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THE PSYCHOLOGICAL FOUNDATIONS OF BEHAVIORAL LAW AND ECONOMICS

Jeffrey J. Rachlinski*

Over the past decade, psychological research has enjoyed a rapidly expanding influence on legal scholarship. This expansion has established a new field—"Behavioral Law and Economics" (BLE). BLE's principal insight is that human behavior commonly deviates from the predictions of rational choice theory in the marketplace, the election booth, and the courtroom. Because these deviations are predictable, and often harmful, legal rules can be crafted to reduce their undesirable influence. Ironically, BLE seldom recognizes that its intellectual origins lie with psychology more so than economics. This failure leaves BLE open to criticisms that can be answered only by embracing the underlying psychological foundation of the field. Embracing psychology is harder than it seems, however, because psychology meshes much less easily with law than does economics. Consequently, BLE has yet to fully realize its potential and might never successfully do so.

I. INTRODUCTION

Never has law relied as heavily on psychology as it does today. Law has consistently consumed a steady diet of research from psychology on juries, on the mentally ill, and on witness credibility for many decades. As of the mid-1990s, one could find only a small scattershot of articles that applied psychology to law that in any way expanded on these traditional topics. The reach of psychology, however, has expanded dramatically in the last fifteen years. This period witnessed the publication of a series of articles that began to apply the psychology of judgment and choice to legal concepts. Notable among these is an article by Tom Ulen and Russell Korobkin in 2000,1 which, along with a piece by Christine

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Jolls, Cass Sunstein, and Richard Thaler (JST), 2 helped launch the new discipline.

The field has come a long way. I recall having a drink with Tom Ulen, Russell Korobkin, and a political scientist in 1999 at a conference in New York City. The political scientist asked Tom how many scholars were applying the psychology of judgment and choice to law. Tom replied that if a grenade went off at the table, it would destroy most of the field (along with our beverages). He was doubtless being kind to two junior colleagues, as several others were then hard at work creating the foundations for the field. But over time, behavioral law and economics (BLE) has expanded to include many scholars and to cover many areas.

Despite its strengths, criticisms and limitations continue to dog BLE. 3 In this Article, I argue that one of the field’s surprising weaknesses—the failure to recognize the psychological origins of the field—would enable it to address its critics and to expand its horizons. Embracing BLE’s underlying reliance on psychological rather than economic principles would give the field a much more stable foundation. Doing so, however, would require embracing theories of human behavior that are not only inconsistent with economic principles but also with the implicit understanding of human behavior that our legal system embraces. Much of the success that economics has attained arises from the ease with which its principles mesh with how judges, regulators, and legislatures tend to think about how people respond to legal rules. By using economics as a platform for introducing psychological concepts to law, BLE has enjoyed some success as well. But this reliance on economics also has required compromise, created opportunities for critics, and limited the scope of the field.

In this Article, I proceed as follows. Part II begins by identifying the intellectual origins and accomplishments of BLE. Part III identifies some of the major criticisms of the field and shows how relying more closely on the psychological origins of the field would address these principles. Part IV identifies some challenges of embracing these principles. Part V concludes.

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II. THE INTELLECTUAL ORIGINS AND ACCOMPLISHMENTS OF BLE

One of the curious aspects of BLE is that although its intellectual origins lie in psychology, its name implies that it is rooted entirely in economics. The moniker “BLE” arises from its attachment to “law and economics,” not from its methodological commitments. But as I discuss in this Part, the intellectual history of the field lies firmly within psychology, not economics. The field is thus, at heart, an intellectual mongrel.

If the founding papers of BLE are those of Korobkin and Ulen and JST, then the intellectual forefathers are clearly Amos Tversky and Daniel Kahneman. Tversky and Kahneman developed most of the social science research that Korobkin and Ulen and JST relied on in their papers. The first BLE scholarship is thus an extension of Tversky and Kahneman’s work, and their work continues to provide the foundation upon which the field rests. For example, Ward Farnsworth’s fine, recent book, which outlines social science research for lawyers, includes five chapters on BLE (discussing the endowment effect, framing, anchoring, hindsight bias, and self-serving bias), four of which describe concepts that Tversky and Kahneman developed (self-serving bias is the exception, although Tversky worked on a similar phenomenon—overconfidence). Tversky and Kahneman’s methods are thus the methods BLE uses.

When Tversky and Kahneman first began to develop their paradigm for studying judgment and choices—commonly called the “heuristics and biases” paradigm—they explicitly copied the methods used by the cognitive psychologists of their time. Cognitive psychologists then (and mostly now) used apparent imperfections in perception and memory to craft models outlining how perception and memory function. For example, to demonstrate that people rely on the ease of recall as a cue to estimating frequency—known as “availability”—Tversky and Kahneman gave subjects two lists of names to memorize. One list contained male names that were mostly celebrities and female names that were not. Even though the number of male and female names on the lists was identical, subjects misremembered that there were more male names on the list. They obtained the opposite result when they used female celebrity names and ordinary male names. The bias in judgment that reliance on cognitive

4. Much of this work is documented in a 1982 edited collection, JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman et al. eds., 1982). The first paper to outline the “heuristics and biases” approach underlying this work was Amos Tversky & Daniel Kahneman, Judgment Under Uncertainty: Heuristics and Biases, 185 SCIENCE 1124 (1974), reprinted in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES, supra at 3.
5. WARD FARNSWORTH, THE LEGAL ANALYST: A TOOLKIT FOR THINKING ABOUT THE LAW 209-46 (2007). Farnsworth’s book itself reflects one of Tom Ulen’s ideas. Tom once told me that he believed that every lawyer should be aware of certain classic ideas in social science, including psychology. This is the premise of Fransworth’s book. See id.
7. Tversky & Kahneman, supra note 4, at 1127.
8. Id.
availability produces holds inherent interest for psychology theory and raises practical concerns about how lay people make judgments. But the biases and errors are actually meant to uncover the cognitive mechanisms that people rely on when making such judgments. Cognitive psychology, more so than any economic concept, thus lies at the heart of BLE.

It is thus a great anomaly that "BLE" is not simply "Cognitive Psychology and Law." To be sure, incorporating the broader term "behavioral" usefully expands the field. Tversky, Kahneman, their students, and other psychologists are not responsible for all of the phenomena that provide the grist for the BLE mill. Economists such as Dick Thaler, George Loewenstein, and Colin Camerer (among others) have done work that is of enormous value to BLE. BLE represents a combination of both the work of psychologists in the heuristics and biases tradition started by Tversky and Kahneman and the work by this group of economists.

That said, the addition of this body of work still does not make the field a true subset of economics. Thaler, Loewenstein, and Camerer might deny it, but they are really psychologists. They write and think like people who are interested in the prediction and control of individual thought and behavior. For example, Richard Thaler's description of the "endowment effect" is a psychological account. He sensed that selling even the most ordinary item simply feels different than buying it. Similarly, a study of taxi drivers in New York by Colin Camerer and George Loewenstein (among others) shows that drivers are remarkably insensitive to economic concepts like opportunity costs in deciding when to work. Rather, the behavior of taxi drivers follows a model of mental accounting suggested in Tversky and Kahneman's work. These researchers also spent many years studying concepts that are largely foreign to economics, such as norms and fairness.

Perhaps the most persuasive evidence that these researchers are really psychologists is that several of them have begun conducting research using functional magnetic resonance imaging scans of the brain. Although a new field known as "neuroeconomics" has emerged from this work, assessing how the brain functions has been the primary goal of

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9. Dick Thaler is, of course, the third author of the foundational piece by JST. See supra note 2.
12. See id. at 44-47.
14. For a summary of much of this work, see COLIN F. CAMERER, BEHAVIORAL GAME THEORY: EXPERIMENTS IN STRATEGIC INTERACTION (2003).
cognitive psychology from the outset.\textsuperscript{15} The human mind, rather than the market, is at the core of the work that this group of behavioral economics has done that has in turn been incorporated into BLE.

Furthermore, BLE tends not to rely on the work of other strains of behavioral economics that do not incorporate psychological concepts so readily. It is useful to remember that the 2002 Nobel Prize in economics was shared by Daniel Kahneman and Vernon Smith. Smith is clearly an economist to the core (meaning no disrespect). He developed his own research paradigm with the goal of bringing markets and incentives into the laboratory, where they could be controlled and studied with experimental techniques.\textsuperscript{16} This work has proven fruitful and productive, but it is not psychology. Smith and his colleagues are interested in how markets and incentives function, whereas psychologists are engaged in an effort to assess how people reason and think. The research that Vernon Smith and similar scholars have produced, however, is only rarely cited within behavioral law and economics.\textsuperscript{17} Rather, the work of the economists who think more like psychologists, such as Richard Thaler, Colin Camerer, and George Loewenstein, is more prevalent.\textsuperscript{18}

Even though BLE arises from an incorporation of psychological principles into law, the field hides the psychological aspects of the underlying research. Even though most scholars in the field do not call their work "psychology," instead preferring the "behavioral" moniker, they are likely using the word "behavioral" as a substitute for "psychological." Most papers in the field identify a well-developed cognitive or social process or phenomena and explore their potential implications in some area of law or policy.\textsuperscript{19} The field, nevertheless, has been marketed as a subset of law and economics, rather than an extension of psychological research.

Identifying BLE as an application of economics to law, rather than as an application of psychology to law, has doubtless been a good marketing strategy. After all, even though both economics and psychology provide theories of how humans behave, economics has historically penetrated far deeper into the law than psychology. Economics has touched almost every subject in the law school curriculum, while the applications of psychology are relegated largely to mental health law, jury decision


\textsuperscript{17} There are exceptions of course. Matt McCubbins and others frequently attend (and even have organized) the annual Conference on Empirical Legal Studies.

\textsuperscript{18} A search of Westlaw's JLR database conducted on July 1, 2011, revealed 1535 citations to Richard Thaler, 765 to George Loewenstein, and 523 to Colin Camerer. A search for Vernon Smith revealed 392 citations (some with false positives, given the common name). All searches were conducted with the person's last name within two words of their first.

\textsuperscript{19} See, e.g., Rachlinski, \textit{supra} note 3, at 740 (noting that the underlying behavioral decision theory research "relies upon inferences that psychologists make about cognitive processes").
making, and witness credibility (especially eyewitnesses). BLE has thus hitched its wagon to a proven star, with positive results. The early papers, particularly those by Korobkin and Ulen and JST, provided a roadmap for hundreds of articles that followed their suggestion of making psychological phenomenon a critical part of legal analysis. Within a few years an edited collection of articles appeared, applying psychology to basic principles of contracts, torts, property, tax, securities regulation, and others. Today, legal scholarship routinely includes articles with titles ranging from Cap and Trade: A Behavioral Analysis of the Sulfur Dioxide Emissions Market to A Behavioral Analysis of Predatory Lending. An attempt to summarize the progress of BLE in 2003 filled a symposium volume of the Northwestern University Law Review and cited well over a thousand uses of the psychology of judgment and choice in legal scholarship that address subjects well beyond the traditional areas in which psychology has had its influence.

The establishment of a novel platform for the incorporation of psychological research into law represents a real achievement. Although some have criticized BLE as consisting of scattershot and theoretically unbounded observations, its principal insights can be summarized in a few simple sentences, each of which has produced a huge volume of scholarship:

1. Because consumers can make consistent errors in judgment, a free market cannot entirely be trusted to produce an efficient allocation of goods and services. This observation arguably supports a whole range of interventions into the marketplace, from labeling laws to the imposition of strict liability in products liability.

2. Because voters rely on simplistic decision-making strategies, the political process can direct public officials toward unwise policy judgments. This line of work suggests that risk regulation is best done by expert agencies insulated from political influence.

3. Decision making by judges and juries is frequently inaccurate in ways that can distort the civil and criminal justice systems. Procedural rules governing dispute resolution are, or should be, designed to prevent systematic errors in judgment from determin-

24. See, e.g., Rachlinski, supra note 3, at 748–52 (describing this criticism and responding).
26. See id. at 1202–06 (reviewing these applications).
ing the outcome of adjudication. Jury decision making is traditionally an area in which psychology has had influence, but BLE has added several new dimensions to this line of research.

(4) People are both more altruistic and vindictive than rational models of behavior predict. This observation has several implications for how societies might function well or function poorly. This observation has implications for understanding how social norms govern behavior more so than legal rules and for understanding the attractiveness of legal rules that promote altruistic norms.

In its short history, BLE has thus accomplished a great deal. Its observations are now standard fare for legal scholars who contemplate the regulation of the marketplace, elections, courts, and society in general. It has shifted the paradigm for a number of areas of law, which now cannot reasonably be taught quite the same way. Legal scholars familiar with BLE now think differently about consumers, judges, juries, and voters.

III. CRITICISMS AND RESPONSES

Not surprisingly for a field that has become so influential, BLE has also attracted its share of critics. From the outset, predictable attacks have come from scholars in old school law and economics, and they persist. But even more open-minded law and economics scholars have expressed concerns. Doctrinal legal scholars have also expressed skepticism, and some members of the law and society movement have joined in as well. Perhaps the most surprising attack is from a psychologist.

Concerns about BLE take several different forms and summarizing them necessarily provides an incomplete account. The persistent concerns can be lumped into three basic categories: (1) the underlying phenomena BLE relies upon are laboratory artifacts, which neglect an underlying higher-order rationality; (2) the work lacks a coherent underlying theory, thereby leading to inconsistent reform proposals; and (3) incentives and institutions weed out cognitive errors in important set-

27. See id. at 1196–1202.
tings. Because similar concerns have also been raised about the psychology and behavioral economics on which BLE relies, the responses that these fields have already provided will largely address the basic concerns. Most of the criticisms are also the kinds of concerns that economists would raise, and each of them requires psychology to address.

A. The Phenomena on Which BLE Relies Are Real

Criticisms about the reality of the cognitive phenomena on which BLE relies take a number of different forms, but they tend to follow two different strands. First, the supposed mistakes in judgment are not actually mistakes. Second, the mistakes result from the highly artificial lab setting, and people are far more rational in realistic settings.

1. The Mistakes Are Not Mistakes

Are mistakes that subjects supposedly commit in the lab truly mistakes, or are the subjects simply interpreting the questions researchers ask in a different way than the researchers suppose they have understood them? This concern is critical because BLE relies, at its core, on the concept that people make predictable errors in judgment.

The critique that supposed mistakes are not actually mistakes is best assessed through the discussions regarding the problem of “Linda the Bank Teller.”\(^\text{34}\) The problem describes a politically active Berkeley humanities graduate named Linda. The researchers ask subjects whether Linda is more likely to be a “bank teller” or a “bank teller [who] is active in the feminist movement.”\(^\text{35}\) Most people say the latter, even though it is a logical subset of the former (and hence must be less likely).\(^\text{36}\) When Tversky and Kahneman termed this choice an error in judgment, critics cried foul. They claimed that the natural way to interpret a question of that form is to assume that the inclusion of the latter term modifies the first term implicitly to mean “bank teller who is not a feminist.” If so, the latter would be a defensible interpretation. Critics also show that changing the choice to ensure that the subjects understand the problem (that is, changing the first choice to “is a bank teller whether or not she is a feminist”) dramatically reduces the proportion of subjects who commit the supposed error.

These criticisms, however, misunderstand the underlying purpose and interpretation of the original study. Tversky and Kahneman certainly did accuse their subjects of committing a transparent deviation from deductive logic, but the point of the study was to show how people rea-

\(^{34}\) The “Linda” problem, the critique identified herein, and the reply discussed above are reviewed in Amos Tversky & Daniel Kahneman, Extensional Versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment, 90 PSYCHOL REV. 293, 299 (1983).

\(^{35}\) Id.

\(^{36}\) See id.
son about categories. Tversky and Kahneman asserted that providing extra cues to link an individual to a category makes it seem more likely that the person is a member of that category (that is, they use the “representativeness” heuristic). Thus, changing the statement of the problem changes the problem in a way that is too fundamental to make for a coherent test of whether their interpretation is correct. When researchers add the phrase, “is a bank teller regardless of whether or not she is a feminist,” they have converted the problem from one that would inspire people to rely on representativeness to one that is transparently about the use of set theory and deductive logic.

The Linda problem, in fact, is open to multiple interpretations, making it a flawed problem. Variations on the problem, however, also reveal that Tversky and Kahneman accurately described how people make judgments under these circumstances. “Between subject” variations of the Linda problem, in which subjects view one of two versions of a problem, support the theory that people rely on the representativeness heuristics in making categorical judgments. For example, a group of expert forecasters assigned higher probability estimates for the likelihood that “a complete suspension of diplomatic relations between the USA and the Soviet Union, sometime in 1983” than they did to “a Russian invasion of Poland, and a complete suspension of diplomatic relations between the USA and the Soviet Union, sometime in 1983.”

The underlying event itself seems unlikely, and so adding the details that would facilitate the event makes the possibility more cognitively accessible, and thus seem more likely. Although such “between subject” designs have their critics too, other work shows that people who tend to think more deductively commit the supposed mistake in the Linda problem less than more intuitive people. If the subjects are engaged in the kind of reconstruction of the problem that the critics suggest, then the opposite should be the case.

More importantly, the point of the study is not to demonstrate that people make mistakes, it is to identify what cognitive process people rely on when making categorical judgments. The supposed flaw in the Linda problem thus does not represent a condemnation of the study, but the proposition that an alternative cognitive process is at play. The interpretation that critics favor suggests that people comport with the norms of rational choice and deductive logic, whereas the interpretation Tversky and Kahneman favored suggests that people do not always rely on de-

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37. See id. at 299–300.
38. See id.
39. See id. at 307.
40. See, e.g., Keith E. Stanovich & Richard F. West, Individual Differences in Reasoning: Implications for the Rationality Debate?, in Heuristics and Biases: The Psychology of Intuitive Judgment 421, 434 (Thomas Gilovich et al. eds., 2002) (describing a study showing that “the mean SAT score of the 121 subjects who committed the conjunction fallacy was 82 points lower than the mean score of the 29 who avoided the fallacy”).
ductive logic when making such choices. Nevertheless, the problem was not designed as a means of debating human rationality. The problem was meant to illustrate the reliance on a particular cognitive mechanism. Criticism sharpened the underlying point, forcing the researchers to use a more precise method of illustrating the phenomenon, but the criticism does not undermine the theory that human beings rely on cognitive processes that can produce errors in judgment.

Debate over the meaning of the Linda problem illustrates how BLE’s ties to law and economics can harm the field. BLE scholars commonly argue that representativeness leads to irrational and destructive judgments that can be remedied. Scholar treat representativeness as form of market failure, thereby implicitly embracing and extending the methods of economics. This kind of analysis creates a mistaken focus on mistakes in judgment. The emphasis on mistakes means that any demonstration that human choice is actually consistent with rational choice threatens to undermine the value of BLE. The merits of BLE, however, should instead depend on the use of a particular method of assessing and studying human judgment. BLE should not consist solely of an effort to identify and correct mistakes, but instead should consist of an effort to understand how law can best interact with the cognitive processes that produce human judgment and choice.

2. Ecological Rationality

The criticism that people are not actually making mistakes in the lab has morphed into a broader concern that the mistakes in the lab are the product of a deeper rationality. This criticism is most clearly embodied within psychology itself by Gerd Gigerenzer, who argues that the use of the heuristics represents an “ecologically rationality.” He contends that mental shortcuts are the key to human cognitive ability: Simple rules make us smart. Under this thesis, the reason that human beings use mental shortcuts is not because we are overwhelmed by information we cannot process, but because attempting to process all available information would lead to mistakes. In the extreme form that Gigerenzer posits, it is better to use mental shortcuts than to attempt to process all available information, even if we had the time and cognitive capacity to do so. From this perspective, faster is not only more efficient, it is smarter.

41. See Rachlinski, supra note 25, at 1171 (identifying representativeness as one of five common cognitive processes that pervade BLE).
44. Id. at 14–15.
45. See Gerd Gigerenzer & Daniel G. Goldstein, Betting on One Good Reason, in SIMPLE HEURISTICS THAT MAKE US SMART, supra note 43, at 75–95.
According to the theory that heuristics make us smart, reliance on heuristics must produce few errors in judgment. Even though Gigerenzer contends that the results Tversky and Kahneman obtained are not mistakes, it is hard not to admit that certain studies produce errors. In one study designed to illustrate availability, researchers asked subjects whether the English language contains more words that have the letter "k" in the third position or that begin with the letter "k." Most people conclude that there are more of the former, even though the language contains nine times as many words that have the letter k in the third position than begin with the letter k. That is a mistake—period. Gigerenzer argues, however, that many studies of this type are highly artificial and devoid of the social context that we normally encounter. Only a linguist needs to know the answer to the question, and hence this type of study asks subjects something that they will never truly need to know.

Gigerenzer's arguments have pointed out flaws in some of the core research in the psychology of judgment and choice. For example, he has attacked studies that purport to show that people make overconfident judgments. Overconfidence is a particular problem for someone who believes that people generally make good judgments, because confidence in judgment cannot be brushed aside as an unimportant feature of human judgment (unlike word counts in the English language). An overconfident person will make numerous mistakes. Gigerenzer argues that researchers have used methodological tricks to obtain results that make people seem to be overconfident. In the typical study of overconfidence, researchers ask subjects to answer a question and then ask them to assess the probability that they answered the question correctly. Studies commonly show that subjects overestimate their ability to answer general knowledge questions. Instead of asking subjects to estimate the likelihood that they get a single item correct, Gigerenzer asks subjects how many questions in a set they are likely to have gotten correct. This method produces estimates that are generally accurate. It is odd that subjects who will say that they are ninety percent confident actually say that they are only apt to get seven out of ten questions right, but Gigerenzer contends that the frequency format is more natural and hence facilitates better judgment.

The idea that people rely on mental processes that produce rational judgments in realistic settings and only produce deviations from rationality in unnatural settings obviously blunts much of the force of the legal
reforms that BLE often suggests. Once again, the criticism shows the vulnerability of BLE to evidence that people make rational judgments.

As with the concern that cognitive mistakes are not mistakes, the criticisms arising from ecological rationality do not undermine the field. For one thing, few truly believe that the reliance on heuristics leads to better judgment in all cases. Indeed, even with respect to overconfidence, the evidence suggests that people make overconfident judgments in contexts that are highly relevant to important aspects of their lives. For example, incoming freshmen identify features of a college that they say are critical to their choice, even though they grossly overestimate the extent to which of these features will matter to them at the end of one semester.51 For many high school students, their choice of college is the most important decision they will make in their young lives, and yet they approach it with notable overconfidence. Gigerenzer's work shows that overconfidence might be a contextual phenomenon that occurs only in certain settings. The settings in which overconfidence influences judgment, however, are often important ones.

The research on ecological rationality also largely fails to account for the dynamic and difficult system in which people make important judgments. For example, numerous papers in BLE address misleading advertising or deceptive business practices.52 In these settings, marketers have incentives to tinker with different ways of displaying their product so as to induce consumers to use cognitive processes that serve marketers' ends. Even if consumers develop a sensible way of thinking about these situations, marketers can try a different approach. Furthermore, in many settings people get little to no feedback on the quality of their choices, making it hard to see how they could develop sensible heuristics. Many important decisions (e.g., college, marriage, and major purchases) are made so infrequently that little chance for learning from experience exists.

The real message from the heuristics and biases literature is not that people make mistakes, although that is certainly part of the message. Rather, the real message is that people develop specific cognitive processes used to make decisions. These processes can be useful and often lead to good judgments. But in many important instances, people pull the wrong cognitive tools out of their adaptive toolboxes. For example, instead of treating the Linda problem as one that is easily solved with deductive logic, they call upon their perception of similarity, which leads them astray. It may well be that heuristics generally make us smart. But they also make us vulnerable to error.

Research on judgment and choice that uses the perspective of ecological rationality can thus help pinpoint when people are vulnerable to errors and when they are not. It can also lead to useful ways to facilitate better judgment. This perspective, however, should not reassure conventional law and economics scholars that cognitive mistakes are not real or are not pervasive.

B. The Phenomena on Which BLE Relies Are Coherent

Scholars have accused BLE of lacking any underlying theory. Such critics contend that BLE incorporates a seemingly endless collection of heuristics, biases, and other foibles of human judgment in an ad hoc fashion. This criticism takes two forms. First, maybe it "takes a theory to beat a theory," and the underlying psychology needs a coherent organizing principle—such as rational choice theory—before its tenets can be accepted as substitutes for rational choice theory. Second, absent an organizing framework, BLE scholars can cherry-pick from a range of cognitive phenomena to support whatever policy preference is consistent with their political views. Both of these are important concerns that are also best addressed with the underlying psychological research.

The concern over the lack of a coherent theory for BLE is really a concern that the psychology of judgment and choice lacks a coherent theory. And it is true that the field does not embrace a broad-based principle, like rational choice theory, to guide a research program. This concern, in fact, is partly what motivates some psychologists to embrace ideas like ecological rationality. Ecological rationality provides a metric by which to assess the observed cognitive phenomena. Under this approach, cognitive processes are adaptive mechanisms that facilitated survival in our ancestral past. Proponents of this approach thus view phenomena that do not appear to have an adaptive function as suspect.

Psychology is not a field that embraces broad-based principles as a fundamental guide to its research program. Rather, psychology builds up its principles from observed data. Psychology has embraced omnibus theories in the past (Skinnerian behaviorism and Freudian psychoanalysis) only to find that they cannot explain sizeable chunks of human behavior. Like the hard sciences, its theories are built from the bottom up and not form the top down. In psychology, one does not beat a theory with a theory, but one beats a theory with data. When a theory does not appear to have empirical support, it slowly comes to be rejected and replaced by an alternative theory.

In this respect, it is probably better to see economics as the outlier discipline in embracing a unitary theory. Hard sciences like chemistry, biology, and physics do not start with a single general prediction about

53. See Rachlinski, supra note 3, at 748–52 (reviewing these criticisms).
54. See id.
how all molecules, organisms, or bits of matter behave and then derive empirical claims. Rather, theories are built up that must accommodate the existing data. No one in physics would ever have sensibly claimed that Brownian motion was not real merely because it was inconsistent with Newtonian physics without also admitting that rigorous empirical testing was the real way to assess whether such a phenomenon was real. It would be no less strange to assume that people do not suffer from "framing effects" or hindsight bias merely because these phenomena seem inconsistent with rational choice.

Psychology, particularly cognitive psychology, is more of a methodology than a theory. Cognitive psychologists hypothesize cognitive structures in the mind (or brain) that perform identifiable functions that explain the pattern of behavior that can be observed in the research. This approach has proven successful because it tracks how the brain actually works. The brain is increasingly seen as having compartmentalized sets of functions. A methodological approach that accommodates internally separate processes that can conflict as they perform different functions is thus consistent with the underlying machinery of the brain.

Furthermore, the psychology of judgment and choice has produced several consistently observed patterns. People seem to rely on simple mental shortcuts that are useful but can be overused. These include a heavy reliance on context to make a choice, particularly the status quo. Psychologists have also found that it is best to view concepts that economists think of as entirely fungible (e.g., probability, wealth, and even money) as having the same kinds of psychophysical properties as ordinary stimuli (e.g., light and temperature). That is, people do not treat these as entirely fungible and do not consistently treat them as linear concepts that guide decision making. Psychology does not really benefit from an overarching theory so long as the observations slowly accumulate into a set of reliable generalizations about human judgment and choice.

The concern with the ad hoc use of cognitive psychology in legal decision making is, however, an important one. Legal scholars are advocates who develop policy preferences that likely arise from their political views, rather than from the realities of social science. Scholars are thus apt to use the psychology the way a drunk uses a lamppost—for support, rather than illumination. The diversity of findings from psychology facilitates an ad hoc approach. The findings sometimes conflict with each other, and it can be difficult to determine which cognitive phenomena will influence people in which context. Therefore, legal scholars and advocates can commonly find phenomena within psychology to support their arguments with no apparent limitations.

The use of science as advocacy is a sin of legal scholarship in general, however, and is not unique to psychology. Legal scholars take the same approach with economics, history, philosophy, sociology, or any convenient source of support. The accuracy of these policy points will, in the long run, depend on whether the point that the legal scholar makes is truly faithful to the underlying research in psychology and whether empirical support for it can be found in the legal context. The same is true of economics and other social sciences. The presence of a unifying theory has not precluded the ad hoc use of any field of research to support advocacy.

C. The Phenomena on Which BLE Relies Persist in the Face of Incentives and in Institutions

Would cognitive errors disappear only if the incentives were high enough? Do these errors persist in institutional settings? One might suppose that research subjects given no incentive to answer the Linda problem properly cannot be expected to deploy the same level of cognitive effort as they might if their jobs, fortunes, or lives depended on it. Psychologists studying judgment and choice, however, have assessed the thesis that incentives would make the phenomena that they study disappear in detail. Generally speaking, they have rejected the idea that their research is the product of the lack of sufficient motivation by their subjects. Incentives can influence judgment and choice, but they are no panacea for good judgment. “Incentives do not operate by magic: they work by focusing attention and by prolonging deliberation.” When the error is the product of an illusion of judgment of which people are not aware, they follow the illusion all the more strongly.

Institutional settings can reduce errors in judgment, and this concern is a more serious criticism. Psychologists rarely study institutional settings even though most choices are made within an institutional framework. Institutional settings that reward good judgment (e.g., highly fluid financial markets) can weed out those who rely on erroneous strategies or rearrange the decision-making context in order to ensure that their decision makers have a better context for making choices.


tions can also require accountability, which reduces some (but by no means all) cognitive errors.  

Institutional frameworks, however, are also not a cure-all for bad judgment. The strategies that institutions can use to produce good judgment are costly. These strategies commonly involve hiring expensive experts or dividing up decisions between different groups. Also, institutions require self-conscious restructuring to improve their decisions. Institutions might lack feedback that would signal that they need to alter their decision-making strategies—feedback that might be hard or even impossible to obtain. Institutional settings can also make judgment worse by producing groupthink or incentives structures that send bad information up the chain of command.

Furthermore, even if some institutional settings can improve judgment, a sensible legal system would recognize that many important decisions are not made in institutional settings. Decisions by consumers, judges, and juries are not necessarily made with the kind of institutional framework that can improve judgment. The role of incentives and institutions is thus important but only deepens the project of BLE, it does not undermine it.

IV. THE PARADOX OF BLE

More significant than all of these criticisms, however, is a concern that none of the critics have expressed directly. Most of the criticisms, in one way or another, contend that BLE has gone too far in departing from the rational choice model of human judgment. A more serious concern, however, is that BLE has not gone far enough. BLE is still law and economics; it does not reject the basic foundations of economics. Even though the psychological origins of BLE are firmly inconsistent with many of the basic tenets of economics, the model for BLE remains that of law and economics. This represents a paradox that is difficult to resolve.

Two important implications of psychology are particularly challenging for BLE to accommodate, because they seem fundamentally inconsistent with the methodological commitments of law itself: situationism and the psychology of hedonic value. Situationism is that strain of social psychology that suggests that human behavior is commonly the product of the situations in which people find themselves, more so than their own underlying personalities. By contrast, law tends to assume people are responsible for their own conduct. Hedonic psychology refers to those

aspects of the psychology of judgment and choice that suggest that people do not truly know what they value. By contrast, law assumes that people carry stable preferences that they access when making decisions.

Professor Korobkin’s fine article in this volume takes on the role of hedonics.62 I will therefore confine my discussion to that of situationism. But suffice it to say, the idea that people fundamentally misunderstand what they value would be a deeply serious problem for any legal system such as ours, which is founded upon the primacy of autonomy and individual choice. Preserving personal autonomy within a legal system has inherent value, but it is also valuable on utilitarian grounds because free choice will mean that people get what they want. If people do not know what they want, then what function does autonomy serve? And what goal should law serve if not personal autonomy? Professor Korobkin tackles these difficult questions, but they show how difficult reconciling psychology and law can be when one takes the psychological work to its full logical implications.

Situationism is just as difficult to reconcile with law. The research from psychology suggests that people in Western cultures tend to underestimate the extent to which the behavior of others is a product of the situation in which they find themselves.63 Instead, we carry a strong tendency to attribute behavior to stable and dispositional traits. This conclusion is one of the fundamental principles of social psychology. Social psychologist Lee Ross outlined this basic observation decades ago and termed it the “fundamental attribution error” (FAE).64 The moniker remains, but it is more than just an error. The FAE is so pervasive and ingrained that it can hardly be called a mere cognitive error that gets made in only limited contexts. Rather, this concept is an organizing principle of social psychological theory.

Psychologists have marshaled a great deal of evidence to support the concept of the FAE.65 As one example of this research, people fail to appreciate even the most obvious of situational controls that govern their behavior. In one experiment demonstrating this phenomenon, in which people were paid to write essays either supporting or opposing the government of Fidel Castro, observers who read the essays rated the writers of the pro-Castro essays as more pro-Castro than they rated the writers of the anti-Castro essays.66 This occurred even though the participants

63. See Ross & Nisbett, supra note 61, at 184–86.
knew that the writers were paid for the content and even though they
knew that the writers were randomly assigned to the position.67

Similarly, in a study critical to the work of Socratic-style law profes-
sors everywhere, Lee Ross and his students showed that people fail to
see the importance of role when assessing others’ intelligence. In his
“quiz bowl” study, Ross randomly assigned students to the role of either
questioner or contestant.68 Ross found that when asked to assess the in-
telligence of the parties, questioners, contestants, and observers all con-
cluded that the questioners were more intelligent.69 After all, the ques-
tioners had all the answers while the contestants were often stumped.
Random assignment ensured that the contest could reveal little about the
relative intelligence of the questioner and the contestant, but all involved
failed to appreciate this. The random selection faded into the back-
ground, leaving the observers to attribute the behavior of the parties to
some sense of their native intelligence.

Stanley Milgram and Phil Zimbardo have provided some of the
most dramatic evidence of the FAE. Milgram induced subjects in his ex-
periment to deliver what appeared to them to be painful electrical shocks
to an innocent victim.70 Subtle aspects of the situation induced the con-
duct, and most subjects continued to deliver the shocks long after the vic-
tim began a series of agonized screams.71 Similarly, Zimbardo induced
ordinary college students in Palo Alto, California to become sadistic
guards in a simulated prison.72 What makes this research surprising to
most of us is that we fail to appreciate the power of the situation in guid-
ing conduct. We assume that only sadistic, twisted individuals would be-
have as the subjects in these experiments behave. And yet we know that
the participants were ordinary people. The experiments teach us about
human nature, but only because we already lack a basic understanding of
human nature. If our attention were focused on the situational cues that
induce behavior, these studies might be interesting, but their results
would not be so surprising.

What does the FAE mean for BLE? Some have applied the FAE in
fairly straightforward ways, arguing that the failure to appreciate the
power of the situation shows how dangerous character evidence is at tri-
al.73 People tend to assume that criminals committed their acts precisely
because of their bad conduct and not because of the circumstances in

67. See id. at 9–10.
68. Lee Ross & Craig A. Anderson, Shortcomings in the Attribution Process: On the Origins and
Maintenance of Erroneous Social Assessments, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND
BIASES, supra note 4, at 129, 136–38 (describing this research).
69. See id.
70. STANLEY MILGRAM, OBEDIENCE TO AUTHORITY: AN EXPERIMENTAL VIEW 20–29 (1974).
71. See id.
72. See generally PHILIP ZIMBARDO, THE LUCIFER EFFECT: UNDERSTANDING HOW GOOD
PEOPLE TURN EVIL (2007) (describing the study).
73. See Chris William Sanchirico, Character Evidence and the Object of Trial, 101 COLUM. L.
which they find themselves. Hence, admitting testimony of past crimes against defendants poses two problems. First, it risks unduly prejudicing the jury against the defendant. Second, it prolongs the punishment of criminal offender by continually holding the past acts against him or her in legal proceedings. This application of the FAE is similar to traditional applications of psychology to law. That is, it identifies a bias in judgment and the legal rule (or reform) that it supports.

But the FAE feels like a more potent phenomenon with broader applications. The bias represents a widespread misunderstanding of how society functions, so surely it has applications beyond a single rule of evidence. The whole legal system is a product of how people think about fault and responsibility. So if the basic perceptions of the population include this fundamental mistake, then surely the legal system itself incorporates this misguided thinking.74

Direct empirical evidence that the FAE has produced a badly skewed legal system is difficult to come by, however. Revealing the faults in the system requires a good deal of psychological perspective on law and society. A person who commits the FAE might be unable to see its effects in the system; indeed, that is precisely how the system came to carry the error. For example, consider the question of how to respond to those who are convicted of dealing drugs. We naturally blame the drug dealer and send him or her to prison—often under dreadful conditions and for a lengthy term. But if we believe Milgram and Zimbardo, then the criminal might suffer from bad circumstances more than bad character. Growing up poor in a tough urban neighborhood itself is not a crime; it is an accident of fate. Similarly, having the misfortune of meeting older drug dealers or admiring the lives lived by some of the more successful dealers are not crimes, especially in a neighborhood where more wholesome role models tend to move away. At some point, the dealer crosses a line and breaks the law, and certainly not every poor urban kid with an unfortunate set of friends turns to crime. Similarly, not every guard in Zimbardo’s prison study was sadistic, and not every subject in Milgram’s research gave the most severe shocks. Praising those who resist the power of the situation in which they find themselves, however, should not necessarily lead us to condemn those (in some cases the majority) who succumb to the situational influences. Under other circumstances, people who face bad circumstances might have never engaged in criminal conduct. To be sure, this simplifies a complex argument, and many would not agree that people should be excused because of their circumstances. The extreme punishment meted out to drug dealers and many other types of criminals nevertheless grates on most social psychologists, who see the underappreciated influence that bad circumstances can have on behavior.

To justify the severe punishment of imprisonment, the legal system relies heavily on moral blame. The actors sent there must be bad, not merely unfortunate. In fact, most adults blame criminals for their crimes. The legal system assumes that bad character and not bad luck plays a critical role in crime precisely because most people believe it. Evidence from sociologists and criminologists concerning the correlates of crime is widely known to the general public, but this evidence is either dismissed or rationalized away. The FAE might play a powerful role in the public's rejection of the evidence and its embrace of a highly punitive system. The system we have rests on blaming criminals for their conduct, and as a society, we have no problem doing exactly that.

The influence of the FAE likely goes further than the criminal justice system. As Jon Hanson and some of his students have argued, the torts system also relies on assigning blame. Hanson worries that tort plaintiffs bear the brunt of the FAE in the civil justice system. Despite public perceptions that tort plaintiffs run amuck in the legal system, their efforts to ascribe fault to manufacturers and pharmaceutical companies face a range of hurdles that lead the system to blame them for their own misfortunes. Smokers are blamed for getting lung cancer because they ignored warnings, fat people are blamed for eating too much and failing to diet, and all manner of risk activity is blamed primarily on the actor who gets injured. To most people, this seems to be a just outcome. But is it the FAE at work again? After all, manufacturers of cigarettes, fast-food companies, pharmaceutical manufacturers, and others control the environment in which people make choices. In the end, who is responsible for the sadistic behavior of the guards in Zimbardo's prison experiment—the unwitting students who were brought in and encouraged to be brutal or Zimbardo himself for setting up the circumstances that produced the brutality? The FAE hides the background environment that produces smokers, fat people, and severe injuries, even though this environment is produced precisely by the marketers and manufacturers who sell these products. Marketers and manufacturers might be said to have just as much control over the environment that Zimbardo had over the prison guards. And when judges or jurors see the smoker, the environment remains hidden. And once again, when plaintiffs' lawyers bear the brunt of reforms instead of tobacco companies, most citizens fail to see the trap that tobacco companies laid for smokers and blame plaintiffs' lawyers for stirring up trouble.

Jon Hanson goes one step further with his analysis, however. He argues that large companies benefit heavily from the FAE, and he finds it a repugnant, unfortunate aspect of modern society. Hanson goes fur-

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76. See Hanson & Yosifon, supra note 65, at 242–45 (discussing the role of social psychological biases in the assignment of blame in tort law).
77. See, e.g., id. at 266–68.
ther, however, than to condemn the system that blames individuals, even when corporate entities set the stage for their misfortune. But for him, yet another shoe drops. He asserts that large companies are also responsible for the FAE.\(^{78}\) They pitch individualism along with their products. The Marlboro Man is his case in point. Not only does the admirable, rugged individualist in the ad campaign smoke—he is an admirable, rugged individualist! He represents an effort both to convince the public both to smoke and to embrace individualism. Thus, even as they sell their products, the tobacco manufacturers erect their defense against litigation. They plant seeds that grow into the FAE, thereby poisoning the jury pool (and presumably the voters) against their victims and undermining the attitudes that would otherwise promote legislative reform.\(^{79}\)

The comparative influence of individual differences and the power of social situations can be described in two different ways. First is "weak situationism," which refers simply to the underappreciation of the importance of social situations in determining individual behavior. Second is "strong situationism," which refers to the belief that not only do people underappreciate the power of the situation, but also that the situation is, in fact, a much more important determinant of behavior than individual variations. Jon Hanson calls his view that business interests perpetuate the FAE "deep capture."\(^{80}\) The social science evidence can be said to reasonably support weak situationism. It is unclear whether strong situationism can be coherently tested. Determining whether personality or situations are more potent determinants of behavior in a world in which many people choose what situations they encounter is challenging. Furthermore, while it is obvious that being born in rural India likely produces a radically different life than growing up in suburban Chicago, different personalities in both settings also seem to arise. Hanson’s ideas on deep capture go beyond empirical evidence to stand or fall as a rhetorical perspective, more so than as social science. Even though one can find examples of advertisements that reflect individualism, it is not obvious whether such advertisements create an attitude or take advantage of one that exists for other reasons. Furthermore, for every advertisement that suggests individualism, one also likely finds advertisements that promote community ethics.

Which kind of situationism provides the right approach to legal problems is a challenge to BLE. The easy path is, of course, weak situationism. Accepting that the FAE means weak situationism allows BLE scholars to advocate some mild tinkering with the legal system, such as the scholarship on the FAE and evidentiary rules. Strong situationism, in contrast, undermines the basic model of human behavior that our legal

\(^{78}\) See id.
\(^{79}\) There is a lot that is wrong with this argument—which will have to await another place and another time.
\(^{80}\) Hanson & Yosifon, supra note 65, at 202.
system entails. In so doing, strong situationism risks incoherence because of its fundamental incompatibility with the central role that assigning blame plays in our legal system.

What would strong situationism mean for the legal system? This is the challenge for BLE. If we accept the argument that our core beliefs about how society works are wrong, then what else must we give up? Can we ever punish a criminal defendant? Must we embrace enterprise liability? These are unlikely trends in any near future, making this a hard road for BLE to travel.

V. CONCLUSION

The future of BLE is yet to be written. Much like law and economics, BLE has embedded itself within the firmament of legal scholarship. Numerous standard-cite references are finding their way into the first-year casebooks in law schools, ensuring that the next generation of lawyers will be mindful of this line of work, just as the last generation became mindful of law and economics. Criticism is inevitable and helpful, as it sharpens the field. Because the criticism fails to undermine the underlying psychological research, it will not truly undermine the field. Ironically, the real difficulty BLE faces lies in its embrace of psychological principles that are incredibly difficult to square with the fundamental assumptions of the legal system. For the foreseeable future, the field will remain a paradox.