices. Fiske and Krier consider the kinds of initiatives that organizations might undertake in an attempt to reduce the levels of workplace discrimination caused by unexamined, subtle bias. They also advocate for policy initiatives, including a mandatory information disclosure approach to equal opportunity employment policy, which they suggest might help decrease discrimination out of labor markets in ways that circumvent the need to identify individual instances of discriminatory decision making.

Social Interactions

In his chapter on the psychology of cooperation, Tom Tyler argues that, while incentives and sanctions matter, standard normative approaches place too much emphasis on issues of material gains and losses. Tyler analyzes laboratory and field studies that illustrate several types of social motivations—attitudes, values, personal identity, procedural justice, and motive-based trust—that have a strong influence on behaviors in social settings. Tyler focuses on the problem of motivated social behavior and suggests that policy makers have a great deal to gain from expanding their conception of human nature and recognizing the importance of social motivations in shaping people’s behavior in groups and organizations.

Along related lines, Todd Rogers, Craig Fox, and Alan Gerber propose an alternative conceptualization for why people vote. Rather than the standard self-interested view, which cannot explain the decision to vote given the miniscule probability that one’s vote will affect the outcome, the authors propose to think of voting as a “dynamic social expression.” Voting, according to this perspective, is the outcome of a dynamic constellation of events that extend over time; it is in inherently social and collective an expression of one’s identity. Among other things, Rogers, Fox, and Gerber describe recent experimental field research into effective get-out-the-vote campaigns, thereby linking the question of why people vote to an array of behaviors—including social and cognitive psychology and behavioral economics—that has not been systematically linked to voting behavior in the past.

In their chapter on disaggregation, Lee Ross considers several cognitive and motivational processes and the role they play in adding hostility and distrust to policy disagreements, and how they serve as barriers to dispute resolution. Among other constructs, he considers the reactive devaluation of proposals put forth by the other side and the role of naïve realism, the conviction that one sees things objectively and clearly, which tends to add rancor to disagreement insofar as it creates the expectation that other reasonable and honest people ought to share one’s views. (This perspective was well captured by comedian George Carlin’s observation about driving: “Ever notice how anyone going slower than you is an idiot and anyone going faster is a maniac?”) Informed by the foregoing analysis, Ross then considers several behaviorally informed strategies for overcoming barriers to agreement.

Finally, in their chapter on psychic numbing, Paul Slovic, David Zsonts, Andrew Woods, Ryan Goodman, and Deryl Jinks ask why people repeatedly fail to react to genocide and other mass-scale human atrocities. Is it not the case that people are insensitive to the suffering of their fellow human beings, or even that most only care about identifiable victims of similar skin color who live nearby. Rather, they suggest, a fundamental problem lies in people’s incapacity to experience commensurate affect, the positive and negative feelings that combine with reasoned analysis to guide action. Left to its own devices, moral intution appears to respond more to individual stories that are easier to imagine than to statistics of mass atrocities, which fail to spark commensurate affect and motivate appropriate action. Even when we know genocide is real, we do not “feel” that reality. The authors explore some behaviorally informed ways that might make us react to cases in which we are ultimately led to the conclusion that we cannot rely on intuitive reactions and must instead commit ourselves to institutional, legal, and political responses that are less susceptible to psychic numbing and more heavily based upon reasoned analysis of our moral obligations.

The Justice System

The rational agent model has figured prominently in many areas of the law. At the same time, much of what comes under the law depends on the impulses, intuitions, judgments, sense of confidence, emotional reactions, and everyday understandings of regular citizens when they act as witnesses, jurors, colleagues, employers, employees, and so forth. And because the legal system is heavily in the business of constructing rules and procedures, there is much room to think about how the law can better shape a nuanced understanding of human capabilities, proclivities, and limitations.

In their chapter on eyewitness identification and the legal system, Nancy Stebbel and Elisabeth Loftus focus on issues of eyewitness memory, such as the fact that faulty eyewitness memory has been implicated in a majority of (mostly DNA-based) exonerations. They review the main lessons from the science of eyewitness memory and consider their implications for improving the legal system whenever eyewitnesses are playing a crucial role. They provide a primer on the essential memory principles underlying eyewitness performance, including the fact that this expertise is not just a memory phenomenon, but that it also reflects social forces, including, for example, subtle and unintentional verbal and nonverbal communications from others. They emphasize the potential misuse of eyewitness testimony, its distortions, and yet reported with great confidence, which proves of great relevance to a legal system that depends on and believes in eyewitness veracity and in which many people become criminal defendants on the basis of eyewitness identification. Stebbel and Loftus describe the ongoing research effort around the topic of eyewitness testimony, the changes in legal policy spurred by the collaboration between behavioral scientists and those in the legal field, and the challenges that persist in the application of memory research to public policy.

In “False Convictions,” Phoebe Ellsworth and Sam Gross extend the analysis of the rate and persistence of false convictions to a variety of psychological and institutional contexts, and challenge the myth that “false convictions” to a myth the most serious of crimes, the only ones who know of (and even there could be weaknesses in the cases in which they are ultimately led to the conclusion that we cannot rely on intuitive reactions and must instead commit ourselves to institutional, legal, and political responses that are less susceptible to psychic numbing and more heavily based upon reasoned analysis of our moral obligations.

Bias and Competence

Of great relevance to policy are the circumstances in which people exhibit systematic bias or fail to weigh appropriately the factors that matter most to a decision. In other circumstances, people may perform the requisite tasks exceedingly well. This contrast is heightened by the fact that it is often hard for people to anticipate when they might expect bias as opposed to remarkable judgmental acuity. Things that ought not matter from a normative perspective often do, and things that ought to matter often fail to have an impact. These chapters are concerned with the assumption that greater awareness and the proper anticipation of bias and other behavioral limitations may help devise more effective policies.

In their chapter on claims and denials of bias, Emily Pronin and Katilene Schmidt explore far-reaching policy implications of people’s perception that their own judgments are relatively free of bias whereas others’ judgments are susceptible to it. These chapters are concerned with the assumption that greater awareness and the proper anticipation of bias and other behavioral limitations may help devise more effective policies.

In "Questions of Competence: The Duty to Inform and the Limits to Choice," Baruch Fischhoff and Sara Eggers discuss the nature of assumptions about people’s competence that figure, often implicitly, in a wide range of regulatory and policy domains. For example, product disclosure requirements reflect beliefs about people’s ability to recruit and comprehend the relevant information, and policies governing
Behavioral Economics and Finance

Behavioral research in economics and finance has explored the systematic ways in which people's preferences are influenced by the way information is framed, underlining the classical theories of choice. Among other things, people tend to focus on perceived departures from the status quo rather than on final assets, they exhibit various discount rates, and they tend to be loss averse—yet the dread of losses is greater than the sorrow of equivalent gains. Intangibles such as fairness and inequity matter a lot, and decisions are often made "locally," with much reliance on features that look important at the moment, with little consideration of long-term objectives. All this puts a greater burden on policy design, since minor and normatively inconsequential changes can make the difference between policies that succeed and those that fail.

This type of analysis, in the context of retirement saving plans, is illustrated by Shlomo Benartzi, Ehud Peleg, and Richard Thaler, who apply behavioral principles to the study of the choices made by employees saving for retirement. Exploring notions ranging from decision inertia and nominal loss aversion to discounting and the synchronization of saving increases with pay rates, they show how supposedly innocuous changes in the architecture of retirement plans can have dramatic effects on investment decisions and savings rates. More generally, they suggest, such insights into the architecture of decision have the potential to help people make better decisions, a theme that emerges in a chapter with Bala and Sunstein later in the book.

Applying a behavioral economic analysis to employment law, Christine Jolls considers the lessons of behavioral analysis for legal requirements that govern employer-employee relationships, ranging from wage payment and pension regulation to minimum wages, mandated health insurance, workplace leave, and discrimination laws. The effects of employment law, Jolls argues, turn in significant part on people's behavior in employment settings, which can be illuminated by consideration of bounded willpower, bounded self-interest, and bounded rationality. Thus, errors in intuitive judgment have implications for employment decisions. In a number of cases, the same rules may prove more effective in encouraging retirement saving by individuals with bounded willpower. Furthermore, a "fairness dynamic"—one in which employers and employees must choose what they would accept and employees respond by working harder than they otherwise would—has implications for minimum wage regulation. The employment relationship, Jolls concludes, is one of life's most important relationships, and it can greatly benefit from a behavioral economic perspective.

In their chapter on decision making and policy in contexts of poverty, Sendhil Mullainathan and Eldar Shafir present a behaviorally motivated framework for understanding the effects of poverty on the poor. Motivated by empirical insights on judgment and decision making that are supplemented by lessons from social and cognitive psychology, they ask how we might explain behaviors in poverty and how might similar behaviors have different consequences when people are poor. They conclude with recent work in which poverty is viewed as a context that creates unique challenges for the human psyche, above and beyond evolutionary woes. Poverty instills, according to Mullainathan and Shafir, generates specific psychological responses that are endemic to functioning with little slack and with constant vigilance and that can lead to distraction, miscalculation, and depletion. This, they propose, suggests new approaches to policy making that are focused on programs that foster stability and give people the financial and psychic steadiness needed to build more robust economic lives.

Behavior Change

Subtle changes in the context of decision can have a significant, and normatively expected, impact on the course of action taken. And this has important implications for the familiar tension between intention and action. In the face of contextual obstacles (which can range from transportation to shame to forgetfulness), people can fail to act even when they have a strong intention to do otherwise. In these cases, the context is designed to facilitate certain actions, those actions might be taken even when resolve is not terribly high. Contextual cues and interventions, therefore, are crucial in behavioral analysis. In other times and places, people can be helped and limited in scope, can have substantial impact even in contexts where preferences otherwise appear clear and strong. This, of course, only increases the onus on policy makers to construct and implement policies that are behaviorally insightful and thus more likely to have the desired effects. It also suggests that at times the passage from a policy that is not working to one that does may require different, and perhaps more nuanced (and affordable), changes, ones that address how people construe a problem and what that construal leads them to do.

In their chapter on the psychological levers of behavior change, Dale Miller and Deborah Prentice focus on one way to help people make choices to help people change their behavior in ways that align with these people's own long-term interests and stated wishes. Miller and Prentice analyze the capacity of various interventions to move people toward desirable behavior and away from undesirable behavior, with a special emphasis on the psychological constructs and processes that produce behavior change. Among other things, they illustrate ways in which economic and psychological incentives can combine in complex ways to produce enduring effects from financial aid. They outline how efforts to change behavior must begin with a careful analysis of the motivational dynamics bearing on the status quo and the levers that can be used to change them.

In his chapter "Turning Mindless Eating into Healthy Eating," Brian Wansink considers some of the basic processes behind a variety of environmental factors that influence food consumption. Package size, plate shape, height, social influence, and the visibility, variety, size, and accessibility of food are only some of the environmental factors that influence the volume of food consumed and are considered likely to have contributed to an ever-widening obesity problem in many places. Understanding these drivers of consumption volume has immediate implications for nutrition education and consumer welfare, but education and increasing awareness are unlikely to be the solutions, Wansink argues, because the effects occur at perceptual levels of which we are not aware. Instead, he lists some behaviorally informed principles that academics, industry, and government can use when partnering to make sustainable health-related changes in the lives of individuals.

In "A Social Psychological Approach to Educational Intervention," Julia Garcia and Geoffrey Cohen focus on the psychological causes of academic underperformance, particularly the social and cognitive gaps observed in American schools. Among others, they describe psychological interventions that focus on the presence of an "identity threat" and that when systematically applied have been found to close the achievement gap. At the heart of their analysis is the notion of the classroom as a tension system in which various factors, both structural and psychological, interact to produce an environment that elicits a set of attitudes, behaviors, and performance. By heightening the impact of factors facilitating performance or lessening the impact of factors that impede it, interventions can alter students' psychological environments. This analysis leads Garcia and Cohen to conclude that well-timed, well-targeted, and well-designed psychological processes can produce effects on performance that appear disproportionately large. Throughout, they discuss the implications for social policy that follow from their approach.

Improving Decisions

Systematic tendencies, ranging from an inadequate weighing of likelihoods to excessive discounting of the future to an inability to simulate future feelings, can all interfere with the making of optimal decisions. Furthermore, limited mental resources and attention have important implications for people's abilities to judge better, invest in mitigation against natural disasters, or better to develop a long-term collective perspective. What repeatedly emerges as important is not sheer human ability, which can be impressive, but the biases that are likely to be embodied in the system and are likely to be tapped into in ways that are less or more likely to succeed. The contributions that follow consider behaviorally informed ways in which policy makers might help people reach better decisions, individually and collectively.

Going beyond issues of mere comprehension, Peter Ubel uses the case of medical decision aids to improve people's "preference sensitive decisions," where the decision maker, when left to her own devices, might not make the right choice. In particular, what is envisioned is a neutral party to help the patient make a decision consistent with her underlying goals and preferences. Experts on decision aids, Ubel argues,
have typically assumed that if you give decision makers full information and the freedom to choose, they will experience reduced conflict and higher satisfaction and will make decisions that reflect their true preferences. Instead, he suggests, decision rules and displays need to go beyond increased comprehension and conflict reduction, in light of much evidence showing that people who comprehend their options nevertheless can make bad decisions, and that good decisions can still lead people deeply confused. Toward that end, Ubel evaluates the strengths and weaknesses of several criteria by which to determine whether a structured decision aid has helped people make good preference-sensitive decisions.

In their chapter, "Using Decision Errors to Help People Help Themselves," George Loewenstein, Leslie John, and Kevin Volpp argue that having identified a variety of systematic decision errors, behavioral researchers are in a good position to provide policy solutions that make use of those same errors to people's benefit. They show how a wide range of decision phenomena that are typically viewed as errors—including the status quo and default bias, loss aversion, overconfidence, and nonlinear probability weighting, among others—can be exploited to help people accomplish their goals, ranging from saving money and losing weight to drug adherence and charitable giving. They also consider whether such errors could be exploited to deal with broader societal problems such as global warming. There are, according to Loewenstein, John, and Volpp, many economic entities that exploit consumers' mistakes. Instead of leaving consumers to fund for themselves, we ought to harness the same errors that are regularly used to exploit them to instead help make people better off.

In her chapter exploring the insights of behavioral decision research for better environmental decisions, Elke Weber starts by outlining the logic of environmental policy decisions, which typically involve social and economic dimensions, considerations of fairness or equity and considerable uncertainty involving intertemporal tradeoffs and which require foresight, patience, and persuasion. Because environmental goods like clean air, drinkable water, and species diversity are common-pool resources, rational analysis essentially prescribes shortsighted behaviors even if more long-sighted and cooperative solutions are socially desirable. Informed by social cognition and behavioral decision research, Weber argues that insights into unconscious and social inferential and decision processes, as well as into people's limitations in attention, memory, and information processing, can help guide the design of more promising environmental policies. Behaviorally informed considerations, she argues, suggest that people might be induced to act in more collective ways that increase their own long-term benefits, as long as we are able to shape their decision environment in ways that facilitate environmentally sustainable behavior.

In their chapter on overcoming decision biases to reduce losses from natural catastrophes, Howard Kunreuther, Robert Meyer, and Ewann Michel-Kerjan describe the recent trend of escalating losses from natural hazards. They attribute this to an interplay of behavioral factors: increased levels of assets placed in harm's way often without adequate investments in mitigation, along with a tendency to understate low-probability, high-consequence risks and to underestimate the dangers of long-term investments in protection. The result is an accelerating spiral of risk taking, where the rate of economic development in high-risk areas outpaces investment in technologies intended to protect those developments. Kunreuther, Meyer, and Michel-Kerjan consider some of the behavioral drivers of this mismatch, and how taking these into account might help devise instruments (such as long-term insurance policies coupled with home improvement loans to induce investment in cost-effective behavioral measures) that can help reduce losses from future natural disasters.

Decision Contents
The concluding three chapters explore several important features of contextual design—defaults, choice architecture more generally, and behaviorally informed regulation—all of which, it is argued, can aid in the implementation of improved policies. In "Decisions by Default," Eric Johnson and Daniel Goldstein draw on a variety of policy domains to illustrate the power of defaults and then explore some of the psychological mechanisms that underlie these effects. From insurance and consumer choices to retirement savings and internet privacy settings, changing a no-action default can be highly effective compared to economic incentives or expensive educational or persuasion campaigns designed to influence people to make active decisions. Guided by the realization that each kind of default has costs and benefits and by considerations of ethics and effectiveness, Johnson and Goldstein discuss the importance to policy makers of understanding defaults and suggest conditions when different kinds of default arrangements—forced choice; mass defaults; random, smart, or personalized defaults—might be advisable.

In their chapter on choice architecture, Richard Thaler, Cass Sunstein, and John Bajgar consider decision makers, who—like all of us, if you believe the behavioral findings—function in an environment where many features, noticed and unnoticed, can influence the decisions that they make. Those who shape the decision environment, in this case the policy makers, are the "choice architects." Thaler, Sunstein, and Bajgar analyze some of the tools that are available to choice architects, such as creating defaults, expecting errors, understanding mappings, giving feedback, structuring complex choices, and creating incentives. Their goal is to show how choice architecture can be used to help nudge people to make better choices (often as judged by themselves) without forcing the intended outcomes upon anyone, a philosophy they call libertarian paternalism.

Finally, looking at behaviorally informed regulation, Michael Barr, Sendhil Mullainathan, and Eldar Shafir propose a regulatory framework based on insights from behavioral economics and industrial organization in which outcomes are an equilibrium interaction between individuals with specific psychologies and firms that respond to those psychologies within specific market contexts (in contrast to the classic model, which assumes an interaction between rational choice and market competition). The introduction of a richer psychology; Barr, Mullainathan, and Shafir propose, complicates the impact of competition. It suggests that firms compete based on how consumers respond, and competitive outcomes may not always align with increased consumer welfare. Regulation must then address failures in this equilibrium. For example, in some contexts market participants will seek to overcome common human failings (as for example, with underwriting), whereas in other contexts market participants will seek to exploit them (as with overborrowing). Barr et al. discuss specific applications and illustrate, among other things, how a behaviorally informed regulatory analysis could improve policy makers' understanding of the costs and benefits of specific policies.

Commentaries
The volume concludes with a series of commentaries from scholars in four disciplines—philosophy, economics, medicine, and law. These scholars' main lines of research lie outside the behavioral arena, but they all have had a longstanding interest in behavioral applications and put it upon themselves to comment on issues raised in this volume, particularly as they interact with their own disciplinary ways of thinking. William Congdon considers some of the ways in which the behavioral perspective can inform economic policy; Donald Redelmeier looks at the ways in which behavioral insights might inform health care policy; Paul Brest focuses his attention on issues surrounding the potential debiasing of policy makers and lawmakers; and Judith Lichtenberg aims a philosophical lens at issues of paternalism, manipulation, and the extent to which behaviorally informed policy making may be good for people.

In the chapters that follow, more than fifty scholars will tell you about a rich body of research conducted over the past three to four decades that has changed the way we understand people. They will consider several implications of the research findings, and they will discuss many ways in which our new understanding, this new view of the human agent, might help design and implement better public policy. We hope that you find this exposition of the behavioral foundations of policy productive and illuminating and that you will use it to create new policies that further improve human welfare.