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BOOK REVIEW

NUDGING THE JUSTICE SYSTEM TOWARD BETTER DECISIONS

EDIE GREENE* & BRIAN H. BORNSTEIN**

DENNIS J. DEVINE, *JURY DECISION MAKING: THE STATE OF THE SCIENCE* (NYU PRESS 2012). 283 PP.

DAN SIMON, *IN DOUBT: THE PSYCHOLOGY OF THE CRIMINAL JUSTICE PROCESS* (HARVARD UNIVERSITY PRESS 2012). 416 PP.

One of us has tacked a cartoon to the office door that shows three elderly gentlemen holding cocktails, obviously ill at ease in each other's company—one looking down, a second glancing up, and a third whose gaze seems adrift. The caption reads, "A psychologist, a lawyer, and a shoe salesman attempting to mingle at a cocktail party." This is obvious hyperbole because, as everyone knows, shoe salesmen can talk to all sorts of people,¹ and as we will show, psychologists and lawyers have much to discuss.² Two recent books, *Jury Decision Making: The State of the*

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¹ See, e.g., Annie Favreau, *Chatterbox Careers: 7 Jobs for Talkative People*, BRAZENCAREERIST.COM (Aug. 16, 2011), <http://blog.brazencareerist.com/2011/08/16/chatterbox-careers-7-jobs-for-talkative-people/>.

² See, e.g., Randall W. Engle, *Comment from the Editor*, 20 CURRENT DIRECTIONS PSYCHOL. SCI. 3 (2011) (emphasizing the importance of psychological scientists in legal scholarship); see also EDIE GREENE & KIRK HEILBRUN, *WRIGHTSMAN'S PSYCHOLOGY AND THE LEGAL SYSTEM* (2013); JOHN MONAHAN & LAURENS WALKER, *SOCIAL SCIENCE IN LAW:*

*Science*³ by Dennis J. Devine and *In Doubt: The Psychology of the Criminal Justice Process*⁴ by Dan Simon, powerfully illustrate this symbiosis. Although the books are bidirectional in the sense that they present psychology's role in legal processes as well as legal implications for the field of psychology,⁵ their emphases are decidedly on how psychological research can be used to improve legal policy, procedure, and practice.

To explore how legal processes and procedures can be improved through the use of research findings, we borrow the concept of "nudging," popularized in the book entitled *Nudge: Improving Decisions About Health, Wealth, and Happiness*.⁶ Authors Richard H. Thaler and Cass R. Sunstein show that by considering the complex and occasionally irrational ways that people think, one can offer choices that make it easier for people to reach optimal decisions. We extend this thinking into the legal realm and show that Devine's and Simon's books both offer scientifically based, pragmatic alternatives to procedures and practices that currently hamper fair and efficient legal decisionmaking. We suggest that both *Jury Decision Making* and *In Doubt* show how legal decisions can be enhanced through science.

I. PSYCHOLOGICAL CONTRIBUTIONS TO THE LAW

In *Jury Decision Making*, Devine, an associate professor of psychology at Indiana University–Purdue University Indianapolis, provides the most thorough and comprehensive collection to date of the large body of psychological scholarship on the variables that influence jury decisions. Specifically, he cites the many methodological and theoretical contributions of psychologists to understanding jury decisionmaking. These include: (1)

CASES AND MATERIALS (7th ed. 2009); Jeffrey J. Rachlinski, *The Psychological Foundations of Behavioral Law and Economics*, 2011 U. ILL. L. REV. 1675, 1675 (2011) ("Never has law relied as heavily on psychology as it does today.").

³ DENNIS J. DEVINE, *JURY DECISION MAKING: THE STATE OF THE SCIENCE* (2012). One of us (Bornstein) is currently coeditor of the New York University Press book series on psychology, crime, and law, which published *Jury Decision Making*. However, he became an editor after the book was already in production, and he had no role in the book's selection, editing, or publication.

⁴ DAN SIMON, *IN DOUBT: THE PSYCHOLOGY OF THE CRIMINAL JUSTICE PROCESS* (2012).

⁵ This type of reciprocal relationship is described in Brian H. Bornstein & Edie Greene, *Jury Decision Making: Implications for and from Psychology*, 20 CURRENT DIRECTIONS PSYCHOL. SCI. 63 (2011). In the context of jury decisionmaking, the relationship is reciprocal because jury trials provide a setting for testing psychological theory regarding reasoning, judgment, decisionmaking, persuasion, stereotyping, and group behavior; and psychological research findings have informed and influenced trial practices.

⁶ RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 5–7 (2008).

trial practices related to jury size, decision rule, jury selection, and judicial instructions; (2) the effects of trial context, including exposure to pretrial publicity and inadmissible evidence and varying verdict options and standards of proof; (3) characteristics of trial participants, such as defendants' attractiveness, remorse, and prior records, and jurors' dogmatism, beliefs about the legal system, and approaches to evaluating evidence presented at trial; and finally, (4) aspects of the evidence, including its strength and issues specific to evidence from eyewitnesses, experts, and scientists. Devine relies on data from simulated and real juries alike on questions pertinent to both criminal and civil issues and includes studies of both individual jurors and interacting groups.

Devine claims that because there have been relatively few attempts to tie together this large body of empirical research,⁷ his primary goal was to "gather the many findings about juries and synthesize them into an overarching theoretical framework."⁸ Hence, the book's most original contribution is his integrative, multi-level theory of jury decisionmaking that is fleshed out in the second half of the book. As its title suggests, the theory proceeds on two levels of decisionmaking: by individual jurors and within the jury as a whole.

Devine analogizes an individual juror's decisionmaking to that of a film director who begins the process of shooting a film (reaching a decision) with a script in mind, forming images (in the juror's case, *mental* images) of the components of the story, and eventually arriving at a final cut (an individual, preliminary verdict preference). In the process, footage (evidence) that does not adhere well to the narrative being developed will be discarded, left on the cutting-room floor. Any ambivalence about the

⁷ A few algebraic and stochastic models of individual jurors' decisions were developed in the early years of scholarship on jury decisionmaking. See, e.g., Thomas M. Ostrom et al., *An Integration Theory Analysis of Jurors' Presumptions of Guilt or Innocence*, 36 J. PERSONALITY & SOC. PSYCHOL. 436, 436 (1978); Ewart A. C. Thomas & Anthony Hogue, *Apparent Weight of Evidence, Decision Criteria, and Confidence Ratings in Juror Decision Making*, 83 PSYCHOL. REV. 442, 443-44 (1976). To date, the most influential theory describing how individual jurors reach decisions is the story model, which focuses on the manner in which jurors form narrative accounts of the evidence. See Nancy Pennington & Reid Hastie, *Evidence Evaluation in Complex Decision Making*, 51 J. PERSONALITY & SOC. PSYCHOL. 242, 243-45 (1986) [hereinafter Pennington & Hastie, *Evidence Evaluation*]; Nancy Pennington & Reid Hastie, *Explaining the Evidence: Tests of the Story Model for Juror Decision Making*, 62 J. PERSONALITY & SOC. PSYCHOL. 189, 189-93 (1992) [hereinafter Pennington & Hastie, *Tests of the Story Model*]. Various jury-level models focus on the distribution of verdict preferences in a group. See, e.g., Norbert L. Kerr, *Social Transition Schemes: Charting the Group's Road to Agreement*, 41 J. PERSONALITY & SOC. PSYCHOL. 684, 689 (1981).

⁸ DEVINE, *supra* note 3, at 2.

cohesiveness of the narrative will trigger the construction of alternate endings—as disgruntled moviegoers can readily attest—or, in the jurors’ case, of alternative narratives.

Readers familiar with the influential story model developed by Nancy Pennington and Reid Hastie in the 1980s and 1990s⁹ might well ask how Devine’s model differs from that. Although the story model invokes notions of jurors’ expectations regarding how stories are constructed, Devine has more to say about the importance of jurors’ cognitive structures, termed *schemas*, including event-related constructions termed *scripts* and person-related constructions termed *stereotypes*. Devine articulates several other subcomponents of this part of his model, including the role of defendant characteristics, individual differences among jurors, and the persuasiveness of the prosecution’s or plaintiff’s evidence based on its scope, credibility, and singularity.

When deliberations begin, the process of decisionmaking shifts to “story sampling,” in which jurors share their personally constructed stories, and the group as a whole samples from these offerings. The likelihood that any individual juror’s story will emerge as the preferred, shared verdict depends on that juror’s status within the group and on the nature of his or her contributions (i.e., wholly constructed stories are more persuasive than scattered thoughts, observations, or questions). The nature of verdict-favoring factions, including their size, the effectiveness of their leaders, and the cohesiveness of faction members, also matter. The jury-related aspects of this model are, in our opinion, the particularly important contributions of Devine’s theorizing, because jury behavior has been studied much less intensively than individual jurors’ cognitive processes. Devine’s model impressively combines previously distinct concepts, such as minority and majority influence, normative and informational social influence, social sharing of information, and deliberation style. In addition, it suggests a number of novel and testable predictions that should keep Devine and other jury scholars busy for years to come.

In *In Doubt: The Psychology of the Criminal Justice Process*, Simon, a professor of psychology and law at the University of Southern California, reviews psychological research to explain why the predictable irrationality of human thought processes diminishes the accuracy of evidence gathering and verdict determinations. He also suggests ways to rectify this situation. Simon’s approach is simultaneously narrower and broader than Devine’s: narrower in that it focuses solely on the criminal justice system and

⁹ Pennington & Hastie, *Evidence Evaluation*, *supra* note 7, at 243–45; Pennington & Hastie, *Tests of the Story Model*, *supra* note 7, at 189–93.

excludes civil law, yet broader in that it covers the psychological processes involved not only in jury decisionmaking but in a number of other important contexts, such as police investigations, interrogations, and eyewitness testimony. Because a relatively small number of criminal (as well as civil) disputes ultimately wind up before a jury, this scope makes the subject matter of *In Doubt* relevant to a large number of legal actors, including the police who investigate crimes, the witnesses, suspects, and defendants who provide evidence, and the judges and jurors who serve as fact finders at trial. As Simon observes at the book's outset, "[o]ne of the obvious features of the criminal justice process is that it is operationalized mostly through people: witnesses, detectives, suspects, lawyers, judges, and jurors. . . . Criminal verdicts can be no better than the combined result of the mental operations of the people involved in the process."¹⁰ We consider concerns about the mental operations of these legal players throughout this Review.

Simon's book goes on to examine many of the ways in which those mental operations can, and often do, diminish the accuracy of the process in terms of how the evidence is obtained and used and how that evidence influences verdicts. Simon describes that investigators, in their zeal to resolve cases, can make premature judgments that confirm their suspicions about suspects' involvement, assess suspects' truthfulness incorrectly, and conduct interrogations that coerce suspects into confessing falsely. The mistakes can continue when investigators interview eyewitnesses about their memories for details of crimes and identification of the perpetrators as well as during trials when those same eyewitnesses can exert inordinate influence on jurors' judgments. The chapter on fact-finding at trial, in which this book overlaps most with *Jury Decision Making*, makes the important point that jurors overweigh factors that have little to no predictive value (e.g., eyewitness confidence) while being relatively insensitive to factors that do predict witness accuracy (e.g., witnessing conditions).¹¹

In *In Doubt*, Simon does an admirable job of summarizing a large volume of literature in a relatively short space. He also provides some prescriptions for remedying errors. Underscoring the emphasis on practicality, each chapter concludes with a useful set of recommended reforms, about which we will have more to say. As the author acknowledges, some of these reforms would require systematic changes (e.g., shifting investigative incentives from clearing crimes to seeking the

¹⁰ SIMON, *supra* note 4, at 2.

¹¹ See, e.g., Melissa Boyce et al., *Belief of Eyewitness Identification Evidence*, in 2 THE HANDBOOK OF EYEWITNESS PSYCHOLOGY: MEMORY FOR PEOPLE 501, 510–11 (R. C. L. Lindsay et al. eds., 2007) [hereinafter THE HANDBOOK].

truth), whereas others are legally complex (e.g., allowing more expert testimony on topics like false confessions and eyewitness memory). But still others are quite feasible and straightforward, such as recording witness interviews and suspect interrogations and thereby increasing transparency throughout the process. Simon argues persuasively that the reforms would improve the accuracy of the criminal justice process and thereby reduce the incidence of false convictions, cases that he uses effectively to illustrate some of the problems with the system in its present form.

That Simon's book is short on methodological and statistical details will make it less useful to researchers in the field than Devine's book, which contains more of the methodological nitty-gritty. Conversely, it should be more appealing to a lay audience, including practitioners (e.g., attorneys, judges, police) and policymakers. Taken together, these two books make it abundantly clear that psychological theorizing and experimentation have much to offer the law.

But is the legal system listening? The data on this point are mixed. Eyewitness researchers in particular have had some notable successes lately, as demonstrated by the New Jersey Supreme Court's decision in *State v. Henderson*, in which the court recognized and accepted the results of empirical research studies, and revised its standards for assessing eyewitness evidence and instructing jurors in cases involving eyewitness memory.¹² It also supported the increasing admissibility of expert testimony on eyewitness memory.¹³ However, courts have been slower to adopt changes based on research on other topics, such as jurors' difficulty understanding and applying jury instructions.¹⁴

II. ADDING BEHAVIORAL LAW AND ECONOMICS TO THE MIX

Let's return to that cartoon. Imagine that an economist has taken the place of the shoe salesman. Would that trio—the lawyer, the psychologist, and the economist—be likely to converse? Based on the growing body of empirical research that relies on experimental methodologies and theories of psychology to understand individual and group choices and judgments of relevance to the law—the field of behavioral law and economics—we suspect that the answer would be a resounding “yes.”

¹² *State v. Henderson*, 27 A.3d 872, 912–14 (2011).

¹³ *Id.*; see also Tanja Rapus Benton et al., *Has Eyewitness Research Penetrated the American Legal System? A Synthesis of Case History, Juror Knowledge, and Expert Testimony*, in *THE HANDBOOK*, *supra* note 11, at 453, 456–58.

¹⁴ See, e.g., SIMON, *supra* note 4, at 184–91; Edith Greene & Brian Bornstein, *Precious Little Guidance: Jury Instructions on Damage Awards*, 6 *PSYCHOL. PUB. POL'Y & L.* 743, 745–47 (2000) (describing ambiguity of jury instructions on damage awards).

Over the past forty years, psychologists have observed that humans deviate in predictable ways from rational choice theory—the approach, long dominant in economics and increasingly prominent in sociology, political science, and criminology, that assumes individuals’ choices are internally coherent and logically consistent with their biases and preferences.¹⁵ At its most basic level, rational choice theory assumes that all decisions and actions are fundamentally rational in nature.¹⁶ Yet through empirical research in many domains, including police stations,¹⁷ lawyers’ offices,¹⁸ and courtrooms,¹⁹ psychologists have learned that people rely on heuristics and biases that are often useful in simplifying decisions but that lead to judgmental errors and deviations from rationality.²⁰ A straightforward example in the law is this: because jurors make decisions about a defendant’s liability in hindsight (i.e., after learning that a plaintiff has been injured, allegedly due to some (in)action on the part of the defendant), their verdict is likely to be influenced by their knowledge of the consequences of the defendant’s actions.²¹ In *Jury Decision Making*, Devine neatly summarizes other instances in which trial-related procedures or individual-difference variables influence outcomes, often in predictably irrational ways, and he provides effect sizes—the strength of the relationships among

¹⁵ See Paul Slovic, *The Construction of Preference*, 50 AM. PSYCHOLOGIST 364, 364 (1995).

¹⁶ See *id.*

¹⁷ See, e.g., Lori H. Colwell et al., *US Police Officers’ Knowledge Regarding Behaviors Indicative of Deception: Implications for Eradicating Erroneous Beliefs Through Training*, 12 PSYCHOL. CRIME & L. 489, 491–92 (2006).

¹⁸ Craig R. Fox & Richard Birke, *Forecasting Trial Outcomes: Lawyers Assign Higher Probability to Possibilities That Are Described in Greater Detail*, 26 LAW & HUM. BEHAV. 159, 162–67 (2002); Jane Goodman-Delahunty et al., *Insightful or Wishful: Lawyers’ Ability to Predict Case Outcomes*, 16 PSYCHOL. PUB. POL’Y & L. 133, 137 (2010).

¹⁹ Andrew J. Evelo & Edie Greene, *Judgments About Felony-Murder in Hindsight*, 27 APPLIED COGNITIVE PSYCHOL. 277, 279 (2013); Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 784 (2001); Kim A. Kamin & Jeffrey J. Rachlinski, *Ex Post ≠ Ex Ante: Determining Liability in Hindsight*, 19 LAW & HUM. BEHAV. 89, 93 (1995); C. Neil Macrae, *A Tale of Two Curries: Counterfactual Thinking and Accident-Related Judgments*, 18 PERSONALITY & SOC. PSYCHOL. BULL. 84, 85 (1992). But see Jeffrey J. Rachlinski et al., *Probable Cause, Probability, and Hindsight*, 8 J. EMPIRICAL LEGAL STUD. 72, 75–76 (2011).

²⁰ Rachlinski, *supra* note 2, at 1686 (noting that “in many important instances, people pull the wrong cognitive tools out of their adaptive toolboxes”).

²¹ Marylie Karlovac & John M. Darley, *Attribution of Responsibility for Accidents: A Negligence Law Analogy*, 6 SOC. COGNITION 287, 289–91 (1988); Elizabeth F. Loftus & Lee Roy Beach, *Human Inference and Judgment: Is the Glass Half Empty or Half Full?*, 34 STAN. L. REV. 939, 949 (1982) (“If the jurors use their newly acquired knowledge to judge what the defendant . . . should have known at the time of the accident, they may be more likely to find the [defendant] negligent—a verdict that may be substantially different from one arrived at in the absence of this knowledge.”).

variables—and an assessment of the extent of support in the scholarly literature. Both of these concepts are useful to academic researchers.

Deviations from rational choice theory raise practical concerns about how well laypeople and even some experts can assess choices and make judgments. As Simon explains throughout *In Doubt*, cognitive errors related to legal decisions mean, among other things, that detectives rely on confirmation biases in criminal investigations,²² criminal jurors are overly reliant on eyewitnesses' stated confidence in their identifications,²³ civil jurors anchor their monetary judgments on the damage awards suggested by counsel,²⁴ trial attorneys undervalue the opinions of other lawyers in predicting potential jury verdicts,²⁵ and judges have difficulty disregarding inadmissible evidence.²⁶

Importantly, though, these deviations into apparent irrationality are, to a large extent, predictable, so procedural rules can be designed to reduce their impacts and prevent them from affecting the outcomes of adjudication. But this begs two questions: Which legal decisions are likely to be affected by cognitive biases, and how dramatically can and should the relevant procedures be changed to address this predictable irrationality?

Simon tackles these questions in the context of criminal investigations. He first articulates the mechanisms that can bias criminal investigators' judgments and then artfully considers ways to revise investigative procedures to counter these biases. In so doing, Simon raises the possibilities that a) investigators could be forced to consider alternative

²² Karl Ask & Pär Anders Granhag, *Motivational Bias in Criminal Investigators' Judgments of Witness Reliability*, 37 J. APPLIED SOC. PSYCHOL. 561, 583–84 (2007); Karl Ask et al., *The 'Elasticity' of Criminal Evidence: A Moderator of Investigator Bias*, 22 APPLIED COGNITIVE PSYCHOL. 1245, 1258 (2008).

²³ Neil Brewer & Anne Burke, *Effects of Testimonial Inconsistencies and Eyewitness Confidence on Mock-Juror Judgments*, 26 LAW & HUM. BEHAV. 353, 361 (2002); Elizabeth R. Tenney et al., *Calibration Trumps Confidence as a Basis for Witness Credibility*, 18 PSYCHOL. SCI. 46, 49 (2007).

²⁴ EDIE GREENE & BRIAN H. BORNSTEIN, *DETERMINING DAMAGES: THE PSYCHOLOGY OF JURY AWARDS* 150–56 (2003); Bradley D. McAuliff & Brian H. Bornstein, *All Anchors Are Not Created Equal: The Effects of Per Diem Versus Lump Sum Requests on Pain and Suffering Awards*, 34 LAW & HUM. BEHAV. 164, 171 (2010). See also Jennifer K. Robbenolt & Christina A. Studebaker, *Anchoring in the Courtroom: The Effects of Caps on Punitive Damages*, 23 LAW & HUM. BEHAV. 353, 361–62 (1999).

²⁵ Jonas Jacobson et al., *Predicting Civil Jury Verdicts: How Attorneys Use (and Misuse) a Second Opinion*, 8 J. EMPIRICAL LEGAL STUD. 99, 113 (2011).

²⁶ Such evidence includes demands disclosed in settlement negotiations, conversations protected by attorney–client privilege, and rape victims' prior sexual histories. Andrew J. Wistrich et al., *Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding*, 153 U. PA. L. REV. 1251, 1283, 1330–31 (2005).

hypotheses and explain why they should be rejected,²⁷ and b) some team members could offer countertheories to the prevailing hypothesis and spur debate about the strengths and weaknesses of these different options.²⁸ He also proposes a far more feasible procedure for enhancing the objectivity of criminal investigations: electronic recordings. Simon suggests that all interactions between investigators and witnesses should be recorded and preserved in their entirety, careful records should be made of all other investigative procedures, including those that lead to deadends, and the complete record of these activities should be made available to all parties involved in cases. According to Simon, the result of creating a complete record of an investigation is a reduction in its adversarial intensity as well as enhanced accuracy and transparency. With an awareness that their decisions would be exposed to outside observers, investigators would adhere to best (or at least *better*) practices and be deterred from misconduct,²⁹ and law enforcement agencies would be incentivized to provide up-to-date training and oversight.

Devine provides other examples of legal decisions that are beset by cognitive bias, and he too suggests a number of procedural remedies. For instance, joinder of criminal charges biases jurors' judgments against a defendant because jurors attribute multiple instances of wrongdoing to a defendant's criminal disposition and confuse evidence relevant to multiple charges. Devine warns that joinder should be used cautiously and, when feasible, avoided altogether. Devine describes studies which show that when multiple charges are leveled against a defendant in a single trial, jurors are unable to compartmentalize the evidence and consider each charge on its own merits. Rather, they become confused about which evidence is associated with which charge and make negative dispositional

²⁷ Although the likelihood seems small that investigators would be willing to engage in lateral thinking and generate alternative hypotheses, detectives in the United Kingdom are encouraged to do so. See NAT'L CTR. FOR POLICING EXCELLENCE, PRACTICE ADVICE ON CORE INVESTIGATIVE DOCTRINE 2005, at 22–23 (2005). Police officers in Canada have been ordered to take into account "all the information available" and to disregard evidence only if they determine that it is unreliable. See *Dix v. Canada*, 2002 ABQB 580, ¶ 357 (Can.).

²⁸ This procedure has been shown to reduce commitment to a previously made choice. Charles R. Schwenk, *Effects of Devil's Advocacy and Dialectical Inquiry on Decision Making: A Meta-Analysis*, 47 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 161, 163, 168 (1990). It can also reduce "groupthink," whereby social pressures within a group—especially a group with a clear and strong leader—can stifle debate and lead to suboptimal decisions. See generally IRVING L. JANIS, GROUPTHINK: PSYCHOLOGICAL STUDIES OF POLICY DECISIONS AND FIASCOES (2d ed. 1982).

²⁹ Saul M. Kassin, *Eyewitness Identification Procedures: The Fifth Rule*, 22 LAW & HUM. BEHAV. 649, 652 (1998).

inferences about the defendant that increase the likelihood of conviction.³⁰ Devine considers but discards the possibility that a simple procedural reform, namely a limiting instruction, could effectively debias these judgments. (Such an instruction would tell jurors to consider only the evidence that is directly relevant to the particular charge for which it applies.) Unfortunately, limiting instructions on this issue—like limiting instructions in general³¹—have been shown to have little effect on eliminating bias.³² Hence, a better procedural recommendation is for judges to sever charges and reduce the likelihood that jurors will make adverse dispositional attributions of defendants charged with multiple offenses.³³

Simon and Devine both write about the likelihood that jurors' decisions regarding a defendant's guilt can be influenced by the confidence with which a prosecution eyewitness identifies the defendant as the perpetrator. In one study, the confidence expressed by the eyewitness was a stronger predictor of jurors' verdicts than the accuracy of the identification.³⁴ Witnesses who learn that another person has identified the defendant as the perpetrator³⁵ and receive otherwise confirming feedback from a lineup administrator³⁶ show increased confidence in the accuracy of their identifications—even when that information is fictitious. Such

³⁰ Kenneth S. Bordens & Irwin A. Horowitz, *Joinder of Criminal Offenses: A Review of the Legal and Psychological Literature*, 9 LAW & HUM. BEHAV. 339, 349–50 (1985); Edith Greene & Elizabeth F. Loftus, *When Crimes Are Joined at Trial*, 9 LAW & HUM. BEHAV. 193, 204–06 (1985); Sarah Tanford et al., *Decision Making in Joined Criminal Trials: The Influence of Charge Similarity, Evidence Similarity and Limiting Instructions*, 9 LAW & HUM. BEHAV. 319, 332–35 (1985).

³¹ DEVINE, *supra* note 3, at 61.

³² See, e.g., Sarah Tanford & Steven Penrod, *Social Inference Processes in Juror Judgments of Multiple-Offense Trials*, 47 J. PERSONALITY & SOC. PSYCHOL. 749, 761 (1984); Greene & Loftus, *supra* note 30, at 203–04.

³³ Edie Greene & Leslie Ellis, *Decision Making in Criminal Justice*, in APPLYING PSYCHOLOGY TO CRIMINAL JUSTICE 183, 198 (David Carson et al. eds., 2007).

³⁴ R.C.L. Lindsay et al., *Mock-Juror Belief of Accurate and Inaccurate Eyewitnesses: A Replication and Extension*, 13 LAW & HUM. BEHAV. 333, 337 (1989). Several other studies have documented the impact of witness confidence on jurors' judgments. E.g., Amy L. Bradfield & Gary L. Wells, *The Perceived Validity of Eyewitness Identification Testimony: A Test of the Five Biggers Criteria*, 24 LAW & HUM. BEHAV. 581, 590–92 (2000); Neil Brewer & Anne Burke, *Effects of Testimonial Inconsistencies and Eyewitness Confidence on Mock-Juror Judgments*, 26 LAW & HUM. BEHAV. 353, 361 (2002).

³⁵ Lora L. Levett, *Co-Witness Information Influences Whether a Witness is Likely to Choose from a Lineup*, 18 LEGAL & CRIMINOLOGICAL PSYCHOL. 168, 178 (2013); C. A. Elizabeth Luus & Gary L. Wells, *The Malleability of Eyewitness Confidence: Co-Witness and Perseverance Effects*, 79 J. APPLIED PSYCHOL. 714, 720–22 (1993).

³⁶ Amy L. Bradfield et al., *The Damaging Effect of Confirming Feedback on the Relation Between Eyewitness Certainty and Identification Accuracy*, 87 J. APPLIED PSYCHOL. 112, 117 (2002).

feedback also distorts eyewitnesses' retrospective judgments about their opportunities to view the perpetrators, how much attention was paid, and how easy it was to make identifications.³⁷ Importantly, these are precisely the sorts of judgments that the U.S. Supreme Court deems essential to determining whether an identification based on suggestive procedures should nonetheless be admissible, thereby compounding the bias.³⁸

As both Simon and Devine point out, because witness confidence can have a profound impact on jurors' willingness to convict, these findings suggest obvious and easily instituted reforms in the ways that eyewitnesses are questioned and lineups are conducted. In Simon's words:

All identification procedures should be "double-blind": the administrator must be kept unaware of the identity of the suspect; the witness should be informed that the administrator does not know the suspect's identity

The administrator should refrain from any communication or behavior that could be interpreted as suggestive or revealing of the identity of the suspect

The witness should announce his recognition or non-recognition, followed immediately by a confidence statement. The witness should not be given feedback before completing the statement.³⁹

Returning to the question of how extensive these and other procedural changes should be, some proposed revisions are surely heavy-handed. These include suggestions that because jurors have difficulty translating qualitative assessments into monetary awards, particularly for punitive damages,⁴⁰ judges should be used in their place.⁴¹ Other proposals are far

³⁷ Amy Bradfield Douglass & Nancy Steblay, *Memory Distortion in Eyewitnesses: A Meta-Analysis of the Post-identification Feedback Effect*, 20 APPLIED COGNITIVE PSYCHOL. 859, 864–65 (2006).

³⁸ See generally Gary L. Wells & Deah S. Quinlivan, *Suggestive Eyewitness Identification Procedures and the Supreme Court's Reliability Test in Light of Eyewitness Science: 30 Years Later*, 33 LAW & HUM. BEHAV. 1 (2009) (discussing and critiquing suggestive identification procedures).

³⁹ SIMON, *supra* note 4, at 83.

⁴⁰ See Joni Hersch & W. Kip Viscusi, *Punitive Damages: How Judges and Juries Perform*, 33 J. LEGAL STUD. 1, 34 (2004); Daniel Kahneman et al., *Shared Outrage and Erratic Awards: The Psychology of Punitive Damages*, 16 J. RISK & UNCERTAINTY 49, 64–66 (1998); Cass R. Sunstein et al., *Assessing Punitive Damages (With Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071, 2110 (1998); Cass R. Sunstein et al., *Predictably Incoherent Judgments*, 54 STAN. L. REV. 1153, 1167–70 (2002). *But see* rejoinders by Theodore Eisenberg and colleagues, e.g., Theodore Eisenberg et al., *Juries, Judges, and Punitive Damages: An Empirical Study*, 87 CORNELL L. REV. 743, 763–65 (2002); Theodore Eisenberg et al., *The Relation Between Punitive and Compensatory Awards: Combining Extreme Data with the Mass of Awards*, in CIVIL JURIES AND CIVIL JUSTICE: PSYCHOLOGICAL & LEGAL PERSPECTIVES 105, 115 (Brian H. Bornstein et al. eds., 2008).

⁴¹ Reid Hastie & W. Kip Viscusi, *What Juries Can't Do Well: The Jury's Performance*

less draconian. Examples include urging judges to become aware of prospective jurors' difficulties in gauging their own susceptibilities to bias and to remain skeptical of jurors' assurances of impartiality, a common occurrence during voir dire. Still other proposals—for example, that jury instructions be drafted without legalese and that judges provide jurors with helpful responses when asked to clarify the law—are somewhere between these two extremes. Some of these proposals for reducing bias, such as double-blind lineups and more comprehensible jury instructions, would effectively improve the quality of legally relevant decisionmaking. Other reforms, such as requiring eyewitnesses to make immediate confidence judgments or making judges more aware of juror bias, would not necessarily stop predictable irrationality in its tracks. Nonetheless, they would enable the authorities (e.g., police investigators, judges) to place the proper weight on decisions made by witnesses and jurors, thereby indirectly improving the functioning of the system as a whole.

Behavioral decision theorists, in particular, tend to distrust the abilities of various legal decisionmakers and instead favor increased bureaucratic control of their judgments.⁴² But the consequence of such paternalistic interventions is reduced reliance on the collective wisdom of the very people entrusted to judge the actions of others. Is there a more restrained and nuanced way to bring legal decisions in line with deductive logic and rational choice theory?

III. NUDGING DECISIONMAKING IN THE LAW

Both legal scholars and economists⁴³ have advocated for subtly restructuring legal decisions to allow for different thought processes to predominate and thereby to prevent distortions created by cognitive errors. One version of this perspective, outlined in the influential book *Nudge: Improving Decisions about Health, Wealth, and Happiness*,⁴⁴ urges policymakers to consider cognitive biases that are likely to hold sway and to design “choice architectures” through which decisions are structured and

as a Risk Manager, 40 ARIZ. L. REV. 901, 916–17 (1998); Paul Mogin, *Why Judges, Not Juries, Should Set Punitive Damages*, 65 U. CHI. L. REV. 179, 207–15 (1998). Yet judges seem prone to the same cognitive errors that affect jurors. See Guthrie et al., *supra* note 19, at 819–21; Christopher Slobogin, *Why Liberals Should Chuck the Exclusionary Rule*, 1999 ILL. L. REV. 363, 386–87, 396 (1999).

⁴² Victor J. Gold, *Federal Rule of Evidence 403: Observations on the Nature of Unfairly Prejudicial Evidence*, 58 WASH. L. REV. 497, 511 (1983); Michael D. Green, *Negligence = Economic Efficiency: Doubts >*, 75 TEX. L. REV. 1605, 1610 (1997).

⁴³ See, e.g., Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1546 (1998).

⁴⁴ THALER & SUNSTEIN, *supra* note 6, at 17–39.

choices are described in ways that acknowledge these biases. According to *Nudge*, this work is to be done by “choice architects” whose expertise allows them to design situations in which decisionmakers can make better choices.⁴⁵ The notion of choice architecture has caused a significant stir in academic circles⁴⁶ and has been implemented in several real-world contexts in which people make less-than-optimal choices, including healthcare, charitable giving, financial planning, and environmental protection. In each of these contexts, choice architects have “nudged” people by imperceptibly changing the decisionmaking task to prompt them to make better choices.

Though not explicitly advocating that the legal system be nudged, Thaler and Sunstein would agree, we believe, that psychological science as offered up by Devine and Simon is inherently relevant to legal decisions and could be used to render those decisions fairer. In fact, we suspect that the economist, lawyer, and psychologist mingling at that cocktail party could easily engage around the notion of nudges in the law, debating the right and wrong ways to nudge, and pondering the ethical and legal consequences of revising the system based on science. We use the remainder of this Review to explore the ways that nudging could be gently used to benefit jury decisionmaking (à la Devine) and the criminal justice process more broadly (à la Simon).

The authors of *Nudge*, economist Richard H. Thaler and legal scholar Cass R. Sunstein, suggest that nudging can be most beneficial when would-be nudgers have much more “expertise” than decision makers themselves, when the context includes “decisions that are difficult, complex, and infrequent, and when [decisionmakers] have poor feedback and few opportunities for learning.”⁴⁷ These conditions are virtually synonymous with most jury trials, given that in contrast to professional (or even lay) judges,⁴⁸ jurors typically are selected for their lack of expertise. In the overwhelming majority of instances, they serve in only one trial, are given no feedback on whether the judge or other “experts” would have reached

⁴⁵ *Id.* at 3.

⁴⁶ See, e.g., P. Dolan et al., *Influencing Behavior: The Mindspace Way*, J. ECON. PSYCHOL. 264, 265 (2012); Daniel M. Hausman & Brynn Welch, *Debate: To Nudge or Not to Nudge*, 18 J. POL. PHIL. 123, 123 (2010); Evan Selinger & Kyle Powys Whyte, *Competence and Trust in Choice Architecture*, 23 KNOWLEDGE TECH. & POL’Y 461, 462 (2010); On Amir & Orly Lobel, Book Review, *Stumble, Predict, Nudge: How Behavioral Economics Informs Law and Policy*, 108 COLUM. L. REV. 2098, 2118–24 (2009).

⁴⁷ THALER & SUNSTEIN, *supra* note 6, at 247.

⁴⁸ Although lay participation in legal decisionmaking is, on the whole, declining, some countries outside the United States are experiencing success with lay judges. See, e.g., Valerie P. Hans, *Introduction: Lay Participation in Legal Decision Making*, 25 LAW & POL’Y 83, 87, 88–89 (2003).

the same conclusion, and often have to grapple with difficult material.

A prerequisite for nudging is recognition of the judgmental biases that are likely to arise in various situations and of the details about how they can derail rational decisionmaking. Fortunately, on these issues Devine and Simon have done the heavy lifting for us. For example, Devine explains that when jurors are exposed to inadmissible evidence during trial and instructed to ignore it, they are unable to do so, particularly when the evidence fits with the narrative they favor at the time.⁴⁹ Judges typically forge ahead after giving such a directive, with little apparent concern that they just highlighted and underscored the very information they want jurors to disregard. Does choice architecture suggest a better way? Declaring a mistrial and issuing a directed verdict are rarely used (and in the case of mistrials, inefficient) remedies, so attention should focus on preventing exposure to inadmissible evidence in the first place. But it is a staple of televised legal dramas—and probably real trials as well—for attorneys to introduce evidence that they know will be objected to and declared inadmissible, hoping that once the genie is out of the bottle, it cannot be put back in. Devine suggests that preventing exposure can be achieved by various preemptive moves, including increasing the sanctions for attorneys who solicit inadmissible testimony and vetting any questionable material in pretrial hearings or sidebars. Otherwise stated, by nudging the attorneys.

Similarly, Simon describes how confirmation bias in the context of criminal investigations can lead to tunnel vision, whereby a suspect's mere status as "suspect" early in the investigation can cause investigators to search solely for additional evidence supportive of the suspect's guilt and to ignore evidence either of his innocence or of another party's guilt.⁵⁰ The bias can lead not only to false convictions (a bad outcome for the innocent suspect) but also to a failure to apprehend the real perpetrators (a bad outcome for other potential victims and society as a whole). Simon recommends combating the bias by implementing strategies (i.e., nudges) such as "promoting a healthy skepticism" and encouraging and welcoming the generation of alternative hypotheses.⁵¹

Choice architects can also influence decisionmaking by varying the

⁴⁹ For an excellent meta-analysis on this point, see Nancy Steblay et al., *The Impact on Juror Verdicts of Judicial Instruction to Disregard Inadmissible Evidence: A Meta-Analysis*, 30 LAW & HUM. BEHAV. 469 (2006).

⁵⁰ SIMON, *supra* note 4, at 24.

⁵¹ *Id.* at 45. Simon notes that procedures along these lines already exist in the United Kingdom and Canada. He also observes that motivational biases limit the effectiveness of debiasing in certain situations such as criminal investigations. *Id.* Nonetheless, it might be just the sort of nudge that can tip an investigation from an inaccurate to an accurate outcome.

structure of the choice task.⁵² One means of accomplishing this is by determining the optimal number and ordering of choice options that will lead to both rational and preferred outcomes without overwhelming decisionmakers' cognitive capabilities. There are no formulae or recipes for doing so, and the nature of any restructuring will depend on the particular task. But some general recommendations apply, including considering decisionmakers' willingness to engage in the task fully, their familiarity with important components of various choices, and the complexity of the task.

The importance of task complexity is seen in the results of studies that examine how the consolidation of increasing numbers of plaintiffs in complex tort cases affects jurors' abilities to reach fair and predictable outcomes to each plaintiff. In one study, mock jurors were able to award compensatory damages consistent with the extent of plaintiffs' injuries from exposure to contaminated groundwater when the trial involved only four plaintiffs, but they were unable to make appropriate distinctions among those same four plaintiffs when their cases were consolidated with four additional plaintiffs at trial.⁵³ Increasing the number of plaintiffs beyond four increased the amount of evidence that jurors had to process and impaired their abilities to attend to each plaintiff's unique evidence in a particularized manner. These findings provide a clear suggestion to choice architects—such as trial judges—to be wary of the consequences of consolidating multiple parties in the same trial for the sake of efficiency: jurors' cognitive abilities are quickly overwhelmed and less-than-optimal decisions can result.

This example, and others like it, raise the question of whom, exactly, the choice architects in the legal arena should be. Trial court judges are perhaps the most obvious choice, as they have so much control over issues that can enhance or impair trial fairness, such as joinder/severance, consolidation, and admissibility of evidence. Judges are also impartial, at least theoretically, which lends them an aura of credibility as nudgers, compared to, say, attorneys. However, to the extent that judges themselves are susceptible to cognitive biases,⁵⁴ they might not be in the best position to nudge jurors toward better decisions.

Simon argues that effective reform is difficult because of “two important mindsets that help sustain the process despite its limited accuracy: the marginalization of factual accuracy and the denial of the process's shortcomings.”⁵⁵ By this, he means that the adversarial process often places

⁵² Eric J. Johnson et al., *Beyond Nudges: Tools of a Choice Architecture*, 23 *MARKETING LETTERS* 487, 488–90 (2012).

⁵³ Irwin A. Horowitz et al., *Effects of Trial Complexity on Decision Making*, 81 *J. APPLIED PSYCHOL.* 757, 761–64 (1996).

⁵⁴ See Guthrie et al., *supra* note 19, at 819–21.

⁵⁵ SIMON, *supra* note 4, at 209.

procedural rights above accurate verdicts, and that faith in the effectiveness of those procedural safeguards discourages openness to reform. Given the pervasiveness of these mindsets, more than nudging might be necessary.

Policymakers such as state supreme courts and legislatures would seem to be in better positions to serve as choice architects than those in the trenches, like judges and police officers. These rule-making bodies have the power to promulgate evidence-based criminal justice procedures. For example, the U.S. Department of Justice under Attorney General Janet Reno issued guidelines for federal law enforcement to follow in conducting lineup identifications.⁵⁶ More recently, the Supreme Courts of New Jersey⁵⁷ and Oregon⁵⁸ have adopted evidence-based procedures for determining the admissibility of eyewitness identification evidence; and in late 2012, the Florida Supreme Court adopted a new jury instruction on eyewitness identification, the purpose of which is to help jurors in weighing eyewitness testimony.⁵⁹ Explicit policies like these might be somewhat stronger than the type of gentle nudge envisioned by Thaler and Sunstein; nonetheless, they will be subtle enough when applied to actual witnesses and jurors in the field, and they are likely to have a salubrious effect.

IV. CONCLUSION

The new books by Simon and Devine can be read in either a pessimistic or an optimistic light. The pessimistic take is that the reasoning engaged in by jurors and other players in the American justice system is fraught with bias and irrationality, which can lead to serious and potentially devastating consequences like false convictions. The optimistic take is that many, and maybe even most of these biases are—if not totally correctable—at least reducible. To get us there, judges and other policymakers might need little more than a gentle nudge in the right direction. Support for that idea comes from Thaler's and Sunstein's well-reasoned contention that nudging can improve decisionmaking in many realms. We have tried to show that nudges could also lead to enhanced decisions in the law, and we commend Devine and Simon for providing examples of meaningful nudges. If more behavioral scientists follow their examples, our cartoon protagonists will have much to talk about for many years to come.

⁵⁶ OFFICE OF JUSTICE PROGRAMS, U.S. DEP'T OF JUSTICE, EYEWITNESS EVIDENCE: A GUIDE FOR LAW ENFORCEMENT (1999).

⁵⁷ *State v. Henderson*, 27 A.3d 872 (N.J. 2011).

⁵⁸ *State v. Lawson*, 291 P.3d 673 (Or. 2012).

⁵⁹ Jan Pudlow, *Court Adopts New Eyewitness ID Jury Instruction*, FLA. BAR NEWS (Dec. 15, 2012), <http://www.floridabar.org/DIVCOM/JN/jnnews01.nsf/8c9f13012b96736985256a900624829/ee165c3f17af1dbf85257ad00047dbf3!OpenDocument&Click=>. The instruction lists factors that jurors may consider in evaluating eyewitness testimony.