

A Normality Bias in Legal Decision Making

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Robert A. Prentice and Jonathan J. Koehler, *A Normality Bias in Legal Decision Making*, 88 Cornell L. Rev. 583 (2003)
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A NORMALITY BIAS IN LEGAL DECISION MAKING

Robert A. Prentice†
& Jonathan J. Koehler††

It is important to understand how legal fact finders determine causation and assign blame. However, this process is poorly understood. Among the psychological factors that affect decision makers are an omission bias (a tendency to blame actions more than inactions [omissions] for bad results), and a normality bias (a tendency to react more strongly to bad outcomes that spring from abnormal rather than normal circumstances). The omission and normality biases often reinforce one another when inaction preserves the normal state and when action creates an abnormal state. But what happens when these biases push in opposite directions as they would when inaction promotes an abnormal state or when action promotes a normal state? Which bias exerts the stronger influence on the judgments and behaviors of legal decision makers? The authors address this issue in two controlled experiments. One experiment involves medical malpractice and the other involves stockbroker negligence. They find that jurors pay much more attention to the normality of conditions than to whether those conditions arose through acts or omissions. Defendants who followed a nontraditional medical treatment regime or who chose a nontraditional stock portfolio received more blame and more punishment for bad outcomes than did defendants who obtained equally poor results after recommending a traditional medical regime or a traditional stock portfolio. Whether these recommendations entailed an action or an omission was essentially irrelevant. The Article concludes with a discussion of the implications of a robust normality bias for American jurisprudence.

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INTRODUCTION

At the height of their conceit, law-and-economics scholars purported to explain why people act as they do (rational pursuit of self-

interest)¹ and why the common law is as it is (efficiency).² Law-and-economics scholars are now in at least partial retreat,³ as a veritable mountain of scientific evidence now exists showing that decision makers violate economic dicta across numerous contexts,⁴ and that judges

¹ RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 3 (2d ed. 1977) (noting that economics assumes that “man is a rational maximizer of his ends in life, his satisfactions—what we shall call his ‘self-interest’”); see also Roger G. Noll & James E. Krier, *Some Implications of Cognitive Psychology for Risk Regulation*, 19 J. LEGAL STUD. 747, 750–51 (1990) (summarizing key assumptions of the standard model of decision making); W. Kip Viscusi, *Individual Rationality, Hazard Warnings, and the Foundations of Tort Law*, 48 RUTGERS L. REV. 625, 636 (1996) (observing that the “foundation of economic analysis of choice is based on the rationality of individual decision making”).

² See WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 1 (1987) (arguing that “the common law of torts is best explained as if the judges . . . were trying to promote efficient resource allocation”); see also W. Bradley Wendel, *Mixed Signals: Rational-Choice Theories of Social Norms and the Pragmatics of Explanation*, 77 IND. L.J. 1, 4 (2002) (noting that law-and-economics “adherents claimed it explains everything, from nuisance remedies (which it probably does) to sexual idiosyncracies [sic], to racial discrimination, to holiday customs, to the whole universe of social norms”).

³ Even Judge Richard Posner, virtual founder of the law-and-economics movement, has largely abandoned any strict application of the premise that man is a rational economic actor. See Jeanne L. Schroeder, *Rationality in Law and Economics Scholarship*, 79 OR. L. REV. 147, 147 (2000). Professor Schroeder notes:

Over the years, however, Posner’s conception of rationality has devolved from end-means reasoning by a conscious individual human actor, to unconscious instinct which is nevertheless beneficial to an individual subject (animal or human), to the mechanistic reproductive activity of individual genes which may or may not be beneficial to either the organism of which the gene is a part—or even to the gene itself. Indeed, all that seems to be left of the “rational” component of Posnerian rationality might be the positive normative connotations of the term itself.

Id.; see also Jeanne L. Schroeder, *Just So Stories: Posnerian Methodology*, 22 CARDOZO L. REV. 351, 421 (2001) (contending that Judge Posner “no longer uses, if in fact he ever did, [Milton] Friedman’s assumption of economic rationality”).

⁴ See John Conlisk, *Why Bounded Rationality?*, 34 J. ECON. LITERATURE 669, 670 (1996) (noting that there exists a “mountain of experiments” in which people act inconsistently with the rational-actor model by making intransitive choices, emphasizing vivid over pallid events, displaying overconfidence, and so on); Larry T. Garvin, *Adequate Assurance of Performance: Of Risk, Duress, and Cognition*, 69 U. COLO. L. REV. 71, 145 (1998) (“Cognitive psychology and experimental economics have found a smorgasbord of cognitive errors, which collectively falsify most of the axioms of rational choice theory.”); Joseph Henrich et al., *In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies*, 73 AM. ECON. REV. (Papers and Proceedings), May 2001, at 77 (finding in a study of fifteen small societies around the world that “the canonical model of the self-interested material payoff-maximizing actor is systematically violated”); Russell B. Korobkin, *Behavioral Analysis and Legal Form: Rules vs. Standards Revisited*, 79 OR. L. REV. 23, 44 (2000) (observing that “a large body of social science literature demonstrates that [rational choice theory’s] predictions are not always accurate, and that deviations from so-called ‘rational’ behavior are often systematic”); Paul J.H. Schoemaker, *The Expected Utility Model: Its Variants, Purposes, Evidence, and Limitations*, 20 J. ECON. LITERATURE 529, 530 (1982) (“[M]ost of the empirical evidence is difficult to reconcile with the principle of [expected utility] maximization.”).

Several collections of the leading examples of these studies are available. See, e.g., *ADVANCES IN BEHAVIORAL FINANCE* (Richard D. Thaler ed., 1993); *BOUNDED RATIONALITY: THE ADAPTIVE TOOLBOX* (G. Gigerenzer & R. Selten eds., 2001); *CHOICES, VALUES, AND FRAMES* (Daniel Kahneman & Amos Tversky eds., 2000); *JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER* (Terry Connolly et al. eds., 2d ed. 2000); *JUDGMENT UNDER*

and jurors ignore efficiency criteria when making decisions that establish the common law.⁵

This Article contributes to the growing literature on behavioral influences in the law⁶ by offering a psychological account of legal decision making. Rather than presume that a uniform and rational set of economic criteria accounts for legal outcomes, we draw on the in-

UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman et al. eds., 1982); RESEARCH ON JUDGMENT AND DECISION MAKING: CURRENTS, CONNECTIONS, AND CONTROVERSIES (William M. Goldstein & Robin M. Hogarth eds., 1997).

⁵ Jonathan Baron and Ilana Ritov conducted an empirical study in which they found, consistent with most studies of jury decision making, that jurors rarely think like economists. Specifically, they discovered that most potential jurors and judges paid little or no attention to the deterrent rationale of tort law upon which Landes and Posner rested their analysis. Jonathan Baron & Ilana Ritov, *Intuitions About Penalties and Compensation in the Context of Tort Law*, 7 J. RISK & UNCERTAINTY 17, 31-32 (1993). They concluded that:

Our results create a puzzle for positive economic theories of law, particularly that of Landes and Posner If the system can be understood in terms of the consequentialist rationale, as they claim it can, what human judgments maintain it? Note that our main findings held even for judges, and most of our other subjects are potential jury members. Perhaps the present system is not so close to be[ing] the "best of all possible consequentialist worlds," as Landes and Posner would suggest.

Id. at 32; see also Jonathan Baron, *Heuristics and Biases in Equity Judgments: A Utilitarian Approach*, in PSYCHOLOGICAL PERSPECTIVES ON JUSTICE 109, 111 (Barbara A. Mellers & Jonathan Baron eds., 1993) ("Utilitarianism often conflicts with our intuitive beliefs about what is morally right."); Kevin M. Carlsmith et al., *Why Do We Punish? Deterrence and Just Deserts as Motives for Punishment*, 83 J. PERSONALITY & SOC. PSYCHOL. 284, 295 (2002) (finding, inconsistent with economic reasoning, that "[a]lthough participants expressed support for deterrence as a goal of punishment . . . , [t]heir punishment assignments were instead consistent with a theory of punishment based on the moral deservingness of the perpetrator"); John M. Darley et al., *Incapacitation and Just Deserts as Motives for Punishment*, 24 LAW & HUM. BEHAV. 659, 676 (2000) (finding, inconsistent with traditional economic theory, that a person's desire to punish is based primarily upon a just deserts motive); Heidi Li Feldman, *Prudence, Benevolence, and Negligence: Virtue Ethics and Tort Law*, 74 CHI.-KENT L. REV. 1431, 1434 (2000) (noting that "[l]ay jurors possess no particular expertise in economic analysis [and that c]ivil negligence actions do not ask jurors to apply a standard of care that even refers to these matters"); David A. Hoffman & Michael P. O'Shea, *Can Law and Economics Be Both Practical and Principled?*, 53 ALA. L. REV. 335, 374, 395-98 (2002) (noting that "there is evidence that Americans prefer not to have economic and utilitarian methods of decision-making play a large role in their legal system"); Jonathan J. Koehler & Andrew D. Gershoff, *Betrayal Aversion: When Agents of Protection Become Agents of Harm*, ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES (forthcoming 2003) (manuscript at 13-18, on file with authors) (finding, inconsistent with economic reasoning, that mock jurors did not assign greater punishment to a thief whose crime was harder to detect); Cass R. Sunstein et al., *Do People Want Optimal Deterrence?*, 29 J. LEGAL STUD. 237, 248 (2000) (finding that an economic approach to deterrence in the legal system is broadly rejected by the public); W. Kip Viscusi, *Corporate Risk Analysis: A Reckless Act?*, 52 STAN. L. REV. 547, 566 (2000) (finding that economic analysis "is inherently unpleasant and may offend jurors").

⁶ Sunstein's book is an accessible introduction to the field of behavioral law and economics (BLE). BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000). Because BLE replaces law and economics' unrealistic assumptions with evidence as to how people actually think and make decisions, Professor Farber suggests that it might be called the "Law and Reality" movement or the "Realistic Legal Studies" movement. Daniel A. Farber, *Toward a New Legal Realism*, 68 U. CHI. L. REV. 279, 303 (2001).

creasingly persuasive cognitive literature to understand how legal decision makers assess causality and subsequently assign responsibility and blame. Despite the centrality of these activities in our legal system, the underlying cognitive forces are only now receiving serious consideration by legal scholars.⁷

For example, consider two stockbrokers, each of whom has discretionary control over a client's investment portfolio. Suppose that stockbroker #1 moves his client's holdings from ABC Co. stock to XYZ Co. stock. Suppose further that stockbroker #2 considers switching his client's holdings from XYZ stock to ABC stock but decides not to make the move. Finally, suppose that ABC Co. then substantially increases in value while XYZ Co. substantially decreases in value. The clients of both stockbrokers suffer identical economic harm. Both lost money because their stockbrokers opted for stock in XYZ Co. over stock in ABC Co. But will the clients of the two stockbrokers fare equally well at trial? Behavioral research suggests that jurors see a stronger causal connection between the bad outcome and the decision to act made by stockbroker #1 than between the bad outcome and the decision not to act made by stockbroker #2.⁸ Jurors are also likely to assign more blame to stockbroker #1 and award higher damages to clients of stockbroker #1, despite the fact that the clients of both stockbrokers suffered identical financial injury.⁹ This is an example of a behavioral bias called the *omission bias*—the tendency of people to find more blameworthy bad results that stem from actions than bad results that stem from otherwise equivalent omissions.¹⁰

Next, consider a scenario in which Mr. X is mugged while taking his usual route home from work, and Mr. Y (in a separate incident) is mugged in an identical fashion and with identical consequences while taking an unusual route home from work.¹¹ Which mugger will receive the more severe punishment? Once again, economic theory does not readily distinguish between the two cases, but psychological research suggests that the mugger of Mr. Y will spend more time in jail. People generally perceive closer links between bad outcomes and abnormal states than between bad outcomes and normal states. Because Mr. Y was mugged while taking an unusual route home, this

⁷ See Richard L. Wiener et al., *Counterfactual Thinking in Mock Juror Assessments of Negligence: A Preliminary Investigation*, 12 BEHAV. SCI. & L. 89, 89 (1994) (noting that "the cognitive processes by which people evaluate negligence claims are not well understood").

⁸ See Daniel Kahneman & Amos Tversky, *Psychology of Preferences*, SCI. AM., Jan. 1982, at 160, 173 (discussing a study of a similar example).

⁹ See *id.*

¹⁰ See *infra* Part I.A.

¹¹ This hypothetical is also based on an influential study. C. Neil Macrae et al., *Counterfactual Thinking and the Perception of Criminal Behaviour*, 84 BRIT. J. PSYCHOL. 221, 224–25 (1993).

crime will be judged more severely than the mugging of Mr. X, which took place in the context of the usual route.¹² This is an example of what we refer to as the *normality bias*—the tendency for people to react more strongly to bad outcomes that spring from abnormal circumstances than to otherwise identical outcomes that spring from more ordinary circumstances.¹³

Traditional economic analyses do not predict or account for such decisional biases. Yet, the phenomena have support in the empirical psychological literature, and they have implications for the rule of law.¹⁴ For example, the omission bias may partially account for, among other things, why American common law imposes no duty to rescue.¹⁵ Moreover, the normality bias may help explain the common law's approach to proximate causation.¹⁶

In Part I, we discuss the omission bias and introduce the normality bias. In addition, we demonstrate how these biases parallel the law's inherent conservatism and create incentives for legal actors to portray conduct in terms of its degree of activeness and abnormality.

In Part II, we examine critically the characteristics of and psychological bases for the omission and normality biases. We discuss related behavioral heuristics and biases (*e.g.*, the status quo bias, endowment effects, loss aversion, and sunk costs), and consider how the human tendency to think in counterfactual terms and to suffer feelings of regret explains the emergence of omission and normality biases. We also show that the omission and normality biases are often mutually reinforcing, because inaction (omission) typically preserves the norm and action typically upsets that norm.

In Part III, we disentangle the omission and normality biases in two controlled experiments involving hundreds of mock jurors. In order to determine whether the omission bias or the normality bias exerts a greater influence on legal judgment, we ask: What happens when decision makers' preference for inaction undermines rather than reinforces accepted norms? How will decision makers respond when action creates a normal state and inaction leads to an abnormal state? Our experiments—one involving medical malpractice and the other involving stockbroker negligence—suggest that the normality bias is controlling. Jurors mete out their strongest punishments in cases in which an abnormal state arises, regardless of whether this state was brought about by actions or omissions.

¹² See *infra* Part II.G.2.

¹³ See *infra* Part I.B.

¹⁴ See *infra* Part I.

¹⁵ See *infra* Parts I.A, II.G.1.

¹⁶ See *infra* Part I.B.

Finally, in Part IV, we provide several explanations for our findings and discuss the important implications they hold for our legal system.

I

THE OMISSION AND NORMALITY BIASES IN LAW AND HUMAN DECISION MAKING

Human nature is inherently conservative.¹⁷ Therefore, it should not be surprising that law, like consumer preferences,¹⁸ medical philosophy,¹⁹ and science more generally,²⁰ is also conservative.²¹ The law favors inaction over action and the usual over the unusual.²² Existing principles are presumed to be appropriate and are relatively un-

¹⁷ See MATT RIDLEY, *THE RED QUEEN: SEX AND THE EVOLUTION OF HUMAN NATURE* 7 (1993) ("Humanity is, of course, morally free to make and remake itself infinitely, but we do not do so. We stick to the same monotonously human pattern of organizing our affairs."); Edward J. McCaffery, *The Burdens of Benefits*, 44 VILL. L. REV. 445, 450 (1999) ("Psychologists and other social theorists have long known that there is a 'status quo bias'—a tendency to be averse to change, to view any disruption to the way things are with suspicion and fear.")

¹⁸ See, e.g., William O. Bearden & Terence A. Shimp, *The Use of Extrinsic Cues to Facilitate Product Adoption*, 19 J. MARKETING RES. 229, 229 (1982) ("The fact that adoption of new products is inherently risky and many consumers are risk averse . . . is a frequent impediment to successful new product introductions." (citations omitted)); S. Ram & Jagdish N. Sheth, *Consumer Resistance to Innovations: The Marketing Problems and Its Solutions*, J. CONSUMER MARKETING, Spring 1989, at 5, 6 (noting that "[o]ne of the major causes for market failure of innovations is the resistance they encounter from consumers" and that "potential changes from a satisfactory status quo" are a key cause of consumer reluctance to adopt new products); Sanjiv Kuman, *Rural Is Just Not Urban*, BUS. TODAY, Mar. 3, 2002, at 112, 113 ("If a company desires to change consumer behaviour, it needs one of these two: a couple of decades, or an industry-wide association willing to back a certain product (or service) standard while consumer-resistance is slowly chipped away and the real tangible benefits of the new product become apparent."). "New Coke" is, of course, a classic example of consumer resistance to a change from the norm. See Nell Henderson, *Coca-Cola Apologizes to Real Thing's Fans*, WASH. POST, July 12, 1985, at B1.

¹⁹ "First, do no harm" (*Primum non nocere*) is one of Hippocrates's essential rules for physicians. See TOM L. BEAUCHAMP & JAMES F. CHILDRESS, *PRINCIPLES OF BIOMEDICAL ETHICS* 120 (3d ed. 1989); *STEDMAN'S MEDICAL DICTIONARY* 647 (23d ed. 1976); *WEBSTER'S NEW WORLD DICTIONARY OF AMERICAN ENGLISH* 639 (Victoria Neufeldt & David B. Guralnik eds., 3d ed. 1991) (describing the Hippocratic Oath as an ethical code for the medical profession).

²⁰ See 2 THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 62 (2d ed. 1970) (noting how resistant science is to change until conditions are right for a paradigm shift).

²¹ See Lawrence I. Kiern, *Damages in Maritime Cases: Environmental Damages Under Federal Law*, 72 TUL. L. REV. 693, 695 (1997) (noting the "inherently conservative nature of the common law"); Rosa Ehrenreich, *Dignity and Discrimination: Toward a Pluralistic Understanding of Workplace Harassment*, 88 GEO. L.J. 1, 56 (1999) (same).

²² See Jonathan R. Nelson, *Judge-Made Law and the Presumption of Arbitrability*: David L. Threlkeld & Co. v. Metallgesellschaft Ltd., 58 BROOK. L. REV. 279, 280 (1992) (noting that judges may follow anachronistic doctrines just because the doctrines have been around so long).

scrutinized.²³ Old laws that would never receive support if offered anew go unchallenged.²⁴ When suggestions for change do emerge, they are received skeptically.²⁵ To be sure, there are often economic advantages associated with a preference for inaction over action (avoidance of start-up costs, for example) and for the usual over the unusual (reduced uncertainty). However, there is much more to the story than these economic incentives. Research shows that even when economic considerations are absent or held constant, people's judgments and choices are systematically biased in favor of inaction and normality.²⁶

A. The Omission Bias: Action vs. Inaction

One example of the law's conservatism is its dramatic fault line between action and inaction, as embodied in its rules concerning legal duty.²⁷ If a vision-impaired Milo bumps into Sally on a riverbank, falls into the water and begins to drown, then Sally has no legal obligation to help Milo. She has no duty to rescue, even if she is an expert swimmer and accurately believes that she could rescue Milo without any significant risk to her personal safety.²⁸ On the other hand, if Sally accidentally bumps Milo into the river, then she probably does

²³ See John H. Bauman, *Go Down, Moses: Teaching About the Historical Roots of Modern Remedies Doctrines*, 39 BRANDEIS L.J. 649, 651 (2001) (noting the conservative nature of the common law's incremental approach); Joseph H. Sommer, *Against Cyberlaw*, 15 BERKELEY TECH. L.J. 1145, 1158 (2000) (noting that "[t]he law—especially the common law—tends to be conservative, accretive, and inductive as opposed to revolutionary, novel, and deductive").

²⁴ See Luther L. McDougal III, *Leflar's Choice-Influencing Considerations: Revisited, Refined and Reaffirmed*, 52 ARK. L. REV. 105, 110 (1999) (noting that many outdated and anachronistic laws stay on the books either because legislatures have not gotten around to repealing or amending them, or because courts have not been asked to review them).

²⁵ See Edward J. McCaffery, *Equality, of the Right Sort*, 6 UCLA WOMEN'S L.J. 289, 289 (1996) ("We seem, as a society, a remarkably complacent lot. We are forever slow to recognize problems and forever fast to write them off. We like things the way they are, by and large, and we don't like change . . .").

²⁶ See *infra* Part II. The omission and normality biases are just two examples of deviations of human reasoning from the optimal rational man model. Moreover, debiasing is extremely difficult. See generally Colin F. Camerer & Robin M. Hogarth, *The Effects of Financial Incentives in Experiments: A Review and Capital-Labor-Production Framework*, 19 J. RISK & UNCERTAINTY 7, 33–34 (1999) (noting that "all established anomalies have survived" attempts to make them disappear by raising incentives).

²⁷ See Saul Levmore, *Waiting for Rescue: An Essay on the Evolution and Incentive Structure of the Law of Affirmative Obligations*, 72 VA. L. REV. 879, 880 (1986) (noting that "our legal system is seen as one that regularly deters antisocial commissions, often compensates victims of commissions, rarely deters antisocial omissions, and virtually never rewards rescuers").

²⁸ See Marcia M. Ziegler, Comment, *Nonfeasance and the Duty to Assist: The American Seinfeld Syndrome*, 104 DICK. L. REV. 525, 528 (2000) ("In both civil and criminal law, the failure of uninvolved bystanders to assist at accident or crime scenes is completely nonactionable, even if harm is foreseeable.").

have a duty to rescue him.²⁹ Although the legal elements of intent, causation, and damage are essentially equivalent in the two scenarios, the law imposes a duty to rescue on Sally when she is an actor, but not when she is a nonactor.

Why the distinction? Economists suggest an efficiency rationale. William Landes and Richard Posner, for example, argue that imposing liability on nonactors would be inefficient because it would discourage people from going to places where rescues might be needed.³⁰ Commentators have roundly criticized this argument as result-oriented,³¹ illogical,³² and based on unrealistic assumptions.³³

²⁹ PROSSER AND KEETON ON THE LAW OF TORTS 377 (W. Page Keeton et al. eds., 5th ed. 1984) [hereinafter TORTS] (“It also is recognized that if the defendant’s own negligence has been responsible for the plaintiff’s situation, a relation has arisen which imposes a duty to make a reasonable effort to give assistance, and avoid any further harm.”).

³⁰ William M. Landes & Richard A. Posner, *Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism*, 7 J. LEGAL STUD. 83, 120 (1978).

³¹ See Ian Ayres, *A Theoretical Fox Meets Empirical Hedgehogs: Competing Approaches to Accident Economics*, 82 Nw. U. L. REV. 837, 841 (1988) (book review) (arguing that Landes and Posner have become “emotionally invested” in their efficiency thesis and therefore strain to rationalize the common law as consistent with that theory).

³² Ayres notes:

Landes and Posner trot out an elaborate model to suggest that this common law rule of no liability may be efficient even when encouraging rescue is efficient. They argue that imposing liability on potential rescuers will cause them to avoid activities in which they might encounter a duty to rescue—so that there might actually be less rescuing if liability is imposed. A closer look at their model, however, leads to exactly the opposite conclusion. The assumption that potential rescuers will be motivated by the potential of liability to change their behavior indicates that they would fail to rescue if they came upon a victim and there was no threat of liability. Thus, within their model there would be no rescues in a no-liability world, because potential rescuers encountering a victim would not choose to incur the costs of rescue. Landes and Posner must compare a zero-rescue equilibrium under the no-liability rule with possibility of rescue (albeit with *ex ante* substitution) under the liability rule. Since something is always bigger than nothing, the logic of their model indicates that the common law is inefficient.

Id. at 841; see also Richard L. Hasen, *The Efficient Duty to Rescue*, 15 INT’L REV. L. & ECON. 141, 142 (1995) (rejecting Landes and Posner’s arguments and arguing that the duty to rescue is efficient).

³³ See John J. Donohue III, *The Law and Economics of Tort Law: The Profound Revolution*, 102 HARV. L. REV. 1047, 1054 n.24 (1989) (book review) (noting that Landes and Posner’s argument is “intricate—and perhaps, as some will contend fantastical”); Liam Murphy, *Beneficence, Law, and Liberty: The Case of Required Rescue*, 89 GEO. L.J. 605, 643 n.179 (2001) (arguing that Landes and Posner’s assumptions are “dubious”); Assaf Jacob & Alon Harel, *An Economic Rationale for the Legal Treatment of Omissions in Tort Law*, SSRN 5 n.10 (2001), at http://papers.ssrn.com/sol3/paper.cfm?abstract_id=293794 (describing Landes and Posner’s assumption that potential rescuers will avoid areas where rescues might be needed as based on “dubious psychological conjecture” and arguing that one needs a “fertile mind . . . to reconcile efficiency with the common law principle which rejects the duty to rescue”).

We add to these criticisms the observation that efficiency considerations play little role in the judgments of judges and jurors.³⁴

Common law is based on intuitive judgment or common sense.³⁵ In fact, significant "psychological evidence suggests that legal rules reflect common sense attributions of responsibility and blame."³⁶ Therefore, we suggest that the intuitive method of decision making helps account for the common law's distinction between action and inaction. Although there are legitimate policy reasons for distinguishing between bad outcomes that arise from actions and those that arise from omissions,³⁷ the scientific evidence points toward a cognitive explanation because "[p]eople continue to distinguish acts and omissions . . . even when the feature that typically makes them different is absent."³⁸ People are so averse to injuring others actively, that they will remain passive even when they know that more people will probably be hurt by their passivity.³⁹

³⁴ See *supra* note 5 and accompanying text.

³⁵ See Harold J. Berman, *Toward an Integrative Jurisprudence: Politics, Morality, History*, 76 CAL. L. REV. 779, 791 (1988) (noting that "the English common law was supposed to reflect the common sense of the English people"); Edward J. Schwartzbauer & Sidney Shindell, *Cancer and the Adjudicative Process: The Interface of Environmental Protection and Toxic Tort Law*, 14 AM. J.L. & MED. 1, 32 (1988) ("The common law is heavily laced with common sense.").

³⁶ Hoffman & O'Shea, *supra* note 5, at 391.

³⁷ Prosser and Keeton suggest:

The reason for the distinction may be said to lie in the fact that by "misfeasance" [action] the defendant has created a new risk of harm to the plaintiff, while by "nonfeasance" [inaction] he has at least made his situation no worse, and has merely failed to benefit him by interfering in his affairs. The highly individualistic philosophy of the older common law had no great difficulty in working out restraints upon the commission of affirmative acts of harm, but shrank from converting the courts into an agency for forcing men to help one another.

TORTS, *supra* note 29, at 373. As a policy matter, the slight factual distinction in these two scenarios seems insufficient to account for the fundamental difference in the law.

³⁸ Jonathan Baron, *Nonconsequentialist Decisions*, 17 BEHAV. & BRAIN SCI. 1, 3 (1994).

³⁹ "People have an intuitive moral rule 'Do no harm' or, more specifically, 'Do no harm through action.'" JONATHAN BARON, JUDGMENT MISGUIDED: INTUITION AND ERROR IN PUBLIC DECISION MAKING 2 (1998); see also Jonathan Baron, *Blind Justice: Fairness to Groups and the Do-No-Harm Principle*, 8 J. BEHAV. DECISION MAKING 71, 81-82 (1995) (reporting several experiments indicating that people are "reluctant to harm one group to benefit another more," even when they realize that their decision cannot be justified on utilitarian grounds).

Tetlock reports:

I have asked subjects to role-play Food and Drug Administration regulators whose task is to decide on the admissibility of an anticoagulant drug into the U.S. pharmaceutical market. When considering a drug that is not already on the market (a non-status-quo option), the drug must save at least twice as many lives as it endangers. Moreover, this effect is amplified when subjects are under pressure of accountability and are expected to justify their decisions to others (here, the necessary ratio of lives saved to lives endangered sometimes rises as high as 9 to 1). We also find that accountable subjects confronted by a non-status-quo drug that will harm some people (although it will benefit many more) look for ways to avoid making the decision, such as buck-passing (referring the decision to another govern-

Thus, studies show that “acts and nonacts, if not ontologically or logically distinct, are psychologically distinguishable.”⁴⁰ Sally *seems* more responsible for Milo’s misfortune when she is active rather than passive.⁴¹ From a psychological standpoint, causes should resemble effects.⁴² Consequently, in cases such as this in which the “effect” is a dramatically altered state for Milo, it is hard for people to identify Sally as the responsible causal agent unless she too altered her state through action.

The distinction people draw between harms that result from actions and harms that result from omissions is frequently referred to as an omission bias—the tendency to judge harmful acts as worse than equally harmful omissions.⁴³ The implications of an omission bias for the resolution of legal disputes are far-reaching. A jury may side with professionals who breach their fiduciary duties through a failure to warn, but it may treat more harshly fiduciary agents who breach their duties through false warnings. A judge may find a social worker who switches a child from a safe foster home into an abusive home to be liable, but he may make a different finding if the social worker merely failed to move the child out of an abusive home that he or she was

ment agency) and procrastination (delay the decision until more evidence is at hand).

Philip E. Tetlock, *The Consequences of Taking Consequentialism Seriously*, 17 BEHAV. & BRAIN SCI. 31, 31 (1994) (describing the results of empirical studies).

⁴⁰ Janet Landman, *Regret and Elation Following Action and Inaction: Affective Responses to Positive Versus Negative Outcomes*, 13 PERSONALITY & SOC. PSYCHOL. BULL. 524, 526 (1987) (describing several studies).

⁴¹ See KEITH E. STANOVICH, WHO IS RATIONAL?: STUDIES OF INDIVIDUAL DIFFERENCES IN REASONING 195 (1999) (noting that “the act-omission distinction is hypothesized to arise because harmful acts are usually more intentional than harmful omissions, and this distinction continues to be made even when there is no difference in intention”).

⁴² See RICHARD NISBETT & LEE ROSS, HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT 115–18 (1980); see also Neal R. Feigenson, *The Rhetoric of Torts: How Advocates Help Jurors Think About Causation, Reasonableness, and Responsibility*, 47 HASTINGS L.J. 61, 121 (1995) (noting that in making causal inferences, laypeople often resort to schemas, one of which “is that causes resemble their effects, and hence a mishap that had a big effect, e.g., a severe injury, must have a big cause, namely, serious misconduct”).

⁴³ See JONATHAN BARON, THINKING AND DECIDING 400 (3d ed. 2000) (providing a similar definition).

Laura Niedermayer and Gretchen Chapman note that “[t]he omission bias is the tendency to judge actions as worse than omissions when they both have the same bad consequences.” Laura Y. Niedermayer & Gretchen B. Chapman, *Action, Inaction, and Factors Influencing Perceived Decision Making*, 14 J. BEHAV. DECISION MAKING 295, 296 (2001). They hypothesized that one of the reasons for the omission bias might be the tendency to believe that “actions are the result of an explicit decision, while inactions result from something less intentional.” *Id.* at 305. However, their study did not support this notion. *Id.* In some contexts the decision not to take action was viewed as more intentional than a decision to take an action. *Id.*

The omission bias is particularly strong when protected values—values that people think should not be traded off—are involved in a decision process. See Ilana Ritov & Jonathan Baron, *Protected Values and Omission Bias*, 79 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 79, 79, 92–93 (1999).

already in. Therefore, plaintiffs who are aware of the omission bias may take advantage of it by framing defendants' actions in active rather than passive terms. For example, failures to act might be described as willful conduct ("he *elected* to do nothing").

The *actor effect* is a related phenomenon that helps explain why people judge actions more harshly than omissions. It holds that people will have stronger emotional responses to actions than omissions.⁴⁴ Importantly, these effects are psychological rather than economic in character. Therefore, it is unlikely that raising incentives, reducing decision costs, or otherwise changing the situational economics will eliminate these effects.⁴⁵

B. The Normality Bias: Normal vs. Abnormal

In their famous book, H.L.A. Hart and Tony Honoré argued that the common law of causation reflects people's common-sense reasoning.⁴⁶ In analyzing the case law, which they generally approved,⁴⁷ they noted that when people are asked to identify causes, they tend to choose either a voluntary human action or an abnormal factor.⁴⁸ As one commentator has noted,

According to Hart and Honoré, the central notion in the common-sense concept of causation is that the cause is the factor which "makes a difference" by interfering with, intervening in, or otherwise changing the normal or reasonably expected course of events. Thus, a contributing factor is treated as the cause rather than as a mere condition if it was (1) a voluntary human intervention that was intended to produce the consequences (for example, deliberately

⁴⁴ Marcel Zeelenberg et al., *Attributions of Responsibility and Affective Reactions to Decision Outcomes*, 104 ACTA PSYCHOLOGICA 303, 304 (2000) ("Outcomes achieved through action generally lead to more intense affective reactions than the same outcomes achieved through inaction." (citations omitted)). The term "actor effect" was originally coined by Janet Landman. Landman, *supra* note 40, at 529.

⁴⁵ See Camerer & Hogarth, *supra* note 26.

⁴⁶ H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW, at xxxiv (2d ed. 1985) (noting that "courts have continually claimed that it is the ordinary man's conception of cause that is used by the law and enters into various forms of legal responsibility"). Hart and Honoré's position responded to the views of earlier writers who took the position that causation inquiries were more policy-dependent than fact-dependent and were based on judgments of legal purpose or social expediency. See, e.g., Wex S. Malone, *Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60 (1956). See generally Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1742-58 (1985) (comparing and contrasting these views and others).

⁴⁷ See Alan Brudner, *Owning Outcomes: On Intervening Causes, Thin Skulls, and Fault-Undifferentiated Crimes*, 11 CANADIAN J.L. & JURISPRUDENCE 89, 94 (1998) (noting that Hart and Honoré endorsed the system they described).

⁴⁸ HART & HONORÉ, *supra* note 46, at 33 ("[I]n distinguishing between causes and conditions two contrasts are of prime importance. These are the contrasts between what is abnormal and what is normal in relation to any given thing or subject-matter, and between a free deliberate human action and all other conditions.").

breaking a vase) or (2) an abnormal action, event, or condition in the particular context (for example, a freak storm or driving at an excessive speed).⁴⁹

Hart and Honoré's characterization of the case law is consistent with empirical research suggesting not only an omission bias in human judgment, but also a normality bias in which people prefer the usual to the unusual, the arguments of the majority to those of the minority, the conventional to the unconventional, and the normal to the abnormal.⁵⁰ Thus, just as legal decision makers are more likely to assign blame for bad outcomes to actions rather than to omissions, so too are they likely to see close relationships between bad outcomes and conditions or actions that are abnormal.

Human intuition is such that it is hard for us to see negative agency in normal conduct. To be normal is to be acceptable, right, and in step with the world. The bonds between harm and a set of normal conditions are likely to be viewed as tenuous at best. In contrast, to be abnormal is to be different, unacceptable, and perhaps even dangerous. Thus, when harm arises in the presence of abnormal conditions, the mind locks in on those conditions as causal, and the agent who brought about those abnormal conditions is held responsible for the harm.

Psychologists Daniel Kahneman and Dale Miller were among the first to observe this tendency to associate greater responsibility with abnormal actions.⁵¹ They hypothesized that this association arises because it is easy to imagine doing the normal thing, and thereby avoid the harm that occurred.⁵² Therefore, like the omission bias, the nor-

⁴⁹ Wright, *supra* note 46, at 1745–46. Wright criticizes Hart and Honoré for mixing decisions regarding responsibility with decisions regarding causality. See *id.* at 1746–47 (noting that “[a]s applied to human conduct in a tort case, the two criteria [abnormal conditions and voluntary human action] simply call for inquiries into the intentional or negligent character of the conduct”); see also Richard W. Wright, *Causation, Responsibility, Risk, Probability, Naked Statistics, and Proof: Pruning the Bramble Bush by Clarifying the Concepts*, 73 IOWA L. REV. 1001, 1008–09 (1988) (criticizing Hart and Honoré’s arguments on similar grounds). Philosophically this is a fair point, but there is descriptive truth in Hart and Honoré’s position. Many studies demonstrate that when a defendant’s responsibility is greater, the causal link between his actions and the harm seems stronger, and vice versa. See *infra* notes 135–39 and accompanying text.

⁵⁰ For a discussion of empirical research that demonstrates the existence of omission and normality biases in human decision making, see *infra* Part II.

⁵¹ Daniel Kahneman & Dale T. Miller, *Norm Theory: Comparing Reality to Its Alternatives*, 93 PSYCHOL. REV. 136 (1986). Kahneman and Miller’s norm theory posits that people judge the normality of an event by mentally simulating a set of norms against which to compare the target event. See *id.* at 147. They showed that this mental simulation process can lead to exaggerated responses (including such emotional responses as regret) to actions that violate norms. See *id.* at 145–46. Although our current Article emphasizes the significance of a normality bias for law, we owe an intellectual debt to Kahneman and Miller’s insights on the cognitive origins of normality judgments.

⁵² See *id.* at 144–45.

mality bias has implications for judge and jury decisions involving causation, responsibility, damages, and punishments. For example, people may view a financial advisor who obtains a bad outcome for a client when following a conventional path more sympathetically than a financial advisor who obtains a similarly bad outcome by following an unconventional path.⁵³ The normality bias creates an incentive for plaintiffs to frame defendants' actions as unusual or nontraditional. As we discuss later, a potentially undesirable side effect of this bias is that it discourages people from deviating from accepted protocols of behavior, even when the individual circumstances would seem to warrant it.⁵⁴

II

PSYCHOLOGICAL FOUNDATIONS OF THE OMISSION AND NORMALITY BIASES

Why do decision makers favor inaction over action and the normal over the abnormal? The issue is an important one for the law, because its answers can provide insight into questions about when parties will choose to proceed with a lawsuit,⁵⁵ how litigants should construct arguments to maximize persuasive appeal,⁵⁶ and how judges and juries will likely decide cases.⁵⁷

We reject the argument that decision biases such as those we address here merely speak to the unpredictability of human behavior.⁵⁸

⁵³ We test this possibility in the second of two studies reported in Part III.

⁵⁴ See *infra* notes 249–51 and accompanying text. In offering this point, we are not suggesting that behavioral deviations from norms are appropriate any time a decision maker is so inclined. More often than not, that which is normal and usual is probabilistically superior (in terms of outcomes) to that which is abnormal or unusual. However, in situations in which norms for behavior exist, and yet a great deal of uncertainty about outcomes remains, it would seem appropriate to encourage actors to apply some well-reasoned, individual judgment without fear of facing the wrath of a normality-biased jury if things turn out badly. The medical treatment context that we explore in the first study in Part III is one in which such leeway would seem reasonable.

⁵⁵ See Chris Guthrie, *Better Settle than Sorry: The Regret Aversion Theory of Litigation Behavior*, 1999 U. ILL. L. REV. 43 (explaining how fear of regret can affect the decision to settle or to pursue a trial).

⁵⁶ Behavioral research often creates insights that attorneys can use in framing arguments for juries. See, e.g., Nyla R. Branscombe et al., *Rape and Accident Counterfactuals: Who Might Have Done Otherwise and Would It Have Changed the Outcome?*, 26 J. APPLIED SOC. PSYCHOL. 1042, 1063 (1996) (advising attorneys on how to manipulate jurors' use of counterfactual reasoning to lower the blame assigned to their client).

⁵⁷ This Article is replete with references to studies showing how jurors' decision making is affected by heuristics and biases. It is clear that judges are similarly affected. See Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 829 (2001) (reporting results of a study demonstrating that "judges rely on the same cognitive decision-making process as laypersons and other experts, which leaves them vulnerable to cognitive illusions that can produce poor judgments").

⁵⁸ Economists sometimes argue that "people . . . do not make systematic mistakes—i.e., that they do not keep making the same mistake over and over again." *The Benevolence of*

Instead, we believe that these biases provide a rich source of information that can supplement (and, in some instances, replace) traditional economic assumptions about decision behavior, including legal decision making. As we examine the relevant psychological research on heuristics and biases in human decision making, we take care to explain the differences among these phenomena that some other legal commentators have failed to appreciate.⁵⁹ We show that these phenomena help explain the origins and characteristics of the omission and normality biases that we claim play a central role in legal judgment.

A. The Status Quo Bias

The status quo bias holds that, all things being equal, people prefer what they perceive to be the current state of affairs to a different state of affairs.⁶⁰ That is, “[p]eople tend to stick to the old, even when they would choose the new if they were starting afresh.”⁶¹ For example, when electricity consumers were given a choice between a regime of higher rates with higher reliability service or one of lower rates with lower reliability service, they tended to choose whichever regime represented the status quo.⁶² Similarly, when offered alternative auto in-

Self-Interest, *ECONOMIST*, Dec. 12, 1998, at 80, 80. Therefore, they claim that errors in rationality are random and cancel each other out. See Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 *STAN. L. REV.* 1551, 1556–57 (1998). However, the evidence is quite clear that the biases tend to be systematic and consistent, rather than random. See Cass R. Sunstein, *Behavioral Analysis of Law*, 64 *U. CHI. L. REV.* 1175, 1175 (1997) (“Cognitive errors and motivational distortions may press behavior far from the anticipated directions But it does not follow that people’s behavior is unpredictable, systematically irrational, random, rule-free, or elusive to social scientists. On the contrary, the qualifications can be described, used, and sometimes even modeled.”).

⁵⁹ See, e.g., Adam J. Hirsch, *Spendthrift Trusts and Public Policy: Economic and Cognitive Perspectives*, 73 *WASH. U. L.Q.* 1, 35 n.118 (1995) (suggesting mistakenly that the endowment effect may also be referred to as the status quo bias or loss aversion).

⁶⁰ See William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 *J. RISK & UNCERTAINTY* 7, 8 (1988).

James Fanto recently noted that companies often seek to convince shareholders to vote in favor of mega-mergers by arguing that the merger would not change the status quo or perhaps would even help preserve the status quo. James A. Fanto, *Quasi-Rationality in Action: A Study of Psychological Factors in Merger Decision-Making*, 62 *OHIO ST. L.J.* 1333, 1360 (2001).

⁶¹ BARON, *supra* note 43, at 468; see also Mark Chaves & James D. Montgomery, *Rationality and the Framing of Religious Choices*, 35 *J. SCI. STUDY RELIGION* 128, 141 (1996) (finding that a status quo bias helps explain the relatively “low levels of intergenerational” mobility among religious denominations).

⁶² See Raymond S. Hartman et al., *Consumer Rationality and the Status Quo*, 106 *Q.J. ECON.* 141, 158–60 (1991).

surance coverages,⁶³ health insurance plans,⁶⁴ or retirement plans,⁶⁵ most people select the one that is represented as the status quo alternative.

These are significant findings because they contradict the bedrock economic principle that people have well-defined utilities and preferences.⁶⁶ Instead, preferences are shaped,⁶⁷ in part, by superficial features of the task (such as which option is labeled “status quo”).⁶⁸ One implication of this result is that sellers can use the status quo bias as a vehicle for influencing consumer preferences. Likewise, by altering the legal status quo in such areas as contract law⁶⁹ and employment law,⁷⁰ lawmakers can persuade parties to select options that they might otherwise find objectionable. Similarly, consumers may find a warranty disclaimer in a standard form contract to be acceptable or even appropriate even though they would be unlikely to

⁶³ Colin F. Camerer, *Prospect Theory in the Wild: Evidence from the Field*, in CHOICES, VALUES, AND FRAMES, *supra* note 4, at 288, 294.

⁶⁴ Samuelson & Zeckhauser, *supra* note 60, at 26–31.

⁶⁵ See Shlomo Benartzi & Richard H. Thaler, *How Much Is Investor Autonomy Worth?*, SSRN 6 (Mar. 2001), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294857 (noting that studies indicate that most people make no changes in their retirement account portfolios over a ten-year period but rather accept the status quo).

⁶⁶ See Katharine K. Baker, *Gender, Genes, and Choice: A Comparative Look at Feminism, Evolution, and Economics*, 80 N.C. L. REV. 465, 485–87 (2002) (noting that economists have traditionally assumed that people “maximize their utility from a stable set of preferences,” and reviewing some of the extensive literature that falsifies that assumption).

⁶⁷ See Benartzi & Thaler, *supra* note 65, at 17 (noting that “[m]any psychologists now believe that people do not really have well-formed preferences, but rather construct preferences when choices are elicited”).

⁶⁸ Online merchants take advantage of the status quo bias by providing websites that say “[u]ncheck the box if you would prefer not to receive emails from our partners.” Eric Johnson, *Methods May Have Changed, but Have the Customers?*, FIN. TIMES, Aug. 22, 2002, at 6. By making the default position an agreement to receive the emails, online merchants have substantially affected customers’ decisions to opt in and opt out of future mailings. See *id.*

⁶⁹ Russell Korobkin, *Inertia and Preference in Contract Negotiation: The Psychological Power of Default Rules and Form Terms*, 51 VAND. L. REV. 1583, 1599–1602 (1998) [hereinafter Korobkin, *Inertia and Preference*]. Korobkin argues:

[W]hen lawmakers anoint a contract term the default, the substantive preferences of contracting parties shift—that term becomes more desirable, and other competing terms becoming less desirable. Put another way, contracting parties view default terms as part of the status quo, and they prefer the status quo to alternative states, all other things equal.

Russell Korobkin, *The Status Quo Bias and Contract Default Rules*, 83 CORNELL L. REV. 608, 611–12 (1998) [hereinafter Korobkin, *Status Quo Bias*].

Even dyed-in-the-wool contractarians have recognized the impact of the status quo bias on contract negotiations. See Richard W. Painter, *Rules Lawyers Play By*, 76 N.Y.U. L. REV. 665, 672 (2001) (“[B]ecause actors can be biased in favor of the status quo, default rules sometimes become contract terms simply because they are default rules, not because they are inherently superior.”).

⁷⁰ See Cass R. Sunstein, *Switching the Default Rule*, 77 N.Y.U. L. REV. 106 (2002) (noting the strong impact of the endowment effect in many areas, including employer-employee relations).

accede to a seller's request to pencil in such a disclaimer on a form contract that does not already include it.⁷¹

We suspect the status quo bias exerts a significant influence on jury decision making. If consumers tend to accept a particular auto insurance coverage or retirement plan because it is labeled the status quo, it seems likely that jury decisions regarding what constitutes an acceptable contract provision or course of action may also be influenced by jurors' beliefs about the status quo.

The status quo bias often presents itself alongside the normality bias because current states are usually normal states. To date, no research has pitted these two biases against one another to determine whether or not people will continue to prefer existing states even when those states are abnormal.

The status quo bias is also intertwined with the omission bias, because maintenance of the status quo usually requires no action. Which bias exerts a stronger influence on behavior? According to research by Professors Ritov and Baron, the omission bias is markedly stronger than the status quo bias when the two conflict. Across a series of controlled studies that required decision makers to take action in order to preserve the status quo, Ritov and Baron found that decision makers preferred not to take action.⁷² They also found that "acts that lead to the worse outcome are considered bad because they are acts [rather than omissions], not because they change the status quo."⁷³ Thus, the omission bias apparently exerts a stronger impact on decision making than the status quo bias.⁷⁴

⁷¹ See G. Richard Shell, *Fair Play, Consent and Securities Arbitration: A Comment on Speidel*, 62 BROOK. L. REV. 1365, 1367-69 (1996).

⁷² Ilana Ritov & Jonathan Baron, *Status-Quo and Omission Biases*, 5 J. RISK & UNCERTAINTY 49, 51 (1992) (finding that subjects preferred inaction over action even when inaction resulted in a change to the status quo, and concluding that the status quo bias is partly a result of the omission bias).

⁷³ Jonathan Baron & Ilana Ritov, *Reference Points and Omission Bias*, 59 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 475, 496 (1994).

⁷⁴ Ritov and Baron conducted a number of experiments in an attempt to determine whether a status quo bias or an omission bias exerts a greater influence over decision makers' feelings and behaviors. In general, they reported that the omission bias had stronger effects. Baron & Ritov, *supra* note 73, at 496-97; Ritov & Baron, *supra* note 72, at 51.

In a study involving jury decision making, Ritov and Baron found that jurors awarded more compensation to victims of relatively more-expected injuries (a safety device failed and a train ran into a tree on the tracks) than to victims of relatively less-expected injuries (the safety device worked, but the sudden stop injured passengers). Ilana Ritov & Jonathan Baron, *Judgements of Compensation for Misfortune: The Role of Expectation*, 24 EUR. J. SOC. PSYCHOL. 525, 537-38 (1994) [hereinafter Ritov & Baron, *Judgements of Compensation*]. They interpreted these results as suggesting that "reversals of the usual tendency to think of omissions as less harmful can be found when omissions are unexpected." *Id.* at 538. Perhaps a better explanation of these results, however, lies in the betrayal aversion phenomenon. Because jurors would feel a sense of betrayal when safety devices actually caused injury, they would tend to award higher damages in such cases than in cases in

B. The Endowment Effect

The endowment effect holds that for a given individual, the perceived value of an item increases when it becomes part of that individual's endowment.⁷⁵ Accordingly, people will demand more to part with what they have than they would be willing to pay to acquire it in the first place.⁷⁶ Although such a disparity between willingness-to-accept (WTA) and willingness-to-pay (WTP) is inconsistent with the premises of traditional economic reasoning,⁷⁷ it is well documented in both laboratory and real world settings.⁷⁸

The endowment effect can affect jury decision making. One study found that mock jurors, when asked to calculate damages by putting themselves in the plaintiff's position, demanded much more money when asked, "What amount of money would you demand to willingly accept [plaintiff's] injury?" than when asked, "What amount of money is needed to make you 'whole' again—that is, as fortunate as if nothing . . . had happened?"⁷⁹ Notice that the first question endowed the

which other devices caused injury. See Koehler & Gershoff, *supra* note 5 (providing evidence of betrayal aversion in several settings).

⁷⁵ SCOTT PLOUS, *THE PSYCHOLOGY OF JUDGMENT AND DECISION MAKING* 96 (1993).

⁷⁶ See generally Daniel Kahneman et al., *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325 (1990) (discussing the endowment effect generally); Jack L. Knetsch & J.A. Sinden, *Willingness to Pay and Compensation Demanded: Experimental Evidence of an Unexpected Disparity in Measures of Value*, 99 Q.J. ECON. 507, 512–13 (1984) (reporting the results of one of the most famous studies of the endowment effect).

⁷⁷ See Elizabeth Hoffman & Matthew L. Spitzer, *Willingness to Pay vs. Willingness to Accept: Legal and Economic Implications*, 71 WASH. U. L.Q. 59, 62 (1993) ("Economic models generally presume that people evaluate commodities independently of whether they own those commodities—the 'basic independence' assumption. . . . If the basic independence assumption fails, most economic models may also fail."); Leaf Van Boven et al., *Mispredicting the Endowment Effect: Underestimation of Owners' Selling Prices by Buyer's Agents*, SSRN 2 (2002), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=299700 ("Contrary to the traditional economic assumption that preferences are fixed in the short-term, the endowment effect indicates that preferences can change rapidly and systematically with changes in an individual's transient asset position.").

⁷⁸ See Hartman et al., *supra* note 62, at 158–60 (finding 3-to-1 WTA/WTP disparity in surveys of consumers of residential electrical service); John K. Horowitz & Kenneth E. McConnell, *A Review of WTA/WTP Studies*, SSRN 2–3 (Oct. 2000), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=257336 (finding in meta-study of 45 WTA/WTP studies the average WTA/WTP ratio was approximately seven and that this held over a wide variety of experimental designs, subjects, and products); see also Jack L. Knetsch, *The Endowment Effect and Evidence of Nonreversible Indifference Curves*, in CHOICES, VALUES, AND FRAMES, *supra* note 4, at 171 (stating that "[t]he minimum compensation people demand to give up a good has been found to be several times larger than the maximum amount they are willing to pay for a commensurate entitlement," and providing an example of hunters, who "when questioned about the possible destruction of a duck habitat, . . . responded that they would be willing to pay an average of \$247 to prevent its loss but would demand \$1044 to accept it").

⁷⁹ Edward J. McCaffery et al., *Framing the Jury: Cognitive Perspectives on Pain and Suffering Awards*, 81 VA. L. REV. 1341, 1356, 1369 (1995); see also Richard A. Epstein, *Babbitt v Sweet Home Chapters of Oregon: The Law and Economics of Habitat Preservation*, 5 SUP. CT. ECON. REV. 1, 42–44 (1997) (noting that these differences between the "willing to accept" and

jurors with a positive or healthy state, whereas the second endowed the jurors with an injured state. Jurors who were asked the first question presumably demanded more money because they sought compensation for *both* the loss associated with the injury and the loss of their positive endowment. Although standard jury instructions do not include a lost endowment frame,⁸⁰ plaintiffs' attorneys sometimes create such a frame for jurors when they ask: "How much money would you accept to suffer this pain?"⁸¹

C. Loss Aversion

People are obviously averse to losses. However, the phenomenon widely referred to as loss aversion⁸² is more sophisticated. It holds that people tend to suffer losses more keenly than they enjoy comparable gains.⁸³ Specifically, the pain that Sarah feels upon losing \$100 is likely to be about twice as intense as the joy that Emily feels upon gaining \$100.

Loss aversion theory's implicit suggestion that the potential downside associated with new activities is larger than the potential upside has many implications for the legal world.⁸⁴ For example, it discourages new legislation, because those who would be adversely affected by the change have greater motivation to lobby against the legislation than potential beneficiaries have to lobby for it. Loss aversion also implies that by switching to the English rule's "loser pays" arrangement for attorneys' fees, we could dramatically reduce the attractiveness of litigation to plaintiffs by introducing the possibility of

"make whole" frames are too large to ignore in thinking about how damages should be calculated).

⁸⁰ McCaffery et al., *supra* note 79, at 1382.

⁸¹ *Id.* at 1377.

⁸² See Kahneman et al., *supra* note 76, at 1345; Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference-Dependent Model*, in CHOICES, VALUES, AND FRAMES, *supra* note 4, at 143, 150.

⁸³ See Richard Coughlan & Terry Connolly, *Predicting Affective Responses to Unexpected Outcomes*, 85 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 211, 217 (2001) (finding that for the study's subjects, "losses loom larger than gains"); Landman, *supra* note 40, at 527 ("[W]hen people are making real decisions in betting or life-dilemma situations, they weigh potential losses more heavily than potential gains."); Tversky & Kahneman, *supra* note 82, at 150 ("The basic intuition concerning loss aversion is that losses (outcomes below the reference state) loom larger than corresponding gains (outcomes above the reference state).").

⁸⁴ Oliver Wendell Holmes long ago recognized the implications that the phenomenon of loss aversion has for the resolution of competing legal claims:

It is in the nature of man's mind. A thing which you have enjoyed and used as your own for a long time, whether property or an opinion, takes root in your being and cannot be torn away without your resenting the act and trying to defend yourself, however you came by it. The law can ask no better justification than the deepest instincts of man.

O.W. Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 477 (1897).

loss into their decisional calculus.⁸⁵ By calling attention to the losses that might arise from a change in the current state, loss aversion reinforces both the tendency to inaction (omission bias) and a favoritism toward the current state (normality bias).⁸⁶

D. Anchoring

The existence of status quo biases, endowment effects, and loss aversion discussed above challenges the standard economic model of rational choice. Moreover, these effects can lead to inconsistent and suboptimal decisions. An even greater challenge to the standard economic model is posed by a now voluminous psychological literature showing that people reason heuristically rather than optimally.⁸⁷ The heuristic most relevant to the phenomena of interest in this Article is anchoring. According to this heuristic, decision makers estimate quantities by anchoring on a convenient value, and then adjusting for case-specific information.⁸⁸ Although this strategy often produces reasonable estimates, studies have shown that decision makers tend to focus their attention on the anchor value and to adjust insufficiently

⁸⁵ See Chris Guthrie, *Framing Frivolous Litigation: A Psychological Theory*, 67 U. CHI. L. REV. 163, 211 (2000) (noting that by making plaintiffs face a potential loss in the form of attorneys' fees they would have to pay to a potential defendant if unsuccessful, one could have both an economic impact and a psychological impact on plaintiff decision making).

⁸⁶ Loss aversion promotes a status quo bias and thereby indirectly reinforces both the omission bias and the normality bias. Professors George Quattrone and Amos Tversky asked subjects to put themselves in the position of a voter in a hypothetical country's presidential race. Subjects were presented with a choice between candidates Frank and Carl, one of whom favored policies of higher inflation and lower unemployment and the other who favored lower inflation at the cost of higher unemployment. George A. Quattrone & Amos Tversky, *Contrasting Rational and Psychological Analyses of Political Choice*, in CHOICES, VALUES, AND FRAMES, *supra* note 4, at 451, 459. When Frank's plan for higher inflation and higher employment was framed as the status quo, 65% of the voters chose it; when Carl's plan for lowering inflation at the cost of higher unemployment was framed as the status quo, 61% of voters chose it. *Id.* at 459. Quattrone and Tversky suggested that loss aversion causes this status quo bias, and that it might account for part of the tremendous advantage that incumbents seem to have in political races. *Id.* at 459-60.

In most settings, "[l]oss aversion implies the status quo bias." Tversky & Kahneman, *supra* note 82, at 147 (noting, however, that there are other factors, such as transaction costs and psychological commitment to prior choices, which can induce a status quo bias even when loss aversion is absent). Anticipated regret, for example, can provide impetus for the status quo bias in various contexts. See Samuelson & Zeckhauser, *supra* note 60, at 38. For an explanation of the role of regret in status quo bias and other reasoning biases, see *infra* Part II.F.

⁸⁷ See, e.g., *supra* note 57 (discussing how heuristics affect juries' and judges' decision-making processes). Even economics journals now widely recognize the existence of heuristic reasoning. See John T. Harvey, *Heuristic Judgment Theory*, 32 J. ECON. ISSUES 47, 47-48 (1998) (noting that "experimental psychology suggests that the most important assumptions of rational choice theory are violated with frequency in real life," and offering a model importing the research from the heuristics and biases literature as a replacement).

⁸⁸ See Gretchen B. Chapman & Brian H. Bornstein, *The More You Ask for, the More You Get: Anchoring in Personal Jury Verdicts*, 10 APPLIED COGNITIVE PSYCHOL. 519, 519 (1996).

to account for new information.⁸⁹ The anchoring bias bolsters the normality bias in that people often anchor on reference points, and the current, typically normal, state is the most common reference point.⁹⁰

Because anchor values ordinarily precede specific, individualized information, the anchoring bias suggests that the first items of information are likely to receive more consideration than information that

⁸⁹ See generally Ward Edwards, *Conservatism in Human Information Processing*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 359, 359 (“It turns out that opinion change is very orderly, and usually proportional to numbers calculated from Bayes’s theorem—but it is insufficient in amount.”); Joseph F. Funaro, *An Empirical Analysis of Five Descriptive Models for Cascaded Inference*, 14 ORGANIZATIONAL BEHAV. & HUM. PERFORMANCE 186, 186 (1975) (noting that most studies find that “intuitive opinion revisions are conservative in comparison to the optimal revisions specified by Bayes’ theorem”).

Interestingly, research suggests that our tendency to seek out and attach great weight to anchors is so strong that people sometimes use irrelevant anchors when making numerical estimates. For example, in a leading study, subjects were asked to estimate the exact percentage of African countries in the United Nations. Before they answered, they were assigned an apparently random number by the spin of a roulette wheel. Among those assigned a 65, the median guess was 45%. Among those assigned a 10, the median estimate was 25%. Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 3, 14; see also Gregory B. Northcraft & Margaret A. Neale, *Experts, Amateurs, and Real Estate: An Anchoring-and-Adjustment Perspective on Property Pricing Decisions*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 84, 94–95 (1987) (finding that real estate agents are subject to anchoring effects when estimating real estate prices); Brian Wansink et al., *An Anchoring and Adjustment Model of Purchase Quantity Decisions*, 35 J. MARKETING RES. 71, 73 (1998) (finding that by simply altering the consumer’s anchor on quantity by, for example, advertising products as “6 for \$3” rather than “50 cents each,” sales could be increased by 32%).

⁹⁰ Not only does the law’s failure to impose a duty to rescue illustrate that the law favors inaction over action, the slow evolution of the law supports our claim that the law is conservative, favoring the normal situation over the abnormal and the status quo over change. For many years legal scholars have called for a broader form of the duty to rescue than currently exists. See, e.g., James Barr Ames, *Law and Morals*, 22 HARV. L. REV. 97 (1908–1909); Theodore M. Benditt, *Liability for Failing to Rescue*, 1 LAW & PHIL. 391 (1982); Francis H. Bohlen, *The Moral Duty to Aid Others as a Basis of Tort Liability*, 56 U. PA. L. REV. 217 (1908); Anthony D’Amato, *The “Bad Samaritan” Paradigm*, 70 NW. U. L. REV. 798 (1975); Steven J. Heyman, *Foundations of the Duty to Rescue*, 47 VAND. L. REV. 673 (1994); Harold F. McNiece & John V. Thornton, *Affirmative Duties in Tort*, 58 YALE L.J. 1272 (1949); Robert A. Prentice, *Expanding the Duty to Rescue*, 19 SUFFOLK U. L. REV. 15 (1985); Warren A. Seavey, *I Am Not My Guest’s Keeper*, 13 VAND. L. REV. 699 (1960); Ernest J. Weinrib, *The Case for a Duty to Rescue*, 90 YALE L.J. 247 (1980); A.D. Woozley, *A Duty to Rescue: Some Thoughts on Criminal Liability*, 69 VA. L. REV. 1273 (1983).

Many nations impose a broad duty to rescue. See Daniel B. Yeager, *A Radical Community of Aid: A Rejoinder to Opponents of Affirmative Duties to Help Strangers*, 71 WASH. U. L.Q. 1, 6 n.28 (1993) (“Belgium, Czechoslovakia, Denmark, France, Germany, Holland, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Rumania, Russia, Switzerland, and Turkey impose criminal penalties for failure to engage in ‘easy rescue.’”). Yet, American law has not moved in that direction. See Nancy Levit, *The Kindness of Strangers: Interdisciplinary Foundations of a Duty to Act*, 40 WASHBURN L.J. 463, 463 (2001) (“[Y]ou can watch blind people walk into traffic and not be sued for failing to stop them. It’s not nice, but it’s not tortious.” (footnote omitted)). This seems to be an area in which precedent anchors judges to particular solutions, making it less likely that they will adopt new and different approaches.

appears later.⁹¹ Although the order in which information is received *should be* irrelevant to decisions that rely on that information, the mind does not work this way. First impressions are powerful influences on judgment and seem to provide the prism through which subsequent information is filtered. Even when first impressions are erroneous, they continue to affect judgment long after they have been discredited.⁹²

We believe that the anchoring bias can have a significant influence on legal decision making. Consider a jury presented with a plaintiff's *ad damnum* clause in a negligence case.⁹³ Even when the plaintiff's requested damages amount bears no more relation to the plaintiff's actual damages than the spin of a roulette wheel, studies show that this requested amount affects a jury's conclusions.⁹⁴ Judges are apparently affected by a similar anchoring bias.⁹⁵

E. Sunk Cost Effects

A sunk cost is a cost that was incurred in the past and that will not be affected by any future decision.⁹⁶ Economists widely agree that sunk costs *should be* ignored when deciding whether to take on addi-

⁹¹ This is often referred to as a primacy effect. See NISBETT & ROSS, *supra* note 42, at 172 ("Although order of presentation of information sometimes has no net effect on final judgment, and recency effects sometimes are found, these are the exception; several decades of psychological research have shown that primacy effects are overwhelmingly more probable."); S.E. ASCH, *Forming Impressions of Personality*, 41 J. ABNORMAL & SOC. PSYCHOL. 258, 270 (1946) (finding that if someone is described by a list of characteristics, those characteristics that are listed first are more influential on a study's subjects than those listed later).

⁹² See CRAIG A. ANDERSON et al., *Perseverance of Social Theories: The Role of Explanation in the Persistence of Discredited Information*, 39 J. PERSONALITY & SOC. PSYCHOL. 1037, 1045 (1980) (finding that people will persevere in beliefs even after a decisive discrediting of the evidence upon which the beliefs were formed); LEE ROSS & CRAIG A. ANDERSON, *Shortcomings in the Attribution Process: On the Origins and Maintenance of Erroneous Social Assessments*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 129, 144 (noting that "beliefs—from relatively narrow personal impressions to broader social theories—are remarkably resilient in the face of empirical challenges that seem logically devastating").

⁹³ An *ad damnum* clause is a plaintiff's requested damages award. JEFFREY R. BOYLL, *Psychological, Cognitive, Personality and Interpersonal Factors in Jury Verdicts*, 15 LAW & PSYCHOL. REV. 163, 170 (1991).

⁹⁴ Jurors often use a plaintiff's *ad damnum* clause as an anchor in making damages awards. See *id.*; CHAPMAN & BORNSTEIN, *supra* note 88, at 537; EDITH GREENE, *On Juries and Damage Awards: The Process of Decisionmaking*, LAW & CONTEMP. PROBS., Autumn 1989, at 225, 234. When jurors are especially uncertain about the amount of damages to award, the influence of anchors are especially strong. See KAREN E. JACOWITZ & DANIEL KAHNEMAN, *Measures of Anchoring in Estimation Tasks*, 21 PERSONALITY & SOC. PSYCHOL. BULL. 1161, 1164–65 (1995).

⁹⁵ GUTHRIE et al., *supra* note 57, at 816–17 (reporting results of an empirical study showing that judges' vulnerability to the anchoring and adjustment phenomenon is comparable to that of lay persons).

⁹⁶ See ROBYN M. DAWES, *RATIONAL CHOICE IN AN UNCERTAIN WORLD* 22 (1988).

tional costs.⁹⁷ Nevertheless, numerous studies show that people do allow sunk costs to influence their decisions across a wide range of situations.⁹⁸ For example, sunk cost reasoning has been offered as an explanation for why people who have already spent money on tickets go to plays they do not really want to see,⁹⁹ why sports coaches fail to bench high draft picks,¹⁰⁰ and why major public construction projects, once begun, are almost always completed, even if it becomes clear that they are economically unjustified.¹⁰¹ In addition, U.S. policy in the Vietnam War is often cited as an example of sunk cost reasoning.¹⁰² Even after losses became staggering and the original goals of the war became unattainable, the Pentagon muddled on for years. The sunk costs made it difficult for decision makers to take action (omission bias) to change what had become the accepted situation (normality bias). Therefore, sunk cost reasoning has the potential to affect jurors' decision making because the same arguments ("We can't leave Vietnam, or all our soldiers will have died in vain," or "We can't abandon the dam, or all the money we've spent will have been

⁹⁷ See, e.g., Daniel R. Fischel, *The Regulation of Accounting: Some Economic Issues*, 52 BROOK. L. REV. 1051, 1053 (1987); see also Linda Elizabeth DeAngelo, *Auditor Independence, 'Low Balling', and Disclosure Regulation*, 3 J. ACCT. & ECON. 113 (1981).

⁹⁸ See DAWES, *supra* note 96, at 22-23 (noting that people who have changed their minds about wanting to go to a resort for a weekend are much more likely to go anyway if they already put down a deposit); PLOUS, *supra* note 75, at 243-44 ("Investment traps occur when prior expenditures of time, money, or other resources lead people to make choices they would not otherwise make."); Hal R. Arkes & Catherine Blumer, *The Psychology of Sunk Cost*, 35 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 124, 124-25 (1985) (citing examples of politicians who stated that it would be an "unconscionable mishandling" of taxpayer funds to terminate a dam project in which \$1 billion had been spent (sunk costs), even though the total value of the project, if completed, would be less than the amount of money yet to be spent to complete it).

⁹⁹ See Arkes & Blumer, *supra* note 98, at 128.

¹⁰⁰ See Barry M. Staw & Ha Hoang, *Sunk Costs in the NBA: Why Draft Order Affects Playing Time and Survival in Professional Basketball*, 40 ADMIN. SCI. Q. 474, 487 (1995) ("Regressions showed that the higher a player was taken in the college draft, the more time he was given on the court, even after controlling for other logical predictors of playing time, such as performance, injury, and trade status.").

¹⁰¹ BARUCH FISCHHOFF ET AL., ACCEPTABLE RISK 13 (1981) (observing people's unwillingness to ignore sunk costs and noting that "[t]he fact that no major dam in the United States has been left unfinished once begun shows how far a little concrete can go in defining a problem").

¹⁰² See MICHAEL HOWARD, THE CAUSES OF WARS 232 (1984) (quoting Secretary of State Henry Kissinger as stating: "We could not simply walk away from an enterprise involving two administrations, five allied countries, and thirty-one thousand dead as if we were switching a television channel."); *Investments in Status Quo Can Sink Your System*, INFOWORLD, Apr. 26, 1993, at 63. The *InfoWorld* article notes:

Management gurus point to the Vietnam War as the ultimate example of what happens when sunk costs are used incorrectly as an argument to continue with a failing operation. Senior military leaders used the number of American casualties incurred as a reason to continue the war. The argument: Don't let those men and women die in vain. Of course, as a result of this reasoning, even more died and the United States lost the war.

Id.

wasted") that affected defendants' decision making will also influence jurors who evaluate those decisions.

F. Regret Theory

The rational-economic-man model suffered one of its most striking setbacks as a result of research that points to the central role of emotion¹⁰³ in decision making.¹⁰⁴ In fact, research shows that even *anticipated* emotions appear to impact decision making.¹⁰⁵ Perhaps the most frequently examined emotional influence on judgment and choice is regret.¹⁰⁶ Regret is "the painful feeling a person experiences

¹⁰³ One definition of *emotions* is "states that are subjectively experienced, that have some hedonic component, and that drive or motivate certain kinds of behavior specific to the emotion." Jonathan Baron, *The Effect of Normative Beliefs on Anticipated Emotions*, 63 J. PERSONALITY & SOC. PSYCHOL. 320, 320 (1992). The traditional rational-man model views "decision making as a cold cognitive process" devoid of emotions. Marcel Zeelenberg, *The Use of Crying over Spilled Milk: A Note on the Rationality and Functionality of Regret*, 12 PHIL. PSYCHOL. 325, 325 (1999).

¹⁰⁴ See, e.g., Peter H. Huang, *Reasons Within Passions: Emotions and Intentions in Property Rights Bargaining*, 79 OR. L. REV. 435, 435 (2000) ("[P]eople do not behave the way that rational actors do because people also feel emotions and those emotions drive behavior."); Bruce E. Kaufman, *Emotional Arousal as a Source of Bounded Rationality*, 38 J. ECON. BEHAV. & ORG. 135, 135 (1999) (noting that "an additional source of bounded rationality . . . [is] insufficient or excessive emotional arousal"); George F. Loewenstein et al., *Risk as Feelings*, 127 PSYCHOL. BULL. 267, 280 (2001) (arguing that emotional assessments of risk often diverge from cognitive assessments and that when such divergence occurs, emotional reactions often drive behavior); Barbara A. Mellers et al., *Decision Affect Theory: Emotional Reactions to the Outcomes of Risky Options*, 8 PSYCHOL. SCI. 423, 423 (1997) (citing numerous sources that address the role of emotions in decision making); Eric A. Posner, *Law and the Emotions*, 89 GEO. L.J. 1977, 1977 (2001) (noting that "emotions play an important role in many areas of the law"); Rakesh K. Sarin, *What Now for Generalized Utility Theory, in UTILITY THEORIES: MEASUREMENTS AND APPLICATIONS* 137, 145 (Ward Edwards ed., 1992) ("Psychological concerns such as anxiety, nervousness, regret and fear play an important role in decision making. These concerns, though unaccounted for in the economics of decision, are real to a person and should be incorporated in the analysis."); Zeelenberg, *supra* note 103, at 329 (noting that "[n]owadays, emotions are viewed as an important part of human experience, and their influence on decision making is widely acknowledged in psychology and economics").

¹⁰⁵ See, e.g., Baron, *supra* note 103, at 320 ("Anticipation of emotions can affect decisions even when the emotion is not an inherent part of the desired or undesired outcomes."); René Richard et al., *Anticipated Affect and Behavioral Choice*, 18 BASIC & APPLIED SOC. PSYCHOL. 111, 125 (1996) (reporting results of studies finding that "anticipated affective reactions predicted a significant proportion of variance in behavioral expectations").

Researchers who have asked people to imagine fearful stimuli have found that just anticipating the stimuli often activates fearful facial expressions, heavy respiration, and increased heart rates in the subjects. See, e.g., Peter J. Lang et al., *Emotional Imagery: Conceptual Structure and Pattern of Somato-Visceral Response*, 17 PSYCHOPHYSIOLOGY 179, 190 (1980); Gary E. Schwartz et al., *Facial Muscle Patterning to Affective Imagery in Depressed and Nondepressed Subjects*, 192 SCIENCE 489, 491 (1976).

¹⁰⁶ Researchers have also studied the impact of the anticipation of various other emotions upon human decision making. See, e.g., JOHN SABINI & MAURY SILVER, *EMOTION, CHARACTER, AND RESPONSIBILITY* 88-92 (1998) (studying shame and guilt); JOHN SABINI, *SOCIAL PSYCHOLOGY* 254-55 (1992) (studying embarrassment); Dianne L. Chambless & Edward J. Gracely, *Fear of Fear and the Anxiety Disorders*, 13 COGNITIVE THERAPY & RES. 9 (1989)

upon determining she could have obtained a better outcome if she had decided or behaved differently."¹⁰⁷ People take this feeling—or the mere anticipation of this feeling—into account when making decisions.¹⁰⁸ It is an emotional input that people rely on independently of the utility or disutility associated with the various potential outcomes.

An example illustrates the phenomenon. Assume that a decision maker is faced with two choices: Alternative A provides the decision maker with a guaranteed million dollars, whereas Alternative B provides the decision maker with a 10% chance of receiving \$2.5 million, an 89% chance of receiving \$1 million, and a 1% chance of receiving nothing. Although Alternative B has a greater expected value (\$1.14 million) and gives the decision maker a 99% chance of making as much or more than he would make under Alternative A, most people choose Alternative A. Inconsistent with standard economic theory, most people would rather have the certainty of a million dollars than the chance to receive even more.¹⁰⁹ Why do most people take the option that carries the smaller expected payoff? One explanation is that decision makers take into account how much regret they would feel if they accepted Alternative B and happened to receive zero.¹¹⁰

(studying panic); Lola L. Lopes, *Between Hope and Fear: The Psychology of Risk*, 20 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 255 (1987) (studying hope); Paula M. Niedenthal et al., "If Only I Weren't" Versus "If Only I Hadn't": Distinguishing Shame and Guilt in Counterfactual Thinking, 67 *J. PERSONALITY & SOC. PSYCHOL.* 585 (1994) (studying shame and guilt).

¹⁰⁷ Guthrie, *supra* note 55, at 65–66 (drawing from definitions by philosophers, economists, psychologists, and psychotherapists); see also HERSH SHEFRIN, *BEYOND GREED AND FEAR: UNDERSTANDING BEHAVIORAL FINANCE AND THE PSYCHOLOGY OF INVESTING* 30 (2000) ("[R]egret is [often] more than the pain of loss. It is the pain associated with feeling responsible for the loss."); Barbara A. Mellers et al., *Group Report: Effects of Emotions and Social Processes on Bounded Rationality*, in *BOUNDED RATIONALITY*, *supra* note 4, at 263, 269 (defining *regret* as "the feeling that occurs when one's outcome is worse than the other outcome that would have occurred under another choice"); Zeelenberg, *supra* note 103, at 327 (noting that regret "is accompanied by feelings that one should have known better and by having a sinking feeling, by thoughts about the mistake one has made and the opportunities lost, by feeling a tendency to kick oneself and to correct one's mistake, and wanting to undo the event and to get a second chance").

¹⁰⁸ The essence of anticipated regret theory is that (a) people feel regret if, after making a choice between two alternative courses of action, they learn that the choice they made led to a worse outcome, and (b) people do not wish to feel regret and will modify their utilities to avoid feeling it. See Richard P. Larrick & Terry L. Boles, *Avoiding Regret in Decisions with Feedback: A Negotiation Example*, 63 *ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES* 87, 87 (1995); Mellers et al., *supra* note 107, at 269.

Because they anticipate that they will feel regret (or joy) following a decision, they take into account the amount of regret (or joy) they think they may feel once the outcome is known, and factor that into their decision-making process. Richard P. Larrick, *Motivational Factors in Decision Theories: The Role of Self-Protection*, 113 *PSYCHOL. BULL.* 440, 445 (1993).

¹⁰⁹ See generally PLOUS, *supra* note 75, at 84–85 (discussing in more detail this example).

¹¹⁰ David E. Bell, *Regret in Decision Making Under Uncertainty*, 30 *OPERATIONS RES.* 961, 962 (1982). Bell explained:

A decision maker who takes the gamble over the sure \$1 million may feel absolutely devastated if the 1% chance of getting nothing results. It would

According to early regret theorists Loomes & Sugden:

The essential notion underlying regret theory is that people tend to compare their actual situations with the ones they would have been in, had they made different choices in the past. If they realize that a different choice would have led to a better outcome, people may experience the painful sensation of regret; if the alternative would have led to a worse outcome, they may experience a pleasurable sensation we call "rejoicing." When faced with new choice situations, people remember their previous experiences and form expectations about the rejoicing and regret that the present alternatives might entail. They then take these expectations into account when making their decisions.¹¹¹

The impact of anticipated regret can be significant.¹¹² Thus, there are studies indicating that anticipated regret influences which alternatives are chosen in the context of consumer purchase decisions,¹¹³ invest-

be considered normal, if not economically rational, for such a decision maker to feel angry and perhaps depressed that he or she could have been so stupid or greedy as to pass up a sure \$1 million. In the second choice between gambles there is no equivalent endpoint. If the chosen lottery results in no reward, the decision maker may feel that nothing was also the likely result of the other lottery.

Id. Bell offered several examples of the role that avoidance of decision regret might play in decision making, ultimately conceding that "adding an extra variable, regret, to the utility function inevitably allows for a better fit to observed behavior." *Id.* at 979.

Just about the time Bell propounded this theory, Loomes and Sugden, as well as Kahneman and Tversky, proposed similar notions. See, e.g., Kahneman & Tversky, *supra* note 8, at 170, 173; Daniel Kahneman & Amos Tversky, *The Simulation Heuristic*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 201, 206 [hereinafter Kahneman & Tversky, *Simulation Heuristic*]; Graham Loomes & Robert Sugden, *Disappointment and Dynamic Consistency in Choice Under Uncertainty*, 53 REV. ECON. STUD. 271 (1986); Graham Loomes & Robert Sugden, *Regret Theory: An Alternative Theory of Rational Choice Under Uncertainty*, 92 ECON. J. 805 (1982).

¹¹¹ Graham Loomes & Robert Sugden, *A Rationale for Preference Reversal*, 73 AM. ECON. REV. 428, 428 (1983).

¹¹² See Marcel Zeelenberg et al., *Regret and Responsibility Resolved? Evaluating Ordóñez and Connolly's (2000) Conclusions*, 81 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 143, 150 (2000) ("[T]here are various studies that have yielded process-related data that are consistent at least with the gist of regret theory, in the sense that they show that people take into account the possible future regrets and let their decisions be influenced by them."). Interestingly, just as Kahneman and Tversky's prospect theory indicates that losses have greater impact on human decision making than gains, Tversky & Kahneman, *supra* note 82, at 150, studies indicate that regret has a greater impact than its opposite, rejoicing.

¹¹³ J. Jeffrey Inman et al., *A Generalized Utility Model of Disappointment and Regret Effects on Post-Choice Valuation*, 16 MARKETING SCI. 97, 104 (1997) (positing and performing a study indicating that consumer satisfaction is substantially affected by information regarding the performance of forgone alternatives that can generate regret); J. Jeffrey Inman & Leigh McAlister, *Do Coupon Expiration Dates Affect Consumer Behavior?*, 31 J. MARKETING RES. 423, 427 (1994) (theorizing that anticipated regret might affect consumer coupon behavior and finding such an effect in the data); J. Jeffrey Inman & Marcel Zeelenberg, *Regret in Repeat Purchase Versus Switching Decisions: The Attenuating Role of Decision Justifiability*, 29 J. CONSUMER RES. 116 (2002); Itamar Simonson, *The Influence of Anticipating Regret and Responsibility on Purchase Decisions*, 19 J. CONSUMER RES. 105, 116 (1992) (finding that subjects asked to

ment decisions,¹¹⁴ gambling decisions,¹¹⁵ negotiations,¹¹⁶ sexual behavior,¹¹⁷ and driving behavior.¹¹⁸ Although the link is controversial, the evidence is relatively strong that there is a direct correlation between one's regret and the responsibility one feels for the unfortunate outcome.¹¹⁹ "Thus, individuals tend to avoid consequences in which they could appear after the fact to have made the wrong choice, even if in advance the decision appeared correct given the information available at the time."¹²⁰

Although many commentators theorize that anticipated regret generally causes people to be risk averse, this is not always true. In experiments that manipulated riskiness and regret, people tended to choose either the riskier choice or the less risky choice, depending upon which choice minimized regret.¹²¹ In others words, minimizing

anticipate how they would feel if they found that they had passed up an attractive price because they incorrectly expected the same price to be available later were more likely to take the current attractive price than a control group who were not instructed to anticipate regret).

¹¹⁴ Marcel Zeelenberg & Jane Beattie, *Consequences of Regret Aversion 2: Additional Evidence for Effects of Feedback on Decision Making*, 72 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 63, 74-75 (1997).

¹¹⁵ Robert A. Josephs et al., *Protecting the Self from the Negative Consequences of Risky Decisions*, 62 J. PERSONALITY & SOC. PSYCHOL. 26 (1992).

¹¹⁶ Larrick & Boles, *supra* note 108.

¹¹⁷ René Richard et al., *Anticipated Regret and Time Perspective: Changing Sexual Risk-taking Behavior*, 9 J. BEHAV. DECISION MAKING 185 (1996).

¹¹⁸ Dianne Parker et al., *Modifying Beliefs and Attitudes to Exceeding the Speed Limit: An Intervention Study Based on the Theory of Planned Behavior*, 26 J. APPLIED SOC. PSYCHOL. 1 (1996).

¹¹⁹ Thus, a person should regret choosing a class that turns out to be a bad experience more than being placed in the class by a computer. The evidence tends to indicate that this is true. For an enlightening exchange of views on this matter, see Terry Connolly et al., *Regret and Responsibility in the Evaluation of Decision Outcomes*, 70 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 73 (1997) (purporting to find as much regret for bad results when a computer assigned students as when they were self-assigned); Marcel Zeelenberg et al., *Reconsidering the Relation Between Regret and Responsibility*, 74 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 254 (1998) [hereinafter Zeelenberg et al., *Reconsidering the Relation*] (refining Connolly and his coauthors' 1997 study and finding correlation between regret and responsibility); Lisa D. Ordóñez & Terry Connolly, *Regret and Responsibility: A Reply to Zeelenberg et al. (1998)*, 81 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 132 (2000) (conceding the existence of a correlation between regret and responsibility); Zeelenberg et al., *supra* note 112, at 149 (claiming victory in that "the new studies of Ordóñez and Connolly support our claim that regret and responsibility are positively related").

¹²⁰ Samuelson & Zeckhauser, *supra* note 60, at 38.

¹²¹ See Marcel Zeelenberg et al., *Consequences of Regret Aversion: Effects of Expected Feedback on Risky Decision Making*, 65 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 148 (1996); see also Larrick & Boles, *supra* note 108 (finding in a negotiation setting that negotiators who expected feedback on the forgone alternative were more risk-seeking than those who did not expect feedback); Ilana Ritov, *Probability of Regret: Anticipation of Uncertainty Resolution in Choice*, 66 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 228 (1996) (finding that subjects choosing between gambles who expected to find out results of both their choice and a forgone alternative, and therefore faced the possibility of regret, chose

regret was more important to the decision makers than minimizing risk.¹²²

1. *Regret Theory and the Omission Bias*

Regret is important for our purposes because it relates back to the omission and normality biases. Significantly, most studies indicate that regret is greater when an undesirable outcome is caused by action rather than because of an omission or missed opportunity.¹²³ Kahneman and Tversky tested this hypothesis with the following scenario:

Paul owns shares in Company A. During the past year he considered switching to stock in Company B, but he decided against it. He now finds that he would have been better off by \$1,200 if he had switched to the stock of Company B. George owned shares in Company B. During the past year he switched to stock in Company A. He now finds that he would have been better off by \$1,200 if he had kept his stock in Company B. Who feels more regret?¹²⁴

Most people believed that George would suffer more regret than Paul because George actively switched out of the more profitable stock while Paul simply passed up an opportunity that presented itself.¹²⁵ Additional studies of this phenomenon in varying scenarios have produced such consistent results¹²⁶ that experts have concluded

the high-risk, high-gain option more often than subjects who expected to learn only the result of their own choice and therefore did not face regret).

¹²² Zeelenberg et al., *supra* note 121, at 156; Zeelenberg & Beattie, *supra* note 114, at 74-75; Marcel Zeelenberg, *Anticipated Regret, Expected Feedback and Behavioral Decision Making*, 12 J. BEHAV. DECISION MAKING 93, 104 (1999).

¹²³ See, e.g., MASSIMO PIATTELLI-PALMARINI, INEVITABLE ILLUSIONS: HOW MISTAKES OF REASON RULE OUR MINDS 28 (Massimo Piattelli-Palmarini & Keith Botsford trans., 1994) (noting that humans' "mental economy has a built-in cost for action" in that we regret it less if bad results stem from our inaction rather than our actions); Thomas Gilovich & Victoria Husted Medvec, *Some Counterfactual Determinants of Satisfaction and Regret*, in WHAT MIGHT HAVE BEEN: THE SOCIAL PSYCHOLOGY OF COUNTERFACTUAL THINKING 259, 264 (Neal J. Roese & James M. Olson eds., 1995) ("People apparently regret negative outcomes that stem from commissions, or actions taken, more than equivalent outcomes that stem from omissions, or actions foregone."); Kahneman & Tversky, *supra* note 8, at 173 ("[R]egret associated with failures to act is often less intense than regret associated with the failure of an action.").

¹²⁴ Kahneman & Tversky, *supra* note 8, at 173.

¹²⁵ *Id.* Baron and Ritov replicated this result in a similar study. Baron & Ritov, *supra* note 73, at 481-83.

¹²⁶ For example, Landman replicated Kahneman and Tversky's "George and Paul" study in three slightly different scenarios involving choices between college courses, job offers, and vacation sites. Roughly eighty percent of the respondents imagined greater regret for negative outcomes following action rather than inaction. Landman, *supra* note 40, at 528-29.

Ritov and Baron also completed a series of experiments in this area. See, e.g., Ilana Ritov & Jonathan Baron, *Outcome Knowledge, Regret, and Omission Bias*, 64 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 119, 126 (1995) [hereinafter Ritov & Baron, *Outcome Knowledge*]. They found that

that the fact that people experience more regret over negative outcomes stemming from action than negative outcomes stemming from inaction “is perhaps the clearest and most frequently replicated finding in the entire literature on counterfactual thinking.”¹²⁷

2. *Regret Theory and the Normality Bias*

Not only do people tend to regret actions more than inactions, they also (consistent with everything we have discussed to this point) regret adverse consequences that stem from abnormal situations more than those that stem from normal situations.¹²⁸ Similarly, they regret adverse consequences that arise from extraordinary behavior more than those that result from common behavior.¹²⁹

people anticipate regret when they expect to be able to compare a bad outcome to a better outcome that would have resulted from a foregone option. They evaluate decisions as worse when such a situation exists, and they are reluctant to choose options that might lead to such a situation, especially when these options involve action rather than inaction.

Id. (emphasis added); see also David A. Asch et al., *Omission Bias and Pertussis Vaccination*, 14 MED. DECISION MAKING 118, 121 (1994) (finding that the omission bias affected survey participants' decisions whether to vaccinate their children with DPT); Gideon Keren & Willem A. Wagenaar, *On the Psychology of Playing Blackjack: Normative and Descriptive Considerations with Implications for Decision Theory*, 114 J. EXPERIMENTAL PSYCHOL.: GEN. 133, 142 (1985) (suggesting regret as a potential explanation for why blackjack players “stand” with sixteen or less even though the odds are better if they take another card); Dale T. Miller & Brian R. Taylor, *Counterfactual Thought, Regret, and Superstition: How to Avoid Kicking Yourself, in WHAT MIGHT HAVE BEEN*, supra note 123, at 305, 318 (finding that blackjack players who answered “yes” to either the question “Do you want a hit?” or “Do you want to stand?” and then lost, felt worse than players who answered “no” to either question); Ilana Ritov & Jonathan Baron, *Reluctance to Vaccinate: Omission Bias and Ambiguity*, 3 J. BEHAV. DECISION MAKING 263, 275 (1990) [hereinafter Ritov & Baron, *Reluctance to Vaccinate*] (finding that “[s]ubjects are reluctant to vaccinate when the vaccine can cause bad outcomes, even if the outcomes of not vaccinating are worse,” and noting that explanations subjects give for their decisions are consistent with regret theory); Marcel Zeelenberg et al., *Undoing Regret on Dutch Television: Apologizing for Interpersonal Regrets Involving Actions or Inactions*, 24 PERSONALITY & SOC. PSYCHOL. BULL. 1113, 1118 (1998) (finding that in the Dutch Television show *I Am Sorry*, which offered people the chance to undo their social regrets by apologizing and offering a bouquet of flowers to the target of their regrets, subjects tended to regret actions rather than failures to act).

¹²⁷ Thomas Gilovich & Victoria Husted Medvec, *The Experience of Regret: What, When, and Why*, 102 PSYCHOL. REV. 379, 380 (1995). *But see* Christopher G. Davis et al., *The Undoing of Traumatic Life Events*, 21 PERSONALITY & SOC. PSYCHOL. BULL. 109, 115, 120–21 (1995) (finding that parents of children who died of SIDS and people who had lost close family members in car accidents regretted omissions and commissions equally).

¹²⁸ See Janet Landman, *Through a Glass Darkly: Worldviews, Counterfactual Thought, and Emotion, in WHAT MIGHT HAVE BEEN*, supra note 123, at 233, 248 (citing several studies that have reached this conclusion); Dale T. Miller & Cathy McFarland, *Counterfactual Thinking and Victim Compensation: A Test of Norm Theory*, 12 PERSONALITY & SOC. PSYCHOL. BULL. 513, 516 (1986) (reporting experimental results showing that “victims whose negative fates follow abnormal actions receive more sympathy than victims whose negative fates follow normal actions”).

¹²⁹ See John J. Hetts et al., *The Influence of Anticipated Counterfactual Regret on Behavior*, 17 PSYCHOL. & MARKETING 345, 364 (2000).

G. Attribution Theory

Why is it that people experience greater regret for bad outcomes when they result from action (rather than inaction) and abnormal acts (rather than normal acts)? The answer to this question is important for legal actors because it can provide insight into decision making by both judges and jurors in a wide range of settings.

Attribution theory provides a framework for investigating this question. Attribution theory is concerned with how people explain the world around them,¹³⁰ and how they assign responsibility, causality, and blame.¹³¹ Moreover, it provides a more psychological account of these issues than does the rational man model of law and economics.¹³² Attribution theory posits that the heightened negative emotions people experience for bad outcomes, which are associated with actions and abnormalities, is due to the fact that there is a tighter perceived causal connection between actions and outcomes than between omissions and outcomes. Similarly, people perceive stronger causal connections between abnormal behaviors and bad outcomes than between normal behaviors and bad outcomes. These points are elaborated below.

¹³⁰ Dan Coates & Steven Penrod, *Social Psychology and the Emergence of Disputes*, 15 *LAW & SOC'Y REV.* 655, 659 (1980–1981) (“Attribution theory holds that people prefer to find order and meaning in the world, and usually develop explanations for why events happen and why people behave as they do.”). For some of the foundational works in the field, see *ATTRIBUTION: PERCEIVING THE CAUSES OF BEHAVIOR* (Edward E. Jones et al. eds., 1972); *Fritz Heider, THE PSYCHOLOGY OF INTERPERSONAL RELATIONS* (1958); *HAROLD H. KELLEY, CAUSAL SCHEMATA AND THE ATTRIBUTION PROCESS* (1972); *KELLY G. SHAVER, AN INTRODUCTION TO ATTRIBUTION PROCESSES* (1975).

¹³¹ See Frank D. Fincham & Joseph M. Jaspars, *Attribution of Responsibility: From Man the Scientist to Man as Lawyer*, 13 *ADVANCES EXPERIMENTAL SOC. PSYCHOL.* 81, 82 (1980) (“In its broadest conception attribution theory refers to the general process by which the layman explains events, although traditionally it has been associated with the study of perceived causality.”).

Lawyers who understand attribution theory can use it to influence jurors. Fundamental attribution error is “the tendency to attribute behavior exclusively to the actor’s dispositions and to ignore powerful situational determinants of the behavior.” NISBETT & ROSS, *supra* note 42, at 31. Joshua Newberg recently explained how the attorneys in the Microsoft antitrust litigation attempted to induce jurors to commit the fundamental attribution error—to believe that bad results do not just happen, they must be caused by the actions of people or companies. See Joshua A. Newberg, *The Narrative Construction of Antitrust* 39–40 (2002) (unpublished paper, on file with authors).

¹³² See Donald H. Gjerdingen, *The Coase Theorem and the Psychology of Common-Law Thought*, 56 *S. CAL. L. REV.* 711, 730 n.90 (1983) (noting that the body of work that makes up attribution theory “reinforces the idea that commonsense or intuitionistic thinking has structures that often run counter to formalistic methods of analysis usually associated with ‘rational’ or ‘scientific’ thought such as statistical analysis”).

1. *Attribution Theory and the Omission Bias*

Attribution theory teaches that people organize their thoughts about the physical and social world in terms of causal relationships.¹³³ Particularly important in this process is determining to what cause or set of causes particular effects can be attributed.¹³⁴ The causal schemas we generate are often simpler than the network of causal forces that actually operate to produce such complex negative effects as financial, emotional, or physical harm. For example, people rarely think about the role that chance plays in producing poor patient responses to chemotherapy, focusing instead on tangible, precipitating events such as treatment dose, treatment timing, and administration of the drug. This focus on tangible precipitating *acts* is important for our purposes, because it suggests that people are more likely to perceive causal properties in actions than inactions.

Returning to our previous example involving Milo's drowning, most people will agree that Sally is a greater cause of Milo's accident when she actively bumps into him than when she is passively bumped by him. To the extent Sally is perceived to be a causal agent, she is likely to be held more responsible and more blameworthy for Milo's injuries.¹³⁵ Perceived intentionality may act as a mediating variable between causality and responsibility. That is, people may regard actors to be more responsible for harm than nonactors because actors' behavior *seems* more intentional.¹³⁶ Although the actors themselves

¹³³ See Amos Tversky & Daniel Kahneman, *Causal Schemas in Judgments Under Uncertainty*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 117, 117 ("It is a psychological commonplace that people strive to achieve a coherent interpretation of the events that surround them, and that the organization of events by schemas of cause-effect relations serves to achieve this goal.").

¹³⁴ Ross & Anderson, *supra* note 92, at 130 (noting that as people attempt to understand the causes and implications of the events they witness, they must first identify causes of particular effects and then draw inferences about the attributes or dispositions of the relevant actors).

¹³⁵ See Jonathan Haidt & Jonathan Baron, *Social Roles and the Moral Judgement of Acts and Omissions*, 26 EUR. J. SOC. PSYCHOL. 201, 215-16 (1996); Ritov & Baron, *Outcome Knowledge*, *supra* note 126, at 119; see also Fincham & Jaspars, *supra* note 131, at 125 ("[T]he common-sense notion that judgments of causation partly determine those of responsibility, which in turn affect judgments of blame and punishment, implicitly informs much of this [social psychological] research.").

Whereas there is evidence that people will view an actor's actions as more blameworthy if they are more closely connected causally with a victim's injuries, there is also evidence that people will view an actor's actions as more causal if they are more blameworthy. See Mark D. Alicke, *Culpable Causation*, 63 J. PERSONALITY & SOC. PSYCHOL. 368, 376 (1992) (reporting results of four studies indicating "that the degree of culpability in an act can influence perceptions of causation").

¹³⁶ See Johanna H. Kordes-de Vaal, *Intention and the Omission Bias: Omissions Perceived as Nondecisions*, 93 ACTA PSYCHOLOGICA 161, 169 (1996) ("Because of the reduced strength of the perceived causal link between an omission and its consequence, an omission may usually be perceived as a nondecision, or at least as a less intended decision than a commission.").

may vehemently reject the notion of intentionality in cases in which harm results, they may still feel greater responsibility for their actions than their omissions, which leads to greater self-blame and regret for actions than for omissions when both produce bad results.¹³⁷

The notion that omissions are less causally connected to outcomes than actions, and that therefore those who sin by omission are less culpable than those who sin by actions, has broad implications for the law. It suggests that those who wish to minimize their own responsibility for subsequent bad outcomes may wish to think twice about taking action when similar results can be obtained through more passive involvement. For example, physicians who fail to protect their patients may be seen as less negligent than those who try to protect and fail. Some evidence supports this view. In one study, people found active euthanasia more blameworthy than passive euthanasia, even in situations that were comparable in terms of the physician's motive (to minimize patient suffering) and the end result (the patient's death).¹³⁸ Other studies show that the omission bias may affect jury compensation decisions. Mock jurors tend to award greater damages and impose greater penalties when injuries result from acts rather than omissions, even when other relevant factors are held constant.¹³⁹

¹³⁷ See Julie Feldman et al., *Are Actions Regretted More than Inactions?*, 78 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 232, 234 (1999) (noting that "in cases where the same outcome results from an action or an inaction, actions are regretted more intensely than inactions"); Gilovich & Medvec, *supra* note 123, at 264-65 ("Individuals are thought to 'own' their actions more than their inactions, and so an action that leads to negative consequences is considered more likely to induce a disquieting sense of 'This did not have to be' or 'I brought this on myself.'"); Haidt & Baron, *supra* note 135, at 205, 215 (hypothesizing and finding in a series of empirical studies that "[w]hen a distinction is made between omissions and acts, harmful acts will be judged more immoral than otherwise equivalent omissions"); Barton L. Ingraham, *The Right of Silence, the Presumption of Innocence, the Burden of Proof, and a Modest Proposal: A Reply to O'Reilly*, 86 J. CRIM. L. & CRIMINOLOGY 559, 581 n.55 (1996) ("Attribution theory suggests that . . . the normal human reaction is to feel that the person who failed in his duty to prevent the harm from occurring is . . . less blameworthy than if he had produced the harm alone by active misconduct."); Ritov & Baron, *Reluctance to Vaccinate*, *supra* note 126, at 275 ("One is perceived to be more responsible for outcomes of commissions than for outcomes of omissions."); Mark Spranca et al., *Omission and Commission in Judgment and Choice*, 27 J. EXPERIMENTAL SOC. PSYCHOL. 76, 84-85 (1991) (finding that people view actions resulting in bad consequences as more immoral than inactions resulting in similar consequences).

¹³⁸ See David B. Sugarman, *Active Versus Passive Euthanasia: An Attributional Analysis*, 16 J. APPLIED SOC. PSYCHOL. 60, 70-71 (1986) (reporting that in a study the "physician in the active euthanasia condition was attributed greater responsibility for the patient's death and was evaluated more negatively than the physician in the passive euthanasia conditions" and that "an act of active euthanasia was perceived as being less in line with perceived medical standards than passive euthanasia").

¹³⁹ See Baron & Ritov, *supra* note 5, at 17 (finding that victims tend to "receive less compensation for injuries caused by omissions or by nature than for injuries caused by acts"); Ritov & Baron, *Judgements of Compensation*, *supra* note 74, at 537-38 (finding similar results in a civil damages action).

2. *Attribution Theory and the Normality Bias*

In our quest to understand why bad outcomes sometimes occur, attribution theorists¹⁴⁰ and legal philosophers¹⁴¹ have suggested that unusual acts and circumstances stand out as causal candidates over more usual ones. Abnormalities are not merely perceived to be more causal, they also cause greater regret and receive greater blame. One study showed that people presume that drivers who are involved in an accident after taking an unusual route to work will suffer more regret than those drivers who are involved in an identically bad accident when taking a more usual route home.¹⁴² Another study showed that if a person is mugged on his way home, jurors will feel sorrier for him, view the muggers as more responsible, and impose a higher punishment if they are told that the person took an abnormal route home.¹⁴³ Similarly, Professors Miller and McFarland found that mock jurors awarded higher compensation to robbery victims when they were told that the robbery occurred in a store that the victim visited infrequently.¹⁴⁴

A study by Professor Richard Wiener and his colleagues showed that this normality bias (that is, a bias *against* the abnormal) is so strong that it may influence how jurors interpret the meaning of guiding legal principles.¹⁴⁵ In their study, mock jurors were asked to make negligence judgments initially by comparing defendants' actions to those of a "careful and prudent person."¹⁴⁶ The subjects were then asked to reconsider the normality of the defendant's actions. Increases in the mock jurors' perceptions of the normality of the defendant's actions were closely associated with conclusions that the defendant had met or surpassed the legal standard of care and therefore was not negligent.¹⁴⁷ Further, the more normal the mock jurors

¹⁴⁰ See, e.g., Denis J. Hilton & Ben R. Slugoski, *Knowledge-Based Causal Attribution: The Abnormal Conditions Focus Model*, 93 PSYCHOL. REV. 75, 87 (1986) (noting that abnormal conditions come to be dignified as the cause of an event because they are the necessary conditions for the occurrence of a target event that contrast with the conditions obtained in a comparison case in which the target event did not occur); C. Gustav Lundberg & Dean Elliot Frost, *Counterfactuals in Financial Decision Making*, 79 ACTA PSYCHOLOGICA 227, 227-28 (1992) (surveying the literature and noting that event abnormality can play an important role in causal attribution).

¹⁴¹ See, e.g., HART & HONORÉ, *supra* note 46, at 41 (noting that it is often the "abnormal occurrence" that is recognized as "making the difference" in causal attributions).

¹⁴² See Kahneman & Miller, *supra* note 51, at 145.

¹⁴³ See Macrae et al., *supra* note 11, at 224-25.

¹⁴⁴ See Miller & McFarland, *supra* note 128, at 515-16.

¹⁴⁵ See Wiener et al., *supra* note 7.

¹⁴⁶ *Id.* at 94.

¹⁴⁷ *Id.* at 97.

viewed the defendant's behavior, the more confident they were in their verdicts.¹⁴⁸

H. Counterfactual Thinking

In the subpart above, we introduced attribution theory and described how it can help us understand why legal decision makers feel more strongly about bad outcomes when those outcomes result from abnormal, active deeds as opposed to normal, passive deeds. We suggested that the causal bonds between precipitating events and outcomes are strongest when those precipitating events involve action or are viewed as abnormal. We further suggested that the strength of these bonds affects how legal decision makers think about responsibility and blame for bad outcomes that have occurred. These observations followed from the psychological framework that attribution theory offers.

Borrowing from Kahneman and Miller's norm theory,¹⁴⁹ we now offer a psychological mechanism that may underlie many of the phenomena (*e.g.*, status quo bias, endowment effect, loss aversion, sunk cost effects, omission bias, and normality bias) and theories (*e.g.*, regret theory and attribution theory) that we have examined to this point. A rich cognitive literature points to counterfactual thinking as the lynchpin. Counterfactual thinking is what occurs when we imagine states of the world that might have occurred but did not.¹⁵⁰ Colloquially speaking, counterfactual thinking is best understood as "if only" thinking: "If only he had not stopped at the convenience store that night, he would not have been robbed." The comparison between what happened and what might have happened is the defining feature of the counterfactual.¹⁵¹

Counterfactuals play a central role in how people determine causation,¹⁵² including causation of the "but for" variety. According to the simulation heuristic, people judge the strength of a connection

¹⁴⁸ *Id.*; see also Richard L. Wiener, *Social Analytic Jurisprudence and Tort Law: Social Cognition Goes to Court*, 37 ST. LOUIS U. L.J. 503, 541 (1993) (discussing the implications of this study and other similar findings for tort decisions).

¹⁴⁹ Kahneman & Miller, *supra* note 51.

¹⁵⁰ See Vittorio Girotto et al., *Event Controllability in Counterfactual Thinking*, 78 ACTA PSYCHOLOGICA 111, 112 (1991) (defining counterfactual thinking as "the mental construction of alternatives to factual events").

¹⁵¹ See C. Neil Macrae, *A Tale of Two Curries: Counterfactual Thinking and Accident-Related Judgments*, 18 PERSONALITY & SOC. PSYCHOL. BULL. 84, 84 (1992) ("[O]ur interpretation of reality is often a relativistic process whereby we compare event outcomes with postcomputed or counterfactual alternatives").

¹⁵² See Adam D. Galinsky & Gordon B. Moskowitz, *Counterfactuals as Behavioral Primes: Priming the Simulation Heuristic and Consideration of Alternatives*, 36 J. EXPERIMENTAL SOC. PSYCHOL. 384, 385 (2000) (noting that "judgments of causality are often driven by not only what *actually* happened, but also what *almost* happened or what *normally* happens").

between an effect and a proposed cause by engaging in a thought simulation or experiment in which the proposed cause is “undone.”¹⁵³ If undoing the proposed cause produces a simulated outcome that is different from that which occurred, then people will tend to accept its role as a causal agent.¹⁵⁴ Therefore, a causal relationship is more likely to be perceived between proposed causes and outcomes when the outcomes are highly mutable.¹⁵⁵ Thus, in Miller and McFarland’s robbery example,¹⁵⁶ because it is relatively easy to imagine a different outcome (*i.e.*, no robbery), and because a mental elimination of the proposed cause (*i.e.*, stopping at the convenience store) would seem to produce a different outcome, people are likely to perceive a causal link between the victim’s behavior and the negative outcome *if* they think counterfactually. On the other hand, counterfactual thinking would not support a causal link between failing to carry an umbrella and a rainstorm, because the rainstorm is an immutable event.

In the legal arena, outcomes are generally immutable, and counterfactual simulations aid fact finders in identifying “but for” causal factors. Empirical research suggests that these phenomena have implications for how jurors assign responsibility, blame, and punishment.¹⁵⁷ Nyla Branscombe and her colleagues found that the amount of blame mock jurors assigned to a particular party in hypothetical civil and criminal cases depended, in large part, on whether the jurors were encouraged to generate counterfactuals involving that party.¹⁵⁸ The researchers concluded that “presentation of an if-only counterfactual focusing on the opposing counsel’s client can lower blame to one’s own client. Likewise, presenting a counterfactual of the ‘even if my client had done otherwise’ sort can lower blame to one’s own client by implicating the other party.”¹⁵⁹

1. Counterfactual Thinking and the Omission Bias

One reason actors are more likely to be blamed for bad outcomes than nonactors is the ease of conjuring up counterfactuals.¹⁶⁰ It is easier to imagine George not taking an action (“If only he hadn’t pur-

¹⁵³ See Kahneman & Tversky, *Simulation Heuristic*, *supra* note 110.

¹⁵⁴ See Gary L. Wells & Igor Gavanski, *Mental Simulation of Causality*, 56 J. PERSONALITY & SOC. PSYCHOL. 161, 161 (1989).

¹⁵⁵ See *id.* at 161–62.

¹⁵⁶ See Miller & McFarland, *supra* note 128, at 514–16.

¹⁵⁷ See Wells & Gavanski, *supra* note 154, at 167 (reporting that counterfactual thinking had “almost identical” effects on judgments of causality and judgments of responsibility).

¹⁵⁸ See Branscombe et al., *supra* note 56, at 1061–64.

¹⁵⁹ *Id.* at 1063.

¹⁶⁰ See Landman, *supra* note 128, at 249 (“Apparently people find it easier to imagine inaction as an alternative to action than to imagine action alternatives to inaction.”); Miller & Taylor, *supra* note 126, at 321 (“Ill-fated acts of commission evoke counterfactual alternatives and, hence, regret more strongly than do ill-fated acts of omission.”).

chased that stock”) than to imagine Paul taking an action that he did not take (“If only he had purchased that stock”).¹⁶¹ When we mentally undo an action that was taken, we are, in a sense, restoring a more natural or normal state. Prior to the stock purchase, George did not own the stock and so it is easy to imagine him in that state once again. The same is not true of the counterfactual in which we try to imagine Paul purchasing a stock that he never owned. Ownership is not a previous state for Paul and so it is a less natural and less compelling counterfactual to contemplate.

In the civil courtroom, the psychology of counterfactual thinking ordinarily confers an advantage on plaintiffs because their attorneys often try to persuade jurors that a defendant’s actions were inextricably linked to some greater responsibility, regret, blame, and punishment. In contrast, a jury may find a plaintiff’s failures to act less objectionable, in part because “if only” counterfactuals are less persuasive when they describe a state that never existed.¹⁶²

The potential effect of counterfactual thinking on decision making is also highlighted by a phenomenon called “inaction inertia,” a label for the tendency people have to pass up attractive action opportunities after they have passed up an even more attractive opportunity at an earlier time.¹⁶³ For example, if a person is presented with an

¹⁶¹ Kahneman & Tversky, *supra* note 8, at 173.

¹⁶² See Ruth Beyth-Marom et al., *Perceived Consequences of Risky Behaviors: Adults and Adolescents*, 29 DEVELOPMENTAL PSYCHOL. 549, 560 (1993) (“[I]t is easier to think about action than about inaction, which is often less well defined. As a result, inaction provides a poorer (cognitive) starting point for generating possibilities.”); Faith Gleicher et al., *The Role of Counterfactual Thinking in Judgments of Affect*, 16 PERSONALITY & SOC. PSYCHOL. BULL. 284, 291 (1990) (finding that individuals who lost money on the basis of action were judged as feeling worse than those who lost money on the basis of inaction); Hets et al., *supra* note 129, at 348 (noting that “research has suggested that counterfactual generation is easier following actions than inactions”); Kahneman & Miller, *supra* note 51, at 145 (noting that “it is usually easier to imagine oneself abstaining from actions that one has carried out than carrying out actions that were not in fact performed”).

An experiment by Patrizia Catellani and Patrizia Milesi also supports the claim that actions lend themselves to counterfactual thinking more than inactions, but with two qualifications. See Patrizia Catellani & Patrizia Milesi, *Counterfactuals and Roles: Mock Victims’ and Perpetrators’ Accounts of Judicial Cases*, 31 EUR. J. SOC. PSYCHOL. 247, 261 (2001). First, the action-inaction effect is influenced by role-based motivations. *Id.* For example, those who were assigned a passive role (victim in a crime) expressed more alternatives to the perpetrators’ controllable actions than to their own; in contrast, those assigned the role of perpetrator did not mutate the victim’s controllable actions more than their own. *Id.* Second, counterfactual thinking is shaped by socially shared expectations regarding peoples’ actions. *Id.* For example, because a perpetrator of a crime is expected to be more active than a crime victim, observers are particularly likely to mutate the perpetrator’s actions and the victim’s inactions. See *id.* at 261–62.

¹⁶³ See Orit E. Tykocinski & Thane S. Pittman, *The Consequences of Doing Nothing: Inaction Inertia as Avoidance of Anticipated Counterfactual Regret*, 75 J. PERSONALITY & SOC. PSYCHOL. 607, 615–16 (1998) [hereinafter Tykocinski & Pittman, *Consequences*] (providing substantial evidence that anticipated counterfactual regret is a major cause of inaction inertia); Orit E. Tykocinski et al., *Inaction Inertia: Foregoing Future Benefits as a Result of an*

opportunity to join a frequent flier club and accumulate 5,000 miles for an upcoming flight, she is likely to accept the opportunity if it is her first opportunity to join the club. However, she is less likely to join the club if she had forgone an earlier opportunity to earn 7,500 miles, and even less likely if she had forgone an earlier opportunity to earn 15,000 miles.¹⁶⁴ The most likely source of this inaction inertia is a desire to avoid the regret of being reminded that she had passed up an earlier, better opportunity.¹⁶⁵

2. Counterfactual Thinking and the Normality Bias

Just as it is easier to generate counterfactuals for actions than inactions, it is also easier to generate counterfactuals for abnormal events than normal events.¹⁶⁶ The mental mutation of abnormal events is relatively straightforward because the post-mutation outcome is a normal or usual state that fits well within the natural social order. For the man who is car-jacked while taking an unusual route home from work, it is not hard to imagine what might have happened if only he had taken his usual route. He can easily imagine this option because it is one that he has taken many times before. He knows that his usual route is a safe one. In contrast, for the man who is car-jacked while taking his usual route home, it is unnatural for him to imagine what might have happened if only he had taken an unfamiliar route. It is equally unnatural for those observing or judging the actor to see strong links between normal behavior and subsequent bad outcomes.¹⁶⁷

Initial Failure to Act, 68 J. PERSONALITY & SOC. PSYCHOL. 793, 801–02 (1995) (reporting several experiments showing inaction inertia); Orit E. Tykocinski & Thane S. Pittman, *Product Aversion Following a Missed Opportunity: Price Contrast or Avoidance of Anticipated Regret?*, 23 BASIC & APPLIED SOC. PSYCHOL. 149, 155–56 (2001) [hereinafter Tykocinski & Pittman, *Product Aversion*] (reporting the results of three experiments showing that avoidance-of-regret is the most likely explanation for inaction inertia) .

¹⁶⁴ See Tykocinski et al., *supra* note 163, at 801–02.

¹⁶⁵ See Tykocinski & Pittman, *Consequences*, *supra* note 163, at 615–16. Though empirically untested, we suspect that inaction inertia causes parties in civil cases to be less likely to accept an attractive mid-trial settlement offer when they have rejected an earlier, more attractive, offer.

¹⁶⁶ See Lundberg & Frost, *supra* note 140, at 233, 240 (finding equivocal empirical support for the notion that exceptions to the routine “evoke contrasting normal alternatives, but not vice versa, and that “an unanticipated event is more likely to be undone by altering exceptional rather than routine aspects of the causal chain”); Macrae, *supra* note 151, at 84 (“[I]t is simpler to generate counterfactual alternatives for abnormal (e.g., exceptional) than for normal (e.g., routine) actions.”); Gary L. Wells et al., *The Undoing of Scenarios*, 53 J. PERSONALITY & SOC. PSYCHOL. 421, 428 (1987) (finding support for the “assertion that exceptional events are more psychologically mutable than are normal events”); Wiener et al., *supra* note 7, at 91 (“Research in counterfactual thinking has shown that it is easier to mentally mutate exceptional or unusual events.”).

¹⁶⁷ See Barbara A. Spellman & David R. Mandel, *When Possibility Informs Reality: Counterfactual Thinking as a Cue to Causality*, 8 CURRENT DIRECTIONS IN PSYCHOL. SCI. 120, 121 (1999) (noting that bad outcomes and abnormal events are the most likely triggers of

Empirical studies indicate that such a normality bias, which has its roots in the relative ease with which counterfactuals are generated for abnormal behaviors, operates across a broad set of tasks related to both empirical and cognitive judgments. Miller and McFarland, for example, found that when people were victimized by abnormal events, others' emotional reactions were intensified by counterfactual thoughts. More specifically, they felt greater sympathy toward the victims and therefore were willing to award them higher compensation.¹⁶⁸

While Miller and McFarland investigated judgments regarding the victim, others have examined judgments regarding the perpetrator. For example, Kandi Turley and colleagues found that when a rape victim takes an unusual route home, mock jurors impose stiffer prison sentences on the rapist.¹⁶⁹ Similarly, C. Neil Macrae demonstrated that the availability of counterfactual alternatives for an accident preceded by exceptional circumstances led mock jurors to judge the accident perpetrator to be more negligent and more deserving of a large fine.¹⁷⁰ Macrae and colleagues then extended this research in a study that asked mock jurors to assume that a criminal burgled a house while the owners were away on a three-month vacation.¹⁷¹ Some subjects were presented with a scenario in which the burglary occurred in the middle of the three-month period, while other subjects were told that the burglary occurred the night before the family was due to return home.¹⁷² Although there is no legal or economic reason for concluding that it is worse to commit a burglary the night before the family returns home than some night in the middle of the vacation, from a psychological perspective, the timing of the crime matters. When the burglary occurs just before the family returns, a compelling counterfactual presents itself: "If only the family had come home one day earlier, this would not have happened." This counterfactual, in turn, is likely to produce more sympathy for the victims and greater punishment for the perpetrator. In fact, Macrae and colleagues found that mock jurors believed the night-before bur-

counterfactual musings in causality determinations); see also Karl Christoph Klauer et al., *Counterfactual Processing: Test of an Hierarchical Correspondence Model*, 25 EURO. J. SOC. PSYCHOL. 577, 589 (1995) (finding that subjects' mental simulations were "guided by . . . causal information and by correspondence in terms of normality").

¹⁶⁸ Miller & McFarland, *supra* note 128, at 515-16; see also Robert K. Bothwell & Kermit W. Duhon, *Counterfactual Thinking and Plaintiff Compensation*, 134 J. SOC. PSYCHOL. 705, 706 (1994) (finding a significant relationship between counterfactual thinking and plaintiff compensation, but not always in a direction favoring the plaintiff).

¹⁶⁹ Kandi Jo Turley et al., *Counterfactual Thinking and Perceptions of Rape*, 17 BASIC & APPLIED SOC. PSYCHOL. 285, 289-90 (1995).

¹⁷⁰ Macrae, *Tale of Two Curries*, *supra* note 151, at 86.

¹⁷¹ Macrae et al., *supra* note 11, at 223.

¹⁷² *Id.*

glary to be more blameworthy and more deserving of severe punishment than a burglary that occurred in the middle of the vacation, and exhibited more sympathy toward the victims.¹⁷³

III

TWO EMPIRICAL STUDIES: THE EFFECTS OF ACTION AND ABNORMALITY ON NEGLIGENCE JUDGMENTS

Because actions rather than omissions tend to produce abnormal states, it is hard to know whether people's relative sensitivity to harms that follow actions is due to an omission bias or a normality bias. No research has examined this particular question, although there is evidence that both the status quo bias (a close cousin of the normality bias)¹⁷⁴ and the omission bias affect decision makers when both are present.¹⁷⁵ Even less clear is which bias—the omission bias or the normality bias—exerts a *stronger* impact on legal decision makers when they run in opposite directions. For example, which bias will prevail in situations in which inaction preserves an abnormal state and action produces a more normal state? Will legal decision makers seek greater punishment for an individual whose actions bring about a harm, or for an individual whose inactions maintain an abnormal state in which the identical harm occurs? We performed two experiments to provide insight into this question.

A. The Medical Malpractice Experiment

1. *Actions and Counterfactuals*

As noted earlier, several researchers have argued that actions are more likely than inactions to produce regret when bad outcomes occur because actions appear to be more abnormal.¹⁷⁶ Actions *seem* ab-

¹⁷³ *Id.* Macrae and colleagues also found that mock jurors punished more severely a defendant who mugged a person who took an unusual route home from a bar than a defendant who mugged a person who took his normal route home. *Id.* at 224.

Ritov and Baron conducted a related study in which train passengers were injured when the train hit a tree lying across the railroad tracks. Ritov & Baron, *Judgements of Compensation*, *supra* note 74, at 528. In some versions, the engineer decided not to stop the train or tried in vain to stop the train. *Id.* at 529. In another version, an automatic stopping device successfully stopped the train but passengers were injured by the suddenness of the stop. *Id.* In yet another version, the train did not stop because an automatic stopping device failed. *Id.* The researchers found that jurors' compensation judgments were positively associated with scenario abnormality—"[i]f the injury occurred as a result of exception to the routine, subjects awarded higher compensation." *Id.* at 537.

¹⁷⁴ See *supra* Part II.A.

¹⁷⁵ See Maurice Schweitzer, *Disentangling Status Quo and Omission Effects: An Experimental Analysis*, 58 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 457, 470–72 (1994) (finding that the effects of the status quo bias and the omission bias are additive); Marcel Zeelenberg et al., *Reconsidering the Relation*, *supra* note 119, at 268 (finding similar evidence of additivity).

¹⁷⁶ See *supra* notes 160–62 and accompanying text.

normal because they are easy to undo or mentally erase.¹⁷⁷ Inactions are not as easily undone, and thus do not seem to be abnormal.¹⁷⁸ Thus, one might predict that negligence that occurs when a physician intervenes in a patient's treatment and causes harm (active negligence) would be viewed as worse than negligence that occurs when a physician fails to intervene and an identical harm befalls the patient (passive negligence).¹⁷⁹ If this prediction is true, then we would expect larger damages awards in cases of active negligence than in cases of passive negligence, even when the resultant harm to the patient is identical in the two types of cases.

2. *Abnormality of Conduct*

If people do regard active negligence to be worse than passive negligence, as some studies have shown,¹⁸⁰ then it is not necessarily true that the active/passive variable is responsible for this difference. Active negligence may be regarded as worse than passive negligence either because the acts are conducive to counterfactuals (which, in turn, leads to negative emotions such as regret), or because the acts are believed to be unconventional. Therefore, the unanswered empirical question is: If people find active negligence to be more reprehensible than passive negligence, is this judgment driven more by the fact that an action (as opposed to an omission) was the precipitating factor, or by the fact that the specific action taken was unconventional? That is, suppose that an act of active negligence was actually normal, or that an act of passive negligence was actually abnormal. Which will jurors punish more? Will the defendant's level of participation (passive, active) predict damages, or will the degree of abnormality in treatment (conventional, unconventional) be a better predictor?

The answers to these questions have important implications both for the theoretical question of how people determine responsibility, blame, and punishment, and for the practical question of when jurors are more likely to side with a plaintiff. We therefore conducted two controlled, scientific experiments to tease apart the effects of activeness and abnormality on when and how people judge allegedly negligent conduct.

¹⁷⁷ See *supra* notes 160–62 and accompanying text.

¹⁷⁸ See *supra* notes 160–62 and accompanying text.

¹⁷⁹ A standard definition of active negligence is “[n]egligence resulting from an affirmative or positive act, such as driving through a barrier.” BLACK’S LAW DICTIONARY 1056 (7th ed. 1999). Passive negligence is defined as “[n]egligence resulting from a person’s failure or omission in acting, such as failing to remove hazardous conditions from public property.” *Id.* at 1057.

¹⁸⁰ See *supra* notes 138–39 and accompanying text.

3. *Details of the Case*

The legal context for our first experiment was a medical malpractice action. We chose this context because it is one in which issues of active harm, unconventional treatment, negligence, and compensation play a key role at trial. We presented 211 mock jurors¹⁸¹ with written case materials in which an experienced physician who specialized in the treatment of colon cancer was sued for malpractice by the family of a patient who died while under the doctor’s care.¹⁸²

In this case, the doctor decided to treat a female cancer patient with either a conventional or an unconventional protocol. Furthermore, based on an examination of the patient’s recent test results, the doctor switched the patient’s treatment protocol (active), or did not switch the patient’s protocol (passive). In this manner, four versions of the case were created, as shown in Table 1.

TABLE 1
FOUR VERSIONS OF THE MEDICAL MALPRACTICE CASE

		Treatment	
		Conventional	Unconventional
Negligence	Active	Version 1	Version 2
	Passive	Version 3	Version 4

The following facts appeared in all four versions of the case: (1) the patient died; (2) three credible experts testified that the patient would have had a normal, cancer-free life if the physician had chosen the other treatment regime; and (3) the defense argued that none of the experts could be certain about what outcome would have occurred if the physician had treated the patient differently.

4. *Questions for the Jurors*

After studying the case, jurors were provided with instructions that were modeled after those commonly used in medical malpractice cases.¹⁸³ Next, jurors were asked whether the physician was negligent

¹⁸¹ The mock jurors were full-time students enrolled in classes at the University of Texas at Austin. Forty-nine percent of the participants were female and all were eligible for jury service in that they were U.S. citizens, at least eighteen-years-old, and had not been convicted of a felony. Jury eligibility was self-reported. See *infra* Appendix A, Question 16.

¹⁸² A complete description of one version of the case and the questions that we asked the jurors appear in Appendix A.

¹⁸³ See *infra* Appendix A.

and, if so, what sum of money should be awarded to the plaintiff.¹⁸⁴ These liability and compensation questions were key. If the mere act of switching treatments invites counterfactual reasoning that makes the jurors feel badly about the treatment, then we would expect to see more verdicts for the plaintiff and higher damages awards among jurors in the *active* groups. This pattern of data should appear irrespective of whether the treatment regime that the physician implemented was conventional or unconventional. However, if perceptions of abnormality are closely tied to the conventional or unconventional nature of the treatment, then we would expect to see more verdicts for the plaintiff and higher damages awards among jurors in the *unconventional* groups. Of course, it may be that awards are influenced by *both* the activeness of the negligence and the unconventionality of the treatment. The design of this study also allows us to test this possibility.

After answering the first two questions, jurors answered questions about whether the physician (1) caused the patient's death, (2) deserved substantial blame for the outcome, and (3) incurred a heavy moral responsibility for the patient's death.¹⁸⁵ The purpose of these questions was to determine whether there is a link between the monetary judgments that jurors in the different groups provide and the jurors' beliefs about causality, blameworthiness, and moral responsibility. We predicted that groups which gave higher damages awards would be more likely to link the physician's behavior to the patient's death, and more likely to find that the physician deserves more blame and responsibility for the outcome than those groups that gave lower damages awards.

Next, jurors answered seven questions related to negative emotional reactions that they might feel when thinking about the case.¹⁸⁶ Six of the reactions we considered—anger, resentment, anxiety, fear, sadness, and disgust—are well-established constructs in the psychology of negative emotions.¹⁸⁷ We also inquired about the degree to which jurors felt betrayed by the physician. Consistent with our predictions above, we anticipated stronger negative emotions from jurors in the groups that give larger awards.

Next, jurors indicated whether they believed that the State Medical Society should suspend the physician's license.¹⁸⁸ The purpose of this question was to determine whether and when jurors desire to

¹⁸⁴ See *infra* Appendix A, Questions 1–2.

¹⁸⁵ See *infra* Appendix A, Questions 3–5.

¹⁸⁶ See *infra* Appendix A, Questions 6–12.

¹⁸⁷ See RICHARD S. LAZARUS, *EMOTION AND ADAPTATION* 67, 82 (1991) (categorizing negative emotions).

¹⁸⁸ See *infra* Appendix A, Question 13.

punish the defendant-physician in ways that do not benefit the plaintiff.

Finally, jurors indicated whether the physician's treatment decision was abnormal.¹⁸⁹ This question served as a check on our assumption that jurors would consider the unconventional treatment protocol to be abnormal and the conventional treatment protocol to be normal.

After completing the four-page experimental questionnaire individually, the jurors within each group were divided at random into three- to six-person juries. Each jury discussed and deliberated about the case for twenty minutes or until the jurors reached unanimous agreement on the first two questions (liability and compensation), whichever came first.¹⁹⁰ Sixty-five juries produced usable responses for both the liability and compensation questions.¹⁹¹

5. Results and Discussion

a. Assumption Check

As expected, individual jurors did find the unconventional treatment protocol to be significantly more abnormal than the conventional treatment protocol.¹⁹²

b. Active/Passive Does Not Matter

The results showed that jurors did not treat deaths that resulted from the physician's active deed (*i.e.*, switching the patient's medication regime) any differently than deaths that resulted from the physician's passive deed (*i.e.*, maintaining the patient's medication regime). Nearly identical proportions of individual jurors in the active and passive harm groups judged the physician's conduct to be negligent (58% vs. 56% respectively, which is not statistically significant). Among jurors who thought the physician owed damage money to the plaintiff, the size of the damages awards was unaffected by whether the physicians actively or passively caused the harm (average awards were \$1.9 million vs. \$1.7 million respectively, which is not sta-

¹⁸⁹ See *infra* Appendix A, Question 14.

¹⁹⁰ The juries were provided with the following written instruction: "Please deliberate as a group until you have reached unanimous agreement on questions 1 and 2 below." The jurors then received the same instructions that they received as individual jurors. The juries answered the first two questions only.

¹⁹¹ In addition, there were ten hung juries and several juries that provided uncodable responses. These data were excluded from the analyses.

¹⁹² $p < .001$. When a statistical test yields a p value $< .05$, the test is statistically significant. In the statistical tests we report, the p value refers to the probability that the different mean responses observed across the groups of jurors who read different versions of the case could have arisen by chance alone. The statistical tests that we used included t-tests, chi-square tests, analyses of variance, and loglinear techniques.

tistically significant). The data for deliberating juries were similar. For example, similar proportions of juries in the active and passive behavior groups returned judgments for the plaintiff (62% vs. 68% respectively, which is not statistically significant).¹⁹³

This pattern of results persisted on the secondary questions as well. Indeed, there were no statistically significant differences between the active and passive behavior groups on any of the fourteen secondary questions that the jurors answered.

c. *Normal/Abnormal Matters*

In stark contrast to the results for the active/passive variable, the results for the normal/abnormal variable yielded significant differences on the key questions. As Figure 1 shows, individual jurors were more likely to find the physician negligent when he provided an abnormal (unconventional) treatment than when he provided a normal (conventional) treatment in both the active (68% vs. 48%) and the passive (62% vs. 50%) behavior conditions.¹⁹⁴ The results for the juries were similar: juries were more likely to return a judgment for the plaintiff when the treatment was unconventional than when it was conventional (76% vs. 50% respectively, which is statistically significant).¹⁹⁵ Jurors in the unconventional treatment group were also significantly more likely than jurors in the conventional treatment group to agree that the State Medical Society should impose the maximum (one-year) license suspension against the physician.¹⁹⁶

These results show that people seek greater punishment of a physician who causes harm when the harm results from unconventional treatment rather than conventional treatment. For a possible explanation, we turn to jurors' responses to the responsibility questions¹⁹⁷ and the negative emotional response questions.¹⁹⁸ With respect to the responsibility questions, we found that jurors in the unconventional treatment group were more likely than jurors in the conventional treatment group to agree with the statements that the physician (1) *caused* the patient's death,¹⁹⁹ (2) *deserves substantial blame* for the patient's death,²⁰⁰ and (3) *bears a heavy moral responsibility* for the patient's death.²⁰¹ With respect to the negative emotion questions,

¹⁹³ As an aside, we noticed that juries were slightly more inclined to judge the physician's conduct to be negligent than individual jurors.

¹⁹⁴ $p < .01$

¹⁹⁵ $p < .04$

¹⁹⁶ $p < .02$.

¹⁹⁷ See *infra* Appendix A, Questions 3-5.

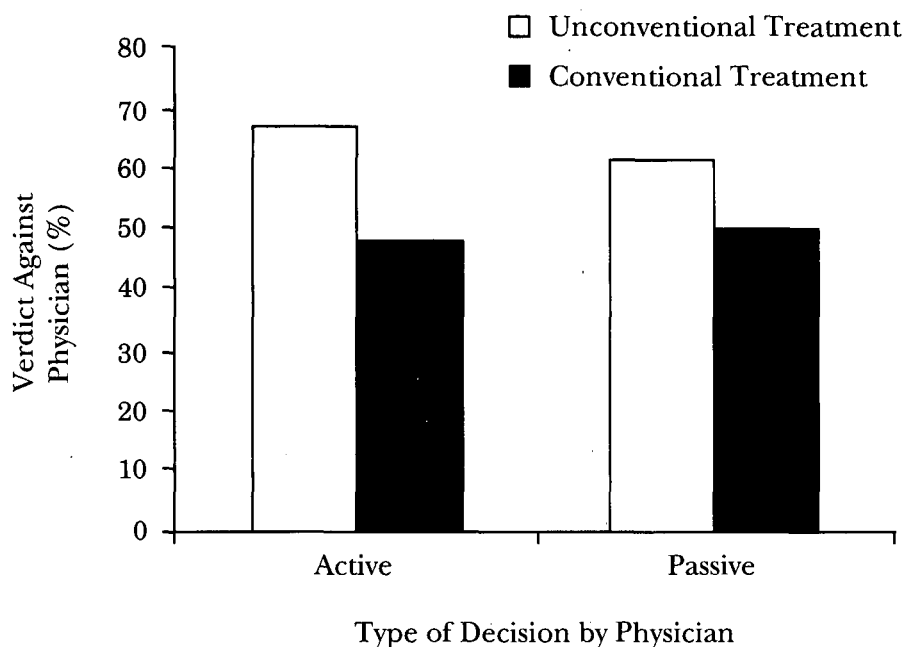
¹⁹⁸ See *infra* Appendix A, Questions 6-12.

¹⁹⁹ $p < .001$

²⁰⁰ $p = .01$

²⁰¹ $p = .05$

FIGURE 1
THE EFFECTS OF TREATMENT ABNORMALITY AND TYPE OF DECISION ON
MALPRACTICE VERDICTS: INDIVIDUAL JURORS



however, we did not find any differences between jurors in the various groups on any of the seven questions. Only a small proportion of jurors reported strong negative emotions. This finding suggests that jurors' responses to these cases are better explained as cognitive rather than affective effects, although teasing these effects apart is never easy.²⁰²

d. Discussion

In our Medical Malpractice experiment, the effects of the normality bias swamped those of the omission bias. In other words, jurors did not focus on whether the harm resulted from the defendant's actions or omissions, but rather on whether the defendant's conduct led to an abnormal end-state. It is apparent that it is not the *activeness* of behaviors per se that makes them more punishment-worthy when bad outcomes arise, but rather their abnormality. We disentangled the effects of activeness from abnormality and found that the former had little impact on perceived responsibility or the desire to punish. A doctor who actively switches to a fatal treatment regime is less likely to

²⁰² James A. Shepperd et al., *Abandoning Unrealistic Optimism: Performance Estimates and the Temporal Proximity of Self-Relevant Feedback*, 70 J. PERSONALITY & SOC. PSYCHOL. 844, 853 (1996) ("Teasing apart cognitive and motivational explanations for apparently self-serving behavior is notoriously difficult . . .").

be deemed responsible *if* jurors believe that the treatment was a normal one. However, a doctor who provides an unconventional treatment cannot escape the abnormality of his decision regardless of whether his conduct was active or passive. On a broader level, these results suggest that blame and punishment are closely linked to perceptions of abnormality. Those who violate norms (either through action or inaction) incur greater responsibility for subsequent outcomes than those who tread along well-established paths.

We caution that our results do not suggest that the omission bias is unimportant. As discussed earlier, strong evidence exists that people are more positively disposed toward inaction than action.²⁰³ However, most of these omission bias studies did not hold the normality variable constant when measuring the effects of omission and commission on judgment. For example, in Sugarman's study of active versus passive euthanasia, subjects evaluated more negatively and attributed greater responsibility to physicians who engaged in active euthanasia than those who engaged in passive euthanasia.²⁰⁴ It is important that the study was conducted in the United States, where active euthanasia is likely to be viewed as abnormal. If the study were conducted in a society where active euthanasia was the norm, it might produce a different result.

B. The Stock Loss Experiment

In the classic study of regret and the omission bias described above,²⁰⁵ Paul and George have stock portfolios. Paul switches out of a well performing stock into a poorly performing stock and George stays in the poorly performing stock after considering a switch to the well performing stock. The study's results indicate an omission bias—Paul, the active switcher, regrets his move more than George regrets his failure to move. However, this experiment did not manipulate normality. Because an act of commission such as switching one's stock portfolio is probably regarded as more abnormal than an act of omission such as leaving one's portfolio alone, perhaps the perceived abnormality lies behind the observed omission bias. But what if we expressly manipulate the normality or abnormality of the stocks that Paul and George hold? When we introduced such a variable in our Medical Malpractice study, we learned that the normality bias swamped the omission bias. In order to gain a little more insight into the strength and generality of the normality bias, we conducted a second experiment that involved stock portfolios that had gone sour.

²⁰³ See *supra* Part I.A.

²⁰⁴ Sugarman, *supra* note 138, at 72.

²⁰⁵ See *supra* Part II.F.1.

1. *Details of the Case*

As in the Medical Malpractice experiment, the Stock Loss experiment examined the effects of (1) normal versus abnormal states, and (2) active versus passive conduct, on mock jurors' judgments of liability and compensation. The Stock Loss experiment also was designed and conducted in a way that enabled us to separate the effects of the normality and omission biases.

We presented ninety-two individual mock jurors with one of four versions of the case that appears in Appendix B.²⁰⁶ In this case, the plaintiff inherited \$1,000,000 in stocks and brought this portfolio to a financial advisor. The inherited stocks were identified as either "widely owned conventional stocks" (normal) or "less widely owned unconventional stocks" (abnormal). The financial advisor either replaced the conventional/unconventional stocks with a set of unconventional/conventional stocks (active), or he simply retained the original set of stocks (passive). In all cases, the value of the portfolio dropped to \$300,000 within a year, and the plaintiff sued the financial advisor for negligence. The plaintiff sought \$2,000,000 in damages.²⁰⁷

As in the Medical Malpractice experiment, we asked jurors to make judgments of liability and compensation.²⁰⁸ In addition, we asked jurors to indicate "how much responsibility" the defendant bears for the plaintiff's financial losses.²⁰⁹ The purpose of this question was to determine whether there is an association between perceived responsibility and either the normality or omission variables.

Based on the results of the Medical Malpractice experiment, we expected jurors to assign greater responsibility to the financial advisor when the declining stock portfolio was comprised of unconventional stocks, regardless of whether the advisor played an active or passive role in creating the portfolio. Because questions related to negative emotional reactions had no impact in the first experiment, we did not include them here.

2. *Results and Discussion*

Data from the Stock Loss experiment showed that the active/passive variable played little, if any, role in jurors' verdicts or the size of damages awards. Nearly identical proportions of individual jurors in the active and passive harm groups judged the financial advisor's con-

²⁰⁶ Forty-seven percent of the mock jurors were female and ninety-four percent were eligible for jury service. As in the previous experiment, jury eligibility was self-reported. See Appendix B, Question 5.

²⁰⁷ The plaintiff sought damages for the full value of his original portfolio, emotional distress, and a punitive award.

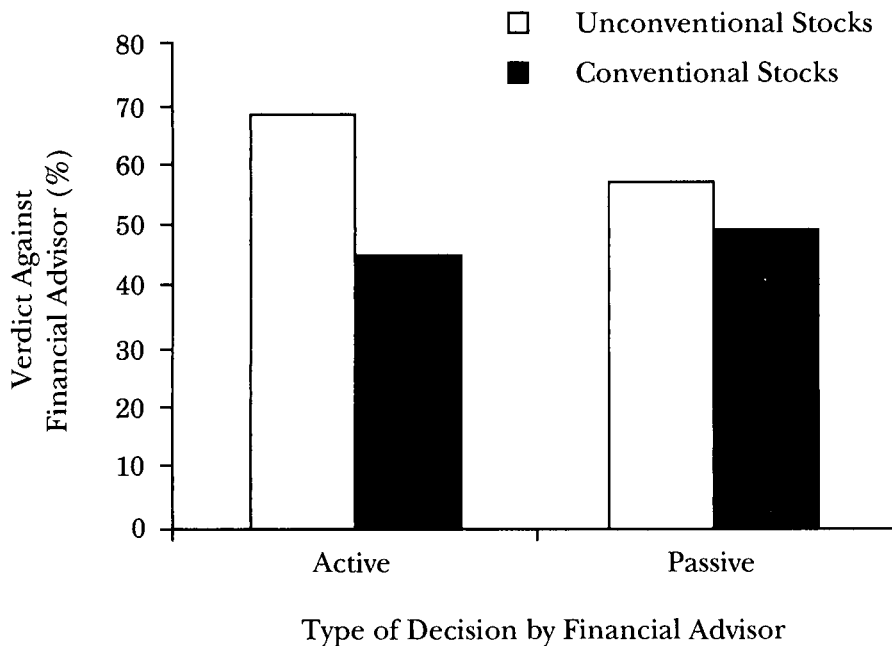
²⁰⁸ See *infra* Appendix B, Questions 1–2.

²⁰⁹ See *infra* Appendix B, Question 3.

duct to be negligent (57% vs. 52% respectively, which is not statistically significant). However, jurors were significantly more likely to find the financial advisor negligent when the stocks were unconventional than when the stocks were conventional in both the active (68% vs. 45%) and the passive (57% vs. 48%) treatment conditions.²¹⁰ Among those who gave damages awards, jurors tended to give higher awards when the stocks were unconventional rather than conventional, though this difference did not reach statistical significance (average awards were \$1,152,407 vs. \$947,368, respectively).²¹¹

The data on the responsibility question (1 = no responsibility, 7 = all responsibility) supported our prediction about the importance of the abnormal/normal variable relative to the active/passive variable. Jurors did *not* assign more responsibility to the financial advisor for the stock loss when he was active rather than passive. However, jurors did assign more responsibility to the advisor when the declining portfolio contained unconventional rather than conventional stocks (4.7 vs. 3.7).²¹²

FIGURE 2
THE EFFECTS OF STOCK ABNORMALITY AND TYPE OF DECISION ON
NEGLIGENCE VERDICTS



²¹⁰ $p < .03$

²¹¹ $p = .101$

²¹² $p < .01$

In short, the results of the Stock Loss experiment are consistent with those of the Medical Malpractice experiment. In both experiments we obtained strong support for a normality bias with respect to negligence and responsibility judgments, but no support for an omission bias. It appears that jurors' perceptions of abnormality influence their punishment decisions. When bad outcomes arise in association with unusual circumstances, jurors are quicker to assign blame and punishment. Jurors in both experiments cared little about whether the bad outcome resulted from active or passive negligence.

IV

EXPLANATIONS AND IMPLICATIONS

The results of our experiments raise at least two important questions. First, why is the normality bias so powerful? Second, what are the implications of these results?

A. Explanations

Why do people in general, and jurors in particular, react more strongly to harms that have abnormal causes than those that have normal causes? One explanation is that people have a strong, natural preference for preserving and reinforcing what they perceive to be normal states of the world. We want patients to receive conventional treatments and stockbrokers to place conventional stocks in our portfolios. When trusted agents such as doctors, stockbrokers, or attorneys rely on a proven method, it is difficult to blame them for subsequent bad outcomes. Their behaviors do not seem particularly reckless or negligent. Indeed, it is tempting to commend them for behaving in ways that preserve, rather than undermine, the social order.

Conversely, when things go awry it is easier to blame agents who follow unconventional methods. As discussed earlier, abnormal situations trigger counterfactual "if only" thoughts.²¹³ Agents who follow unconventional paths may seem particularly negligent to the extent that jurors and judges indulge the counterfactual thought that the bad result could have been avoided if only the agent had made a different choice. Furthermore, unconventional agents may be viewed as violating a social norm. If Emile Durkheim is right, then trusted agents who make judgment errors may be punished once for their misjudgment, and punished again if their misjudgment runs afoul of a cherished norm.²¹⁴ Accordingly, the degree of blame and punish-

²¹³ See *supra* Part II.H.2.

²¹⁴ See EMILE DURKHEIM, *MORAL EDUCATION: A STUDY IN THE THEORY AND APPLICATION OF THE SOCIOLOGY OF EDUCATION* 167 (Paul Fauconnet ed. and Everett K. Wilson & Her-

ment fact finders assign for misdeeds reflects the degree to which those misdeeds threaten or harm the social order.²¹⁵

1. *Social Proof*

In our medical malpractice and stockbroker negligence experiments, we introduced uncontroverted expert testimony that the defendants did the wrong thing, and that this behavior led to a bad outcome. The results showed that this testimony was not sufficient to cause participants in the various groups to see the case in a similar light. We found that labeling identical options as "conventional" for one group and "unconventional" for another group was sufficient to alter jurors' judgments of responsibility and liability for the bad outcome. Jurors punished defendants who made conventional choices less harshly.

Such treatment is consistent with the theory of social proof, which holds that we base judgments of appropriate conduct, in part, on the behaviors of those around us.²¹⁶ More generally, social proof is a broad and compelling theory of human action and response to action.²¹⁷ It helps account for the success of laugh tracks on TV shows,²¹⁸ mass suicides,²¹⁹ and the tendency of bystanders to fail to

man Schnurer trans., Free Press 1961) (1925) (noting that punishment serves both to correct immediate harms and, more generally, to prevent the erosion of the social order).

²¹⁵ See generally Dale T. Miller & Neil Vidmar, *The Social Psychology of Punishment Reactions*, in *THE JUSTICE MOTIVE IN SOCIAL BEHAVIOR: ADAPTING TO TIMES OF SCARCITY AND CHANGE* 145 (Melvin J. Lerner & Sally C. Lerner eds., 1981) (arguing that public attitudes about punishment issues are driven more by symbolic concerns about values than by practical concerns about actual reduction of crime).

²¹⁶ ROBERT R. CIALDINI, *INFLUENCE: SCIENCE AND PRACTICE* 114 (3d ed. 1993).

²¹⁷ See ROBERT AUNGER, *THE ELECTRIC MEME: A NEW THEORY OF HOW WE THINK* 47 (2002) (noting that there is strong evidence that cultural transmission is "an important component of everyday learning"); CIALDINI, *supra* note 216, at 114-33 (explaining and illustrating the social proof concept); Robert Axelrod, *An Evolutionary Approach to Norms*, 80 *AM. POL. SCI. REV.* 1095, 1105 (1986) ("The actions of others provide information about what is proper for us, even if we do not know the reasons."); Robert H. Frank, *The Political Economy of Preference Falsification: Timur Kuran's Private Truths, Public Lies*, 34 *J. ECON. LIT.* 115, 119 (1996) (noting that "our cognitive capabilities are limited, and without heavy reliance on social proof no one could manage even to get through the day"); Harvey, *supra* note 87, at 47 ("Socialization and habit are powerful forces in defining and determining actions.").

²¹⁸ John Mariotti, *Understanding Influence and Persuasion*, *INDUSTRY WEEK*, Apr. 5, 1999, at 126.

²¹⁹ *Id.* (noting that the Jonestown mass suicide can be linked to social proof). Empirical studies have also linked social proof to suicide. See, e.g., Ann F. Garland & Edward Zigler, *Adolescent Suicide Prevention: Current Research and Social Policy Implications*, 48 *AM. PSYCHOLOGIST* 169, 174 (1993) (noting the existence of a social imitation effect that increases the likelihood of suicide when others have modeled the behavior and thereby lowered the taboo against suicide); David P. Phillips & Lundie L. Carstensen, *The Effect of Suicide Stories on Various Demographic Groups, 1968-1985*, 18 *SUICIDE & LIFE-THREATENING BEHAVIOR* 100, 108 (1988) (finding that "nearly all demographic groups displayed a rise in suicides after publicized suicide stories").

help a person in peril when others seem unconcerned.²²⁰ Moreover, social proof has been shown to influence decisions to sign form contracts,²²¹ to return a lost wallet,²²² to donate to charity,²²³ to approach a frightening dog,²²⁴ to litter,²²⁵ to vote for a particular candidate,²²⁶ to buy particular books,²²⁷ and to engage in promiscuous sexual activity in a safe versus unsafe manner.²²⁸ Social proof also induces securities analysts to initiate and abandon coverage of certain firms.²²⁹ Likewise, in our studies social proof appears to have worked in favor

²²⁰ See BIBB LATANÉ & JOHN M. DARLEY, *THE UNRESPONSIVE BYSTANDER: WHY DOESN'T HE HELP?* 89–90 (1970) (discussing the effects of social proof with respect to the infamous Kitty Genovese case, in which dozens of people witnessed or heard a series of attacks on a young woman in New York City, yet no one intervened).

²²¹ Shell, *supra* note 71, at 1370–71 (“To the extent customers think about [clauses in form contracts] at all, my guess is that they say to themselves: ‘There are a lot of people like me . . . and they all signed this contract, too. . . . It must be OK.’”).

²²² Harvey A. Hornstein et al., *Influence of a Model's Feeling About His Behavior and His Relevance as a Comparison Other on Observers' Helping Behavior*, 10 J. PERSONALITY & SOC. PSYCHOL. 222, 225 (1968) (finding that people are more likely to return a lost wallet intact when they have a model of someone similar to them doing so).

²²³ Peter H. Reingen, *Test of a List Procedure for Inducing Compliance with a Request to Donate Money*, 67 J. APPLIED PSYCHOL. 110, 117 (1982) (finding that people are much more likely to comply with a request to donate money or blood when they are first shown a list of other compliers).

²²⁴ Albert Bandura et al., *Vicarious Extinction of Avoidance Behavior*, 5 J. PERSONALITY & SOC. PSYCHOL. 16, 20 (1967) (reporting the results of a study that found that children's fear of dogs was not reduced by seeing a dog in a positive light, but was reduced by seeing other children interact nonanxiously with a dog).

²²⁵ Robert B. Cialdini et al., *A Focus Theory of Normative Conduct: Recycling the Concept of Norms to Reduce Littering in Public Places*, 58 J. PERSONALITY & SOC. PSYCHOL. 1015, 1024–25 (1990) (finding that people's beliefs about others' littering affected their own practices).

²²⁶ LARRY M. BARTELS, *PRESIDENTIAL PRIMARIES AND THE DYNAMICS OF PUBLIC CHOICE* 110–11 (1988) (finding that favorable poll results cause people to evaluate a candidate more positively).

²²⁷ Authors have secretly purchased enough copies of their books from key bookstores to put the book on the bestseller lists. Despite mediocre reviews, social proof then made the books true best sellers. See David D. Kirkpatrick, *Book Agent's Buying Fuels Concern on Influencing Best-Seller Lists*, N.Y. TIMES, Aug. 23, 2000, at C1.

²²⁸ Bram P. Buunk & Arnold B. Bakker, *Extradynamic Sex: The Role of Descriptive and Injunctive Norms*, 32 J. SEX RES. 313, 317 (1995) (finding in two studies that the perceived conduct of others had an important impact on whether individuals chose to engage in extramarital sexual relations); Robert W. Winslow et al., *Perceived Peer Norms, Casual Sex, and AIDS Risk Prevention*, 22 J. APPLIED SOC. PSYCHOL. 1809, 1821 (1992) (finding that college students' perceptions of the behavior of their peers had more impact on their sexual activity than did knowledge about AIDS).

²²⁹ Hayagreeva Rao et al., *Fool's Gold: Social Proof in the Initiation and Abandonment of Coverage by Wall Street Analysts*, 46 ADMIN. SCI. Q. 502, 521 (2001) (reporting the results of a study showing that “research departments of investment banks and brokerage firms were more likely to adopt a focal firm for coverage when peers had recently adopted it”). Similarly, television networks take cues from each other in programming and introduce shows aimed at taking advantage of the success of competitors even though conventional industrial organization theory implies that firms should differentiate their products. See Sushil Bikhchandani et al., *Learning from the Behaviors of Others: Conformity, Fads, and Informational Cascades*, 12 J. ECON. PERSP. 151, 164 (1998).

of the defendants who provided conventional treatments, but against those who provided unconventional treatments.

We contend that in judging defendants' conduct, jurors take cues from evidence relevant to social proof. If they receive evidence that the defendants' actions were usual, customary, traditional, or conventional, then we expect that they will be less likely to find defendants' conduct to be blameworthy or causal than if they receive evidence that defendants' actions were unusual, nontraditional, or unconventional. This is true even if the defendants' actions in the two scenarios exhibit the same intent, effort, and level of consideration.²³⁰

2. *Need to Conform*

Social proof may be rooted in what some evolutionary biologists call a "need for conformity."²³¹ Although experts disagree as to the roots of this need,²³² some believe that it harkens back to more primitive times when food was scarce and conformist animals had a clear advantage in the quest for survival.²³³ For example, evolutionary biologists suggest that different populations of the same species use different sophisticated strategies to catch prey, depending on their particular location.²³⁴ Regarding the adaptive nature of human conformity, Professor Lopreato notes that "[v]oluntary conformity grants us a learning shortcut, quicker and more efficient than individual trial-and-error behavior."²³⁵

²³⁰ Heidi Feldman points out that jurors are asked to engage in a thought experiment in which they must compare the defendant's conduct to that of a fictional "reasonably prudent person." Feldman, *supra* note 5, at 1447. Our point is that social proof exerts substantial influence on jurors' perceptions of how a "reasonably prudent person" would act.

²³¹ JOSEPH LOPREATO, *HUMAN NATURE & BIOCULTURAL EVOLUTION* 177 (1984).

²³² Edward Wilson, for example, traces it to a "neurologically based learning rule that evolved through the selection of clans competing one against the other." EDWARD O. WILSON, *ON HUMAN NATURE* 184 (1978). Lopreato, on the other hand, believes that it is a more fundamental mechanism associated with group life that predates organization into clans. LOPREATO, *supra* note 231, at 177.

²³³ See, e.g., LOPREATO, *supra* note 231, at 177 (noting that "[w]here food is scarce, pooled knowledge bestows upon the conformist an advantage over the nonconformist"); MATT RIDLEY, *THE ORIGINS OF VIRTUE: HUMAN INSTINCTS AND THE EVOLUTION OF COOPERATION* 185 (1997) ("[I]n a small band of hunter-gatherers, it might have been a more useful habit to obey the fashion.").

²³⁴ RIDLEY, *supra* note 233, at 181–82 (noting that "a killer whale from Norway would starve off Patagonia unless it adopted the local habits"); see also Sushil Bikhchandani et al., *A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades*, 100 J. POL. ECON. 992, 1010–11 (1992) (citing scientific evidence of imitative behavior transmission among animals in territory choice, mating, and foraging).

²³⁵ LOPREATO, *supra* note 231, at 178; see also Bikhchandani et al., *supra* note 229, at 152 ("The propensity to imitate is presumably an evolutionary adaptation that has promoted survival over thousands of generations by allowing individuals to take advantage of the hard-won information of others."); Harvey, *supra* note 87, at 61 ("We naturally desire to emulate the behavior of our tribe. Because we gain an evolutionary advantage from our

The message of our review of the psychology literature and experiments is that jurors tend to blame defendants when they stray from the conventional path. Social proof and the need to conform help explain this tendency.

B. Implications

1. Jurors

On a practical level, attorneys in negligence and other cases could exploit our results. Plaintiffs' attorneys and prosecutors might try to paint a defendant's actions as abnormal. Conversely, defendants' attorneys might try to characterize their clients' acts as normal for the existing circumstances.²³⁶ Although ethicists recoil from "everyone does it" defenses,²³⁷ what everyone does has a great bearing on what people perceive to be acceptable behavior.²³⁸

Indeed, the dominant rule at common law (the "per se" rule) was that conformity to custom was a complete defense to a claim of breach of the duty of care.²³⁹ As one court concluded, "no jury can be permitted to say that the usual and ordinary way, commonly adopted by those in the same business, is a negligent way for which liability shall be imposed."²⁴⁰ This rule appears to have roots in notions of social proof and the need to conform.

reliance on culture, we are biologically programmed to 'prefer' the ways of our elders and peers.").

²³⁶ There may be substantial opportunity for such strategizing. As Kahneman and Miller note, norms are not pre-existing constructs against which current events are compared. Rather, they are constructed post hoc and therefore may be influenced by various considerations. See Kahneman & Miller, *supra* note 51.

²³⁷ See Marianne M. Jennings, *Moral Disengagement and Lawyers: Codes, Ethics, Conscience, and Some Great Movies*, 37 DUQ. L. REV. 573, 576 n.17 (1999) (decrying "everybody does it" as a rationalization for all great scams and frauds).

²³⁸ Don Mayer argues:

The commonality of a phenomenon may, in short, provide some ethical justification for it. As Donaldson and Dunfee note, "The claim that 'everyone is doing it' is nowhere more common than in business ethics." This is not necessarily because people in business have a lower ethical standard than those in other walks of life, but because businesspeople exist in an artifactual context where institutions are sometimes created by common practice. The rules concerning proper disclosures and behaviors in negotiations (e.g., revelations about the condition of real estate in a commercial transaction), for example, often arise out of a history of common practice. Although never a sufficient condition for ethical justification, the claim that "everybody's doing something" can have some moral force in business contexts.

Don Mayer, *Community, Business Ethics, and Global Capitalism*, 38 AM. BUS. L.J. 215, 220 (2001) (quoting Thomas Donaldson & Thomas W. Dunfee, *Toward a Unified Conception of Business Ethics: Integrative Social Contracts Theory*, 19 ACAD. MGMT. REV. 252, 259 (1994)).

²³⁹ See Steven Hetcher, *Creating Safe Social Norms in a Dangerous World*, 73 S. CAL. L. REV. 1, 10-19 (1999) (discussing the "per se" rule).

²⁴⁰ *Titus v. Bradford, B. & K. R.R. Co.*, 20 A. 517, 518 (Pa. 1890); see also *Webber v. Bank of Tracy*, 225 P. 41, 42-44 (Cal. Dist. Ct. App. 1924) (exonerating defendant from

By the early 1900s, two of the century's finest legal minds, Oliver Wendell Holmes and Learned Hand, fashioned opinions that succeeded in substantially replacing the "per se" rule with the "evidentiary" rule, which holds that conformity to custom is evidence that the standard of due care was met, but is not conclusive. As Justice Holmes wrote in *Texas & Pacific Railway Co. v. Behymer*, "What usually is done may be evidence of what ought to be done, but what ought to be done is fixed by a standard of reasonable prudence, whether it usually is complied with or not."²⁴¹ Judge Hand agreed in the famous *T.J. Hooper* case: "Indeed in most cases reasonable prudence is in fact common prudence; but strictly it is never its measure; a whole calling may have unduly lagged in the adoption of new and available devices."²⁴²

Today, the "per se" rule persists as the standard of care for medical malpractice.²⁴³ This is unfortunate, because physicians are as likely to think heuristically, employ standards of social proof, and fall victim to the same decisional biases as everyone else.²⁴⁴ Consider, for example, the tonsillectomy. For decades doctors performed tens of thousands of these operations, causing substantial damage to many

negligence claim on grounds that its actions conformed to the practice of other country banks in California, and holding "no jury can be permitted to say that the usual way and ordinary way is a negligent way, for which liability shall be imposed").

²⁴¹ 189 U.S. 468, 470 (1903).

²⁴² *The T.J. Hooper*, 60 F.2d 737, 740 (2d Cir. 1932) (finding that conformity to custom was not necessarily due care and that juries should inquire as to whether the custom—in this case the failure of tug boats to carry radio equipment to warn them of impending storms—had lagged behind what was reasonably required).

²⁴³ See, e.g., *Tant v. Women's Clinic*, 382 So. 2d 1120, 1121–23 (Ala. 1980) (finding that the trial judge properly granted summary judgment to the defendant physician based on testimony that defendant's actions were consistent with the practice of physicians in the community); *Gray v. McDermott*, 64 S.W.2d 94, 96 (Ark. 1933) (holding that a physician need only meet the standard of other physicians "in good standing in this neighborhood").

²⁴⁴ For example, it is well documented that physicians' decisions are affected by the self-serving bias: the tendency to do what is in one's own best interest. Many studies have shown that physicians order more tests and longer treatments when they refer patients (particularly well-insured patients) to facilities that they own than when they refer patients to facilities owned by others. See, e.g., Thomas L. Carson, *Conflicts of Interest*, 13 J. Bus. ETHICS 387, 394 (1994) ("[W]hen physicians are paid according to how much work they do for their patients, many physicians succumb to the temptation to provide their patients with unnecessary, even dangerous treatments."); David Hemenway et al., *Physicians' Responses to Financial Incentives*, 322 NEW ENG. J. MED. 1059, 1060 (1990) (reporting results of study finding that when physicians' compensation changed from a flat fee to a bonus system through which they could earn extra revenue by ordering laboratory tests for patients on their employers' machines, physicians increased their orders for lab tests by 23%); Bruce J. Hillman et al., *Physicians' Utilization and Charges for Outpatient Diagnostic Imaging in a Medicare Population*, 268 JAMA 2050, 2052 (1992) (finding that physicians who performed imaging examinations in their own offices were 1.7 to 7.7 times more likely to perform imaging examinations than physicians who referred patients to other radiologists); Jean M. Mitchell, *Physician Ownership of Physical Therapy Services*, 268 JAMA 2055, 2057–58 (1992) (finding that visits per patient were 39% to 45% higher in facilities where referring physicians were joint venturers, and that joint venture facilities generated more revenue from patients with well-paying insurance).

patients on the basis of little or no medical research.²⁴⁵ Indeed, there is evidence that the physicians' primary motivation for performing these operations was simple social proof—they performed tonsillectomies because other doctors in their geographic area performed tonsillectomies.²⁴⁶ The problem of surgery by social proof is well documented and has led to surgical fads²⁴⁷ and “diseases of the month.”²⁴⁸

The results of our experiments suggest that much of the good that was done by shifting from a *per se* rule to an evidentiary rule may be undone by a normality bias. If a defendant's practice is unsafe but nonetheless represents the common practice (as did the shipping companies' failure to install radios on tugs in the *T.J. Hooper* case²⁴⁹), then jurors may be reluctant to scrutinize these seemingly normal activities.²⁵⁰ This normality bias, in turn, might cause people to be reluctant to try new methods and procedures because straying from the ordinary path would invite liability.²⁵¹

²⁴⁵ See EUGENE D. ROBIN, *MATTERS OF LIFE & DEATH: RISKS VS. BENEFITS OF MEDICAL CARE* 75 (1984) (“For many decades, tonsillectomy was performed in millions of children on a more or less routine basis. In most cases, the operation was unnecessary.”); RICHARD TAYLOR, *MEDICINE OUT OF CONTROL: THE ANATOMY OF A MALIGNANT TECHNOLOGY* 159 (1979) (noting the lack of scientific evidence supporting the need for the operation).

²⁴⁶ There was wide geographical variation in the frequency of tonsillectomies because doctors tended to follow the practice in their locality. See TAYLOR, *supra* note 245, at 158–59; see also Charles E. Phelps & Cathleen Mooney, *Variations in Medical Practice Use: Causes and Consequences*, in *COMPETITIVE APPROACHES TO HEALTH CARE REFORM* 139, 140–41 (Richard J. Arnould et al. eds., 1993) (finding substantial cross-country variance in tonsillectomies and other medical procedures).

²⁴⁷ Bikhchandani et al., *supra* note 229, at 167 (noting that “a blind reliance by physicians upon what colleagues have done or are doing commonly leads to surgical fads and even to treatment-caused illnesses”).

²⁴⁸ See Bikhchandani et al., *supra* note 234, at 1010 (citing several studies showing that physicians who are “not well informed about the cutting edge of research” may imitate medical opinion in making treatment decisions); John F. Burnum, *Medical Practice a la Mode: How Medical Fashions Determine Medical Care*, 317 *NEW ENG. J. MED.* 1220, 1221–22 (1987) (referring to “bandwagon diseases” made popular by doctors who “like lemmings, episodically and with a blind infectious enthusiasm [emphasize] certain diseases and treatments primarily because everyone else is doing the same”).

²⁴⁹ 60 F.2d 737 (2d Cir. 1932).

²⁵⁰ Along this line, we surmise that a medical expert who testifies “this is the treatment that I, as an expert, would recommend” would not be as persuasive as an expert who testifies “this is the treatment that I, as a medical expert, know that most physicians would recommend.” We have not tested this prediction.

²⁵¹ In 1916, Professor Henry Miller noted that the *per se* rule retarded adoption of safer practices:

The harmful results that would in all probability follow the adoption of the common usage, and the safe results that would be assured by the substitution of a different method might, in a particular case, be so apparent that a prudent man would reject the former, and adopt the latter course. But in doing this he would depart from the rule laid down by the “unbending [per se] test” and of his own accord adopt the wiser and safer rule. Yet the rule of the “unbending [per se] test” constrains him to adopt the unsafe method

2. Judges

Just as social proof, a need to conform, and a host of previously discussed psychological mechanisms help produce a normality bias in jurors' decisions, these same forces operate on judges to promote *stare decisis*. A judge's decision to rely upon *stare decisis* is essentially voluntary.²⁵² Why do judges choose to follow precedents? Some academics have offered a public choice theory,²⁵³ but we find recent work that associates *stare decisis* with information cascades²⁵⁴ and path dependency²⁵⁵ to be more persuasive. Surely there are many strong policy reasons for adhering to *stare decisis*. For example, precedent creates stability and predictability in the law.²⁵⁶ The use of precedent also gives the appearance that judges are deciding cases in a principled fashion rather than on personal whim.²⁵⁷

Nevertheless, we assert that psychological factors also play a role, and help account for the fact that bad law often stays on the books for a long time.²⁵⁸ First, American judges adhere to *stare decisis* because it is an inheritance from English tradition and therefore represents the status quo.²⁵⁹ Second, the use of precedent is an example of the omis-

in order to bring himself within the rule and escape the charge of negligence.

Henry R. Miller, Jr., *The So-Called Unbending Test of Negligence*, 3 VA. L. REV. 537, 543 (1915); see also Clarence Morris, *Custom and Negligence*, 42 COLUM. L. REV. 1147, 1160 (1942) (noting that "[s]ince customs may be venal, conformity to them may constitute outrageous misconduct").

²⁵² See Erin O'Hara, *Social Constraint or Implicit Collusion?: Toward a Game Theoretic Analysis of Stare Decisis*, 24 SETON HALL L. REV. 736, 737 (1993) (noting that (1) no law mandates the use of precedent in most jurisdictions, (2) the general public generally has no way to know whether judges are following precedent or not, and (3) even federal judges with lifetime tenure tend to follow precedent). Without question, the use of merely *persuasive* precedent is voluntary, and judges often rely on such precedents. MELVIN ARON EISENBERG, *THE NATURE OF THE COMMON LAW* 96-99 (1988).

²⁵³ See, e.g., O'Hara, *supra* note 252, at 748-53 (using game theory to argue that judges invoke precedent because it ultimately maximizes the influence of their own decisions).

²⁵⁴ See Andrew F. Daughety & Jennifer F. Reinganum, *Stampede to Judgment: Persuasive Influence and Herding Behavior by Courts*, 1 AM. L. ECON. REV. 158 (1999). But see Eric Talley, *Precedential Cascades: An Appraisal*, 73 S. CAL. L. REV. 87 (1999) (critiquing the precedential cascade theory).

²⁵⁵ See Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 601 (2001).

²⁵⁶ See *Moragne v. States Marine Lines*, 398 U.S. 375, 403 (1970).

²⁵⁷ See Deborah Hellman, *The Importance of Appearing Principled*, 37 ARIZ. L. REV. 1108, 1111 (1995) (noting that *stare decisis* plays this role, though judges seldom mention it in their opinions).

²⁵⁸ As Holmes has observed, "precedents survive in the law long after the use they once served is at an end and the reason for them has been forgotten." O.W. HOLMES, JR., *THE COMMON LAW* 35 (1881).

²⁵⁹ See Hathaway, *supra* note 255, at 627 ("Perhaps most important, judges conform to the doctrine of *stare decisis* because the principle of precedent is deeply ingrained in our Anglo-American legal culture."); Hoffman & O'Shea, *supra* note 5, at 392 (suggesting a link between the status quo bias and the role of precedent in our legal system); Harry W.

sion bias. Judges will often accept the current state, which is represented by precedent, because to do otherwise would require significant cognitive effort.²⁶⁰ Third, *stare decisis* illustrates an application of social proof. This is especially evident in judges' emphasis on finding the majority view when searching through precedents. Of course, the majority view might be the majority view because the arguments offered in its support are stronger. However, perceptions of argument strength are themselves influenced by whether or not the arguments represent a majority view.²⁶¹ Such a biased evaluation of argument strength is so pervasive that disinterested scientists who were asked to evaluate the strength of scientific evidence succumbed to the bias.²⁶²

3. Conservatism in the Legal System

All of the phenomena that we have examined support one fundamental idea: people do not like that which is abnormal. The status quo bias (keep the present state), the endowment effect (preference for currently owned items), loss aversion (resistance to gambling with the present state), anchoring (overemphasis on current conditions), sunk cost effects (keep existing commitments), and the omission bias (unfavorable view of change-producing actions) all favor present states.²⁶³ The normality bias, which focuses on what is usual, typical, and expected, captures this theme.²⁶⁴ In light of the psychological

Jones, *Precedent and Policy in Constitutional Law*, 4 PACE L. REV. 11, 16-17 (1983) (describing the historical roots of *stare decisis* and its continuing importance today).

²⁶⁰ See BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 149 (1921) (noting that "the labor of judges would be increased almost to the breaking point if every past decision could be reopened in every case, and one could not only lay one's own course of bricks on the secure foundation of the courses laid by others who had gone before him"); Hathaway, *supra* note 255, at 626 ("By relying on past decisions, judges can save significant time and effort and thereby consider far more cases than would otherwise be possible. Judges can turn to past analyses and avoid rethinking every aspect of a decision.").

There is substantial evidence that people are vigilant about the mental effort required for them to process information and are sensitive to that effort. See, e.g., John T. Cacioppo et al., *Effects of Need for Cognition on Message Evaluation, Recall, and Persuasion*, 45 J. PERSONALITY & SOC. PSYCHOL. 805, 816 (1983) (reporting that "individuals high in need for cognition" paid more attention to persuasive arguments when forming opinions about an issue than those who did not have a high need for cognition); Kevin Lane Keller & Richard Staelin, *Effects of Quality and Quantity of Information on Decision Effectiveness*, 14 J. CONSUMER RES. 200, 212 (1987) (finding that too much information, even high-quality information, causes information overload and a decrease in decision effectiveness).

²⁶¹ See *supra* notes 258-59 and accompanying text.

²⁶² See Jonathan J. Koehler, *The Influence of Prior Beliefs on Scientific Judgments of Evidence Quality*, 56 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 28, 47 (1993) (finding that scientists judged evidence that was consistent with their experimentally manipulated beliefs to be stronger than identical evidence that was inconsistent with their manipulated beliefs).

²⁶³ See *supra* Parts I.A, II.A-E.

²⁶⁴ See *supra* Part I.B.

mechanisms that we have described—attribution theory, counterfactual thinking, and regret theory²⁶⁵—people’s aversion to what is unusual should not be surprising. We are creatures who invoke simplistic mental schemas to discover cause-effect relations. We indulge in regret-inducing “if only” thoughts in the clear light of hindsight. We believe the bad outcomes that we occasionally encounter can be understood as the inevitable result of the foolish or evil acts of those who fail to heed the wisdom and safety of the norm.

Accordingly, jurors often decide that engaging in usual or typical behavior constitutes due care (and engaging in unusual behavior does not),²⁶⁶ and judges adhere to majority precedents, even if they have outlived their usefulness.²⁶⁷ This is consistent with the conservative nature of human beings that we highlighted earlier,²⁶⁸ but which may not be optimal. Normal behavior may be efficient. For example, consider the social norm²⁶⁹ of standing in line rather than having a battle when many people simultaneously wish to buy a movie ticket. Nevertheless, normal behavior can also be “arbitrary and fatuous” as in most fashion conventions;²⁷⁰ inefficient and dangerous as in *The T.J. Hooper* case, in which most tug boats did not carry radios;²⁷¹ and inefficient

²⁶⁵ See *supra* Part II.F–H.

²⁶⁶ See *supra* Part IV.B.

²⁶⁷ See *supra* Part IV.B.2.

²⁶⁸ See *supra* note 17 and accompanying text.

²⁶⁹ Although we are using the term “norm” primarily to denote average or conventional behavior, there is legal literature on “social norms” and their impact on society and the legal system. In this literature, a social norm generally refers to “an obligation backed by a social sanction.” Robert D. Cooter, *Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization*, 79 OR. L. REV. 1, 5 (2000). A perusal of the social norm literature adds at least indirect insights into the workings of the normality bias. See generally Robert C. Ellickson, *The Evolution of Social Norms: A Perspective from the Legal Academy*, in SOCIAL NORMS 35 (Michael Hechter & Karl-Dieter Opp eds., 2001) (surveying the social norm literature); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997) (same); Wendel, *supra* note 2 (critiquing the social norm literature).

²⁷⁰ Lynn Stout labels the conventions that adult males should wear ties and grass should be mowed “arbitrary and fatuous.” Lynn A. Stout, *Other-Regarding Preferences and Social Norms*, SSRN 25 (Mar. 25, 2001), at http://papers.ssrn.com/so13/papers.cfm?abstract_id=265902.

²⁷¹ 60 F.2d 737, 737 (2d Cir. 1932). Dueling is another inefficient and dangerous norm which, fortunately, has also passed from the scene.

Robert Cooter advises that judges should not simply accept industry norms, but rather should examine efficiency using standard economic tools. Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1655–56 (1996). Even Judge Posner admits that industry standards will not necessarily be efficient when no market relationship exists between the industry and its potential negligence victims (although he thinks, optimistically in our view, such standards will be efficient if there is such a relationship). See *Rodi Yachts, Inc. v. Nat’l Marine, Inc.*, 984 F.2d 880, 888–89 (7th Cir. 1993).

and evil as in the caste system in India and segregation in the American South's recent past.²⁷²

4. *Psychological Foundations*

Earlier we suggested that a behavioral analysis of the law may provide more insights into the law from this point forward than a standard economic analysis. In this Article, we have already suggested that the normality and status quo biases help account for *stare decisis*,²⁷³ that the omission bias underlies the hesitancy to impose a duty to rescue,²⁷⁴ that both the omission and normality biases contribute to the law of proximate causation,²⁷⁵ and that the normality bias helped create the "per se" and "evidentiary" approaches to determining the standard of due care.²⁷⁶

In addition, legal scholars and psychology scholars have identified other behavioral biases that are important for the rule of law. For example, an awareness of the hindsight bias²⁷⁷ may underlie the existence of the business judgment rule²⁷⁸ and the "secondary considerations" requirement in the test for nonobviousness in patent law.²⁷⁹ Recognition of the anchoring effect of *ad damnum* clauses provides the rationale for the recent trend away from their use.²⁸⁰ The endow-

²⁷² Robert Cooter, *Expressive Law and Economics*, 27 J. LEGAL STUD. 585, 587 (1998).

²⁷³ See *supra* Part IV.B.2.

²⁷⁴ See *supra* note 27 and accompanying text.

²⁷⁵ See *supra* Part II.G.

²⁷⁶ See *supra* Part IV.B.1.

²⁷⁷ Baruch Fischhoff is one of the first to have studied the hindsight bias, which he describes as follows:

In hindsight, people consistently exaggerate what could have been anticipated in foresight. They not only tend to view what has happened as having been inevitable but also to view it as having appeared "relatively inevitable" before it happened. People believe that others should have been able to anticipate events much better than was actually the case.

Baruch Fischhoff, *For Those Condemned to Study the Past: Heuristics and Biases in Hindsight*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 4, at 335, 341. The hindsight bias has been detected in many contexts. See, e.g., John C. Anderson et al., *Evaluation of Auditor Decisions: Hindsight Bias Effects and the Expectation Gap*, 14 J. ECON. PSYCHOL. 711 (1993) (judges reviewing auditors' decisions); Hal R. Arkes et al., *Hindsight Bias Among Physicians Weighing the Likelihood of Diagnoses*, 66 J. APPLIED PSYCHOL. 252 (1981) (medical diagnoses); Jonathan D. Casper et al., *Juror Decision Making, Attitudes, and the Hindsight Bias*, 13 LAW & HUM. BEHAV. 291 (1989) (jury decisions); Susan J. LaBine & Gary LaBine, *Determinations of Negligence and the Hindsight Bias*, 20 LAW & HUM. BEHAV. 501 (1996) (study subjects reviewing psychotherapists' diagnoses); Nicolaos E. Synodinos, *Hindsight Distortion: "I Knew-It-All-Along and I Was Sure About It"*, 16 J. APPLIED PSYCHOL. 107, 109-14 (1986) (elections).

²⁷⁸ See Hal R. Arkes & Cindy A. Schipani, *Medical Malpractice v. the Business Judgment Rule: Differences in Hindsight Bias*, 73 OR. L. REV. 587 (1994). But see Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, 65 U. CHI. L. REV. 571, 619-23 (1998) (finding an economic account for the business judgment rule more convincing).

²⁷⁹ Rachlinski, *supra* note 278, at 613-15.

²⁸⁰ Michael Rustad & Thomas Koenig, *The Historical Continuity of Punitive Damages Awards: Reforming the Tort Reformers*, 42 AM. U. L. REV. 1269, 1278 n.62 (1993) (noting that

ment effect may well be reflected in the common law of remedies.²⁸¹ Many laws that are impossible to justify on efficiency grounds may remain on the books because fairness concerns are an important (albeit economically irrelevant) part of human decision making.²⁸² In short, behavioral analyses of legal phenomena provide a perspective that cannot be gleaned from economic analyses. This is not to say that psychology should *replace* economics as the framework for investigating and applying legal doctrine. However, we agree with Sunstein when he suggests that behavioral analysis can help us to understand why the law is as it is.²⁸³

C. Remaining Questions

Although this Article has explored a large number of decision bias studies and contributed two studies on the normality bias in a legal context, important questions remain relatively unstudied. We sketch three such questions below.

First, how do people decide what is “normal”? In our Medical Malpractice and Stock Loss experiments, we attempted to cue normality by the word “conventional” and abnormality by the label “unconventional.”²⁸⁴ Based on their responses to a direct question about the abnormality of treatment,²⁸⁵ we verified that the mock jurors associated “unconventional” treatments with “abnormal” ones.²⁸⁶ But when linguistic cues are absent, the basis on which decision makers determine that a practice or behavior is normal is not obvious.

A second question concerns the relationship between normality and harm. Ordinarily, behavior that accords with societal norms carries less risk than the behavioral alternatives. But what if normal behaviors are known to be more harmful than the various alternatives? For example, what if a cigarette manufacturer prints a standard warning on its products (*e.g.*, “smoking may be hazardous to your health”), even after it knows that this warning is less effective than a stronger warning (*e.g.*, “smoking may cause death”)? Will the normality of the behavior protect the manufacturer from severe consequences?

the policy underlying elimination of *ad damnum* clauses is “to avoid juries’ premature evaluation of punitive damage claims”).

²⁸¹ See Jeffrey J. Rachlinski & Forest Jourden, *Remedies and the Psychology of Ownership*, 51 VAND. L. REV. 1541, 1574–76 (1998) (exploring the relationship between the endowment effect and the common law’s presumption against equitable relief).

²⁸² See Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1509 (1998).

²⁸³ BEHAVIORAL LAW AND ECONOMICS, *supra* note 6, at 1.

²⁸⁴ In the Stock Loss experiment, we also cued our subjects to the normality or abnormality of the stock portfolios with the phrases “widely held” and “less widely held.”

²⁸⁵ See *infra* Appendix A, Question 14.

²⁸⁶ See *supra* note 192 and accompanying text.

The third question concerns the strategic value of a normality bias for decision makers who engage in actions that have the potential to turn out very badly. Will individuals who know that fact finders are especially likely to blame actors who follow unconventional paths be less likely to stray from conventional paths? Similarly, will hospitals be slow to offer alternative treatments for hard-to-treat diseases even after evidence of their efficacy appears?

CONCLUSION

Numerous aspects of American law have been viewed through an economics lens in recent years. The law-and-economics movement undoubtedly deserves credit for increasing the rigor of legal scholarship and for stimulating debate at the highest levels. Nevertheless, the value of a normatively compelling economic theory for understanding actual legal decisions should not be overestimated.

Most judges and jurors do not think like economists. Rather, they are heuristic thinkers whose thought processes, judgments, and choices are guided by a raft of psychological influences that defy traditional economic assumptions about how people make decisions. For this reason, we assert that a psychological perspective—one that is grounded in methodologically rigorous empirical studies that investigate how people actually think and decide—will ultimately prove more valuable as we attempt to understand the forces behind legal judgments.

A behavioral movement is now underway in American jurisprudence, as many legal scholars study the behavioral science literature to gain insight into the conduct of legal actors. Our empirically based contribution to this enterprise is the suggestion that a normality bias—a tendency for people to react more strongly to bad outcomes that spring from abnormal circumstances than to otherwise identical outcomes that spring from more ordinary circumstances—permeates the legal landscape. In fact, the normality bias is so strong that it swamps the influence of another well-documented bias—the omission bias—when the two biases push in different directions.²⁸⁷

²⁸⁷ Our results are consistent with an interesting study published after we completed our experiments. Zeelenberg and colleagues recently surmised that because actions are often taken in response to a prior negative outcome, in such settings a failure to act might be regretted more than an action because “when prior outcomes are negative, people may feel inclined to take action to improve future outcomes, which may make action more *normal* than inaction.” Marcel Zeelenberg et al., *The Inaction Effect in the Psychology of Regret*, 82 J. PERSONALITY & SOC. PSYCHOL. 314, 314 (2002) (emphasis added). The authors’ results confirmed the notion that people regret bad consequences stemming from their actions more than bad consequences stemming from their inactions when action seems more abnormal than inaction. *Id.* at 317. But in settings in which action seems to be the normal response (for example, a consumer has had a bad experience with a brand name product and would normally switch to another brand), then bad results stemming from such action

Our specific findings suggest that if two doctors with similar training, experience, intention, and care chose a course of treatment for a patient and the patient received bad results, the doctor who chose an unconventional treatment will be judged more harshly than the doctor who chose a conventional treatment. Our findings also suggest that if two stockbrokers used similar levels of care to choose two different portfolios for their customers, the stockbroker who chose the more atypical portfolio is likely to be judged more severely by a jury if both portfolios suffer heavy losses.

As these results imply, the force of the normality bias may be most apparent in the courtroom. There is no logical reason why a mugger should be punished more when his victim takes an unusual route home than when the victim takes a usual route home, yet our findings suggest that he will be punished more harshly. Likewise, a jury should not give deference to the normal procedures of an entire industry that has fallen behind in safety issues. Finally, physicians who perform operations and prescribe treatments merely because most other physicians in their geographic area do so should not be afforded legal protection and jury deference, yet our findings suggest that they do enjoy these benefits.

In general, a preference for that which is normal may translate into large penalties for unlucky or negligent mavericks and innovators,²⁸⁸ and smaller penalties (or even exoneration) for equally unlucky or negligent rule-followers. To the extent this occurs, our legal system may discourage innovative thinking and risk taking while giving undue deference to common practices, existing laws, and historical rulings.

(the consumer switches brands and has another bad experience) will be regretted less than bad results stemming from inaction (the consumer stays with the initial product and has a second bad experience). *Id.* at 324. As in our studies, the normal/abnormal distinction was more influential than the action/inaction distinction.

²⁸⁸ Consider, for example, the introduction of new products. We suspect that a jury would find more causation, attribute more responsibility, and assess higher damages when injuries occur in relation to a defect in a new, innovative product than in relation to a familiar product. We would expect to find this result, for example, if a television short-circuited and started a house fire. We believe a jury would be harder on a defendant if the television sported abnormal features, such as a built-in Internet capability.

APPENDIX A

MEDICAL MALPRACTICE CASE
VERSION: ABNORMAL + ACTIVE

Dr. Theodore Walker is an experienced physician who specializes in the treatment of colon cancer. He works out of a top cancer clinic in Houston.

Susan Abernathy (age 47) became one of Dr. Walker's patients in December 2000. Until recently, Ms. Abernathy had been treated according to the conventional colon cancer protocol (Alpha). Most colon cancer patients in this, and other, clinics are treated with the conventional protocol Alpha.

Clinic policy mandates that each patient undergo a series of tests every 4 months to help the treating physician determine whether the treatment protocol should be altered. On July 1, 2001, Dr. Walker reviewed the latest test results for Ms. Abernathy. Dr. Walker concluded that Ms. Abernathy would be best served *by immediately switching her treatment from the conventional treatment protocol Alpha to the unconventional treatment protocol Beta.*

Unfortunately, Ms. Abernathy's immune system rejected the new (unconventional) treatment. She died three months after Dr. Walker switched her away from the conventional treatment protocol Alpha.

Ms. Abernathy's family (the plaintiff) sued Dr. Walker for malpractice and claimed that Ms. Abernathy died as a result of Dr. Walker's incompetence.

At trial, three credible experts for the plaintiff testified that the test results of July 1, 2001 did not support Dr. Walker's conclusion about what would be the best treatment protocol for Ms. Abernathy. All three experts also testified that Ms. Abernathy probably would have had a normal, cancer free life if Dr. Walker had continued to treat Ms. Abernathy with the conventional treatment protocol Alpha.

The defense did not present an expert, though it argued that none of the experts could be "certain" what outcome would have occurred if Ms. Abernathy continued to be treated with protocol Alpha.

Juror Instructions

Suppose you are a juror in this civil case. As such, you must decide whether, by a preponderance of evidence, Dr. Walker was negligent in his treatment of Ms. Abernathy.

A finding of negligence may not be based solely on evidence of a bad result to Ms. Abernathy. However, a bad result may be considered by you, along with other evidence, in determining the issue of negli-

gence. You are the sole judges of the weight, if any, to be given to any such evidence.

1. Would you find Dr. Walker negligent in his treatment of Ms. Abernathy?

No

Yes

2. What sum of money (if any) would you award in damages to the plaintiffs?

For questions 3–5, please indicate your degree of disagreement or agreement with each of the statements:

3. Dr. Walker caused the death of Ms. Abernathy.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

4. Dr. Walker deserves substantial blame for the death of Ms. Abernathy.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

5. Dr. Walker bears a heavy moral responsibility for the death of Ms. Abernathy.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

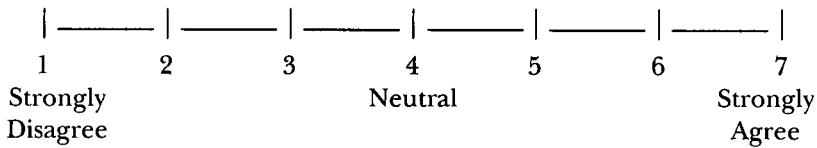
Questions 6–12 are concerned with the feelings you would have if the patient who died were a member of your family. Please indicate your degree of disagreement or agreement with each statement below:

If the patient in this case were a member of my family:

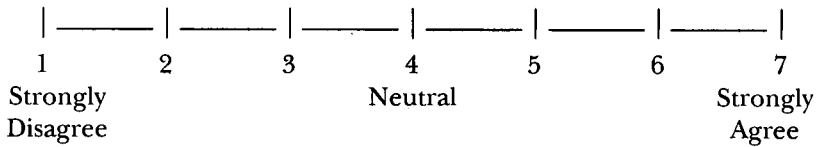
6. I would feel betrayed.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

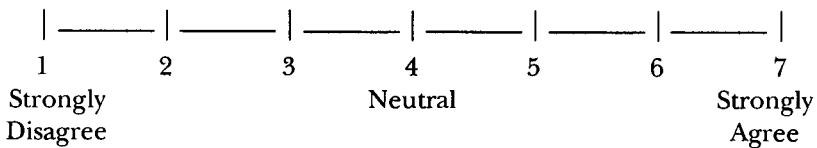
7. I would feel angry.



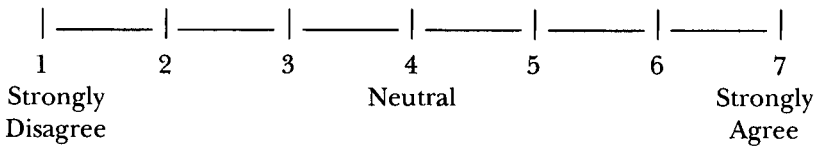
8. I would feel resentful.



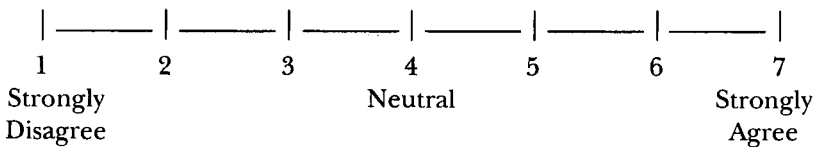
9. I would feel anxious.



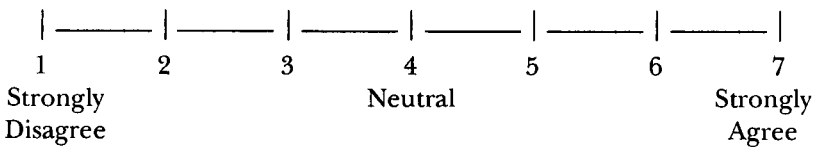
10. I would feel scared.



11. I would feel sad.

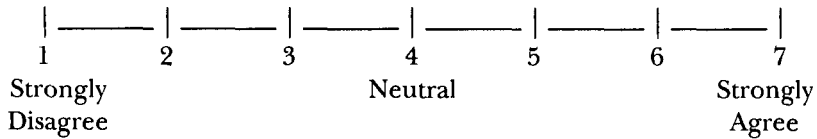


12. I would feel disgusted.

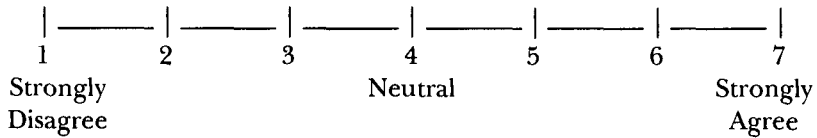


Finally, suppose that the State Medical Society has the power to suspend the license of physicians who have engaged in negligent conduct for up to one year. Please indicate your degree of disagreement or agreement with this statement:

13. I believe that the State Medical Society should impose the maximum (one year) license suspension against Dr. Walker.



14. Dr. Walker's treatment decision after he reviewed the July 2001 test results was abnormal.



15. Gender (Please circle.)

Female

Male

16. Are you eligible to serve on a jury in the United States? Circle "No" if you (a) are not a U.S. citizen, (b) are less than 18 years old, or (c) have been convicted of a felony.

Otherwise circle "Yes."

No

Yes

APPENDIX B

STOCK LOSS CASE
VERSION: ABNORMAL + ACTIVE

Mr. Ronald Lawler inherited approximately \$1,000,000 in stocks. Because he was unfamiliar with financial matters, Mr. Lawler brought the stock certificates to an experienced financial advisor in Houston named Jeffrey Braden.

Mr. Lawler's inheritance consisted entirely of a mix of the most widely owned, conventional stocks from various sectors. Mr. Lawler gave Mr. Braden permission to make reasonable transactions that served the interest of his portfolio.

Shortly thereafter, *Mr. Braden sold all of Mr. Lawler's widely owned, conventional stocks in order to create a portfolio that consisted entirely of less widely owned, unconventional stocks.* Unfortunately, the value of Mr. Lawler's new stock portfolio fell dramatically. Within a year, Mr. Lawler's inheritance was worth only \$300,000. Mr. Lawler sued Mr. Braden for \$2,000,000 for negligently handling his investment portfolio. Specifically, Mr. Lawler sought to recover (a) the full value of his original portfolio (\$1,000,000), (b) \$500,000 for the emotional distress associated with losing so much money, and (c) \$500,000 in punitive damages against Mr. Braden for violating the professional trust that Mr. Lawler placed in him.

At trial, an expert for Mr. Lawler testified that stock market conditions did not support Mr. Braden's decision to sell off Mr. Lawler's shares of the conventional stocks in order to invest in unconventional stocks. The expert also testified that if Mr. Braden had decided to stick with the original portfolio of widely held stocks, Mr. Lawler's portfolio would be worth approximately \$1,100,000.

The defense did not present an expert, though it argued that at the time Mr. Braden made his decision, no expert could have been "certain" about how different portfolios would perform in the future.

Juror Instructions

Suppose you are a juror in this civil case. As such, you must decide whether, by a preponderance of evidence, Mr. Braden was negligent in his treatment of Mr. Lawler's inheritance.

A finding of negligence may not be based solely on evidence of an unfavorable financial result. However, an unfavorable financial result may be considered by you, along with other evidence, in determining the issue of negligence. You are the sole judges of the weight, if any, to be given to any such evidence.

1. Would you find Mr. Braden negligent in his treatment of Mr. Lawler's inheritance?

No

Yes

2. What sum of money (if any and in total) would you award in damages to Mr. Lawler for (a) financial losses, (b) emotional distress, and (c) punitive damages against Mr. Braden? (*Please provide a single dollar amount.*)

3. How much responsibility would you say that Mr. Braden bears for Mr. Lawler's financial losses? (*Please circle.*)

1	2	3	4	5	6	7	
No						All	
Responsibility					Responsibility		

4. Gender (*Please circle.*)

Female

Male

5. Are you eligible to serve on a jury in the United States? Circle "No" if you (a) are not a U.S. citizen, (b) are less than 18 years old, or (c) have been convicted of a felony. Otherwise circle "Yes."

No

Yes