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Book Review

Predictions and Nudges: What Behavioral Economics Has to Offer the Humanities, and Vice-Versa


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Peter Siegelman**

Rationalists, wearing square hats,
Think, in square rooms,
Looking at the floor,
Looking at the ceiling.
They confine themselves
To right-angled triangles.
If they tried rhomboids,
Cones, waving lines, ellipses—
As, for example, the ellipse of the half-moon—
Rationalists would wear sombreros.1

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The informed law and humanities reader can hardly fail to be aware that the field of economics has undergone a "behavioral revolution" over the past several decades, and that this revolution has spilled over into the legal academy. Open an economics journal these days and you are likely to find any number of articles billing themselves as "behavioral" in orientation. Similarly, law reviews are filled with articles bearing titles ranging from "A Behavioral Approach to Law and Economics" to "Harnessing Altruistic Theory and Behavioral Law and Economics to Rein in Executive Salaries" and "Some Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers."

What does this behavioral turn in economics and legal scholarship signify? In economics, "behavioral" means adapting insights and methods from cognitive psychology to choices that economists had previously analyzed with a rational actor model. Traditional economics assumes that individuals are able to process information quickly and without mistakes. Behavioralists modify the traditional model with findings from cognitive psychology showing that individuals fall prey to common and predictable errors in information processing such as framing, over-confidence, and hindsight bias, to name only a few of our cognitive failings.

5. Framing refers to the tendency of people to process information differently depending on how it is presented to them. For example:
   Imagine that you are given $300, and then offered a choice of either
   (a) an additional $100 for sure, or
   (b) a gamble that pays an additional $200 if a fair coin comes up heads or nothing if it comes up tails.
   Which do you prefer, (a) or (b)?
   Now suppose that you are given $500 and offered a choice of either
   (a') paying $100 for sure, or
   (b') a gamble that requires you to pay either $200 if a fair coin comes up heads or 0 if it comes up tails.
   Since the final outcomes of (a) and (a') and (b) and (b') are mathematically identical, people should not choose differently depending on how the question is presented (framed) to them. But experiments reveal that they do.
6. Over-confidence refers to the tendency of people's judgments to be correct less often than they think are. For example, ask people to guess the number of member countries in the United Nations, and to pick two other numbers such that they are 90 percent certain that the actual number is between these two numbers. If people are appropriately confident, 90 of all guesses should fall within each chooser's upper and lower bounds. Instead, the actual percentage of guesses falling within the bounds is much lower.
7. Hindsight bias is the tendency of people to think that events that have occurred are more predictable than they actually were. For example, some analysts have argued that it should have been obvious—based on the evidence available at the time—that the Japanese were going to attack Pearl
Two recent books, one by Dan Ariely and the other by Richard Thaler and Cass Sunstein, are terrific additions to the behavioral economics literature intended for a popular audience. Both books present important behavioral insights in an engaging and accessible manner, and both spell out the implications of these insights for contemporary social and legal issues. The question addressed here is whether the humanities-oriented readers of this journal should be interested in these books and, more generally, whether they should care about the behavioral turn in legal scholarship at all. How might the quantitative data of experimental cognitive psychology improve upon the rich and complex narratives of human decisionmaking offered by psychoanalysis and other humanistic psychologies? Is behavioral economics fundamentally at odds with a humanistic framework that focuses on mental phenomena such as fantasy, repression and unconscious conflict?

While each of us—one an economist and one a student of psychoanalysis—has slightly different answers to these questions, we nevertheless agree that cognitive psychology offers some important insights into unconscious distortions and biases in individual decisionmaking. And we also agree that these insights have some surprising overlaps with the teachings of humanistic psychologies such as psychoanalysis. After summarizing these two books, the second half of this review essay identifies several of these intriguing overlaps. Although behavioral economics relies almost exclusively on cognitive psychology, and thus ultimately does not go very far in “humanizing” the rational actor, we nevertheless encourage readers of this journal to consider the ways in which the findings of cognitive psychology can supplement and strengthen more traditionally humanistic ways of understanding human (ir)rationality.


9. Behavioral economics clearly matters as an intellectual agenda with wide application and aspirations. On one account at least, behavioral economics has been elevated to the theory of governance in the Obama administration. See Franklin Foer & Noam Scheiber, Nudge-ocracy, THE NEW REPUBLIC, May 6, 2009 at 22) (suggesting that Nudge’s influence goes far beyond Cass Sunstein’s appointment as head of the Office of Information and Regulatory Affairs (the so-called Regulatory Czar)). In Foer and Scheiber’s (somewhat overstated) view, behavioral economics is nothing less than a “new theory of the state.” For an insightful assessment of the role of behavioral economics in legal theory, see On Amir & Orley Lobel, Stumble, Predict, Nudge: How Behavioral Economics Inform Law And Policy, 108 COLUM. L. REV. 2098, 2100 (2009) (reviewing NUDGE and PREDICTABLY IRRATIONAL and highlighting the works’ contribution to a middle ground “between command-and-control regulation and deregulated markets.”) On these grounds alone, it behooves all of us to be familiar with the insights this social science hybrid has to offer, although we will not discuss these issues in great detail here, especially since they are so ably handled by Amir & Lobel.
One clarification at the outset. The term rationality can have very different meanings depending on the context. In economics, the term usually denotes individual decisionmaking that is aimed at maximizing an individual’s utility, whatever that may entail. In the humanities, by contrast, the term rationality frequently refers to decisions that are consistent not simply with personal preferences or self-interest but with some external measure such as moral goodness, or society’s view of the good life. As it happens, many discussions of rationality do not distinguish clearly between these subjective and objective definitions of rationality. In this review, we adhere more closely to the former than to the latter. As used here, rationality means the individual’s capacity for making decisions that are consistent with the individual’s own conscious beliefs and preferences. But contrary to traditional economics, our definition of rationality does not accept all decisions as furthering an individual’s beliefs and desires. For example, a traditional economist might view the decision to quit one’s job because a co-worker came to work late as rational in the sense that it was deliberate and freely chosen, but we would agree with behaviorists that the decision might nevertheless be irrational to the extent it was distorted by certain unconscious assumptions, biases or emotional influences. Because of the sheer number of such influences on decisionmaking, the idea of rationality itself – the possibility that any decision could be free from unconscious assumptions, biases or emotions – may be brought into question by behavioral research. Nevertheless, for our purposes, we adhere to the idea that choices can be described as more or less rational in the subjective sense of the term.

I. PREDICTIONS AND NUDGES

Dan Ariely begins his spirited and entertaining book *Predictably Irrational: The Hidden Forces That Shape Our Decisions*, with a startling story about his hard-fought personal odyssey to recover from severe burns he suffered at age 18. Right from the start, we understand that this book is not going to be a typically dry and impersonal academic study. The description of his experience as a burn victim humanizes Ariely in a way that parallels his attempt to bring greater psychological depth to the discipline of economics. We believe him when he says his struggle with unbearable pain opened his eyes to the ways in which his otherwise well-meaning and intelligent caregivers nevertheless could behave at times in irrational, nearly sadistic ways. Exploring these lapses in judgment on the part of ordinary, well-intentioned people is Ariely’s project.

Put in economic terms, the premise of *Predictably Irrational* is that the traditional rational actor model fails to account for the fact that people in the real world often do not make decisions that are consistent with their own conscious beliefs, intentions or interests. The behavioral challenge to
classical economics is, at base, incredibly simple: "You economists say you want to predict human behavior as accurately as possible. But we can out-predict you." If behaviorists such as Ariely succeed in proving that their models can outperform the standard model—and that's still an open question in some cases—traditional economists have to concede that their reliance on the assumption of rationality is outmoded, and apart from purely aesthetic considerations of simplicity and elegance, has little to recommend it. Ariely undertakes to dismantle the traditional rational actor model chapter by chapter, devoting each to a particular kind of error in everyday reasoning processes.

_Predictably Irrational_ thus provides a sweeping overview of the kinds of cognitive errors that lead people in self-defeating directions such as taking on unmanageable credit card debt, buying things they do not need, or paying too much for a new house. In chapter after chapter, Ariely puts human irrationality on display. We learn that attractiveness is measured relative to those standing nearby, that sometimes people will work harder when they are not paid, that sexual arousal leads to poor decisionmaking (hardly surprising), and that individuals overvalue items in their possession. Each cognitive error Ariely identifies is supported by experiments described in fascinating and extensive detail. For example, Ariely devotes one chapter to the anchoring bias, the mental process by which individuals tie the value of a good to some other (sometimes random) referent. He supports the existence of the anchoring bias with an experiment showing that students asked to write down an arbitrary number, such as the last two digits of their social security number, tended to use this number to "anchor" the price they would be willing to pay for certain goods. Astonishingly, subjects whose social security numbers ended with high digits were willing to pay more (on average) than those with low digits. It is hard to imagine a more obvious stick in the eye of the rational actor model.

Ariely draws out the broader prescriptive implications of this research. In his view, understanding the phenomenon of anchoring should lead to a life of greater self-examination, one that focuses us on the role of arbitrary associations in our everyday decisionmaking. But he also leaves room for more paternalistic approaches to addressing cognitive errors in decisionmaking. Government, he argues, may need to step in to regulate some market activities in order to protect us against irrational anchoring.

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10. Readers interested in a lucid and enjoyable defense of the core economic view of the world—that most people respond to incentives in a more-or-less rational way most of the time—should consult Tim Harford’s recent book _The Logic of Life_, which offers many empirical examples of the power of standard economic models to explain real-world behavior. See Tim Harford, _The Logic of Life: The Rational Economics of an Irrational World_ (2008). For a spirited, although narrowly theoretical, defense of traditional economics by two eminent game theorists, see Faruk Gul & Wolfgang Pesendorfer, _The Case for Mindless Economics_ (2005), (mimeo, available at http://www.princeton.edu/~pesendor/mindless.pdf).
Like most cognitive psychologists, Ariely is not too interested in the “why” of irrationality, but instead is focused on the “how.” Only rarely does he pause to consider what causes individuals to think the way they do. And his penchant for vivid anecdotal illustration of his findings gives the book a descriptive, rather than analytic, flavor. One notable exception is the chapter entitled “The Context of Our Character Part I,” which carries the subtitle “Why We Are Dishonest, and What We Can Do about It.” This chapter presents an experiment on honesty involving undergraduate and graduate students at major American universities, including Harvard and Yale. The study showed that the majority of participants were likely to cheat on tests when given the opportunity. But it was also the case that the students cheated only a little bit; none of the students claimed perfect test scores even when they were monetarily compensated for every correct answer. Straying beyond the domain of cognitive psychology, Ariely posits honesty as an attribute of the Freudian super-ego which arises from the internalization of social norms (p. 203). Ariely explains how experimental interventions designed to reinforce super-ego functioning generate increased honesty on the part of the study subjects.

In an early chapter on procrastination, Ariely similarly identifies the role of “the parental voice,” in helping individuals stick to their commitments to lose weight, save for retirement, or go to the doctor. Where individuals have a hard time internalizing the parental voice in the form of the super-ego, Ariely argues, external incentives may be needed. Thus, in addition to self-insight, Ariely sees some room here for paternalistic policies designed to control our irrational tendencies. While Ariely draws a loose connection to psychoanalysis, there are no easy comparisons between paternalistic regulators and the Freudian paternal figures. For one thing, oedipal fathers do not always act in the best interests of their offspring. Indeed, the oedipal father is one who operates in his own self-interest by establishing the incest taboo which prohibits the son from having sexual access to the mother. Nevertheless, Ariely’s insight is in line with Freud’s view that internalization of the incest taboo and the development of the super-ego serve the long-term interests of the child by forcing the child to sublimate his or her libidinal desires for the mother in the service of ego formation.

In the end, of course, Ariely does not mean to dismantle human rationality all the way down. To the contrary, as he states in his Introduction, the view of human beings as rational “is largely correct” (p. xviii). Nevertheless, the cumulative total of all these chapters leaves the reader at the end wondering if there is anything left to the idea of reasoned decisionmaking. Ariely himself concludes the final chapter: “If I were to distill one main lesson from the research described in this book, it is that...
we are pawns in a game whose forces we largely fail to comprehend” (p. 243). Although Ariely might be surprised to hear it, that sentence could have come straight from the collected works of Sigmund Freud.

On the surface, Ariely’s lively narrative style should appeal to readers with a background in the humanities. But Ariely attempts to engage with the humanities in a more substantive way as well. Although this engagement is admirable, it is also somewhat problematic. For example, at several moments in the book, Ariely supports his arguments by drawing a contrast between his experimental evidence and the view of human nature assumed by economists and (according to Ariely) portrayed by Shakespeare. In the Introduction, Ariely interprets Hamlet’s famous lines “What a piece of work is a man! how noble in reason! how infinite in faculty!” as reflecting Shakespeare’s glorification of humans’ inherent reasoning powers. Ariely sees himself as providing experimental data that refute what he takes to be Shakespeare’s misguided confidence in man’s power of reason.

His literal reading of Hamlet’s words, however, obscures the deeper meaning in the text he quotes; it is precisely this appreciation for nuance, irony and subtlety that gives a literary or humanist reading of the passage so much more force than it has in Ariely’s understanding. While Ariely’s scattered references to Shakespeare hint at broader connections between scientific psychology and the humanities, his one-dimensional reading of the passage inadvertently demonstrates the potential risks of the experimental perspective. For Hamlet’s lines cannot credibly be reduced to a single or even dominant interpretation. Indeed, the ambiguity of this passage is itself part of the dramatic narrative as the reader tries in vain to determine if Hamlet is actually mad or instead feigning madness.11 Moreover, even if Hamlet were viewed as perfectly sane, this tribute to reason uttered by a man living in a world of betrayal, deception, suicidal despair, and murderous passions, not to mention ghosts, can hardly be taken at face value.12

As discussed further below, Ariely’s misreading inadvertently displays the way in which experimental psychology tends to reduce complex phenomena to their most simple elements, and in the process often eliminates uncertainty, ambiguity, nuance and contradiction.

11. Stephen Greenblatt refers to Shakespeare’s strategy of “opacity” which is captured by “the enigma of the prince’s suicidal melancholy and assumed madness.” See STEPHEN GREENBLATT, WILL IN THE WORLD: HOW SHAKESPEARE BECAME SHAKESPEARE 324 (2004) (“The opacity [of the play] was shaped by [Shakespeare’s] experience of the world and of his own inner life: his skepticism, his pain, his sense of broken rituals, his refusal of easy consolations.”).

12. At a later reference to the passage in Shakespeare, Ariely does qualify his initial reading: “Time and again I have provided examples that are contrary to Shakespeare’s depiction of us in ‘What a piece of work is a man.’ In fact, these examples show that we are not noble in reason, nor infinite in faculty, and rather weak in apprehension. (Frankly, I think Shakespeare knew that very well, and this speech of Hamlet’s is not without irony.)” (p. 232).
Experimental psychology takes facts as it finds them, while the humanities generally, and psychoanalysis in particular, begin with the proposition that things are not always what they seem. In the case of Hamlet, as Ariely himself notes toward the end of the book, the literal perspective erases the obvious irony from Shakespeare’s lines. Yet despite the misreading of Shakespeare’s passage, Ariely’s literary references express a refreshing openness on his part to the possibility that experimental researchers can interpret their data with help from the great works of literature. In a very appealing way, *Predictably Irrational* opens the door just a bit to an exchange of ideas between economics and the humanities.

Behavioral economists clearly struggle with the implications of their data on irrationality for public policies favoring the free market. If people cannot be trusted to behave rationally in pursuit of their own self-interest, the potential for welfare-enhancing “interventions” that do for people what they cannot do for themselves is obviously enhanced. At various times throughout the book, Ariely makes reference to the “trade-off” between personal freedom and paternalistic interventions. In his chapter on procrastination, for example, he writes: “Sometimes we strongly support regulations that restrain our self-destructive behaviors, and at other times we have equally strong feelings about our personal freedom” (p. 118).

While Ariely spends some time on this theme, the question of paternalism (and its alternatives) is at the heart of Thaler and Sunstein’s fascinating and provocative book *Nudge: Improving Decisions About Health, Wealth, and Happiness*. *Nudge* starts by contrasting the idealized rational actor of economic models with the ordinary humans most of us are or know: while “homo economicus can think like Albert Einstein, store as much memory as IBM’s Big Blue, and exercise the willpower of Mahatma Ghandi,” “[r]eal people have trouble with long division,... sometimes forget their spouse’s birthday, and have a hangover on New Year’s Day.” In a clever rhetorical turn, they imagine economists (and the people whose behavior they model) to be a different species—“Econs”—while ordinary people are dubbed “Humans.”

Thaler and Sunstein are less concerned than Ariely with demonstrating the existence of various cognitive errors. Rather, *Nudge* takes such behavioral anomalies as more-or-less givens, and asks what we (collectively) should do about them. Their basic answer is quite compelling: given that ordinary people routinely and predictably make errors in judgment, we cannot count on individuals to make choices that maximize their own well-being. This in turn creates scope for welfare-improving governmental intervention or regulation, in ways that are not contemplated by standard economic models in which rational individuals, left to their own devices, are best placed to secure their own happiness.

13. Thaler and Sunstein at 6-7.
But Thaler and Sunstein are careful not to go overboard in their interventionism: they still want to leave as much decision-making as possible in the hands of individuals, but to structure the problems individuals encounter so as to leave them better-placed to make welfare-enhancing choices. They call this regulatory program "choice architecture," which in essence means setting up choices (including the provision of information) so that they are framed in a maximally useful way, while preserving for individuals the ultimate right to make decisions governing their own lives.

A compelling and important example (discussed at length in Chapter 6 of *Nudge*) concerns decisions about retirement saving. Many people apparently have great difficulty putting away money for the distant future. The evidence for this problem comes from a variety of sources and is quite strong—people routinely wish and plan to save more, but then routinely fail to act on their own clear desires. An Econ would find such behavior incomprehensible, of course, since any Econ who "wanted" to save more, would simply do so. But suppose we recognize, with the behavioralists, that under-saving is likely among "humans." What should we as a society do about it? One possibility is simply to mandate more saving, but this is unattractive because it impinges on individual liberty, is likely to create resentment, and is difficult to calibrate: not everybody needs or wants to save more, and a mandate would somehow have to pick the appropriate level of savings for everyone or else require incredibly complex rules for adjusting the mandated saving level to individual circumstances. Another possibility is education: just tell people how important it is to save, and perhaps that will convince them to save more. In fact, however, that doesn’t work well; many individuals already want to save more, and information about how important saving is does not really alter their behavior much.

Thaler and Sunstein instead endorse a clever alternative, specifically designed to offset the cognitive and willpower failures that lead to under-saving: the Save More Tomorrow plan, under which participants agree (today) to save an increasing portion of their future income. The plan works: those who are offered the choice to sign up for it do so, and end up saving more. But it works without any compulsion: participants are not forced to enroll, and can back out at any time if they change their minds. *Nudge* is full of practical suggestions like this, including ways to non-
coercively increase organ donation by changing the default rules for who can be a donor,\textsuperscript{15} improve prescription drug coverage under Medicaid by assigning people to plans that are likely to be optimal given their historical purchasing patterns,\textsuperscript{16} and so on.\textsuperscript{17}

\textit{Nudge} is an immensely provocative and practical book, but it does raise some unanswered questions, particularly at a broad thematic level. For example, the argument for choice architecture must make the case that we (the government? experts?) know what choices people should be nudged into making. Sometimes the answers seem clear—most people should (and want to) lose weight, save more, etc. But this will not always be the case, and one may wonder whether governmental regulators, who have no obvious incentives to overcome their own cognitive failings, are well-positioned to make these choices themselves.\textsuperscript{18} Given that choice architecture strongly influences the outcome of decisions, why should we trust government regulators to decide what good choices should look like? While Thaler and Sunstein directly address the obvious tension between libertarian and paternalistic aims at the level of individual decisionmaking, they side-step the issue of how government should go about identifying what makes people’s lives “longer, healthier and better” (p. 5). In a book devoted to cataloguing the ways in which human decisionmaking is flawed, this seems an important oversight. We agree with Thaler and Sunstein that “there is no such thing as a ‘neutral’ [architectural] design” (p. 3), but some defense of decisionmaking at the governmental level would make their arguments for even limited or “libertarian” paternalism stronger.

To elaborate a bit, Thaler and Sunstein argue that most people would choose to be thinner, to quit smoking, and to save for retirement. Although they assert that good choices mean only what the decisionmaker

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  \item[15.] Most states require you to declare that you want to be an organ donor; Thaler and Sunstein (\textit{Nudge}, Chapter 11) propose adopting the “presumed consent” default (used in many European countries), under which you have to opt-out from being an organ donor instead of opting-in. They also offer other helpful suggestions about how to structure donation programs so as to capitalize on altruistic norms, and so on.
  \item[16.] \textit{Nudge}, Chapter 10.
  \item[17.] Some of their specific proposals seem at odds with their overall behavioral framework, however, and a weakness of the book is that it sometimes reads like a grab-bag of clever ideas rather than a coherent analysis. In particular, consider Thaler and Sunstein’s suggestion that patients should be allowed to opt-out of pain and suffering damages for medical malpractice (Chapter 14) in exchange for lower fees up front. As Tom Baker and Timothy D. Lytton point out, the decision to trade-off reduced coverage for lower fees is likely to be subject to precisely the kinds of biases and flawed judgments that Sunstein and Thaler document in many other contexts, and is thus unlikely to be the kind of choice patients will make well. See Tom Baker & Timothy D. Lytton, Allowing Patients to Waive the Right to Sue for Medical Malpractice: A Response to Thaler and Sunstein (U. Penn. Inst. for L. & Econ. Res. Paper No. 09-06, Feb. 19, 2009) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1349836.
\end{itemize}
would choose given perfect decisionmaking, it is simply assumed that people would choose to be thinner, healthier and more financially stable in retirement. But no evidence for this empirical claim is ever produced. The authors might not disagree that choice architecture must rely on welfare norms shared by experts in the relevant fields to determine in what direction individuals should be “nudged.” For example, in the chapter on “Privatizing Marriage,” the authors propose “that the relevant rules should nudge the outcome in a way that will help the weakest parties – usually women” (p. 224). While a laudable goal, it is not an architectural design that they can justify as better in the sense of something these hypothetical men and women would have chosen. Nevertheless, accepting this inescapable tension between libertarian values and paternalistic goals, Thaler and Sunstein give us an original and compelling blueprint for addressing some of the most vexing public policy issues of our time.

II. PREDICTIONS AND NUDGES FROM THE HUMANITIES PERSPECTIVE

As captured in both Predictably Irrational and Nudge, the behavioral economics project has something in common with the humanities to the extent it seeks to understand the contours and workings of the human mind. On its face, this project is one that humanities scholars would recognize as their own. But the question is whether the similarities go beyond mere surface generalities. In this Section, we make two observations. First, in their particulars, behavioral economics and the humanities approach the study of human behavior in very different ways. Second, despite these differences in approach, there are certain fundamental psychological postulates common to both disciplines. Acknowledging the shared psychological ideas between behavioral economics and the humanities raises the possibility of fruitful interdisciplinary exchange between these two traditionally rival fields.

First, the differences. Just because they declare their focus to be “Humans” rather than “Econs,” it does not follow that Thaler and Sunstein offer complete or compelling descriptions of what it means to be human. Nor do Ariely’s “predictably irrational” subjects resemble the tortured souls of a Dostoyevsky novel or a Freudian case history. Thaler and Sunstein’s index contains no entries for “Love,” “Hatred,” “Fear,” or “Revenge.” “Lust” is also absent. To be fair, neither of the books aspires to say anything about these issues. But the point remains that although a behavioral approach can enrich economic models in many contexts, it does not obviously provide much insight into key questions that interest humanists, in large part because humanists have a different intellectual

19. Behavioral economics, like Katherine Hepburn’s performance (as assessed by Dorothy Parker), “runs the gamut of emotions, from A to B.” Ariely does have an amusing, if slightly off-color, chapter (Ch. 5, The Influence of Arousal) on how sexual arousal influences decision-making.
agenda and a different view of what counts as important knowledge.\textsuperscript{20}

That difference is well-described by the distinction between nomothetic and idiographic approaches to knowledge first proposed by Wilhelm Windelband.\textsuperscript{21} The former seeks to distill general laws of human behavior; the latter seeks to understand the individual (idiiosyncratic, contingent, and historically-situated). So if an individualized, novelistic, particularist, detailed portrait is what one is looking for, then behavioral economics is scarcely less nomothetic than its predecessors. Cognitive psychology is limited to the extent it views the individual in terms of general characteristics shared by most people, in contrast to humanistic psychologies which tend to emphasize the complexity and uniqueness of individual experience.

Yet behavioral economics may be less universalizing than it might seem at first glance, particularly when evaluated against the traditional rational actor model. The books under review here illuminate the salutary complexity and heterogeneity that behavioral economics has begun to introduce into mainstream economics. By and large, traditional economists assume that people are essentially homogenous. In fact, that assumption is key to the explanatory power economics purports to offer, since its results derive from models that are claimed to apply to virtually all humans.\textsuperscript{22}

Heterogeneity is introduced only in tiny increments, and only when it is thought to be absolutely necessary. For example, economists are only barely beginning to address questions of whether there are meaningful gender differences in preferences.\textsuperscript{23} Of course, parsimony is not a bad thing \textit{per se}, and economists have always had an understandable preference for simple, tractable models.\textsuperscript{24} But such a strong preference for

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\item \textsuperscript{20} For example, contrast the humanist struggle to come to terms with the meaning of death (e.g., ROBERT A. BURT, \textit{Death is That Man Taking Names} (2004)) with Wojciech Kupezk & Joel B. Slemrod, \textit{Denial of Death and Economic Behavior} (Nat. Bur. Of Econ. Res. Working Paper W11485, 2005) (presenting a model that demonstrates that “refusal to face up to the reality of death may help explain a wide range of empirical phenomena, including the underutilization of tax-advanced inter vivos gifts and inadequate purchase of life insurance.”)
\item \textsuperscript{21} The term was introduced into the philosophy of psychology by Gordon W. Allport. For an elaboration of his ideas on the subject, see, e.g., \textit{The General and the Unique in Psychological Science}, 30 J. PERSONALITY 405 (1962).
\item \textsuperscript{22} See, e.g., Gary S. Becker & George J. Stigler, \textit{De Gustinus Non Est Disputandum}, 67 AMER. ECON. REV. 76 (1977) (arguing that tastes do not differ importantly among people, and like “the Rocky Mountains[ ] are there, will be there next year too, and are the same to all men”). The \textit{reductio ad absurdum} of this tendency is the widespread use of models purporting to explain the behavior of the entire macro-economy as if it consisted of only a single “representative agent.” For a critique of this notion see Alan P. Kirman, \textit{Whom or What Does the Representative Individual Represent?}, 6 J. ECON. PERSPECTIVES 117 (1992).
\item \textsuperscript{23} For a recent survey, see Rachel Croson and Uri Gneezy, \textit{Gender Differences in Preferences}, 47 J. ECON. LIT. 448 (2009) (concluding that women are more risk averse than men and that women are more sensitive to cues in the experimental environment than are men. \textit{Id.} at 463. See also James J. Heckman, \textit{Shadow Wages, Market Wages and Labor Supply}, 42 ECONOMETRICA 679 (1974) (constructing model of women’s labor supply).
\item \textsuperscript{24} Albert Einstein urged scientists to make everything as simple as possible, but not simpler, in his Herbert Spencer Lecture at Oxford in 1933. \textit{See Albert Einstein, On the Method of Theoretical
homogeneity runs the risk of obscuring essential facts about how the world works.

In contrast, behavioral scholarship offers two important openings (as yet not well exploited) for economists to come to terms with human heterogeneity. First, behavioral experiments in either the lab or the field almost never demonstrate that absolutely everyone is subject to a bias of the same size/degree. Cognitive biases are tendencies, not (usually) universals. Some people do not experience an endowment effect, at least in some settings. Some people do not agree to pay more for a bottle of wine, despite being 'prompted' to do so by anchoring to their high social security number. That in turn means that we can and should usefully begin asking what makes biases larger for some people than others: education, age, ‘culture,” the behavior of other actors, training, personality, early-life experiences—the list is potentially quite long. And although these issues have not yet begun to occupy the attention of most behavioral economists, the behavioral turn opens up an intellectual space in which these questions can at least be recognized and addressed, instead of minimized as they are in much of traditional economics.

An obvious reason for differences across people—obvious, at least, to many humanists writing since Freud—is differing experiences in early childhood. Although economists have paid relatively little attention to the

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26. For a provocative start in this direction, see Shane Fredrick, Cognitive Reflection and Decision Making, 19 J. ECON. PERSPECTIVES 25 (2005). Fredrick developed a set of three “easy, but tricky” logic questions: for example “a bat and a ball together cost $1.10. The bat costs $1 more than the ball. How much does the ball cost?” The intuitively obvious, but wrong, answer is 10¢. (The correct answer is 5¢.) The scale constructed from these questions does not measure IQ, but seems instead to capture some kind of cognitive style—the ability to reflect on one’s answers rather than impulsively giving the first answer that pops into one’s mind. What’s surprising is that the answers to these questions predict all kinds of differences across people, including their preferences for present vs. future consumption, their willingness to take monetary gambles, and their failure to conform to the predictions of the expected utility model that is at the core of what it means to be a rational decision-maker under conditions of uncertainty. Fredrick’s work thus represents the beginning of an effort to look behind cognitive biases and ask whether there are more fundamental aspects of, for want of a better term, “personality” that shape people’s behavior, including—but not limited to—cognitive behavior. See also Dimitri Hryshko et al., Childhood Determinants of Risk Aversion: The Long Shadow of Compulsory Education (Sept. 30, 2008), available at http://www.uh.edu/~bsorensen/LongShadow.pdf (suggesting that higher levels of parental education cause lower levels of risk aversion in children). See also Raquel Fernández and Alessandra Fogli, Culture: An Empirical Investigation of Beliefs, Work and Fertility, 1 AMER. ECON. J. MACROECONOMICS 146 (2009) (showing effects of country of father’s origin on US-born women’s labor force participation and fertility behavior).
psychological development of rational decisionmaking, the behavioral turn may help to focus attention on the importance of childhood experience in shaping adult behavior. For example, in a series of articles, Nobel Laureate James Heckman and his coauthors have begun tracing the importance of early childhood experiences for subsequent development of both cognitive and non-cognitive attributes or traits. Patience, perseverance, optimism, and the ability to delay gratification are obviously vital to material and emotional success in today's world. As economists start to appreciate the significant degree to which such traits are shaped by early childhood experiences (especially by schools and families), economics and humanistic psychology may begin to converge on an important truth about the importance of childhood in creating the conditions for human flourishing, including the ability to rationally and effectively pursue one's interests and goals.

A second source of heterogeneity implicit in behavioral work is the sheer number of biases that have been identified by researchers in cognitive psychology and behavioral economics. Thus we have hindsight bias, the availability heuristic, loss aversion, hyperbolic discounting, the endowment effect, optimism bias, and base-rate neglect, to name only a handful of the biases that have been identified in behavioral economics. The multitude of biases contrasts markedly with the singularity of rationality. To paraphrase Tolstoy, "Rational actors are all alike, but every irrational actor is irrational in his or her own way." Fortunately, not everyone is equally subject to the humbling multitude of cognitive failures to which we humans are prone. But the proliferating catalog of cognitive lapses will exert pressure on economists to reconsider their assumption of human homogeneity.

Not only may behavioral economics be more sensitive to idiographic factors than is generally assumed, humanistic psychologies such as psychoanalysis do in fact have nomothetic features. For example, while psychoanalysis locates meaning in the smallest details of the individual's

27. See, e.g., Lex Borghans et al., The Economics and Psychology of Personal Traits (NBER Working Paper 13810, 2008). (available at http://www.nber.org/papers/w13810) On the possibility that very intensive (and expensive) schooling could suffice to close the racial achievement gap, see Will Dobbie & Roland G. Fryer Jr., Are High-Quality Schools Enough to Close the Achievement Gap? Evidence from a Bold Social Experiment in Harlem, (unpublished working paper, 2009), available at http://www.economics.harvard.edu/faculty/fryer/files/hcz%204.15.2009.pdf. See also PAUL TOUGH, WHATEVER IT TAKES (2008) (reporting on Harlem Children's Zone); RICHARD NESBITT, INTELLIGENCE AND HOW TO GET IT (2009) (suggesting that high-quality early childhood intervention can lead to permanent gains in achievement and social functioning). Recent corroborating evidence comes from David Deming, Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start, 1 APPLIED ECONOMICS 111 (2009), who concludes that ordinary Head Start programs produce gains in young adult outcomes that are about 80 percent as large as those realized by high-quality programs, at only about 60 percent of the cost. Although most studies find that early childhood interventions produce only temporary gains in IQ, the evidence for permanent gains in other important aspects of social functioning (grade retention, criminal participation, unemployment, etc) is increasingly strong.
personal experience, it also provides a template for understanding more
universal phenomena such as repression, defenses, transference,
ambivalence and guilt. Indeed, Freud is infamous for positing the
universality of the Oedipus complex, notwithstanding widespread
variations in family forms both within and across cultures. Modern
psychoanalysts may have abandoned this particular developmental
milestone, but the field still offers an account of psychological processes
such as defenses (e.g., intellectualization, reaction formation), character
traits (e.g., narcissism, paranoia), and interpersonal phenomena (e.g.,
identification, projection, transference), man of which are now widely
accepted by psychologists and the broader culture.

Clearly, methodological differences between behavioral economics and
humanistic psychologies cannot be overlooked. To the extent humanistic
psychologies identify universal mental processes such as repression or
unconscious conflict, these traits are less amenable to scientific study than
are cognitive errors in judgment. Most humanistic psychologies such as
psychoanalysis find their “data” in the clinical setting, and occasionally in
observational accounts. Cognitive psychology, on the other hand, relies
heavily on experimental accounts. And there are problems with each approach.
Humanistic psychologies are vulnerable to biases arising from
subjectivity; but cognitive psychology arguably suffers from
“experimental bias,” which we can define as the biased perceptions that
arise from studying only what is easily subject to experimental
investigation. For example, it is easy to manipulate “anchoring”
experimentally by getting subjects to think of the last two digits of their
social security numbers and then asking them to place bids on bottles of
wine. It is much more difficult to manipulate repression by altering
conditions of early childhood, even if that were ethical. Studying what is
easy to study via experiments is itself a form of bias that inadvertently
directs attention away from other more complex mental phenomena.

That said, there is no reason why rigor and generalizability can only
arise from experiments. Astrophysics is a perfectly valid science that does
not really rely directly on experimental data. Neither do large parts of
geology, epidemiology, and so on. Likewise, it should be possible to test
various theories of what causes repression or guilt (and even to explore
whether these are actually meaningful concepts) by means of non-
experimental data that are analyzed in a ‘scientific’ way (as opposed to
narrative case studies, etc.).28 Some of this work is already being done.

28. Adolf Grunbaum suggests that at least “[s]ome of Freud’s etiologic postulates are potentially
confirmable by epidemiologic findings, without any recourse at all to data from the analytic treatment
setting, let alone to the experiences had by patients when their repressions are being undone in that
clinical milieu.” Adolf Grunbaum, THE FOUNDATIONS OF PSYCHOANALYSIS: A PHILOSOPHICAL
CRITIQUE (1984) at 38 (emphasis in original). Grunbaum gives as an example Freud’s theory that
“repressed homosexual love is causally necessary for paranoid delusions.” Id. The theory implies that
For example, researchers are testing psychotherapeutic treatment modalities using random assignment to see which treatments, for which mental conditions, actually work best in some objective sense. And humanistic psychologists might benefit from the experimental findings of cognitive psychology as well. Some of the key insights of cognitive psychology utilized by behavioral economists can be understood to supplement and fortify humanistic views about how the mind operates. To take one clear example, cognitive psychologists have recently discovered the existence of unconscious mental affects. Recent experimental research into implicit affects demonstrates that unconscious emotions and biases affect individual decisionmaking. This research obviously strongly supports psychoanalytic clinical accounts going back more than a century showing the existence of unconscious emotions and conflicts. The importance of early childhood experience for adult decisionmaking is another area where cognitive researchers are finding data that supports fundamental tenets of clinical psychoanalytic research. Although many cognitive and psychoanalytic researchers regard each other with suspicion, if not outright hostility, the research itself suggests some important commonalities. Recognizing these commonalities has the potential for broadening and enriching work in both economics and the humanities.

To be sure, behavioral economics has some important drawbacks from a humanistic perspective, the most significant of which is a decidedly cramped or "thin" conception of human (ir)rationality. Humans are irrational, in either the behavioral or standard economic account, when they do not have a well-behaved utility function, or are subject to cognitive errors such as the anchoring bias described earlier. Cognitive biases (and failures of willpower) are thus examples of irrationality in this sense because they prevent an individual from doing what he or she would acknowledge to be in his or her self-interest. From a humanistic

as the repression of homosexuality decreases over time, the frequency of paranoid delusions should also decrease.

32. For example, suppose someone is offered a choice between option A and option B, and picks (prefers) B. They are then offered a choice between option B and option C, and pick C. If it were the case that when given a choice between A and C, the individual did not prefer C to A, this would entail a failure of rationality.
33. For example, someone whose willingness to pay for a bottle of wine is "anchored" to an arbitrary number is potentially subject to over-paying if the seller can figure out a way to create an
perspective, this thin conception of rationality fails to account for the myriad ways in which human behavior in the real world is motivated by deeply "irrational" factors, not just relatively minor cognitive "glitches." To take just one example, both Ariely and Thaler/Sunstein interpret individuals' inability to stick to their diets or to save for retirement as lapses of self-control. They may be right that most instances of dieting or savings failures can be attributed simply to a lack of willpower, in the sense that the short term gratification of eating or spending overpowers the long-term benefits of a slim waistline or secure retirement years. Procrastination, too, is viewed as an issue of self-control.

But what if willpower is not the only factor which determines whether one orders the chocolate mousse or buys the expensive new car? Perhaps some people engage in self-defeating behavior for other reasons as well. Humanistic psychologies suggest that some people may break their vows to diet out of unconscious guilt or self-punitive feelings. Recognizing that human behavior can be motivated not only by desire for pleasure but also from self-destructive aims is central to psychoanalytic thinking. Indeed, understanding that what looks like the failure of self-control is really the success of self-destructive urges is what led Freud to abandon his original libidinal drive theory for his later structural account of the aggressive and self-destructive components of psychic life.

Even if dieting and retirement savings are issues of self-control, the lessons to be drawn from these examples may apply only to a limited sphere of decisionmaking associated with what is called "cold cognition." The subjects of behavioral economics are typically eager to turn away from whatever irrational behavior they may be engaged in, and can thus be easily "nudged" into making better choices. In large measure, that is because the kinds of choices they get wrong are low-affect and relatively simple. Saving for retirement or choosing a prescription drug insurance plan are important choices, to be sure; but they are typically "cool" decisions made under conditions most likely to engage primarily cognitive thought processes. In contrast, many of the choices relevant to law such as criminal confessions, signing a prenuptial agreement, or bringing a claim for sexual harassment are often made under conditions of significant emotional investment. As one of us has argued elsewhere, decisions

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34. An economist would not say that altruism or self-destructive behavior are irrational, because irrationality means failure to maximize your utility function, whatever that implies. If you get utility from suffering pain, then failure to inflict pain on yourself would be irrational. If you get utility from helping others, then failure to do so would be irrational. Economics is largely agnostic on the content of people's utility functions. Some of the studies cited above (supra notes 22 and 23) can be understood as revealing how early childhood experiences shape preferences and tastes later in life.


36. Indeed, Thaler and Sunstein's policy prescriptions flow precisely from the assumption that they are helping people make the choices they would want to make if only they could be fully rational.
involving close personal relationships, emotionally-charged circumstances, or important life decisions are the most likely to benefit from a psychoanalytic understanding of the decisionmaking process.\textsuperscript{37}

Whether a particular behavior is understood as a lapse of self-control or a triumph of self-destructive urges will often make a big difference in how we understand the behavior and how (or whether) we seek to change it or mediate its effects. If the problem is a lapse of self-control, then strategies designed to reinforce willpower through incentives might be effective. Ariely provides numerous examples of the ways in which willpower can be shored-up by external means. One of his favorite examples is the “self-control credit card” which would allow individuals to limit ex ante their own monetary transactions in particular situations, such as chocolate buying or entertainment spending, with penalties attached for exceeding the limits (p. 123-24). But if more than willpower is at stake, then, as psychoanalysts have long understood, these urges can be strongly resistant to change. Addressing psychological resistance is a subject of special interest and importance to psychoanalytic psychology. Because resistance is hard to measure in the laboratory, it illustrates the way in which humanistic psychology may have something to teach behavioral economics about the dynamics of human decisionmaking in the real world. Why might individuals choose not to opt for the self-control credit card, or why did the bank which Ariely approached with the idea never pursue it? Individuals’ resistance to overcoming cognitive and emotional biases may play as big a role as the biases themselves. Exploring how humanistic insights such as resistance can contribute to the behavioral revolution is a worthy goal for psychologically-inclined law and humanities scholars.

III. CONCLUSION

The behavioral revolution in economics arose in large part as a response to the demonstration (by economists and psychologists) of empirical anomalies in human behavior.\textsuperscript{38} But not just any behavior: what gave these anomalies particular force was that they concerned the kinds of phenomena economics purported to understand, explain and predict: financial markets that do not price assets appropriately, individuals who

\textsuperscript{37} See Dailey, Imagination and Choice, supra note 30.

\textsuperscript{38} Indeed, one of the co-authors of Nudge, Richard H. Thaler, had a quarterly (now, occasional) feature in the Journal of Economic Perspectives entitled “Anomalies” in which he and his coauthors identified phenomenonata that the standard economic model should have been able to explain (or to explain away as impossible) but could not. These included such puzzles as why closed-end mutual funds traded for less than the value of the shares they contained, why people are both much more and much less risk-averse than economic theory predicts should be possible, why the same job (e.g., janitor) pays more in some industries than in others, and so on. Many of these essays are collected in a single volume, The Winner’s Curse: Paradoxes and Anomalies of Economic Life (1994), although Thaler has continued to compile additional anomalies since that work was published.
make inconsistent choices over time, people who are sometimes much less-selfish than economic theory predicts, and so on.

The “fix” for many of these anomalies has turned out to involve modifications of the rational actor assumptions, but, for the most part, the fix has not led economists away from the particular kinds of human behavior that have constituted the discipline’s traditional subject matter. This point is worth stressing because ultimately the behavioral turn in economics is not designed to provide a more rounded account of human nature, to “humanize” economic actors, or to incorporate psychological irrationality into economic models. It is designed to help solve certain intra-disciplinary problems or puzzles.

To the extent that the behavioral findings enrich economists’ toolkits, they should be considered a success. But even after behavioral insights have been fully incorporated into economics, humanists will still have a virtual monopoly in answering the kinds of questions they deem to be important. You would not ask an economist why someone would confess to a murder he did not commit. You should not expect a rational explanation to offer a full account of why someone would sign a prenuptial agreement that is clearly against her (or his) obvious interests. Neither, however, would you call a humanist for advice on exchange rate policy or the antitrust consequences of unbundling the internet browser from Microsoft’s Windows operating system.

To return to the insight of Wallace Stevens that began this review, we recognize that there is much of life that is not adequately explained (or even recognized) by the rational economic approach to human behavior. The insights offered by behavioral economists are best understood as new tools to be used in the analysis of the discipline’s traditional problems. Economists will not be putting on sombreros any time in the immediate future, nor should humanists be taking theirs off. The key to understand human behavior, in all its richness and complexity, is to adopt the kinds of tools appropriate for the task at hand. Both rational social science and humanistic methods have their places and their uses, and there is no reason to believe that there is a single “correct” approach to understanding all aspects of human behavior. Nevertheless, as we have explained here, each discipline has something to offer the other, particularly in areas—such as the existence of unconscious emotions or the importance of early childhood—where economists and humanists can agree. Predictably Irrational and Nudge give us reason to think that these points of psychological agreement between economics and the humanities are very much worth exploring.

