

Article

The “Duty” To Be a Rational Shareholder

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*“[I]n evaluating disclosure, as we must here, we continue to assume rationality and that all participants approach the situation thinking as Economic Man, within Adam Smith’s definition, seeking to follow the lead of Smith’s ‘Invisible Hand.’”*¹

American public shareholders are uniquely blessed by the freedom to do what they will with their capital. Unlike other stakeholders, shareholders owe the corporation no legal duties.²

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1. *Chock Full O’Nuts Corp. v. Finkelstein*, 548 F. Supp. 212, 219 (S.D.N.Y. 1982).

2. See 12B WILLIAM MEADE FLETCHER, FLETCHER CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS § 5713 (perm. ed., rev. vol. 2000) (“Ordinarily, at least unless the shareholder is a majority shareholder or active in the management of the corporation, he has no well-defined duties.” (internal footnotes omitted)); Paula J. Dalley, *The Misguided Doctrine of Stockholder Fiduciary Duties*, 33 HOFSTRA L. REV. 175, 206–11 (2004) (discussing the basic corporate law framework of shareholder rights and duties); see also *Chiarella v. United States*, 445 U.S. 222, 222–23 (1980) (holding that purchasers of stock who do

Shareholders provide cash, and, in exchange, receive management's fiduciary fealty and limited voting and distribution rights.³ This framework respects the difficulties that shareholders face in contracting to protect their rights and is conventionally summarized by a simple moral: "The *only* promise that makes sense in such an open-ended relation is [for management] to work hard and honestly."⁴ Indeed, the absence of bilateral duties is an unstated organizing principle of every discussion of corporate governance.⁵

Or so the story goes. In reality, courts hold purchasers of securities⁶ to something similar to a duty of care. Courts require investors to investigate their purchases, to coldly process risk, to disregard oral statements of optimism, and in general to be *economically rational*. If investors fail to meet these expectations, judges deny them the protection of the securities laws. In this way, courts impose on public securities investors a special kind of legal duty, novel in scope and, I will argue, ungrounded in principle.⁷

not otherwise have a relationship of trust and confidence with other parties to the transaction owe no duties to corporations or potential shareholders); *cf.* JAMES D. COX & THOMAS L. HAZEN, CORPORATIONS § 11.11 (2d ed. 2003) (describing fiduciary duties owed by majority shareholders to minority shareholders).

There are two minor exceptions to the no-duty rule, apart from the major one identified in this Article. First, shareholders wishing to file derivative actions have a duty first to make a demand on the board. *See generally* COX & HAZEN, *supra*, § 15.04. Second, the statute of limitations may be seen as a duty to inquire about the underlying facts of a securities claim. *See, e.g.*, Newman v. Warnaco Group, Inc., 335 F.3d 187, 188, 193 (2d Cir. 2003).

3. *See* Kent Greenfield, *Using Behavioral Economics to Show the Power and Efficiency of Corporate Law as Regulatory Tool*, 35 U.C. DAVIS L. REV. 581, 623 (2002).

4. FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 91 (1991) (emphasis added) (articulating the dominant economic view of corporate governance).

5. We may appreciate how different a contrary regime might be by conducting a thought experiment. Imagine that when you buy a share of stock, the law imposes a duty of loyalty to the corporation and its shareholders. You proceed to hedge your investment, choosing (foolishly) to short your own stock instead of a competitor's. The stock price falls. You decide to liquidate your position, making a modest profit. Would the corporation or your fellow shareholders sue you for breach of the duty you owe them? Yes, as corporations would look like partnerships; under such circumstances, your liability would be limited only by your fealty and assets.

6. As used in this Article, the term "securities" includes debt. Similarly, the term "shareholders" includes debtholders throughout.

7. *See infra* notes 281–85 and accompanying text for a discussion of why "victim's duties" in the context of securities fraud have economic effects that

Surprisingly, although some of the legal doctrines that collectively constitute this duty have been present for almost thirty years, no study to date has considered the scope of "rationality's" burden as imposed through the materiality doctrine.⁸ Nor have commentators addressed the potential demographic and redistributive consequences of judicially privileging certain classes of investors or the collateral effects of imposing investor duties on the mainstream of corporate law. This Article takes up these topics.

To recover under securities laws, such as the Securities Acts of 1933 and 1934,⁹ private plaintiffs or the Securities and Exchange Commission (SEC)¹⁰ must prove by a substantial likelihood that a suspect corporate disclosure omitted (or misrepresented) "material" facts. An "omitted fact is material if there is a substantial likelihood that a reasonable shareholder

make them look like more traditional Hohfeldian duties.

8. Bainbridge and Gulati's recent work is the first, to my knowledge, to begin the task of a controlled empirical investigation of the materiality doctrine. See Stephen M. Bainbridge & G. Mitu Gulati, *How Do Judges Maximize? (The Same Way Everybody Else Does—Boundedly): Rules of Thumb in Securities Fraud Opinions*, 51 EMORY L.J. 83, 116 n.94 (2002); cf. Donald C. Langevoort, *Are Judges Motivated to Create "Good" Securities Fraud Doctrine?* 51 EMORY L.J. 309 *passim* (2002) (commenting on Bainbridge and Gulati's study). Unlike the present study, Bainbridge and Gulati do not analyze the rates at which courts apply the various immateriality techniques in the case law, relying instead on a behavioral explanation for why such techniques might be effective or attractive. See generally Bainbridge & Gulati, *supra*. Quantitative case law analysis of disclosure outside of the securities fraud context is just beginning, but it has already produced one particularly interesting analysis of common law disclosure duties. See Kimberly D. Krawiec & Kathryn Zeiler, *Common Law Disclosure Duties and the Sin of Omission: Testing the Meta-theories* (UNC Legal Studies, Research Paper No. 04-4, 2004; Georgetown Law & Economics Research Paper No. 614501, 2004), available at <http://ssrn.com/abstract=614501> (analyzing 466 decisions and testing results against the conventional theories explaining when disclosure is required).

9. See Securities Exchange Act of 1934, 15 U.S.C. § 78 (2000); Securities Act of 1933, 15 U.S.C. § 77 (2000); LOUIS LOSS & JOEL SELIGMAN, SECURITIES REGULATION 2074–75 (3d ed. 2000) (explaining that the materiality precedent is interchangeable in federal securities laws).

10. See Yvonne Ching Ling Lee, *The Elusive Concept of "Materiality" Under U.S. Federal Securities Laws*, 40 WILLAMETTE L. REV. 661, 662–63 (2004) (describing the close relationship between the SEC materiality standard and Supreme Court case law). The SEC rewords the traditional case law standard in its enforcement decisions to define a reasonable investor as one who "generally focuses on matters that have affected, or will affect, a company's profitability and financial outlook." Memorandum from David B.H. Martin, Director, Division of Corporate Finance, SEC, to Laura Unger, Acting Chair, SEC 2 (May 8, 2001) <http://www.security-policy.org/papers/2001/LSEC-Wolf.pdf>, (describing the long-standing SEC position).

would consider it important in deciding how to vote.”¹¹ But who and what is a “reasonable investor”?¹² In tort and contract law, “reasonableness” has a subjective component and an objective one: reasonable people act in ways that meet societal expectations, while remaining true to a subjective understanding of legal duties and rights.¹³ The securities law standard is similar,¹⁴ but courts choose an objective approach.¹⁵

Adjudicating securities cases under the “reasonable-investor” standard, courts confront a dissonance between what forces *they* believe will move markets—disclosure of information affecting a firm’s finances—and the relatively trivial disclosures that plaintiffs claim created market effects.¹⁶ To resolve this tension, courts have developed the doctrine of immateriality as a matter of law,¹⁷ which allows judges to *pre-*

11. *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 448–49 (1976) (adopting a rule for 14a-9 proxy actions); *see also* *Basic Inc. v. Levinson*, 485 U.S. 224, 232 (1988) (expressly adopting the *TSC Industries* standard of materiality for the § 10(b) and Rule 10b-5 context).

12. Both “reasonable” and “investor” have multiple variants: rational, prudent, informed, lay, and typical; shareholder, stockholder, businessman, man, and person. *See* Richard L. Epling & Terence W. Thompson, *Securities Disclosure in Bankruptcy*, 39 *BUS. LAW.* 855, 891–93 (1984).

13. *See* DAN B. DOBBS, *THE LAW OF TORTS*, §§ 117, 118 (2000); E. ALLAN FARNSWORTH, *CONTRACTS*, §§ 7.9, 7.10 (4th ed. 2004); *see also* *Piambino v. Bailey*, 610 F.2d 1306, 1320 (5th Cir. 1980) (analogizing reasonable investor to the torts standard of a reasonable person). For a thoughtful discussion of the “reasonable person” standard and in particular, an introduction to the aretaic conception of reasonableness, see Posting of Lawrence Solum to Legal Theory Lexicon, <http://legaltheorylexicon.blogspot.com> (Oct. 5, 2003, 16:55 EST) (Legal Theory Lexicon 049: Distributive Justice Introduction).

14. *Basic*, 485 U.S. at 232.

15. *See generally* Epling & Thompson, *supra* note 12, at 894–95 (discussing the preference for an objective, rather than subjective, standard for “reasonable investor”); Lee, *supra* note 10, at 664 (discussing the standard of objective reasonable investor as used in *TSC Industries*). There are alternative accounts. For example, Bainbridge and Gulati describe the emergence of presumed immateriality doctrine as a method for judges to quickly and easily deal with constraints on their time and resources. *See* Bainbridge & Gulati, *supra* note 8, at 113–31; *cf.* Langevoort, *supra* note 8, at 314–18 (concluding that a rapid embrace of the antirationality defenses represents “a shift in the ideology of the judiciary leading to a pronounced pro-defendant bias”). I comment on these stories in Parts II–IV, *infra*.

16. Courts have rejected a quantitative test, which would make market reaction necessary and sufficient to find materiality. *See* Lee, *supra* note 10, at 664–65; *cf.* *Elkind v. Liggett & Myers, Inc.*, 635 F.2d 156, 166 (2d Cir. 1980) (discussing market reaction as relevant to materiality determination).

17. *See* LOSS & SELIGMAN, *supra* note 9, at 2082–2105. Similarly, some disclosed information is presumptively material. *See* Note, *Should the SEC Expand Nonfinancial Disclosure Requirements?*, 115 *HARV. L. REV.* 1433, 1434

sume a reasonable shareholder would have ignored certain types of fraudulent statements. Immateriality as a matter of law is thus best seen as "presumed immateriality." It is the scope and nature of presumed immateriality that creates the duty to be a rational shareholder.

Conventional wisdom holds that courts rarely presume immateriality.¹⁸ Courts say they are applying a standard that is self-consciously limited: the materiality judgment "requires delicate assessments of the inferences a 'reasonable shareholder' would draw . . . and these assessments are peculiarly ones for the trier of fact."¹⁹ Similarly, jurists, although applauding the courts' applications of presumed immateriality,²⁰ conclude that materiality issues in securities cases are almost always left for jury resolution.²¹ Only very recently have some

(2002) (concluding that business operations in a foreign company under government sanction are likely to be treated as material per se).

18. My own experience as a lawyer representing defendants is that many believe it nearly impossible to win on materiality before summary judgment. Of course, apart from its perceived rarity, the fact-dependent nature of the materiality standard may create a degree of frustration among practitioners. See Joan MacLeod Heminway, *Materiality Guidance in the Context of Insider Trading: A Call for Action*, 2003 AM. U. L. REV. 1131, 1148–68 (analogizing the materiality standard to the Hogwarts sorting hat, and arguing that ambiguity in the standard creates problems for lawyers and clients in evaluating risks and benefits of disclosure).

19. *TSC Indus., Inc. v. Northway*, 426 U.S. 438, 450 (1976). The *TSC* Court elsewhere rejected a less-stringent standard, stating that materiality was not merely something a "reasonable shareholder *might* consider important." *Id.* at 446.

20. See, e.g., Elizabeth A. Nowicki, *A Response to Professor John Coffee: Analyst Liability Under Section 10(b) of the Securities Exchange Act of 1934*, 72 U. CIN. L. REV. 1305, 1325 (2004) (noting with approval a Second Circuit case upholding a finding of presumed immateriality so as to prevent disclosure of an "avalanche of trivial information" (quoting *TSC Indus.*, 426 U.S. at 448)).

21. See Epling & Thompson, *supra* note 12, at 895 ("Accordingly, the inference of such an investor's actions is the responsibility of the trier of fact and normally is not susceptible to resolution on summary judgment."); Edward A. Fallone, *Section 10(B) and the Vagaries of Federal Common Law: The Merits of Codifying the Private Cause of Action Under a Structuralist Approach*, 1997 U. ILL. L. REV. 71, 100 ("[T]he materiality standard applied by the court is exceedingly fact-specific and therefore peculiarly appropriate for application by the trier of fact."); Terry Fleming, *Telling the Truth Slant—Defending Insider Trading Claims Against Legal and Financial Professionals*, 28 WM. MITCHELL L. REV. 1421, 1430 (2002) ("Motions for judgment on the pleadings and summary judgment are rarely granted . . ."); Heminway, *supra* note 18, at 1183 (linking the "ill-defined legal standard" to difficulty in resolving cases pre-trial); Robert A. Rosenfeld & Clyde J. Wadsworth, *Materiality After Basic, Inc. v. Levinson*, 378 PLI/LIT 275, 291 (1989) (questioning the viability of summary judgment on materiality issues following *Basic*); Paul Vizcarrondo & Andrew

begun to question this conventional account.²²

In this Article, I present evidence that courts dismiss securities claims on the ground of presumed immateriality in *half of opinions considering materiality*.²³ This is a surprising and significant finding. To the extent that I have identified a good set of judicial reactions to securities lawsuits, materiality acts to exclude a large number of claims and plaintiffs from the securities-fraud system. The mechanism of this exclusion is a judicially created set of commitments and assumptions regarding how reasonable investors act. That is, presumed immateriality reflects a normative judicial commitment distinguishing between investing behavior entitled to protection from securities fraud and behavior which is not.²⁴

To understand this ideological commitment, my empirical analysis turned to presumed immateriality's rationales. This Article finds evidence that courts implicitly²⁵ equate investors' "reasonableness" with economic rationality, and irrationality as unreasonableness.²⁶ This decision cannot be explained as a

Houston, *Liabilities Under Sections 11, 12, 15 and 17 of the Securities Act of 1933 and Sections 10, 18 and 20 of the Securities Act of 1934 in UNDERSTANDING THE SECURITIES LAW 6* (2004) ("[Q]uestions of materiality are usually for the jury to decide.").

22. Bainbridge and Gulati, analyzing a set of one-hundred randomly selected securities cases, note briefly that ninety-one were decided at the motion to dismiss stage, and over 70 percent of those involved materiality determinations in favor of defendants. See Bainbridge & Gulati, *supra* note 8, at 116 n.94; cf. COX & HAZEN, *supra* note 2, at 296 (stating that presumed immateriality determinations arise "with some regularity"); Donald C. Langevoort, *Seeking Sunlight in Santa Fe's Shadow: the SEC's Pursuit of Managerial Accountability*, 79 WASH. U. L.Q. 449, 479 (2001) (noting the "stunning willingness of judges to decide difficult materiality issues 'as a matter of law'"); R. Gregory Roussel, Note, *Securities Fraud or Mere Puffery: Refinement of the Corporate Puffery Defense*, 51 VAND. L. REV. 1049, 1050-51 (1998) ("Before Congress responded to frivolous private securities fraud class action . . . the judiciary took it upon itself to provide relief to burdened corporations.").

23. This finding applies to private plaintiff suits only. Overall, the blended rate is slightly less than 50 percent. See *infra* Part II.

24. See generally Peter H. Huang, *Moody Investing and the Supreme Court: Rethinking the Materiality of Information and the Reasonableness of Investors*, 13 SUP. CT. ECON. REV. 99, 111 (2005) (arguing that "many courts appear to view the reasonable investor as referring to a normative idealized type of behavior, instead of a descriptive realistic depiction of actual behavior").

25. And sometimes explicitly, as in the *Chock Full O'Nuts* case cited at the head of this Article. *Chock Full O'Nuts Corp. v. Finklestein*, 548 F. Supp. 212, 219 (S.D.N.Y. 1982).

26. See *infra* Part III. Others have suggested that judges *ought* to correct for human irrationality through the common law. See, e.g., Stephen Choi &

simple reflection of the way shareholders actually respond to information: it is an ideological choice.

Shareholders' behavior deviates from economic rationality in both predictable and unpredictable ways; individuals "suffer" from a variety of cognitive biases, heuristics, and social norms.²⁷ In law, these deviations from rational expectations have been described by a growing literature adapted from behavioral economics.²⁸ Part I of this Article reviews recent behavioralism literature, with a special focus on the experimental results with which behavioralists have undermined traditional assumptions of shareholder rationality.

Part II discloses the very different model of rationality embodied in federal securities decisions. It analyzes 472 federal securities opinions from the Second Circuit and its district courts to explore those courts' willingness to require shareholders to act like economically rational actors, a fictional legal construct. As a part of my analysis, I evaluate several hypotheses, principally, that presumed immateriality: (1) will appear relatively rarely in the dataset; and (2) will be directed at corporate activity (disclosure) and not investor response (purchase or sale). These hypotheses reflect the conventional wisdom about presumed immateriality, but mine is the first study to test them in a systematic way.²⁹

Adam Pritchard, *Behavioral Economics and the SEC*, 56 STAN. L. REV. 1, 47–50 (2003) (describing a model of intermediate scrutiny for judges' attempts to affect investor behavior). Choi and Pritchard argue that courts, unlike regulators, are subject to market-like constraints on their ability and have already created a materiality standard that "reflect[s] the cognitive limitations facing investors." *Id.* at 48. However, Choi and Pritchard caution that courts may face their own biases, may be tempted to shunt cases from their dockets by creating bright-line rules, and may unthinkingly follow foolish precedent. *Id.* at 50.

27. For a discussion of the relationship between individual "irrationality" and the hypothesis that markets act to "clear" such behavior, see *infra* notes 47–52 and accompanying text.

28. The corpus of behavioral law and economics literature is vast and still expanding. Traditional accounts situate its origin in the work of Robert Ellickson and Herbert Hovenkamp. Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 CHI.-KENT L. REV. 23 (1989); Herbert Hovenkamp, *The Limits of Preference-Based Legal Policy*, 89 NW. U. L. REV. 4 (1994); see also BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000) (presenting a variety of perspectives on the topics of behavioral law and economics); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630 (1999) (discussing the malleability of decision making).

29. In the last few years, there have been several important empirical investigations of securities fraud doctrine. See Bainbridge & Gulati, *supra* note

Part III discusses how courts' presumptions about reasonable-investor behavior (manifest in the reasons they give for findings of immateriality) are in tension with the findings of social science research on human decision making (described in Part I). In particular, I focus on how courts' justifications for presumed immateriality have moved from fact-intensive investigations to bright-line tests based on the language contained in disclosures.

In Part IV, I build on my empirical analysis by describing how the widespread application of the presumed immateriality doctrine creates a common-law "duty of rationality."³⁰ I make predictions about the market effects of the duty of rationality, which, if true, would suggest that the application of the securities laws may have deep and potentially unintended redistributive and demographic effects.³¹

At its heart, when its scope is appreciated, presumed immateriality begins to look like a product of the courts' struggle to control the behavior of two very different kinds of participants in the system of securities regulation: investor-plaintiffs and juries. Presumed immateriality, because it assumes—

8, at 87 n.12 (analyzing 100 randomly selected cases from 1996 through 2001, and reaching certain limited conclusions regarding plaintiffs' success rate in materiality analyses); Theresa A. Gabaldon, *A Sense of Security: An Empirical Study*, 25 J. CORP. L. 307 (2000) (analyzing courts' treatment of the term "security"); Mitu Gulati et al., *Fraud by Hindsight*, 98 NW. U. L. REV. 773, 803–04 (2004) (analyzing a database of cases discussing the "fraud by hindsight" doctrine); A.C. Pritchard & Hillary A. Sale, *What Counts as Fraud? An Empirical Study of Motions to Dismiss Under the Private Securities Litigation Reform Act*, 2 J. EMPIRICAL LEGAL STUD. 125 (2005) (analyzing pleadings standards under the Private Securities Litigation Reform Act (PSLRA) and concluding that the Ninth Circuit has adopted a significantly more restrictive test of fraud than the Second Circuit); Hillary A. Sale, *Judging Heuristics*, 35 U.C. DAVIS L. REV. 903, 928–30 (2002) (describing the change in percentages of complaints surviving dismissal post-PSLRA as arising from judicial heuristics); Michael A. Perino, *Strategic Decision Making in Federal District Courts: Evidence from Securities Fraud Actions* (St. John's Legal Studies, Research Paper No. 05-013, 2005), available at <http://ssrn.com/abstract=727905> (analyzing 268 opinions from federal district courts considering motions to dismiss after 1996).

30. As far as I can tell, I am the first to suggest that this duty positively accounts for some securities fraud doctrines. However, Donald Langevoort's commentary on prior empirical investigations questioned whether judges were projecting their own ideal of how they would act as investors—"prone to self-attributions that overweight the level of caution and skepticism that they bring to their decisionmaking and thus to their construal of reasonableness . . ." Langevoort, *supra* note 8, at 317.

31. See *infra* notes 268–76 and accompanying text.

contrary to real-world evidence—that investors act rationally, transfers power from juries to judges. It imposes formidable cognitive burdens on investors seeking to be protected from fraud. The entire construct (courts' presumptions, the scope of immateriality, and a resulting investor duty to be rational) seems in turn to be based on the courts' need to harmonize securities law with the foundational assumption of corporate law: that all parties to the corporate form act rationally. It is to this assumption—and the evidence that undermines it—that I now turn.

I. BEHAVIORAL ANALYSIS OF PUBLIC SHAREHOLDERS

Traditionally, hornbook law and academic literature described common shareholders as rational actors,³² and the assumption remains implicit "in the minds of all concerned with doing business under the corporate form."³³ Rational shareholders are "able to anticipate and consider all relevant factors in making choices and . . . they have unlimited computational capacities."³⁴

Rational shareholders *know* what they want and select it in the most *efficient way available*.³⁵ Rational shareholders do not speculate—unless the risk/benefit calculation justifies speculation. They do not buy stocks based on Internet rumors.³⁶

32. Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417, 418 (2003); Patrick J. Ryan, *Rule 14a-8, Institutional Shareholder Proposals, and Corporate Democracy*, 23 GA. L. REV. 97, 178 (1988); cf. *Chock Full O'Nuts Corp. v. Finkelstein*, 548 F. Supp. 212, 219 (S.D.N.Y. 1982).

33. Ryan, *supra* note 32, at 178.

34. Paredes, *supra* note 32, at 434.

35. See Richard A. Posner, *Rational Choice, Behavioral Economics and the Law*, 50 STAN. L. REV. 1551, 1551 (1998) (analogizing rational persons to rats which "are at least as rational as human beings when rationality is defined as achieving one's ends . . . at least cost"). Hanson and Kysar describe the expected utility theory by noting its four principal decision-making principles: ordering (people "must prefer either one [object to another] or be indifferent to both"); continuity ("if the odds are right, a person will always gamble"); independence ("[a] person's preferences between two objects should remain unchanged when the objects are substituted into identical lotteries"); and invariance (individuals should express the same preferences when different descriptions of the same outcome are presented). See Hanson & Kysar, *supra* note 28, at 641–42.

36. Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 156 (2002) (discussing the case of Jonathan Lebed, a New Jersey teenager subject to an SEC enforcement action because of his postings on Internet chat-

Rational investors have one purpose in choosing what to do with their investments: make more money.³⁷

Behavioral law and economics (BLE) undermines the rationality assumption by using data from psychological experiments to radically alter our view of how humans make choices.³⁸ BLE documents how individuals' choice-making behavior systematically diverges from the predictions of the rational-actor model of human behavior.

A second component of BLE research aims to develop and defend a theory of "bounded self interest."³⁹ Bounded self-interest theory attempts to explain the attractiveness of norms of fairness, sharing, reciprocity, and altruism in ways distinct from those traditionally relied on by economists.

BLE is a controversial discipline that has created an ever-expanding literature debating its political⁴⁰ and methodological

boards).

37. The most common thick version of the rational choice theory is wealth maximization, which predicts that individuals will act to maximize the amount of money they have. Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Sciences: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1055, 1066 (2000).

38. See Jennifer Arlen et al., *Endowment Effects Within Corporate Agency Relationships*, 31 J. LEGAL STUD. 1, 2–5 (2002) (discussing the effect of BLE on received wisdom of corporate law scholarship); Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023, 1058 (2000) ("For corporate and securities law scholars, behavioral economics probably is the most exciting intellectual development of the last decade."); Kent Greenfield & Peter C. Kostant, *An Experimental Test of Fairness Under Agency and Profit-Maximization Constraints (with Notes on Implications for Corporate Governance)*, 71 GEO. WASH. L. REV. 983, 984–85 (2003) (introducing experimental study aimed at undermining the traditional law and economic view of the value of the profit-maximization norm); David A. Hoffman & Michael P. O'Shea, *Can Law and Economics Be Both Practical and Principled?*, 53 ALA. L. REV. 335, 360–63 (2002) (describing how behavioral literature undermined classical law and economics normative research); cf. Lynn A. Stout, *The Mechanisms of Market Inefficiency: An Introduction to the New Finance*, 28 J. CORP. L. 635 *passim* (2003) (discussing BLE implications for the efficient capital markets hypothesis). See generally BEHAVIORAL LAW AND ECONOMICS, *supra* note 28 (presenting a variety of essays on behavioral law and economics).

39. See Christine Jolls, Cass R. Sunstein & Richard H. Thaler, *A Behavioral Approach to Law and Economics*, in BEHAVIORAL LAW AND ECONOMICS, *supra* note 28, at 13, 16.

40. BLE has traditionally been seen as a politically "liberal" movement because it emboldens the use of government intervention to solve legal policy choices. See Bainbridge, *Mandatory Disclosure*, *supra* note 38, at 1027 ("[I]t seems probable that behavioral economics increasingly will be invoked by those who favor government intervention precisely because behavioral economics offers a new line of argument in favor of regulating private conduct.");

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roots.⁴¹ And, because I situate my scholarship firmly within the BLE "camp," I am troubled by the perception that BLE research has been manipulated to serve the ends of certain private entities.⁴²

Philip E. Tetlock & Barbara A. Mellers, *The Great Rationality Debate*, 13 PSYCHOL. SCI. 94, 97 (2002) (explaining that economists "on the left" are more likely to embrace BLE than economists "on the right"). *But cf.* Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism,"* 151 U. PA. L. REV. 1211 *passim* (2003) (articulating a theory of "asymmetric paternalism" which would protect irrational individuals while not harming rational ones). That "paternalism" serves a progressive agenda—broadly conceived—is debatable.

41. Some argue that BLE experiments are flawed in design or execution. *See, e.g.,* Tanina Rostain, *Educating Homo Economicus: Cautionary Notes on the New Behavioral Law and Economics Movement*, 34 LAW & SOC'Y REV. 973 *passim* (2000) (discussing problems of empirical research); Robert E. Scott, *The Limits of Behavioral Theories of Law and Social Norms*, 86 VA. L. REV. 1603 *passim* (2000) (critiquing legal academics who use behavioral research to generalize from limited experimental data). The most prominent of these critics argues that some experiments seemed designed to elicit irrational responses, because of explicit or implicit cues to experimental subjects:

Virtually all of the claims of the [BLE theorists are] . . . at most, linguistic hedges, such as the data "suggest" some effect or some effect "generally" occurs, but not outright admissions that legal decision theory is founded on generalizations that are shakily inferred from aggregated data in between-subjects experiments.

Gregory Mitchell, *Taking Behavioralism Too Seriously? The Unwarranted Pessimism of the New Behavioral Analysis of Law*, 43 WM. & MARY L. REV. 1907, 1969 (2002) (attacking the methodology of BLE). Robert Prentice responded that Mitchell's claim amounts to an argument "about details," as Mitchell admits that the rational-actor model does not "in any way approximate[] how people actually act." Robert A. Prentice, *Chicago Man, K-T Man, and the Future of Behavioral Law and Economics*, 56 VAND. L. REV. 1663, 1720 (2003) (defending BLE experiments against Mitchell's "withering attack").

42. In particular, authors have pointed to Exxon's funding of jury experiments (a crucial component of BLE research) and then using those experiments in litigation. *See, e.g.,* Denise E. Antolini, *Punitive Damages in Rhetoric and Reality: An Integrated Empirical Analysis of Punitive Damages Judgments in Hawaii, 1985-2001*, 20 J.L. & POL. 143, 151-53 (2004); Theodore Eisenberg, *Damage Awards in Perspective: Behind the Headline-Grabbing Awards in Exxon Valdez and Engle*, 36 WAKE FOREST L. REV. 1129, 1147-49 (2001); Richard Lempert, *Juries, Hindsight, and Punitive Damage Awards: Failures of a Social Science Case for Change*, 48 DEPAUL L. REV. 867, 871 n.16 (1999) ("[I]t appears that Exxon is making a concerted effort to build a social science case for reducing or taking away the jury's discretion in awarding punitive damages and that the Hastie and Viscusi study is a part of this effort. . . . Indeed, Exxon has recently cited the above research in its appeal of the \$5.3 billion Exxon Valdez award."); Neil Vidmar, *Juries Don't Make Legal Decisions! And Other Problems: A Critique of Hastie et al. on Punitive Damages*, 23 LAW & HUM. BEHAV. 705, 713 (1999). For a theoretical account of how Exxon's funding of BLE research might affect its conclusions, see Jon Hanson & David Yosifon, *The Situation: An Introduction to the Situational Character*,

But even if private parties are developing BLE to further their own ends, this does not substantially imperil BLE's core message. BLE is a *critical empirical study* driven by observations of indeterminacy and manipulability of individual choices in reaction to stimuli.⁴³ Decision makers act under the influence of several cognitive biases and heuristics that distort their ability to rationally make decisions, each of which may push in a different direction. In the aggregate, it is difficult to predict what individuals will do.⁴⁴ As significantly, individuals' perceptions of risk (which, in the rational-actor model, exists independently of the observer) turn out to be manipulable in practice, through the context and framing of the presentation of information or another stimulus.⁴⁵ On this understanding of BLE's core message of manipulability, I embrace BLE's experimental data with an appropriate amount of caution, which I hope the reader will share.⁴⁶

In the securities context, the relationship between BLE's experimental findings and actual changes in stock price is notoriously complex. The argument goes that even if some investors act "irrationally" (e.g., trade based on "noise" instead of information), "rational" investors will profit, and stock prices will remain efficiently priced.⁴⁷ This insight underlies the efficient

Critical Realism, Power Economics, and Deep Capture, 152 U. PA. L. REV. 129, 272–79 (2003) (discussing the possible "deep capture" of legal academics by corporate funding).

43. See Hanson & Kysar, *supra* note 28, at 722.

44. See *id.*

45. See *id.* at 724–43.

46. A separate critique relates to BLE's need for a unifying theory. See, e.g., Korobkin & Ulen, *supra* note 37, at 1057 (2000) (noting that the BLE movement "lacks a single, coherent theory of behavior"). According to Korobkin and Ulen, the goal of BLE ought to be to allow scholars to predict (with reasonable success) the responses of citizens to applicable legal rules. See *id.* at 1072. Thus, BLE need not articulate a theoretical model to compete with the rational-actor model, so long as its results are realistic. See *id.* at 1071–73; see also Hanson & Kysar, *supra* note 28, at 689 ("[A] complex model with realistic predictive capabilities is far preferable to a simplified model that bears little relationship to actual behavior."). Korobkin and Ulen analogize BLE's atheoretical core to the process of incomplete theorization in common law adjudication. Korobkin & Ulen, *supra* note 37, at 1073 (citing CASS R. SUNSTEIN, *LEGAL REASONING AND POLITICAL CONFLICT* (1996)). See generally SUNSTEIN, *supra* 35–61. Curiously, legal economists have often resorted to the contention that the best is the enemy of the good. See, e.g., Hoffman & O'Shea, *supra* note 38, at 344–47 (criticizing the "open-ended approach to moral and practical questions" common in law and economics literature, and discussing the application of Sunstein's theory of incompleteness to legal movements).

47. See Langevoort, *supra* note 36, at 140–41.

capital market hypothesis (ECMH), which remains the only “well-developed theory of stock market behavior.”⁴⁸ However, there is now a robust set of findings (described in behavioral finance literature) that “important forms of human behavior are unlikely to be ‘washed out’ in the financial markets.”⁴⁹

The descriptive falsity of the ECMH is obviously important for any analysis of proper application of the materiality doctrine. Given that investors in the aggregate at least *sometimes* behave foolishly, materiality—which asks what a reasonable investor will do—may result in a divergence between “what is commonplace or normal” and what the law requires of investors.⁵⁰ That is, even if markets efficiently price assets over the long term, a materiality analysis which ignores the insights of BLE threatens to disproportionately penalize individual investors, who (unlike institutions)⁵¹ are “hopelessly disastrous decision-makers.”⁵²

To make sense of BLE’s application to the securities laws, the discussion below divides into three parts, corresponding to the three categorical ways that BLE undermines the contractarian thesis that still dominates academic discussion: Trouble with Probability, Trouble with Informational Processing, and Social Investing. I use this organization to make sense of the bewildering array of social science results. The purpose of this organization is not to suggest that individuals are necessarily subject to discrete and self-contained biases that each distort “rationality,” but rather to describe how BLE systematically undermines rationality’s major premises.

A. TROUBLE WITH PROBABILITY

Individuals are exceptionally poor at evaluating risk and uncertainty. This is old news—after all, the multi-billion dollar, enormously profitable gambling industry depends on a certain amount of willful blindness to the reality of expected losses. But our trouble with risk extends beyond decisions to play

48. Donald C. Langevoort, *Half-Truths: Protecting Mistaken Inferences by Investors and Others*, 52 STAN. L. REV. 87, 109 (1999).

49. Langevoort, *supra* note 36, at 143; *see also id.* at 140–52 (discussing the psychology of market price movements).

50. *See* Langevoort, *Half-Truths*, *supra* note 48, at 183–86.

51. *See, e.g.*, Gregory La Blanc & Jeffrey J. Rachlinski, *In Praise of Investor Irrationality*, in THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 542, 570–74 (Francesco Parisi & Vernon L. Smith eds., 2005).

52. *Id.* at 546.

against the house.⁵³ Rather, as this section explores, our approaches to risks and rewards are bafflingly inconsistent and often, in the aggregate, self-defeating.

1. Hindsight Bias

“Hindsight bias” is a dressed-up term for our belief in destiny: that which has happened was likely to have happened all along.⁵⁴ This bias follows from individuals’ consistent overstatements of “what they could have predicted after events have unfolded.”⁵⁵ Hindsight bias results from the common sense tendency of our brains to incorporate new information

53. Gambling may be thought of as rational because it is fun. But, presumably, whatever “fun” individuals achieve while losing money in a casino because they misjudge the odds of winning in craps is distinct from the experience of losing your life savings in the stock market because you are unable to assess the risk of an investment. This observation reduces to an intuition that while gambling is primarily experienced as an entertaining spectacle, capital investing is not. *But see* Alok Kumar, Who Gambles in the Stock Market? 26 (EFA 2005 Moscow Meetings Paper, 2005; AFA Boston Meetings Paper, 2005), available at <http://ssrn.com/abstract=686022> (“Poor, young, less educated men who live in urban, Republican dominated regions and belong to specific minority (African-American and Hispanic) and religious (Catholic) groups invest more in stocks with lottery-type features. Collectively, this evidence indicates that people’s attitudes toward gambling are reflected in their stock investment decisions.”).

54. *See* Korobkin & Ulen, *supra* note 37, at 1095–1100 (describing the hindsight bias); Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, in BEHAVIORAL LAW AND ECONOMICS, *supra* note 28, at 95, 95–98 [hereinafter Rachlinski, *A Positive Psychological Theory*] (describing cognitive and motivational factors creating the bias); Jeffrey J. Rachlinski, *Heuristics and Biases in the Courts: Ignorance or Adaptation?*, 79 OR. L. REV. 61, 67–70 (2000) (describing early experiments that defined the bias and summarizing literature). In one example, two groups of individuals were confronted with a problem involving a railroad accident. The first group was to assume that they were regulators and asked to determine whether a corporation should make repairs pursuant to regulation to avoid a railroad accident. Others were asked to assume they were jurors, after the accident had occurred, and to determine the necessity of punitive damages. Thirty-three percent of the regulators recommended the repairs, while (subject to hindsight bias) 67 percent of the jurors recommended punitive damages. *See* CASS R. SUNSTEIN ET AL., PUNITIVE DAMAGES: HOW JURIES DECIDE 100–08 (2002). The experimenters noted that the problem of hindsight bias is “almost inevitable when jurors make punitive damages decisions.” *Id.* at 108.

55. Gulati et al., *supra* note 29, at 774. In this important recent Article, the authors test two hypotheses that could explain why courts have advanced the theory of fraud by hindsight: to debias limitations on human judgment like hindsight bias; or, alternatively, to dispose of troublesome and complicated cases. They conclude that the latter hypothesis finds more support. *See id.* at 824.

into existing information automatically.⁵⁶ Indeed, some hypothesize that the brain prefers "simple inference strategies, that require little information . . . rather than complex strategies that process lots of information."⁵⁷

To situate our understanding of how the hindsight bias might affect the capital markets, imagine that a corporation is considering at time T_0 whether to disclose the existence of the risk of a strike that would close one of its factories and create a very modest downturn in profits. The risk of the strike at time T_0 is miniscule—a contemporaneous email between managers puts the risk at one percent. Given the risk-discounted cost,⁵⁸ the corporation decides to hide the possibility of the strike from its investors.

The strike occurs at time T_1 , with the expected, minor effect on profitability. The corporation's stock price falls, and disgruntled shareholders sue the corporation for failing to disclose the risk.

A jury considering the corporation's potential liability for this omission at T_2 , should not consider the strike's occurrence at T_1 as *important to the decision of an investor at T_0* .⁵⁹ The fact that a later event transpires makes no difference to the investment decision at the time of disclosure, just as my hitting a red six while playing roulette does not make that number the "smart" choice before the fact. That is, if a "reasonable investor" means "an investor who thinks without bias about risk," the legal system would want to find a way to prevent plaintiffs from successfully asserting this kind of claim in a securities suit. BLE, however, seems to demonstrate that juries are sometimes unable to reject this kind of thinking: we are all subject to hindsight bias regarding materiality. The question then becomes—as I address below—should judges prohibit the hindsight inference by taking the case away from the jury by applying the doctrine of presumed immateriality?⁶⁰

56. Scott A. Hawkins & Reid Hastie, *Hindsight: Biased Judgments of Past Events After the Outcomes Are Known*, 107 PSYCHOL. BULL. 311, 311–14 (1990).

57. Beth Azar, *Blinded By Hindsight*, MONITOR ON PSYCHOL., May 2000, at 28, 29.

58. That is, the probability of loss times the magnitude of harm resulting from loss is small compared to the burden of disclosure (whether measured in incremental terms or even in lost negotiating leverage with the union).

59. See Gulati et al., *supra* note 29, at 788–91.

60. A second question also arises: why judges would be any better than juries at avoiding the effects of hindsight. See W. Kip Viscusi, *Jurors, Judges,*

2. Representativeness Heuristic

BLE teaches that individuals also have a great deal of trouble shedding the effects of the “representativeness heuristic,” a mental shortcut that leads us to judge things as similar based on relatively superficial (but “representative”) characteristics.⁶¹

A famous experiment demonstrating this effect presented subjects with a description of a woman with “feminist characteristics.” Researchers then asked the subjects a relatively odd question: whether the woman was more likely to be (a) a bank teller or (b) a feminist bank teller. Although logically (a) must be more common than (b) because of base rate—as there must be an equal or greater number of bank tellers than bank tellers that have opinions on gender politics—respondents were unable to shed the effect of what they had already learned about the woman and 85 percent of them chose answer (b).⁶²

The representativeness heuristic appears to hold even when investors discover or have reason to know that information is unreliable.⁶³ Thus, despite facts suggesting fraud, investors will act on the representations of a broker whom they know (or have reason to know) has a motive to lie to them because that broker had previously demonstrated some characteristics of a reliable source.⁶⁴ Similarly, investors will trade on gossip from Internet chat rooms if the gossiping source displays some characteristics of being a corporate insider.⁶⁵ Needless to say, academics have questioned whether rational investors could possibly have found such hype credible.⁶⁶

and the Mistreatment of Risk by the Courts, 30 J. LEGAL STUD. 107 *passim* (2001) (discussing problems judges have in evaluating risk).

61. See Amos Tversky & Daniel Kahneman, *Judgments of and by Representativeness*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 84, 84 (Daniel Kahneman et al. eds., 1982); see also Hanson & Kysar, *supra* note 28, at 664–67 (discussing the representativeness heuristic).

62. Tversky & Kahneman, *supra* note 61, at 92–93.

63. See Daniel Kahneman & Amos Tversky, *Subjective Probability: A Judgment of Representativeness*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES, *supra* note 61, at 32, 32–33.

64. See Prentice, *supra* note 41, at 368–69.

65. Such characteristics include purported knowledge of corporate trivia or “inside baseball” discussions of politics within the company.

66. See Langevoort, *supra* note 36, at 157.

To illustrate how this heuristic works in the capital markets, suppose a broker tells a shareholder to invest in a particular stock. The shareholder has had experiences with that broker and believes him to be a truthful, upstanding professional. Along with his recommendation, the broker passes her a prospectus containing written warnings about the stock's performance, together with financials that cast doubt on the broker's representations.

Economically rational investors should pass on the recommendation. However, the representative heuristic suggests that most investors will invest based on their previous dealings with the broker, despite reading the written warnings, because they are unable to shed old illusions in the face of contrary new information.

3. Risk Tolerance

Individuals are risk seeking in avoiding current losses.⁶⁷ Loss aversion is a common and depressingly familiar phenomenon. We hold "under water" stocks for longer than we ought, in the hope of reversing the tide.⁶⁸ Readers who do not participate in the stock market may be familiar with the phenomenon in other settings: deciding to "press your luck" by returning to the ATM machine when down while gambling; being unable to imagine (that is, being unwilling to confront the risk of) unlikely future catastrophic losses; or refusing to sell your house for years longer than necessary in the hope of eventually getting "your money" back.⁶⁹

BLE tells us a different story with respect to gains: individuals are risk averse when confronting a choice between certain property and potential gains. Thus, while a rational

67. See, e.g., Prentice, *supra* note 41, at 364; see also Terrance Odean, *Volume, Volatility, Price, and Profit When All Traders Are Above Average*, 53 J. FIN. 1887, 1896-97 (1998) (discussing the tendency of individual investors to buy the same number of winning and losing stocks but to sell winning stocks at a higher rate).

68. See Choi & Pritchard, *supra* note 26, at 13.

69. See, e.g., Michael I. Meyerson, *The Reunification of Contract Law: The Objective Theory of Consumer Form Contracts*, 47 U. MIAMI L. REV. 1263, 1301 (1993) (explaining that customers rarely consider subsequent legal action when contracting). An interesting corollary to this principle is that individuals, because they discount the likelihood of future losses, will be less sensitive to warnings about such losses. See Choi & Pritchard, *supra* note 26, at 12 (discussing the availability heuristic); Prentice, *supra* note 41, at 364.

shareholder would be equally happy to accept either a dividend stream with a present value of \$100 or a potential rise in stock resulting in present value gains of either 0 or \$200, real individuals actually prefer the certain gain.⁷⁰

Loss aversion may be related to the endowment effect.⁷¹ The endowment effect describes the higher value we place on things we own than on those we do not. The classic experiment involves coffee mugs. Experimenters gave a group of experimental subjects (the “buyers”) money; a second group (the “sellers”) plain coffee mugs.⁷² Experiments asked the sellers to name the minimum price they would demand to sell their mugs and the buyers the maximum they would pay. Both groups were told that if market prices were established, trades would occur. But when the results were in, no trades were possible because the buyers were willing to pay, on average, only half the amount demanded by the sellers who “owned” the mugs.⁷³ This result contravenes one predicted by the rational choice model—that both groups will value the mugs identically.⁷⁴

To appreciate the interaction of these principles, imagine a few disclosures by a corporation that has recently had a run of very bad luck. It states that “things are looking up,” that “we have no reason to expect that current bad trends will continue,” and “the future is bright.” While rational shareholders would ignore such meaningless boasts, real shareholders might not because they are subject to loss aversion. By contrast, shareholders whose holdings have recently appreciated may overreact to relatively innocuous earnings warnings, seeking to “take” sure gains instead of facing the risk of losing them.

70. See Jeffrey J. Rachlinski, *Gains, Losses, and the Psychology of Litigation*, 70 S. CAL. L. REV. 113, 118–28 (1996). I assume away the tax implications of the choice.

71. Also, as some have noted, there may be times when the principle of loss aversion and the endowment effect are in tension with each other (in a sharply falling market, for example, the endowment effect would counsel retaining stocks while the need to avoid losses would suggest selling). See Hanson & Kysar, *supra* note 28, at 689.

72. There was no coffee in the mugs. Had there been, one might fairly understand the result of the experiment given the expected utility accompanying a full cup of coffee.

73. See Daniel Kahneman et al., *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325 *passim* (1990) (exploring the endowment effect).

74. See Korobkin & Ulen, *supra* note 37, at 1108 n.235.

4. Overconfidence

Have you ever, in the privacy of your home, made one of the following statements: I am a better driver,⁷⁵ cook, and/or dancer than average?⁷⁶ Join the club. Most citizens (90 percent of drivers) believe they possess better skills than average.⁷⁷ Similarly, most investors mistakenly believe they can beat the market.⁷⁸ BLE research teaches that investors believe that "good things are more likely than average to happen to [their stock] and bad things are less likely than average to happen to [it]."⁷⁹

Investors put too much weight on "privately acquired information" and are unable to fairly judge their ability to exceed the market.⁸⁰ A classic example of investor overconfidence is the prevalence of so-called "day traders" in the late-1990s' market bubble.⁸¹ These traders were known for their short patience with holding stock and high trading volume. Day traders, disproportionately young men, achieved notoriously low returns relative to the broader market indexes.⁸²

Illustrating investor overconfidence in the securities fraud context is easy. Assume that every corporation in a segment of the farming industry announces a possible Federal Trade Commission (FTC) investigation into a price-fixing conspiracy

75. But I am!

76. In the face of persuasive anecdotal (or statistical) evidence to the contrary.

77. Robert H. Frank, *Why Is Cost-Benefit Analysis So Controversial?*, 29 J. LEGAL STUD. 913, 929 (2000).

78. See Langevoort, *supra* note 36, at 146–48.

79. Korobkin & Ulen, *supra* note 37, at 1091; see Peter H. Huang, *Trust, Guilt and Securities Regulation*, 151 U. PA. L. REV. 1059 *passim* (2003) (discussing the mechanism by which broker behavior may be internally regulated through emotions); Lynn A. Stout, *The Investor Confidence Game*, 68 BROOK. L. REV. 407, 420–26 (2002) (discussing investor overconfidence as a function of trust).

80. Langevoort, *supra* note 36, at 146.

81. See Denis J. Hilton, *Psychology and the Financial Markets: Applications to Understanding and Remediating Irrational Decision-Making*, in THE PSYCHOLOGY OF ECONOMIC DECISIONS VOLUME I: RATIONALITY AND WELL BEING 273, 275–77 (Isabelle Brocas & Juan D. Carrillo eds., 2003) (discussing day trading and investor overconfidence generally); Choi & Pritchard, *supra* note 26, at 12; Ravi Dhar & William N. Goetzmann, *Bubble Investors: What Were They Thinking* 14 (Yale Int'l Center for Fin., Working Paper No. 05-01, 2005), available at <http://ssrn.com/abstract=683366> (finding that an overwhelming majority of surveyed investors were confident that they would be able to pick undervalued stocks based on public information).

82. See Choi & Pritchard, *supra* note 26, at 12.

on the same day. Each company makes disclosures which proclaim its innocence. An investor holds stock in GiantFarm Corporation, one of the companies named by the FTC, and must decide whether to sell her stock. Overoptimism leads to the following internal conversation: "As good things are more likely to happen to me and the corporations I own than to others and the corporations they own, GiantFarm will be less crooked than others in the farming industry. I will hold on to my stock for a while yet."

5. Experiential Thinking

These problems with risk analysis appear to occur without a unifying theme. However, they may be harmonized when we consider the emotional content of risk perception. Individuals make decisions through two distinct methods: a "rational system" and an "emotionally driven experiential system."⁸³ Decisions made under the former system are "logical, deliberate, and abstract."⁸⁴

Because the "rational system" is so complex, and demands cognitive resources from other tasks, individuals "typically rely" on a more emotional method associated with "intuitive judgments, emotional responses, and other subtle, nonconscious reactions to external stimuli."⁸⁵ Using "experiential thinking," individuals process risk using an "affect" consisting of that individual's preexisting emotional construct.⁸⁶

For example, a "feeling of dread" may be associated with certain technologies like genetic manipulation, and individuals' related perceptions of risks are accordingly increased.⁸⁷ On the other hand, if individuals have a preexisting, positive emotional feeling about a technology (such as miniature computers), then the risks associated with further developments in that technological area may be perceived to be smaller than they really are (e.g., the risks of nanotechnology). The "affect" associated with risk judgment is strongly influenced by demographic factors.⁸⁸ Risk perception also is culturally dependant.⁸⁹

83. Hanson & Kysar, *supra* note 28, at 669.

84. *Id.*

85. *Id.*

86. *Id.* at 669–70.

87. *Id.* at 670; *see also* Hilton, *supra* note 81, at 284 (comparing studies).

88. *See infra* note 238.

89. PAUL SLOVIC, THE PERCEPTION OF RISK xxxiii (2000).

Thus, when a corporation discloses a risk, individuals may perceive it as either vastly more important than it "objectively" is or much less important depending on its accompanying affect.⁹⁰ Individual shareholders are bad scientists. Risks that may seem "trivial" to courts in the cold light of day can be accompanied by a large emotional burden for shareholders at the time of disclosure.⁹¹

In sum, BLE experiments suggest that individuals experience risk and risk-shifting decisions in unpredictable ways. The principles of risk management (identifying constant risks and costs and trading them off) appear to be applied inconsistently, especially when risks are perceived through emotional lenses. Legal doctrine which demands strict adherence to probability theory therefore risks punishing quite ordinary, but "irrational," behaviors.

B. TROUBLE WITH INFORMATION PROCESSING

A second category of BLE research deals with individuals' inabilities to process information in rational ways. This research questions how humans try to differentiate relevant from irrelevant information and prioritize what to focus on. Some examples follow.

1. Source Blindness

BLE research discloses that even when individuals are convinced of the veracity of contrary information, they "change their views slowly in the face of persuasive evidence"; that is, new information is processed against the background of what came before.⁹²

Investors are particularly likely to believe analyst reports when those reports are affected by the representativeness heuristic.⁹³ However, where investors look at analyst reports absent a personal connection with the broker, they are still unable to discount the potential biases and ignorance of the analysts, despite evidence that analysts are quite conflicted.⁹⁴

90. A third option, that emotional affect has no corresponding effect, is also plausible.

91. The Supreme Court has applied this insight elsewhere. *See Brown v. United States*, 256 U.S. 335, 343 (1921) (cautioning that "[d]etached reflection cannot be demanded in the presence of an uplifted knife").

92. *Langevoort*, *supra* note 36, at 144–45.

93. *See supra* Part I.A.2.

94. *See Hilton*, *supra* note 81, at 278 (discounting the accuracy of expert

Because of this evidence, scholars often assert that reliance on analyst reports is irrational.⁹⁵

A related kind of source blindness appears when individuals consistently overvalue the importance of oral information.⁹⁶ We believe what we hear, not what we read. Investors who learn about a stock through a report on television may be more influenced to buy or sell than those who merely read a prospectus.⁹⁷ Similarly, investors who listen to “analyst calls” will be affected disproportionately: oral representations have “significantly more persuasive impact than written disclaimers.”⁹⁸

2. The Framing Effect

Perceptions of risks and benefits are subject to manipulation by corporations because of the existence of the so-called “framing effect.” A classic experiment with respect to framing presented subjects with a very hard problem: they were asked to select between treatment programs for a disease otherwise marked by a 100 percent mortality rate (with a 600-person infected population).⁹⁹ There were four programs:

- Program A: 200 people will be saved.
- Program B: 33.3 percent chance that the entire population will be saved; 66.6 percent chance that none of the population will be saved.¹⁰⁰
- Program C: 400 people will die.
- Program D: 33.3 percent chance that none of the population will die; 66.6 percent chance that the entire population will die.

predictions); Nowicki, *supra* note 20, at 1327.

95. John C. Coffee, Jr., *Security Analyst Litigation*, N.Y.L.J., Sept. 20, 2001, at 5 (examining liability for “patently silly investment advice”); Nowicki, *supra* note 20, at 1327 (discussing market reaction to analyst reports). *But cf.* Dhar & Goetzmann, *supra* note 81, at tbl.B-3 (showing that individual research and a recommendation from a broker were the two most important factors in the decision to purchase a security); *id.* at tbl.B-14 (showing that most surveyed individuals believed that brokers are “somewhat likely” to be able to identify poorly priced securities).

96. Prentice, *supra* note 41, at 348–49, 369–71.

97. STEVEN R. DROZDECK & KARL F. GRETZ, *THE BROKER’S EDGE: HOW TO SELL SECURITIES IN ANY MARKET* 222 (1995) (suggesting that a letter delivers 7 percent of the message conveyed in a face-to-face presentation).

98. *Id.*

99. Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 AM. PSYCHOL. 341, 343 (1984).

100. Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. §§ 251, 255 (1986).

Rational actors, seeking to maximize lives saved, would be indifferent between these choices, as they result in the same predicted outcome: 200 lives saved, 400 lives lost.¹⁰¹ However, when one group of subjects was asked to choose between programs A and B, 72 percent chose A. When a second group was asked to choose between C and D, 78 percent chose D.¹⁰² Why does one group prefer uncertainty while the other does not? Because of "framing effects." A is preferable to B because it guarantees lives saved (recall the preference for guaranteed gains). C is less attractive than D because it guarantees lives lost (recall the risk-seeking preferences of individuals to avoid future losses).¹⁰³

Some researchers suggest that a "cognitive-affective trade-off" produces the framing effect.¹⁰⁴ Experiments have shown that a person expends less cognitive effort when "choosing a guaranteed gain" than when "selecting a risky gain."¹⁰⁵ Consequently, some prefer a guaranteed gain over a risky one.¹⁰⁶ Possibly, decision makers seek to avoid "the cognitive cost involved in evaluating a gain and the emotions involved in imagining an uncertain reward."¹⁰⁷ On the other hand, a person expends an equal amount of cognitive effort when selecting a "guaranteed loss" as she does when selecting a "risky loss."¹⁰⁸ This suggests why we might seek risks in the face of losses.

Frames are quite significant when thinking about corporate disclosure in the securities fraud context.¹⁰⁹ Information about losses will be discounted if framed as a mere future prob-

101. Hanson & Kysar, *supra* note 28, at 644.

102. Kahneman & Tversky, *Choices*, *supra* note 99, at 343.

103. Hanson & Kysar, *supra* note 28, at 644–45. In another experiment, employees were presented with two retirement funds with different risk profiles: bonds (relatively safe) and stocks (relatively risky). The employees were shown the historical data on the returns of each fund and thus should have been able to confirm the expected outcomes and risk profiles. However, the data was framed differently. One group of employees only received one-year returns; the other group was shown a simulated thirty-year distribution. Almost all the employees seeing the longer distribution invested in the more risky fund and vice versa. Jolls, Sunstein & Thaler, *supra* note 39, at 43–44.

104. Cleotilde Gonzales et al., *The Framing Effect and Risky Decisions: Examining Cognitive Functions with fMRI*, 26 J. OF ECON. PSYCHOL. 1, 4 (2005).

105. *Id.* at 13.

106. *Id.* at 15.

107. *Id.* at 14.

108. *Id.* at 13.

109. See, e.g., Hilton, *supra* note 81, at 288–93 (discussing potential applications of psychology to financial products marketing).

ability; information about gains will be overemphasized when presented as a certain near term result.¹¹⁰ Thus, corporations are rewarded by the market for engaging in accounting techniques that maximize short-term gains.¹¹¹

3. Information Overload

Classical theory asserts that rational shareholders are presumptively able to evaluate the thousandth page in a prospectus just as well as the first. However, BLE experimental results teach us that as a decision maker is given more information, decision quality increases up to a point, but eventually declines.¹¹²

This result is predicted by the theory of bounded rationality: rationality bounded on the one hand by the context and content of the task we are facing and on the other, by our own cognitive limitations.¹¹³ As a result of information overload, shareholders may rely on heuristics to make better decisions, such as choosing a fund based on its managers instead of its fundamentals.¹¹⁴

Taken together, evidence of distortion in the ways that humans process information suggests problems for areas of law like securities and contract which depend heavily on the assumption that individuals understand and fully appreciate every word found on written documents.

C. SOCIAL INVESTING

Thus far, I have discussed investing and irrational investors as if they acted in a vacuum, making bad decisions from the comfort of their studies, isolated from other people. But,

110. See Henry T.C. Hu, *Buffett, Corporate Objectives, and the Nature of Sheep*, 19 CARDOZO L. REV. 379, 385–86 (1997).

111. See *id.*

112. Paredes, *supra* note 32, at 441. But see David M. Grether, Alan Schwartz & Louis L. Wilde, *The Irrelevance of Information Overload: An Analysis of Search and Disclosure*, 59 S. CAL. L. REV. 277, 285 (1986) (arguing that information overload is irrelevant because people adopt simplified decision-making procedures to cope with increased information); Korobkin & Ulen, *supra* note 37, at 1078 (describing experiments where subjects were less likely to maximize their utility when purchasing a house as the number of its attributes increased beyond ten).

113. Paredes, *supra* note 32, at 435.

114. Choi & Pritchard, *supra* note 26, at 13–14 (noting that such a heuristic may be rational as managing underwriters with more experience might be better at avoiding fraud).

this picture of investing is highly unrealistic. Investors run in herds.

Professor Stephen Bainbridge puts it starkly: "What explains fads like Beanie Babies and Pokemon?"¹¹⁵ This question can be answered, in part, by analyzing investor "herd behavior," whereby each investor devolves to another the decision to invest in the market, resulting in stampedes as market followers follow market leaders.¹¹⁶

There is evidence of herd behavior in capital markets: investors following others into popular portfolios, conventional stocks, and suboptimal bond issues.¹¹⁷ However, the actual mechanism for such movement is quite obscure.¹¹⁸ There is also evidence that herd behavior decreases as market sophistication increases.¹¹⁹ As some scholars have noted, the prevalence of herd behavior may be explained in terms of network externalities—some products and stocks become more valuable as more people use them. The common example is a personal computer,¹²⁰ but a more relevant example for readers may be the BAR/BRI exam review course.¹²¹

Some explain the case of Jonathan Lebed, a New Jersey teenager who allegedly bought stock in small companies and then hyped those companies on the Internet, as a story of herd

115. Bainbridge, *supra* note 38, at 1037–38.

116. Prentice, *supra* note 41, at 373.

117. Bainbridge, *supra* note 38, at 1038; *see also* Dhar & Goetzmann, *supra* note 81, at 16 (discussing phenomena of investors purchasing assets that they already believed were overvalued on the theory that it would continue to be inefficiently priced).

118. Langevoort, *supra* note 36, at 159.

119. Bainbridge, *supra* note 38, at 1039–40 (indicating that investor herding occurs more frequently in emerging markets than in developed capital markets); *see also* Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation* 5, 16–17 (Columbia Law and Economics, Working Paper No. 259, 2004), available at <http://ssrn.com/abstract=600709> (arguing that one group of market participants, noise traders, defined as participants "who act irrationally, falsely believing that they possess some valuable informational advantage or superior trading skills," engage in herd behavior and are competitively disadvantaged vis-à-vis more sophisticated investors).

120. Bainbridge, *supra* note 38, at 1040–41.

121. That is, as more students use BAR/BRI, its usefulness in helping students pass the Bar, a curved exam, increases. The reason is that if the majority of students—all coached alike by BAR/BRI—believe that X is the answer to a given question (when it is not) failure to know that answer will not hurt a student's chances to pass. The interesting thing about this claim is that it proves too much: if all students took BAR/BRI, the BAR/BRI-effect would disappear.

behavior.¹²² The SEC prosecuted Lebed on the theory that shareholders had relied on his false hype in purchasing shares, but reached a settlement.¹²³ Is this an example of individual investors following others in investing in penny stocks without thought? Perhaps so, but it also demonstrates the pernicious effects of the representativeness heuristic and source blindness, as explained above.

In sum, BLE teaches that individual investors are unlikely to respond rationally to corporate disclosures: their behavior depends heavily on the context and presentation of disclosures.

We should not blindly follow the herd in overgeneralizing from the evidence of unpredictable, foolish, and illogical decision making presented above. Not all investors consistently fail to wealth maximize; not every trader privileges oral over written disclosures. Although there is evidence that markets are distorted by irrationality,¹²⁴ not all people are fooled all the time by disclosures which prey on information processing biases. Nevertheless, there is sufficient evidence of the seriousness of the problem to form a hypothesis: legal regimes which evaluate investing decisions in the cold light of hindsight and which privilege only wealth-maximizing decisions are likely to discriminate against large segments of the investing public.

In the next two sections, I ask whether materiality doctrine in the United States is one such legal regime.

II. EMPIRICAL ANALYSIS OF MATERIALITY

The materiality element in securities law requires the decision maker to reach conclusions about the way investors behave in response to corporate action. The “reasonable” part of the standard’s definition suggests that the decision maker need not be a jury, because some behaviors will be so “unreasonable” as to be resolvable as a matter of law. Materiality, then, creates a need for courts to articulate and defend a series of commitments and assumptions about how investors act.

My thesis is that courts, in analyzing *securities law*, generally adhere to the foundational assumption of *corporate law*:

122. See generally Richard Walker & David Levine, “You’ve Got Jail”: Current Trends in Civil and Criminal Enforcement of Internet Securities Fraud, 38 AM. CRIM. L. REV. 405, 407–15 (2001) (providing an extensive discussion of the Lebed case).

123. Langevoort, *supra* note 36, at 156.

124. *Id.* at 141–51.

investors act rationally.¹²⁵ Presumed immateriality functions as a channeling doctrine to exclude from the universe of meritorious cases those in which plaintiffs’ behavior, if proven, would be different from the behavior predicted by the rational investor model. But as I just discussed, BLE teaches us that individuals do *not* process disclosures rationally. Courts’ equation of reasonableness with rationality is a normative move. It transforms materiality from a requirement that reflects ordinary behavior to one that may instead sanction it.

It bears reemphasizing that conventional wisdom makes materiality out to be a relative backwater of securities law doctrine, as most commentators still hold that it is rare for a court to dismiss claims as presumptively immaterial. For many reasons (among them, the attribution and information processing biases discussed above), reading illustrative cases and commenting on them—the ordinary form of legal scholarship—is likely to be particularly deceptive in the materiality arena. To get a better picture of what materiality doctrine looks like in the real world, then, I set out to perform statistical testing on a large sample of federal securities law applying the “reasonable shareholder” standard over the past thirty years¹²⁶ after the Supreme Court decided *TSC Industries*.¹²⁷ Because the number of cases was overwhelmingly large, I limited my analysis to cases arising in the Second Circuit and its district courts.¹²⁸

There were 472 opinions in the resulting data set. In 87 cases, there was no discernable holding that any disclosure was material, possibly material, or immaterial.¹²⁹ I excluded those cases and coded the remaining 385 cases.¹³¹ It is important to note that this dataset is not necessarily representative of all court action on materiality: sampling error may have skewed my results.¹³² Thus, my results are a preliminary look at how materiality has evolved in judicial opinions, and may only loosely reflect what courts are doing in the world at large.

125. See *supra* notes 32–37 and accompanying text.

126. My search terminated in November 2004.

127. *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 448–49 (1976) (adopting a rule for 14a-9 proxy actions).

128. See *infra* App., at 608–09.

129. See *infra* App., at 609.

131. See *infra* App., at 609–10.

132. See *infra* App., at 610–11.

In the following sections of the Article, I identify hypotheses that follow from common perceptions about immateriality, the securities laws, and the way those laws are implemented in the judicial system. After identifying each hypothesis, I evaluate it against the data I have collected.

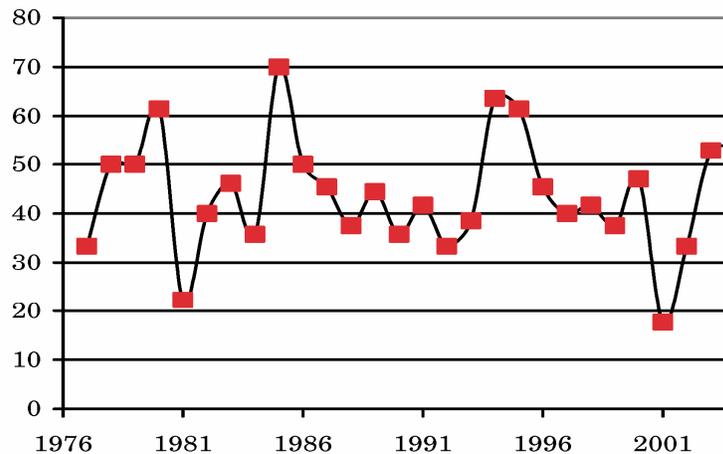
A. PRESUMED IMMATERIALITY AS A FUNCTION OF TIME AND IDEOLOGY

1. Hypothesis A.1: Presumed Immateriality Will Appear Rarely in the Published Opinions

Most courts and commentators agree that presumptive immateriality is an infrequently applied doctrine, relying on the same universe of published opinions collected here.¹³³ We should therefore expect that if the conventional wisdom is correct, relatively few cases, as a percentage of the total, will presume immateriality. Using a relatively arbitrary test, I assume that the references to rarity in previous discussions mean that presumed immateriality should appear in less than 10 percent of decisions.

Result: False. As the reader can see from Figure 1, a strikingly high percentage of the opinions I coded dismissed at least one claim as presumptively immaterial. An average of 44 percent of cases contained such a finding.

Figure 1: Percent of Cases Finding At Least One Claim Presumptively Immaterial



133. See sources cited *supra* note 21.

This descriptive result, standing alone, tells us surprisingly little about the nature of presumed immateriality doctrine. However, it does undermine the conventional wisdom, showing that judges in published opinions are more willing to dismiss disclosures as immaterial than previously thought.

2. Hypothesis A.2: Presumed Immateriality Will Vary With the Changes in the Related Securities Law Doctrines

It makes good sense that judges have applied the presumed materiality doctrine at different rates over time. There are several ways such an intuition might play out.

The "conservative judges" hypothesis. Judges may be reflecting and encouraging a general "pro-defendant" bias resulting from a shift in the personnel on the federal courts.¹³⁴ This hypothesis predicts a general upward trend in presumptive immateriality doctrine over time.

The "activity level" hypothesis. According to the Supreme Court, one of the purposes of presumptive immateriality is to set appropriate corporate disclosure activity levels: too much activity disclosure by corporations burdens business without a corresponding increased benefit to individuals.¹³⁵ Higher rates of presumed immateriality reduce disclosure pressures.¹³⁶ One possible consequence is that as corporations face more pressure to disclose because of other changes in securities laws, the prevalence of presumptive materiality should increase as judges attempt to "smooth out" the effects of the law and prevent overdisclosure.¹³⁷

134. Langevoort, *supra* note 8, at 316–18 (indicating that both judges' personal experiences as investors and their responsibility to assess investors' behavior in hindsight tend to favor defendants). While that trend may be apparent nationwide, the composition of the judges of the Second Circuit and its district courts has remained relatively stable. In 1976, of 66 judges sitting on the courts that made up my sample, 39 (or 59 percent) were appointed by Republican Presidents. In 2004, of 110 judges, 63 (or 57 percent) were appointed by Republican Presidents. See Federal Judicial Center, History of the Federal Judiciary, <http://www.fjc.gov/history/home.nsf> (follow "Judges of the United States Courts" hyperlink; then follow "Federal Judges Biographical Database" hyperlink) (last visited Dec. 3, 2005).

135. See *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 448–49 (1976) (explaining that too much disclosure will result in corporations "bury[ing] the shareholders in an avalanche of trivial information—a result that is hardly conducive to informed decision-making").

136. This is so especially in omission cases, where courts would be more likely to find that fraud by omission was immaterial.

137. See Roussel, *supra* note 22, at 1049–55 (arguing that courts developed

To test these hypotheses, I have broken up the period under scrutiny into four subparts, displayed in Figure 2. The first, from 1976 through 1988, represents the baseline. The second, from 1989 through 1995, follows the expansion and reaffirmation of materiality in *Basic v. Levinson*¹³⁸ and the rise in filings of securities fraud lawsuits. The third, from 1996 through 2000, represents the period following the Private Securities Litigation Reform Act (PSLRA), which was intended to make it more difficult for plaintiffs to prevail in securities fraud cases and, thus, would have the effect of reducing disclosure pressures on corporations.¹³⁹ The fourth, from 2001 through 2004, is roughly coterminous with the fall of Enron, the passage of Sarbanes Oxley,¹⁴⁰ and a legal environment which presumably increased the baseline pressure to disclose.

Results: No Effect Found. Figure 2 is deceiving. Although descriptive, it appears that the last few years have witnessed a decline in presumed immateriality after a period of relatively stability. I found no statistically significant changes in courts' application of the doctrine over time.¹⁴¹ That is, although changes in courts' applications of presumed immateriality may be practically important, we cannot attribute them to factors other than chance.¹⁴²

doctrines of presumed immateriality to fill the gap before Congress passed the Private Securities Litigation Reform Act of 1995). Judges may see the materiality decision as a proxy for society's tolerance of enforcement of the securities laws allowing more cases to pass materiality scrutiny in times when they perceive the securities laws to be more popular. This intuition would lead to results contrary to the activity level hypothesis.

138. 485 U.S. 224 (1998).

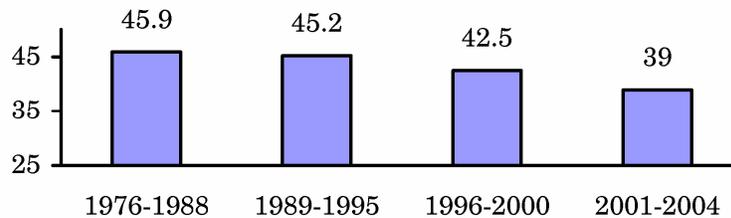
139. Private Securities Litigation Reform Act, 15 U.S.C. § 78 (2000). PSLRA was enacted to prevent plaintiffs from filing suits intended to extract settlements from issuers and made a series of technical changes to the law. *Id.*

140. Sarbanes Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified at 15 U.S.C. §§ 78j-o (Supp. II 2002)).

141. I performed an analysis of variance test, where a finding of presumed immateriality was the dependent variable. I failed to find a significant relationship ($p=.49$). The p-values are the probability "of observing any outcome as extreme or more extreme than the observed outcomes." Krawiec & Zeiler, *supra* note 8, at 54 n.149. P-values below 5 percent are traditionally required to create statistical significance. *Id.*

142. For a lucid discussion of the difference between practical and statistical significance, see DAVID W. BARNES, STATISTICS AS PROOF: FUNDAMENTALS OF QUANTITATIVE EVIDENCE 143-44 (1983).

Figure 2: Presumed Immateriality Over Time



It is dangerous to make too much of this result. That the doctrine has been applied in a relatively stable manner in the dataset does not mean, for example, that judges have been uniformly hostile to securities law cases. There are reasons to conclude that securities fraud plaintiffs have become more sophisticated over time.¹⁴³ If true, such plaintiffs would bring stronger lawsuits in the present than in the past; a stable application of materiality may be the result of increased judicial scrutiny of stronger cases. Given this caveat, it is still striking that neither of the two results predicted by a commonly accepted set of assumptions about judges' behavior with respect to materiality (that the doctrine would be more common in the present than the past, and that it would vary internally over time) were supported in the dataset I collected.

B. PRESUMED IMMATERIALITY AS A FUNCTION OF CASE CHARACTERISTICS

1. Hypothesis B.1: Presumed Immateriality Decisions Will Be Relatively Insensitive to Party Identity

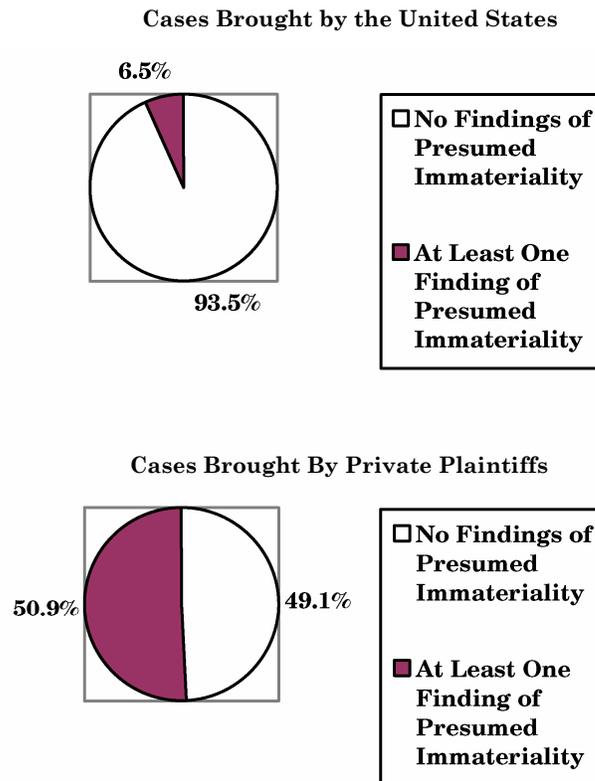
The assumptions of the "corporate activity" hypothesis lead to a second prediction: the decision to dismiss claims on materiality grounds should be insensitive to plaintiff identity. If the goal of materiality is to regulate the appropriate amount of corporate disclosure, plaintiff identity should only matter to the extent that materiality contains a subjective component, which it does not. Therefore, to take an example, suits by the SEC

143. For example, some have argued that law firms consolidated after the PSLRA. See generally Bruce H. Kobayashi & Larry E. Ribstein, *Class Action Lawyers as Lawmakers*, 46 ARIZ. L. REV. 733 (2004) (discussing growth in class action firms). This consolidation might have led to a more uniform and sophisticated set of disclosures being brought to the courthouse door.

should, presumably, succeed or fail on materiality grounds at the same rate as suits by private plaintiffs.¹⁴⁴

Results: Not Proven. Following a regression analysis, I determined that plaintiff identity (SEC or not) had a statistically significant effect on presumed immateriality.¹⁴⁵ Figure 3 describes the effect.

Figure 3: Plaintiff Characteristics and Presumed Immateriality



144. I am not hypothesizing that private plaintiffs' overall success rate is close to the federal government. I hypothesize only that on this one limited issue, there is no good reason to believe that a differential would exist.

145. $p < .001$. Note that this analysis, because it applies a logit regression analysis, uses the reduced database of 348 cases obtained when I removed cases that appeared repeatedly in the dataset. *See App.*, at 608.

Based on this result, I reject the hypothesis that plaintiff identity does not matter to the materiality decision. At least with respect to the government's presence in the reported opinions, it matters a great deal.

Notably, a finding that plaintiff identity matters does not itself disprove the "corporate activity" hypothesis. Different plaintiffs may choose to bring different kinds of lawsuits, and to prosecute them in different ways, meaning that the materiality decisions are not really comparable. Thus, some of the federal government's success may arise from better "screening" of the kinds of cases the government brings, and better lawyering throughout the process.¹⁴⁶ Another possibility, which would tend to undermine the corporate activity materiality hypothesis is that courts give more deference to some plaintiffs than others. Further testing of this effect, such as looking at the differences between institutional and individual investors, would no doubt prove valuable in evaluating competing explanations for the data.

2. Hypothesis B.2: Presumed Immateriality Increases in Frequency Later in the Life of Lawsuits

A third natural consequence of the corporate activity hypothesis is that, if true, it would predict that presumed immateriality would be sensitive to procedure. To change activity levels *accurately*, courts ought to let plaintiffs' allegations of reliance on false disclosures proceed to trial unless *persuasive evidence* is submitted to the contrary.¹⁴⁷ Therefore, there

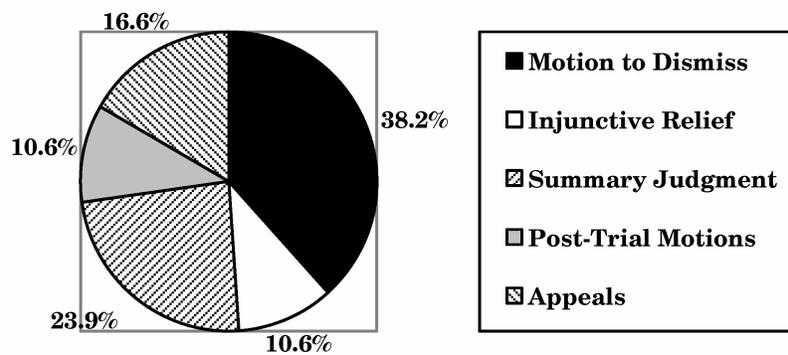
146. Cf. Michael Herz & Neal Devins, *Federal Agency Focus: the Department of Justice: The Consequences of DOJ Control of Litigation on Agencies' Programs*, 52 ADMIN. L. REV. 1345, 1346 (2000) ("DOJ's status is justified on the grounds that a single, highly talented 'law firm' will ensure quality representation, consistency, [and] efficiency . . ."); Matthew C. Stephenson, *Mixed Signals: Reconsidering the Political Economy of Judicial Deference to Administrative Agencies*, 56 ADMIN. L. REV. 657, 658–65 (2004) (discussing the practice of judicial deference to agencies). For this claim to explain *all* of the differences I observed in government and civil success rates, we would have to assume that civil plaintiffs benefit by bringing claims that fail around half the time. This claim, in turn, relies on a presumption about civil lawyers' belief that it is relatively costless to add frivolous claims in otherwise meritorious suits. As Krawiec and Zeiler observe, where plaintiffs intermingle a few strong claims with a number of weaker claims based on the same fact pattern (as in most securities fraud cases), "the marginal cost of adding an additional weak claim to the suit is essentially zero." Krawiec & Zeiler, *supra* note 8, at 87.

147. Overuse of presumed immateriality results in insufficient enforcement and, therefore, underdisclosure; underuse of presumed immateriality has the opposite effect.

should be a relatively smaller likelihood of finding presumed immateriality earlier in the life of a lawsuit—i.e., fewer such decisions on motions to dismiss and more decisions on motions for summary judgment.¹⁴⁸

Results: No Effect Found. Figure 4 contains a descriptive look at the dataset, which illustrates the powerful pruning force of settlement.¹⁴⁹

Figure 4: Proportion of Procedural Stages in Dataset



148. There should be a higher rate of findings of presumed immateriality at the appellate level than at the district court level for two additional reasons. First, many have suggested that increased attention to securities claims should result in lower “win” percentages for plaintiffs as judges carefully sort through the kinds of claims that are and are not actionable. In a sense, this is the theory of PSLRA. See generally Joseph T. Phillips, *A New Pleading Standard Under The Private Securities Litigation Reform Act?*, 69 U. CIN. L. REV. 969, 972 (2001) (stating that Congress intended to create a heightened pleading standard for private lawsuits). Second, given that district courts are bound by appellate courts, and appellate courts frequently caution district courts not to make findings of presumed immateriality, there should be, as a rule, more findings of presumed immateriality at the appellate level.

149. Coding for summary judgment includes motions for judgment on the pleadings. “Motion to Dismiss” includes a limited set of other pre-answer pleadings: motions to transfer, motions to remand, and motions for a more definite statement.

Regression of these variables against immateriality failed to find statistical significance.¹⁵⁰ Descriptively, Table 1 tells the story.

Table 1: Effect of Procedure on Presumed Immateriality

Procedural Stage	Percentage of Cases Finding One Claim Immaterial
Motion to Dismiss	47.6%
Summary Judgment	35.9%
Injunctive Relief	43.9%
Post-Trial Motion	34.1%
Appeal	53.1%

Again, these differences do not represent statistically significant changes in the dependant variable: I failed to find support for the corporate activity/procedural sensitivity hypothesis. One explanation for this result is that suggested by the Priest-Klein Hypothesis, which predicts that because only close cases will be brought to litigation (others being settled before suit) "the formal structure of the law [will] appear indeterminate to any scientific, empirical method of observing judicial decisions."¹⁵¹ My results suggest that further testing with a focus on whether courts are granting motions to dismiss with unexpected regularity, would be quite useful.¹⁵²

150. The following are the p-values resulting from a logit regression, using the reduced database. Motion to Dismiss=.77; Summary Judgment=.32; Injunction=.99; Post-Trial=.64; Appeal=.73.

151. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 6 (1984) (citing George L. Priest, *Selective Characteristics of Litigation*, 9 J. LEGAL STUD. 399, 410 (1980)) (predicting that only close cases will be brought to litigation, whereas others will be settled before suit). I, like Krawiec and Zeiler, am doubtful about the predictive value of this theory in the context of analyzing one element in a larger claim. Krawiec & Zeiler, *supra* note 8, at 87. An alternative explanation for the lack of procedural bite in securities cases would rely on the insight that the materiality analysis usually turns on the application of law to relatively uncontested facts—e.g., that a corporation made a disclosure on a given day. This is obviously less true where a defendant relies on material outside of the pleadings—e.g., a truth-on-the-market defense.

152. One way that the settlement effect could play out is that cases later in the life of a lawsuit are relatively more likely to be weaker because "stronger" cases will settle earlier. But this seems to be too simple an analysis. There are many factors influencing the likelihood of settlement: the amount at stake, the plaintiffs' counsel resources, the defendants' resources, the involvement of the

3. Hypothesis B.3: As Plaintiffs Bring More Claims, It Will Become More Likely That at Least One Will Be Dismissed

This hypothesis represents a kind of truth check on the database. Plaintiffs bringing more claims should, all other things being equal, be more likely to have one such claim dismissed as presumptively immaterial. A negative result in testing this hypothesis would presumably mean that other factors, which I did not code, were having a very significant and distorting effect on the dependant variable.

Results: Effect Found. As claims rose from one to two claims to three or more claims, the likelihood of a presumed immateriality finding rose: from one (38.5 percent) and two claims (35.6 percent) to three or more claims (53.3 percent). This difference was statistically significant.¹⁵³

4. Hypothesis B.4: Decisions Published in the Federal Reporters Will Be More Likely to Contain Findings of Presumed Immateriality

Some have hypothesized that the decision to find a disclosure immaterial represents a quick and a quick and easy (cognitively limited) way to get rid of (boring) cases that judges do not particularly want to spend time on.¹⁵⁴ We can think of this as the “lazy judges” hypothesis. On this theory (to which I will return again when discussing the reasons that courts give to justify their opinions), it seems likely that courts are more likely to want to consider extraordinary cases that deny defendants’ attempts to assert presumed immateriality. Such cases, then, would be published in the Federal Reporters at higher rates than cases in which courts dismiss claims as presumptively immaterial.¹⁵⁵

Results: No Effect Found. I coded for publication in both appellate and district court opinions. A marginally higher per-

court with settlement discussions, and the tolerance of the defendant for publicity. There is no reason in the aggregate to believe the fact that most cases settle should distort a judge’s findings of immateriality. *Cf.* Krawiec & Zeiler, *supra* note 8, at 43 (stating that no analysis of decided cases accounts for the impact of settlement).

153. In the regression analysis, $p=.02$.

154. See Bainbridge & Gulati, *supra* note 8, at 111–14.

155. Federal appellate courts decide that some cases should have precedential effect, thus “publishing” them. Publication in the district courts occurs in two ways: by a court’s election, which is communicated to West, or by West’s independent selection.

cent of published opinions found at least one claim presumptively immaterial (45.1 percent), than unpublished opinions (41.7 percent). However, I found no statistically significant relationship between publication on the immateriality decision.¹⁵⁶

C. REASONING AND PRESUMED IMMATERIALITY

When deciding to channel certain kinds of disclosures out of securities fraud litigations, courts apply distinctive reasoning. Like the "fruit of the poisonous tree" doctrine in criminal law and "res ipsa loquitur" in tort, courts apply different shorthand labels to different findings of presumed immateriality. Scholars have identified four common techniques in recent works: (1) puffery; (2) bespeaks caution;¹⁵⁷ (3) zero price change; and (4) triviality.¹⁵⁸ Four additional labels for courts' decisions are present in the cases: (5) failure to read; (6) fraud by hindsight;¹⁵⁹ (7) truth on the market; and (8) failure to understand consequences.

In this section, I discuss evidence relating to judges' use of these techniques in dismissing claims as presumptively immaterial. My intuition was that these reasons can be identified as distinct doctrines and, as such, may be studied to see how they evolve over time. This intuition resulted in a new hypothesis.

1. Hypothesis C.1: The Reasons Judges Give For Presumed Immateriality Will Shift Over Time

This hypothesis is in tension with the docket-pruning hypothesis advanced by Steven Bainbridge and G. Mitu Gulati.¹⁶⁰ Bainbridge and Gulati argue that courts' use of the materiality

156. In the regression analysis, $p=.52$.

157. I am only addressing common law that bespeaks-caution techniques, and not application of the PSLRA Safe Harbor, 15 U.S.C. § 78u-5 (2000). The Safe Harbor is not an immateriality technique, but rather a statutorily created immunity.

158. See Bainbridge & Gulati, *supra* note 8, at 119–24.

159. Bainbridge and Gulati identify fraud by hindsight as a determination which affects scienter, which it surely does. See Bainbridge & Gulati, *supra* note 8, at 127. However, as Gulati and others elsewhere have hypothesized, courts might apply fraud by hindsight to determine materiality as well. Gulati et al., *supra* note 29, 788–91. To the extent that courts stated that they were determining that disclosures were immaterial as a matter of law—because to hold otherwise would sanction fraud by hindsight—I coded accordingly, even if this determination is logically not related to a "true" materiality determination.

160. See generally Bainbridge & Gulati, *supra* note 8.

decision functions to slash 40–60 percent of issues from a lawsuit at every opportunity.¹⁶¹ In theory, this pruning would be relatively random:¹⁶² there would be no reason why the doctrine would be coherent over time.

My inability to find a relationship between time and presumed immateriality seriously undermines the explanatory power of the docket-pruning hypothesis. Docket pruning treats materiality as a tool in the judicial docket-reduction arsenal, which itself has waxed in strength over the years. In particular, summary judgment has gained legitimacy as a judicial tool.¹⁶³ But presumed immateriality is *insensitive to time*; it has neither grown nor shifted in a way that is attributable to factors other than chance. Obviously, if materiality were a mere pruning shear, it would have cut larger swatches from cases over time.

Even if it did not, docket pruning assumes that the methods of presumed immateriality are not significant. However, if the reasons for presumed immateriality decisions have undergone a noticeable shift over time, such shifting rationales would suggest a degree of intellectual coherence at any given moment in time that the docket-pruning model eschews.¹⁶⁴ Therefore, we need to examine why courts say that they are finding claims presumptively immaterial.

Before I test hypothesis C.1, I will briefly describe each of the materiality techniques. Table 2 is a descriptive look at the significance of each of the materiality techniques in the dataset.

161. In one sense, this docket-pruning model is related to the Priest-Klein hypothesis, discussed *infra*.

162. I am grateful to Larry Solum for pointing this out to me.

163. See generally Marc Galanter, *The Hundred-Year Decline of Trials and the Thirty Years War*, 57 STAN. L. REV. 1255, 1266 (2005) (discussing the rise in summary judgments as part of a judicial ideology centered on “facilitating resolution of disputes”).

164. This is not to say that the two models are mutually exclusive. Judges may be using presumed immateriality techniques to prune their dockets even as they impose a model of investor behavior.

Table 2: Presumed Immateriality Techniques

	Total Cases Featuring Technique ¹⁶⁵	Percentage of Total Cases	Prevalence in Cases Finding Presumed Immateriality ¹⁶⁶
Trivial	58	15.1%	34.3%
Understand Consequences	56	14.5%	33%
Bespeaks Caution	34	8.8%	20.1%
Other	32	8.3%	18.9%
Truth on the Market	25	6.5%	14.8%
Puffery	23	7.1%	13.6%
Failure to Read	18	4.7%	10.7%
Fraud by Hindsight	15	3.9%	8.9%
Obscure	13	3.4%	7.7%

a. *Four Traditional Materiality Techniques*

First, courts dismiss certain types of statements as "mere puffery" that a reasonable investor would ignore.¹⁶⁷ Puffery is a "vague statement[] of corporate optimism"¹⁶⁸ that is "so obviously unimportant to a reasonable investor that reasonable minds could not differ."¹⁶⁹ As Judge Learned Hand described: "There are some kinds of talk which no sensible man takes seriously, and if he does he suffers from his credulity."¹⁷⁰ In a

165. Because this table offers a descriptive picture of the data, I include both repeated cases and unique ones. In the statistical testing that follows, I remove the nonunique data.

166. Because multiple techniques could be present in each case, some percentages will exceed 100 percent.

167. Bainbridge & Gulati, *supra* note 8, at 94.

168. Jennifer O'Hare, *The Resurrection of the Dodo: The Unfortunate Reemergence of the Puffery Defense in Private Securities Fraud Actions*, 59 OHIO ST. L.J. 1697, 1697 (1998); see COX & HAZEN, *supra* note 2, at 297; see also Ivan L. Preston, *Puffery and Other "Loophole" Claims: How the Law's "Don't Ask, Don't Tell" Policy Condone Fraudulent Falsity in Advertising*, 18 J.L. & COM. 49, 61 (1998). Puffery in securities cases acts like puffery in advertising cases, where the FTC has adopted a standard that makes puffing statements that ordinary citizens ought not to believe nonactionable. *Id.*

169. Ganino v. Citizens Utils. Co., 228 F.3d 154, 162 (2d Cir. 2000) (internal quotations omitted).

170. Vulcan Metals Co. v. Simmons Mfg. Co., 248 F. 853, 856 (2d Cir.

sense, puffery acts to excuse corporate overoptimism: “People in charge of an enterprise are not required to take a gloomy, fearful or defeatist view of the future”¹⁷¹

For the purposes of this Article, I coded for the puffery technique whenever the court explicitly used the word in dismissing statements as presumptively immaterial. I also marked the technique as present when courts found statements to be presumptively immaterial because of their vagueness, general optimism, or lack of specificity, even if they did not use the word “puff” or “puffery.” Examples include the following:

- A statement by the attorney for the fighting promoter Don King, facing possible indictment, “that he did not expect any problems for King” was “like the claims of campaign managers before election . . . designed to allay the suspicion which would attend their absence than to be understood as having any relation to the objective truth.”¹⁷²
- A statement by an IBM executive during a conference call that “we’re not—despite your anxiety—concerned about being able to cover the dividend for quite a foreseeable time” was “plainly an expression of optimism that [was] too indefinite to be actionable.”¹⁷³

As recently as 2002, the conventional wisdom held that the puffery defense was moribund and had “all but gone the way of the dodo,”¹⁷⁴ although recent publications argue that it has come back to life.¹⁷⁵

1918).

171. *Shields v. Citytrust Bancorp, Inc.*, 25 F.3d 1124, 1129–30 (2d Cir. 1994).

172. *World Series of Casino Gambling, Inc. v. King*, No. 85 Civ. 1239, 1986 WL 12525, at *4–5 (S.D.N.Y. Oct. 30, 1986).

173. *In re Int’l Bus. Mach. Corp. Sec. Litig.*, 163 F.3d 102, 108 (2d Cir. 1998).

174. LOSS & SELIGMAN, *supra* note 9, at 3424. The conventional wisdom has evolved. “[A]las, however, the puffing concept in the securities context, which for decades had all but gone the way of the dodo, has recently experienced a revival.” *Id.*

175. O’Hare, *supra* note 168, at 1709–11 (relying on anecdotal evidence to question that account); *cf.* Roussel, *supra* note 22, at 1053 (“[T]he Corporate Puffery Defense is less familiar to the judiciary and doctrinally underdeveloped by commentators.”). Arguably, the resurgence in puffery coincides with Judge Wilkinson’s decision in *Raab v. General Physics Corp.*, 4 F.3d 286 (4th Cir. 1993). *Raab* (ironically) followed closely on *Virginia Bankshares, Inc. v. Sandberg*, which held that statements in a proxy that a merger price was fair and would yield “high” value, according to the company’s directors, could give rise to liability under the Exchange Act, 501 U.S. 1083, 1090–98 (1991). I am grateful to a reader of this paper in draft, Mike O’Shea, for noticing that my

Second, courts apply the so-called "bespeaks caution" doctrine, which holds that fraud claims based on allegedly misleading predictions are negated by other cautionary statements that courts take to "cure" the fraud.¹⁷⁶ Unlike puffery, bespeaks caution relies on the presence of warnings to dismiss forecasts (whether specific or vague).

In my analysis, I coded for the bespeaks-caution technique when courts explicitly used the term and when courts used cautionary or risk-sharing statements in one part of a disclosure to negate the importance of other disclosures, even in the absence of the words "bespeaks caution." Examples include the following:

- Investors in a limited partnership designed to produce income from oil and gas properties alleged that the brokers had told them the investment was "low" or "no" risk.¹⁷⁷ A written brochure also stated that the partnership would feature "regular cash distributions," "no exploration risk," and that the investments would "meet the needs of income-oriented investors."¹⁷⁸ The brochure, however, incorporated a Prospectus, which warned that "there is a risk that estimates of future prices or costs . . . may prove to be inaccurate," that the organizers had limited experience in assessing oil and gas properties, and that all estimates (of risk and return) in the prospectus were "to some degree speculative."¹⁷⁹ Under the bespeaks-caution doctrine, any investors relying on the oral or written representations promising low risks in the face of many cautionary statements "clearly did so unreasonably."¹⁸⁰
- Purchasers of stock in the Donna Karan International initial public offering alleged fraud, partially based on statements regarding the corporation's beauty division, such as "the success of the Company's fragrance products is evidenced by the continued annual sales growth of each such

results seem to suggest a growth in puffery after *Raab* and for making the connection with *Virginia Bankshares*.

176. See generally Donald C. Langevoort, *Disclosures that "Bespeak Caution,"* 49 BUS. LAW. 481 (1993); Jennifer O'Hare, *Good Faith and the Bespeaks Caution Doctrine: It's Not Just a State of Mind*, 58 U. PITT. L. REV. 619 (1997) (discussing the doctrine).

177. *Brown v. E.F. Hutton Group*, 735 F. Supp. 1196, 1198 (S.D.N.Y. 1990).

178. *Id.*

179. *Id.* at 1200–01.

180. *Id.* at 1202.

product since its launch.”¹⁸¹ The corporation made these statements when the division was losing money and posed a significant operational problem for the corporation as a whole.¹⁸² However, the prospectus also bespoke caution: the division had “never made money,” was “not expected to be profitable in 1996,” and was planning the “inherently risky and expensive launch of a new fragrance.”¹⁸³ The court found the earlier statements to be presumptively immaterial.

Scholars have observed that the bespeaks-caution technique “enjoys wide acceptance among the courts,”¹⁸⁴ and is one of the three most important developments in securities law in the last twenty years.¹⁸⁵

A third technique is the zero price change. In rare cases, in the absence of market effects from a given price change, courts determine disclosures were immaterial as a matter of law.¹⁸⁶ Courts infer from the absence of price movement that the disclosure was presumptively immaterial to a reasonable investor. Surprisingly, the presumption is unilateral.¹⁸⁷ This technique is intertwined with the causation requirement in some securities cases. That is, plaintiffs may rely on a presumption of causation-in-fact, which may be rebutted in the absence of market movement.¹⁸⁸ I coded for application of this technique either when the court applied a market test, or when it noted evidence that investors did not sell their holdings in reaction to disclosure.¹⁸⁹ Although it would seem the technique should be applied only following a price analysis which corrected for the effects of market movement, generally, and industry effects, in

181. *Portanesse v. Donna Karan Int'l, Inc.*, No. 97-CV-2011 CBA, 1998 WL 637547, at *6–8 (E.D.N.Y. Aug. 14, 1998).

182. *Id.*

183. *Id.* at *13.

184. Roussel, *supra* note 22, at 1053.

185. Langevoort, *supra* note 22, at 479.

186. *See* Bainbridge & Gulati, *supra* note 8, at 123–24.

187. *Id.* at 124.

188. *See, e.g.,* *Sandwich Chef of Tex., Inc. v. Reliance Nat'l Indem. Ins.*, 319 F.3d 205, 218–19 (5th Cir. 2003) (equating the cause-in-fact requirement with actual reliance on an alleged fraudulent misrepresentation).

189. *Compare* *Elkind v. Liggett & Myers, Inc.*, 635 F.2d 156, 166–67 (2d Cir. 1980) (analyzing the failure of institutional investors to sell stock), *with* *Ganino v. Citizens Utils. Co.*, 56 F. Supp. 2d 222, 227 (D. Conn. 1999) (examining New York Stock Exchange trading information following disclosure and finding there “was no movement in the Citizens stock following the announcement and within days thereafter, the price of the stock increased”).

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particular, courts seemed to be unconcerned with such niceties.¹⁹⁰

Fourth is the "trivial matters" technique, with which courts hold presumptively immaterial nondisclosures relating to small percentages of total sales or revenues.¹⁹¹ I coded for the application of the trivial matters technique whenever a court found that information was too numerically or financially unimportant to be material, including evaluations of the likelihood of a future event (such as a merger). Note that while trivial matters may look like puffery, a company's vague or overoptimistic statements of fact amount to puffery because of the language of the statements; here, they are immaterial based on an economic conclusion about the relationship of the underlying facts to the financial status of the company as a whole. Examples including the following.

- An energy firm's inflation of revenues of \$217 million due to "round-trip" trading of an energy firm represented only 0.3 percent of total revenues in the relevant time period. On a motion to dismiss, the inflation was therefore "immaterial as a matter of law," despite evidence of price decline when the round-tripping allegations became public.¹⁹²
- In a suit for failure to disclose merger negotiations in a registration statement issued pursuant to a debt offering, plaintiffs alleged that two large corporations began merger negotiations in April 1993, had signed confidentiality agreements, and had agreed in principal on the ratio of shares to be exchanged and the management of a combined company, before the negotiations broke down.¹⁹³ At the time of the nondisclosure, the companies "remained in contact," but were not actually negotiating.¹⁹⁴ Subsequently, the merger discussions resumed and were consummated.¹⁹⁵ The court found that even if "one stretches the concept of preliminary negotiations as far as it can go, remaining in con-

190. See, e.g. *Ganino*, 56 F. Supp. 2d at 227; *Leventhal v. Tow*, 48 F. Supp. 2d 104, 116 (D. Conn. 1999) (holding that a price increase within several days of disclosure "belies . . . claims of a 'stunning' negative disclosure of a material nature").

191. *Bainbridge & Gulati*, *supra* note 8, at 125.

192. *In re Duke Energy Corp. Sec. Litig.*, 282 F. Supp. 2d 158, 161 (S.D.N.Y. 2003).

193. *Nelson v. Paramount Commc'ns, Inc.*, 872 F. Supp. 1242, 1246 (S.D.N.Y. 1994).

194. *Id.* at 1244.

195. *Id.* at 1245-46.

tact with someone after one has broken off formal negotiations does not seem to be included. Stated another way, to call this state of affairs material would make just about anything at all material.”¹⁹⁶

b. *The Second Set of Techniques*

The next set of techniques are less commonly applied than the four well-known methods discussed above. Scholarly literature infrequently explores these techniques; for some methods, this Article provides the first detailed description and analysis.

Courts regularly criticize investors for failing a “duty to read” about their investments.¹⁹⁷ I coded for this technique in two contexts. First, courts sometimes contrast oral statements, alleged to be material, with written disclaimers, holding that the written disclaimer “trumped” the oral one, making it presumptively immaterial.¹⁹⁸ Second, and more commonly, courts state that investors should read all parts of a given disclosure (or related disclosures) together and that no one statement can be evaluated in isolation.¹⁹⁹ This technique differs from bespeaks caution in that it applies when one part of the disclosure contradicts or helps to contextualize another part. It also applies when oral and written statements conflict with each other.

Sixth, courts deny plaintiffs the ability to prove “fraud by hindsight.”²⁰⁰ Courts insist that plaintiffs plead more than simply bad outcomes, but rather that they produce information that would lead objective parties to believe the actors had

196. *Id.*

197. *See, e.g., Carr v. CIGNA Sec., Inc.*, 95 F.3d 544, 548 (7th Cir. 1996). *But see* Donald C. Langevoort, *Selling Hope, Selling Risk: Some Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers*, 84 CAL. L. REV. 627, 682–83 (1996) (“Ready characterization of a failure to read a dense and detailed prospectus as ‘reckless’ is troublesome on a number of levels. Most obviously, there is an empirical problem. It is awkward to use the term reckless to describe behavior that is quite normal and expected.”). The SEC appears to reject the “reckless approach.” *See In re Robert A. Foster*, 51 S.E.C. 1211, 1213 (1994) (“Those who sell securities by means of representations inconsistent with [written disclosures] do so at their peril.” (quoting *In re Ross Secs., Inc.* 41 S.E.C. 509, 510 (1963))).

198. *See, e.g., Brown v. E.F. Hutton Group*, 735 F. Supp. 1196, 1200–01 (S.D.N.Y. 1990).

199. *See Ferber v. Travelers Corp.*, 802 F. Supp. 698, 705–06 (D. Conn. 1992) (rejecting a bright-line test).

200. *See Bainbridge & Gulati, supra* note 8, at 128 (stating that fraud by hindsight goes to scienter); Gulati et al., *supra* note 29, at 816–18.

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knowledge of fraud at the time of the nondisclosure.²⁰¹ Therefore, courts will dismiss pleadings that depend on hindsight to prove materiality.²⁰² I coded for the presence of "fraud by hindsight" even in the absence of these magic words.²⁰³

Previous work on this doctrine found that only 2 percent of cases, a "handful," analyzing the fraud by hindsight technique involved materiality determinations.²⁰⁴

The seventh technique used in finding presumed immateriality is the so-called "truth-on-the-market" doctrine.²⁰⁵ Courts apply the "truth-on-the-market" technique to find presumptively immaterial nondisclosures, which would have provided the investor information available from another publicly available source.²⁰⁶ For example, the Second Circuit concluded that failure to disclose a potential director's problems with organized labor, which might otherwise have been a material omission, was presumptively immaterial because "these difficulties were reported countrywide in the press and on radio and television, were discussed in Congress, and were analyzed in published administrative and judicial opinions."²⁰⁷

The Second Circuit has cautioned that "[t]he truth-on-the-market defense is intensely fact-specific and is rarely an appropriate basis for dismissing a § 10(b) complaint for failure to plead materiality."²⁰⁸

Eighth, courts assume that disclosures need not be considered misleading simply because they do not explain the likely economic, financial, and legal consequences of the information

201. See Gulati et al., *supra* note 29, at 781.

202. Judge Friendly's treatment of this issue is paradigmatic. *Denny v. Barber*, 576 F.2d 465, 470 (2d Cir. 1978).

203. Cf. *In re Union Carbide Sec. Lit.*, 648 F. Supp. 1322, 1327 (S.D.N.Y. 1986) ("To permit these omissions to constitute a securities action would allow future plaintiffs to walk into court with a 'materiality through hindsight' cause of action.").

204. See Gulati et al., *supra* note 29, at 807–09 (noting that a first round of coding had produced a significantly higher number of cases).

205. See *Ganino v. Citizens Utils., Co.* 228 F.3d 154, 167 (2d Cir. 2000).

206. See generally *COX & HAZEN*, *supra* note 2, at 297 (discussing the "truth-on-the-market" doctrine).

207. *Seibert v. Sperry Rand Corp.*, 586 F.2d 949, 952 (2d Cir. 1978) ("A party's 'reasonable belief that the other party already has access to the facts should excuse him from new disclosures which reasonably appear to be repetitive.'" (quoting *Frigitemp Corp. v. Fin. Dynamics Fund, Inc.*, 524 F.2d 275, 282 (2d Cir. 1975))); *id.* ("We agree with the district court that reasonable minds could not differ as to the immateriality of the omissions.").

208. *Ganino*, 228 F.3d at 167.

actually disclosed.²⁰⁹ In the Second Circuit at least, this “understand consequences” technique is best expressed by the axiom that “corporations are not required to address their stockholders as if they were children in kindergarten.”²¹⁰ Courts presume that reasonable investors are able to add two plus two: once a corporation has disclosed information, “four” is not a separate material fact that needs to be disclosed.²¹¹ Courts presume that reasonable investors possess certain basic knowledge and skills. These include understanding: basic ideas about taxation of different investments,²¹² that shares may be valued using different methodologies and appreciating the differences based on relevant underlying facts,²¹³ that corporate managers are self-interested and wish to retain control,²¹⁴ and basic accounting treatment.²¹⁵

Finally, my analysis also coded for “obscure” decisions²¹⁶ and for an “other” category.²¹⁷

Results: Some Effects Found. Figure 5 is a descriptive look at the shift in the presumed immateriality techniques over time. I took the five most common techniques from Table 2, and plotted their relative use by courts in the studied time period.

209. This technique, which I identified from the case law, inverts the “buried facts doctrine.” Under that doctrine a filing may be deemed materially misleading, despite having disclosed all material information, if the information is not properly highlighted. *See, e.g.*, *Gould v. American-Hawaiian S.S. Co.*, 535 F.2d 761, 773–74 (3d Cir. 1976); *Smallwood v. Pearl Brewing Co.*, 489 F.2d 579, 603 (5th Cir. 1974).

210. *See* *Richland v. Crandall*, 262 F. Supp. 538, 554 (S.D.N.Y. 1967).

211. *Cf.* *Beaumont v. Am. Can Co.*, 621 F. Supp. 484, 496–97 (S.D.N.Y. 1985) (holding there was no requirement to perform addition of disclosed facts).

212. *See* *Donovan v. Am. Skandia Life Assurance Corp.*, No. 02CV9859 MP, 2003 WL 21757260, at *2 (S.D.N.Y. July 31, 2003) (discussing the idea of tax neutrality between different types of annuities).

213. *See In re* *United Brands Co. Sec. Litig.*, No. 85CIV5445, 1988 WL 67413, at *3–4 (S.D.N.Y. June 20, 1988).

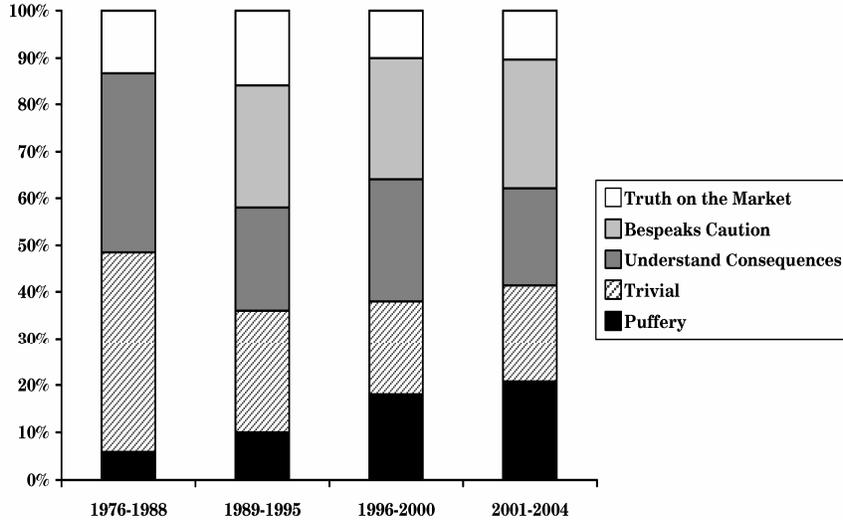
214. *See* *Allyn Corp. v. Hartford Nat'l. Corp.*, No. H81-912, 1982 WL 1301, at *24 (D. Conn. Mar. 30, 1982).

215. *See* *Rubin v. Long Island Lighting Co.*, 576 F. Supp. 608, 613 (E.D.N.Y. 1984). Other examples include: understanding the idea of opportunity costs of real estate investments, *see* *Kahn v. Wien*, 842 F. Supp. 667, 675–76 (E.D.N.Y. 1994); and understanding the nature and scope of interest necessary for a change in corporate control, *see* *Samjens Partners I v. Burlington Indus., Inc.*, 663 F. Supp. 614, 622 (S.D.N.Y. 1987).

216. My analysis included cases where I could not determine why a finding of presumed immateriality had been made.

217. My analysis included cases where I could determine why the court reasoned as it did, but there were few such instances to create a new variable.

Figure 5: Five Common Presumed Immateriality Techniques Over Time



However, as with descriptions of the larger dataset, Figure 5 is somewhat misleading. “Puffery” and “bespeaks caution” have changed in statistically significant ways over time,²¹⁸ but I found no statistically significant decrease in the remaining techniques, although “understand consequences” and “triviality” appeared in relatively fewer opinions in recent opinions.

Nevertheless, the changes in “puffery” and “bespeaks caution” tend to confirm Hypothesis C.1, and thus significantly undermine the view that materiality is merely a docket-pruning mechanism.

218. The following Table measures significance using a Pearson Chi-Square Test.

Table 3: Immateriality Techniques Over Time

Technique	Significant?
Understanding Consequences	No (p=.84)
Trivial	No (p=.41)
Bespeaks Caution	Yes (p<.001)
Truth on the Market	No (p=.67)
Puffery	Yes (p=.08)
Failure to Read	No (p=.72)
Fraud by Hindsight	No (p=.35)
Zero Price Change	No (p=.36)

2. Hypothesis C.2: Presumed Immateriality Techniques Will Come Packaged into Analytical Toolboxes

If the immateriality techniques are doctrinal tools used for some end other than that of random docket reduction, then it makes sense that courts will develop clusters of techniques to use in attacking fact patterns and will use the techniques at distinct stages in the life of a lawsuit.

Two predictions follow. First, we would predict that bespeaks caution will be more likely to occur when other, related, techniques also occur—puffery, failure to read, and truth on the market. These techniques share a basic approach to materiality, one that requires courts merely to parse the words of a legal document or contemporaneous news release instead of engaging in concrete business judgments. Conversely, courts should use techniques like “understand consequences” and “triviality” at the same time.

Second, “puffery,” “failure to read” and “truth on the market” should be correlated with earlier stages in the lawsuit, as these techniques do not, on their face, require searching inquiry into the facts for their force to be felt.

Results: Effects Found. Table 4 displays the result of a correlation coefficient test,²¹⁹ and lists only those techniques which are correlated with others. It tests hypothesis C.2, asking: when one technique is present in a case, are others likely to be present as well?

Table 4: Correlation Between Techniques

	Failure to Read	Truth on the Market	Puffery	Fraud by Hindsight
Bespeaks Caution	(p<.001)	(p=.002)	(p<.001)	
Trivial Matters				(p<.001)

Based on this evidence, courts applying the “bespeaks caution” doctrine to a given set of disclosures are also likely to use the techniques of “puffery,” “truth on the market,” and “investor’s failure to read.” Courts applying the “trivial matters” doc-

²¹⁹ See generally BARNES, *supra* note 142, at 265 (describing correlation coefficients).

trine are likely to also apply the "fraud by hindsight" doctrine. I did not find a significant relationship between "trivial matters" and "understand consequences," nor did I find a negative correlation between the first and second set of techniques.²²⁰

Testing the relationship between the techniques and procedural posture found some evidence supporting the hypothesis that "bespeaks caution" and "puffery" were more likely to be applied on a motion to dismiss.²²¹

Table 5: Techniques v. Procedural Posture

	Bespeaks Caution	Puffery
Motion to Dismiss	p=.002	p<.001

D. SUMMARY OF EMPIRICAL RESULTS

For many readers, the main contribution of this Article will be its finding that judges applied presumed immateriality at a high rate in the studied time period. In private plaintiff actions, approximately half (51 percent) of the opinions dismissed at least one claim as immaterial, resulting in a large set of opinions in which courts defend and define their vision of who is, and is not, a reasonable shareholder.

The results also undermine the extant hypotheses that explain court's use of materiality: the "corporate activity" hypothesis, the "conservative" and "lazy" judges hypotheses, and the "docket-pruning" hypothesis.²²² Significantly, I failed to find a significant relationship between either time or procedure and findings of presumed immateriality. I did find a strong effect based on party identity.

Other readers, practicing lawyers in particular, will be interested to learn which techniques appeal to courts when ex-

220. An earlier draft of this Article noted a negative correlation between techniques, but further analysis demonstrated that the negative relationship was not robust.

221. I also found a negative correlation between bespeaks caution and a plaintiff's request for injunctive relief; however I believe that relationship to be an artifact of other characteristics of the data.

222. Michael Perino's draft paper on the effect of ideology on district court decision making appears to reject a version of the "conservative judge" hypothesis with respect to interpretations of the PSLRA's new pleading standard. See Perino, *supra* note 29, at 46 (concluding that district court judges make strategic decisions, rather than simply ideological ones). Perino's interesting study suggests that a comparison of materiality decisions across circuits would prove quite valuable.

plaining findings of presumed immateriality. Over time, as I have explored, courts have become more willing to apply “puffery” and “bespeaks caution” doctrines which are (1) bright-line rules that focus on the language of disclosures, (2) associated with each other, and (3) more likely to appear at early stages in lawsuits.

These findings suggest that courts are not using materiality to effect mere conservative ends nor to change corporate behavior, but instead to change the behavior of prospective plaintiffs—ordinary investors in the capital markets. That is, because plaintiff identity is so important, and because materiality has moved toward a set of bright-line rules, ordinary investors will have strong incentives to conform their conduct to that deemed reasonable by courts or be denied recovery. To see how realistic that expectation is, we must return to the relationship between BLE and the securities laws, focusing now on the ways in which the presumed immateriality techniques make counterfactual assumptions about how investors act.

III. BLE AND THE PRESUMED IMMATERIALITY TECHNIQUES

A. PUFFERY AND BESPEAKS CAUTION: INVESTOR STATES OF MIND

When disclosures or omissions are found to be immaterial based on the puffery doctrine, courts make an assumption about investor reaction to disclosure: reasonable investors do not invest capital based on optimism but, instead, invest based on facts.

However, under many circumstances, BLE would predict the reverse.²²³ The puffery doctrine ignores the powerful effects of loss aversion. Investors whose stock has lost value are risk seeking and more likely to act on positive disclosures with weak informational content.²²⁴ Similarly, the puffery doctrine ignores the perversion of rationality that accompanies our pow-

223. See Bainbridge & Gulati, *supra* note 8, at 120 (“Anecdotally, it does not take much time watching investment programs on television to notice that even quite vague statements of optimism by corporate managers are considered important by the investment news media.”); Huang, *supra* note 24, at 115 (“[P]uffery defense is flawed because vague, promotional, or hyperbolic statements can have real impacts on moods and therefore should not be deemed immaterial as a matter of law.”).

224. See *supra* notes 67–71 and accompanying text.

erful overoptimism bias. When a corporation states that market conditions are "likely to improve," and we already own some of its stock, we are likely to think to ourselves, "of course my stock will do better than average."²²⁵ Arguing that puffing statements will not be relied on also ignores possible endowment effects, experiential thinking,²²⁶ information overload,²²⁷ source blindness,²²⁸ and herd behavior.²²⁹

Experimental literature analyzing puffery confirms that individuals are unable to ignore vague optimism and expressions of confidence.²³⁰ Indeed, subjects believe that statements making factual claims ("27 miles per gallon on regular gas") were indistinguishable from statements the law would consider puffery ("truly excellent gas mileage").²³¹ Overall, "no behavioral studies have reported the finding, assumed by the law, that consumers typically see puffery . . . as meaningless."²³²

Liberal use of the bespeaks-caution technique also contradicts BLE insights.²³³ Not surprisingly, only rarely did I find

225. See *supra* notes 75–82 and accompanying text.

226. To the extent that our assessment of risk is colored by our emotional assessment of the target, generally positive statements may drape the investment with a penumbra of positive feeling, leading us to discount later specific information to the contrary. See *supra* notes 83–91 and accompanying text.

227. For investors confronted with a large disclosure, early puffery (such as, "our business model remains strong") may be incorporated into the investing decision, while later financial disclosures in dense footnotes would be ignored. I would provide a citation from a case here, but I sense the reader might be overwhelmed by the detail.

228. See *supra* notes 92–98 and accompanying text.

229. When puffery is in a press release or made through a corporate spokesperson, it seems likely that investors will respond to social cues and trust the corporate manager's statements of vague optimism, especially if others in the market do so.

230. See generally Preston, *supra* note 168, at 80–83. For example, subjects shown Minute Rice's claim to make "[p]erfect rice every time" believed the statement was true, either completely or partially, 73 percent of the time and 64 percent of subjects believe, either completely or partially, that Coke is, indeed, "the real thing." *Id.* at 80.

231. *Id.* at 82.

232. *Id.* at 82–83. The seminal work in the marketing literature on puffery remains IVAN L. PRESTON, *THE GREAT AMERICAN BLOW-UP: PUFFERY IN ADVERTISING AND SELLING* (rev. ed. 1996) (evaluating puffery along a spectrum and its deceptiveness). *But cf.* Jef I. Richards, *A "New and Improved" View of Puffery*, 9 J. PUB. POLY & MARKETING 73 (1990) (criticizing Preston and other researchers for using an overly broad definition of legal puffery).

233. See Huang, *supra* note 24, at 125–26 ("[The doctrine is] problematic because meaningful cautionary language concerns the probability of the optimistic forward-looking statements being realized. But, if those optimistic statements have induced positive moods or emotional reactions, such feelings

that courts applying the bespeaks-caution doctrine did so based on an empirical analysis of whether shareholders actually reacted to disclosures which were subject to cautions.²³⁴ Thus, courts' increased use of the doctrine represents a mere assumption that cautionary statements obviate the reasonableness of reliance by reasonable investors on earlier forecasts, whether positive or negative.

Not only do individuals have the problems of risk processing, endowment, experiential thinking, and information overload, they are also unable to make the subtle adjustment with respect to informational source, as courts applying the bespeaks-caution doctrine require them to do. Courts assume that individuals can hear a source saying two things—"I express the following beliefs about the future" and "Don't rely on anything I just said"—and make a rational decision about which statement is worthy of credence. This is nonsense.

Puffery and bespeaks caution are alike in another way: they attempt to create bright-line rules to differentiate reasonable from unreasonable reliance.²³⁵ Both doctrines are easy to apply (they require merely the presence or absence of certain magic words) and easy to create from the perspective of the disclosing entity. That is, disclosing entities can shelter questionable information from fraud claims by making it part of optimistic predictions or pairing it with cautions. Notably, both doctrines create incentives for corporations to use words that they hope will induce reliance, but which may be rendered legally irrelevant; they are bright-line rules that enable fraud.

B. UNDERSTAND CONSEQUENCES AND TRIVIALITY

Let us compare "puffery" and "bespeaks caution" with "understanding consequences" and "triviality." Both the "understanding consequences" and "triviality" techniques focus on the relationship between the disclosed facts and the real world. For understanding consequences, courts focused on the underlying *facts* disclosed, not the language of the offering document, and the relationship between those facts and either (a) the real world or (b) a hypothesized skill set possessed by investors. The

are insensitive to probability variations.").

234. See Bainbridge & Gulati, *supra* note 8, at 123 (criticizing courts for drawing conclusions about the impact of cautionary statements without conducting behavioral research).

235. Cf. Roussel, *supra* note 22, at 1068 (indicating that parts of puffery doctrine lend themselves to a "bright-line test").

triviality doctrine also contrasts with evidence from BLE. It boils down to an intuition that "trivial bits of information do not play a role in the investment decisions of reasonable investors because they relate to a small aspect of the business."²³⁶ But, as BLE teaches, investors are poor at making this type of comparison.

Neither of these techniques is without flaws. Indeed, they both support Langevoort's view that judges in securities cases are subject to "lawyers' biases,"²³⁷ which make them overconfident with respect to their ability to understand how the world "really works," complete with a sneer toward "laypeople" who do not understand the game.²³⁸ Empathy for investor incompetence is hard for judges who always analyze disclosures in hindsight armed with briefs which explain financial, accounting, and legal concepts in concise, readable ways.²³⁹ Moreover, courts regularly assume individuals will be able to rationally understand the likelihood of potential future gains, or unlikely future legal problems, despite humans' inability to rationally calculate the effect of unlikely, but catastrophic, events.

Ultimately, the shift I have noted is a shift from a standard-based model of materiality to a model based on bright-line rules, in which courts spend less time considering the potential effects of the disclosure and more time applying a mechanistic set of rules to the words of the disclosure itself.²⁴⁰ Such bright-

236. Bainbridge & Gulati, *supra* note 8, at 125.

237. Langevoort, *supra* note 8, at 318.

238. I am reminded of Duncan Kennedy's criticism of legal education, in which he argued:

The final hierarchy that concerns us is the general social arrangement in which lawyers are treated . . . as among the elite of the nation. Partly this is simply a reflection of the fact that many lawyers come from the upper middle class to start with. . . . At each level of the class system, lawyers are granted a measure of deference and measure of power altogether disproportionate to their objective merit. In their group activities, but *also* in their individual social lives, they tend to exploit this deference and to accentuate it by emphasizing the arcane character of what they know and do.

DUNCAN KENNEDY, LEGAL EDUCATION AND THE REPRODUCTION OF HIERARCHY: A POLEMIC AGAINST THE SYSTEM 57 (2004).

239. It should be self-evident that legal briefs are more likely to clearly explain a disclosure than a corporation's 10-K statement.

240. As discussed above, see *supra* note 143 and accompanying text, it is possible that plaintiffs are bringing different *kinds* of cases today than in the past, and thus judges are using different kinds of doctrines in response. This hypothesis is subject to empirical testing, but it does not seem self-evident to me that the reasons courts use to instantiate reasonableness should change based on the nature of the disclosures plaintiffs claim to be fraudulent.

line rules require judges merely to parse the words in certain, legally important documents instead of engaging in business judgments. This is a troublesome development, for reasons discussed in Part IV.

C. OTHER DOCTRINES

Although the four techniques we have just discussed are the “headlines” of my results, it is worth thinking briefly about the relationship between the other doctrines in the arsenals of courts and BLE. As we will see, each of the remaining four classic techniques relies on assumptions about human behavior which are sometimes, if not always, untrue.

1. Zero Price Change

The zero-price-change doctrine relies on the same assumption of market efficiency that permits securities claims to proceed without proof of actual reliance.²⁴¹ That is, courts assume that markets will react to any price relevant information.²⁴²

This intuition is the same as that which would conclude that framing effects ought to have no relationship to outcomes—that saving two of six people is the same as killing four out of six. Failure to react to information may be a result of BLE heuristics and biases, instead of anything internal to the importance of the disclosure itself.

It may be interesting to consider zero price change in the context of the Sherlock Holmes story of the dog that did not bark in the nighttime.²⁴³ While Holmes concluded that silence is necessarily consequential, the empirics of this claim are dubious.²⁴⁴ Indeed, use of nonmarket impact to establish material-

241. See Bainbridge & Gulati, *supra* note 8, at 123–24.

242. Of course, markets may be rational even when individual participants are not. See, e.g., Hilton, *supra* note 81, at 274 (discussing political futures markets).

243. “Is there any point to which you would wish to draw my attention?”

‘To the curious incident of the dog in the night-time.’

‘The dog did nothing in the night-time.’

‘That was the curious incident,’ remarked Sherlock Holmes.”

A. Conan Doyle, *The Adventure of Silver Blaze*, in MEMOIRS OF SHERLOCK HOLMES 12–13 (Schocken Books 1976) (1892–1893).

244. Intuitions about the importance of silence are common in the legal academy, especially when thinking about statutory interpretation. See, e.g., Michael D. Shumsky, *Severability, Inseparability, and the Rule of Law*, 41 HARV. J. ON LEGIS. 227, 270 n.207 (2004). I have not seen a theoretical, unified approach to silence by legislatures, courts, individuals, etc. For the beginning

ity at the time of the investing decision is a decision infected with hindsight bias. Such bias would seem more balanced if courts allowed evidence of actual market effects to mean materiality as a matter of law.

Courts appear reluctant to apply the zero-price-change technique: only 3 percent of cases finding any claim presumptively immaterial used it. However, my sense of the case law is that defendants make zero-price-change arguments often.²⁴⁵ It is interesting and worth further study to think about why courts are able to resist the conclusion that market silence should speak loudly.

2. Fraud by Hindsight, Failure to Read, and Truth on the Market

Courts' use of the doctrine of fraud by hindsight appears to be a direct application of the doctrine of presumed immateriality to correct a bias which would otherwise lead to an inappropriate finding of materiality.²⁴⁶ Only a small number of securities cases apply the doctrine to materiality rather than scienter determinations,²⁴⁷ although around 10 percent of cases finding a claim immaterial cited fraud by hindsight as one of the reasons supporting the decision.²⁴⁸

Courts' criticisms of investors who fail to read a large universe of information and who rely on oral, rather than written, materials is understandable. The failure-to-read doctrine serves the same ends as most formalities.²⁴⁹ Courts concerned about the prevalence of securities suits do well to insist on the primacy of written material. Thus, the failure-to-read technique acts as a common law statute of frauds in securities cases.

of such a work, see Daniel M. Filler, *Silence and the Racial Dimension of Megan's Law*, 89 IOWA L. REV. 1535, 1576–94 (2004) (discussing causes and remedies for silence in discussing race with respect to community notification laws).

245. Defendants make these arguments for at least two reasons. They may be undertaking loss causation (reliance) analyses independently and hope to take two shots at a winning argument. Or, they may be unaware of how rarely such defenses succeed.

246. Rachlinski, *A Positive Psychological Theory*, *supra* note 54, at 108.

247. See Gulati et al., *supra* note 29, at 807.

248. See *id.*

249. See generally Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799 (1941) (arguing that legal formalities can serve consideration, channeling, and evidentiary functions).

Finally, the truth-on-the-market technique imposes search costs on investors and ignores evidence that more information may not improve the quality of investing decisions. For courts applying this technique, the idea that an omission cannot be material if it replicates publicly available information makes a great deal of sense. Nevertheless, increased use of this technique makes investors responsible for understanding and processing a bewildering array of information. Whether all investors are equally capable of making this kind of search and analysis is questionable.²⁵⁰ Nonetheless, the truth-on-the-market technique is relatively prevalent, appearing in 6.5 percent of the total dataset, and in 14.8 percent of cases finding any claim immaterial.²⁵¹

In Table 6, I summarize the preceding discussion by connecting each of the eight named techniques with the BLE observations that the technique potentially ignores.

250. For further discussion of the problems of applying the truth-on-the-market doctrine, see Huang, *supra* note 24, at 118–22.

251. See *supra* Table 2.

Table 6: Relationship of BLE to Presumed Immateriality

		Doctrinal Technique								
BLE Experimental Observation		Puffery	Bespeaks Caution	Fraud by Hindsight	Zero Price Change	Trivial Matters	Failure to Read	Understand Consequences	Truth on the Market	
	Trouble with Probability									
	Hindsight Bias			X			X			
	Representativeness Heuristic	X			X	X		X		
	Risk Seeking (Mitigate Current Losses)	X	X		X	X		X		
	Risk Aversion (Gains)		X		X	X		X		
	Endowment Effect	X	X		X	X		X		
	Overconfidence	X	X		X	X		X	X	
	Experiential Thinking	X	X		X	X	X	X	X	
	Information Processing									
	Source Blindness	X	X		X		X		X	
	Overweighing Oral Disclosures		X			X	X		X	
	Framing Effect		X		X		X	X		
	Information Overload	X	X		X	X	X	X	X	
	Social Investing									
	Herd Behavior	X	X		X	X	X	X		
	Percentage of Cases Finding Presumed Immateriality That Applied Technique (Average)									
			14	20	9	3	34	11	33	15

In considering the implications of the results displayed in Table 6, we can see that all of the techniques, to one degree or another, make assumptions about behavior which are fundamentally in tension with how BLE predicts investors will sometimes behave. Puffery, for example, is a doctrine that most obviously affects individuals' trouble with probabilistic assessments, while the failure-to-read heuristic is primarily in tension with individuals' inability to process information rationally.

The previous two Parts of this Article considered the descriptive question of the scope and nature of presumed immateriality doctrine in the published opinions in the Second Circuit and its district courts. To the extent that the sample was a good one, it seems fair to step back and offer a few general observations about how courts apply the reasonable-investor standard.

- (1) Reasonable investors are platonic models, immune to those behavioral biases and heuristics which distort the decision making of actual market participants.
- (2) Courts are willing to punish actual investors for failing to live up to the expectations created by their model counterparts.
- (3) The standard's primary effects are likely to be felt by investors, rather than disclosing corporate entities.
- (4) Courts are increasingly advancing explanations for presumed immateriality that encourage manipulation of the law with "magic words."

The next Part of this Article considers the ways in which these characteristics together suggest that presumed immateriality functions to create a novel, legal duty for investors to be economically rational actors.

IV. THE "DUTY" TO BE A RATIONAL SHAREHOLDER

The shift in the rationale for findings of presumed immateriality over time from standards to bright-line rules suggests that materiality is evolving toward a formal choice: investors must behave in a certain way or suffer the consequences. One way to understand the federal disclosure and liability regime is as a federally mandated and defined insurance against securities fraud,²⁵² conditioned on a finding of materiality.²⁵³ This in-

252. See David Tabak, *Loss Causation and Damages in Shareholder Class Actions: When It Takes Two Steps to Tango 14* (May 2004) (Nat'l Econ. Research Assocs.), available at http://www.nera.com/image/200405Tabak_Loss_

insurance benefit is generally available to all investors in federally registered securities and "pays out" if and when an investor has been harmed by fraud and files suit. There are then two logically equivalent narratives explaining how the law distributes this benefit: (1) To get the benefit of securities insurance, you should invest rationally in response to disclosure, or (2) all investors will receive the benefit of securities insurance, unless they act irrationally in response to disclosure.

The second formulation, which suggests a punishment for failure to comply with a generally applicable standard, better captures the case law's evolving emphasis on the undesirability of protecting irrational investors and the increased emphasis on bright-line, enforceable rules. This narrative also has an important connotation: we should see presumed immateriality as an attempt by courts to shape the ordinary relationship between corporations and investors, not merely the contours of recovery in litigation. That is, we should see presumed immateriality as creating a legal duty to be a rational shareholder.²⁵⁴

Causation.pdf (arguing that protection offered by securities laws exceeding expected yields absent the law "makes the securities fraud laws a form of insurance"). To be clear, this is just a metaphor: investors do not pay a special form of premium to obtain the protection of the securities laws. Although we might consider federal income taxes to be a kind of premium, that argument would seem to prove too much.

253. See William S. Feinstein, Comment, *Securities Fraud: Pleading Securities Fraud with Particularity—Federal Rule of Civil Procedure 9(b) in the Rule 10b-5 Context: Koval v. MCI Communications Corporation*, 63 GEO. WASH. L. REV. 851, 855 n.32 (1995) (noting that problems of materiality interfere with securities fraud claims). To state that securities fraud recovery provides a form of insurance to investors is not to claim that the insurance is the same as other types of insurance, such as car insurance. However, all insurance excludes certain kinds of injuries (e.g., drunk driving) and privileges certain behaviors (e.g., a certain number of accident-free years) or demographics (e.g., insurance is more expensive for the very young and very old). See generally Robert H. Jerry II & Kyle Mansfield, *Justifying Unisex Insurance: Another Perspective*, 34 AM. U. L. REV. 329, 338 (1985) ("Insurers will continue to classify insured persons into distinct groups as long as the cost of measuring the differentiating factor is less than the premium reduction the insurer can offer the members of a differentiated, better-risk group.").

254. Some readers of this paper in draft have objected that it is misleading to call a defense in litigation—a bar to liability or damages—a legal "duty." Skepticism toward "duty talk" similarly appears when discussing analogous defenses like the "duty to mitigate" contract and tort damages, the "duty to preserve evidence," and the duty to be nonnegligent (in comparative negligence states). See, e.g., Roy Ryden Anderson, *Incidental and Consequential Damages*, 7 J.L. & COM. 327, 376 (1987) (suggesting that the duty to mitigate is a "misnomer, because the aggrieved party incurs no actual liability for his failure to mitigate"); Howard C. Eglit, *Damages Mitigation Doctrine in the*

Presumed immateriality judges investor behavior before injury (that is, change in share price) has occurred. Every individual buying stock risks losing the benefit of securities insurance if she is not “rational.”²⁵⁵ As a result, presumed immateriality affects all investors in the capital markets.²⁵⁶ It conditions the availability of a legal benefit on compliance with a generally applicable standard of conduct, imposing on shareholders onerous affirmative—and conduct shaping—expectations.²⁵⁷

Statutory Anti-Discrimination Context: Mitigating Its Negative Impact, 69 U. CIN. L. REV. 7, 9 n.3 (2000) (“[F]ailure to mitigate does not expose the failing party to any liability, as would the failure to satisfy a duty.”); E. Allan Farnsworth, *Legal Remedies for Breach of Contract*, 70 COLUM. L. REV. 1145, 1184 (1970) (criticizing application of the term “duty” to the duty to mitigate contract damages). Even though these duties may give rise to important affirmative obligations, they arise after the cause of action has accrued. Charles J. Goetz & Robert E. Scott, *The Mitigation Principle: Toward a General Theory of Contractual Obligation*, 69 VA. L. REV. 967, 973–76 (1983) (discussing some affirmative obligations arising after the cause of action has accrued). Similarly, the duty to preserve evidence at trial arises after a party has notice of the possibility of a suit. See *Townsend v. Am. Insulated Panel Co.*, 174 F.R.D. 1, 3–4 (D. Mass. 1997). The duty to be a rational shareholder, by contrast, arises before the cause of action does. See *infra* notes 281–85 and accompanying text (describing the “duty to be a rational shareholder” as an obligation existing independently from any correlative right to a cause of action).

255. Rationality, in this context, is defined as not subject to those biases which the presumed immateriality doctrines punish. Because the duty to be a rational shareholder judges conduct pre-injury, it is distinct from the duty to mitigate.

256. The idea of a “victim’s duty” in law is generally not novel. Reading this paper in draft, Don Langevoort reminded me that victims of fraud have long been subject to various duties of care. However, applying such victims’ duties in the securities context is quite controversial. See, e.g., Theresa A. Gabaldon, *Unclean Hands and Self-Inflicted Wounds: The Significance of Plaintiff Conduct in Actions for Misrepresentation Under Rule 10b-5*, 71 MINN. L. REV. 317 (1986) (critiquing application of the justifiable reliance doctrine); Margaret V. Sachs, *The Relevance of Tort Law Doctrines to Rule 10b-5: Should Careless Plaintiffs Be Denied Recovery?*, 71 CORNELL L. REV. 96 (1985) (critiquing the application of the duty to care to certain 10b-5 actions).

257. For those who have difficulty imagining how impairment of rights in litigation may be conceived as a duty at all, my colleague, Craig Green, suggests that we imagine that the federal government has created a program that distributes benefits to foster parents. The government imposes certain conditions on the receipt of funds (e.g., keeping the home in a certain condition, maintaining a stable home, making the home available for inspection); failure to observe the conditions will lead to a denial of funds. It seems relatively uncontroversial to imagine these conditions as “duties” imposed by the federal government on foster parents. However, they are likely to be enforced only when a foster parent is denied the benefits, and sues, at which time the government will assert that the parent has failed his duty and is not entitled to benefits.

In the absence of another compelling explanation, I think it fair to conclude that courts believe that shareholders ought to act like all other participants in the corporate governance system: motivated by an easily comprehensible set of monetary incentives and subject to a clear set of bright lines to ensure the smooth functioning of the corporate form.²⁵⁸ Indeed, rational public shareholders are the foundation of the corporate governance system; take them away, and the entire edifice may crumble. As judges have become more aware of human irrationality—through increased awareness of BLE and increased publicity about challenges to the efficient capital market hypothesis—perhaps they have reacted strongly to protect the model of human rationality. Thus, courts are comfortable imposing a duty to be rational, thereby requiring investors in the securities context to behave like other actors in the corporate governance model.

But in doing so, courts put the securities laws in tension with the fundamental principle of corporate governance: shareholders owe no duties. That is, courts seeking to harmonize securities and corporate law may have put the two systems in conflict with each other. Which will give?

Before engaging in what might become a very large thought project, we should consider how we might measure the

258. Corporate law generally assumes and provides incentives for shareholder profit-maximizing behavior. *See* Greenfield, *supra* note 3, at 634–36.

The ultimatum game, a well-known BLE experiment, provides a different perspective on this result. An experiment provides one of two people (the “chooser”) a pot of money. The chooser must decide on an allocation between himself and another individual (the “accepting party”). The chooser may describe any allocation he wishes; the accepting party may only accept or refuse the bargain. In the absence of acceptance, neither party takes any money. *See generally* Greenfield & Kostant, *supra* note 38, at 988–92 (discussing variants of the ultimatum game and its application in legal scholarship). Economic theory predicts the accepting party will accept any nonzero proposal. *Id.* at 988. However, it is quite common for the accepting party to reject offers of less than 20 percent of the total available. *Id.* at 989. And, surprisingly, the choosing party usually offers between 40 and 50 percent of the total. *Id.*

In a related experimental series, BLE practitioners analyzed individuals’ reactions to corporate cost-benefit analysis (CBA). *See generally* David A. Hoffman, *How Relevant Is Jury Rationality?* 2003 U. ILL. L. REV. 507, 525 (2003) (book review). In CBA, corporations decide between alternatives by applying the profit-maximization norm to the costs and benefits of action and inaction. *See id.* A robust body of literature suggests that individuals dislike CBA, especially when the decision involves possible loss of human life. *See id.* at 523. This result holds even when experimental subjects understand the benefits of efficiency and profit maximization. *See id.* at 524–25.

actual, real-world effects of the duty that this Article has uncovered.

A. THE DUTY TO BE RATIONAL: SOME EMPIRICAL PREDICTIONS

Usually, enforcement of duties depends on the understanding that “ought implies can.”²⁵⁹ But it is hard for all individual shareholders to react rationally in response to information. Many of the deviations from the model of rationality endorsed by the duty are unconscious products of the ways brains are wired to make decisions.²⁶⁰ Moreover, individuals may find it difficult to learn from their investment failures and successes: “irrational exuberance and anxiety are not really biases to be unlearned.”²⁶¹ It may be for this reason that despite powerful financial incentives for markets as a whole to be efficient, recent experimental and real-world testing suggests they are not.²⁶²

Because irrationality is “sticky” behavior, the normal consequences of creating legal duties—the modification of behavior—may not arise through the operation of the materiality doctrine. Even though the duty to be rational is increasingly specific and publicized, it would be very surprising if in the years post-*TSC Industries*, there was significantly less real-world price movement in reaction to disclosures that the law excludes as nonactionable. Such a correlation would be evidence that the duty was effective and that individuals had been able to somehow modify their behaviors so as to regain the protection of securities insurance.

259. John Hasnas, *Equal Opportunity, Affirmative Action, and the Anti-Discrimination Principle: The Full Philosophical Basis for the Legal Prohibition of Discrimination*, 71 *FORDHAM L. REV.* 423, 506 (2002) (citing IMMANUEL KANT, *CRITIQUE OF PURE REASON* 307–08 (J.M.D. Meiklejohn trans., 1900) (1781)).

260. See, e.g., RICHARD RESTAK, *THE NEW BRAIN* 112–15 (2003); William J. Gehring & Adrian R. Willoughby, *The Medial Frontal Cortex and the Rapid Processing of Monetary Gains and Losses*, 295 *SCI.* 2279, 2279–81 (2002); Colin Camerer et al., *Neuroeconomics: How Neuroscience Can Inform Economics*, *J. ECON. LITERATURE* (forthcoming 2004) (manuscript at 1–3, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=590965); Terrence Chorvat et al., *Law and Neuroeconomics* 7–11 (George Mason Law & Economics Research Paper, Paper No. 04-07, 2004), available at <http://ssrn.com/abstract=501063>.

261. Peter H. Huang, *Regulating Irrational Exuberance and Anxiety in Securities Markets*, in *THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR*, *supra* note 51, at 501, 506.

262. See *supra* notes 47–52 and accompanying text.

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Those relying on the understanding-consequences technique would conclude that while full rationality (i.e., risk processing rationality) is unlikely, investors are generally intelligent and able to process the idea of the rationality duty. Picture a somewhat ambitious investor, conscious of her limitations, but intelligent enough to want to do something about them. The best solution for her is to invest in mutual funds.

Mutual funds and other institutional investors are probably less likely to behave irrationally in response to disclosure, are more likely to have lawyers and economists on staff to understand "prospectus-speak," will know and have recorded all price relevant market information, and will be less likely to be swayed into following herds into investments.²⁶³ Approximately one-third of holdings in the U.S. stock market today are institutional (having grown from a quarter thirty years ago).²⁶⁴ Informed investors should join this tide and commit themselves to a course of rationality before making a potentially harmful decision.²⁶⁵

Thus, if investors can learn of the duties imposed by the presumed immateriality doctrine, mutual funds might experience higher than expected capital infusions.²⁶⁶ This will be especially true in years after particularly important growths in one of the duty's constituent techniques like bespeaks caution.²⁶⁷

Coincident with the effects of presumed immateriality on shareholders, we should also see effects on corporations. As

263. Institutional investors have "extensive trading expertise and actively seek information about new issues as well as current holdings." See Ryan, *supra* note 32, at 149. *But cf.* Kumar, *supra* note 53, at 7–8 (demonstrating that individual investors demonstrate a preference for stocks with lower returns).

264. Ryan, *supra* note 32, at 147.

265. We may analogize these kind of decisions to a driver who, knowing that he is particularly likely to make foolish turns at intersections, proceeds to rip the steering wheel from his car when he sees the intersection approaching and throw it out the window, thereby committing himself to a straight course. The most significant problem with such decision making is the presence of other committed drivers.

266. For a skeptical view of whether investors as a group can learn from changes in the securities laws, see Huang, *supra* note 24, at 115. Huang suggests that "investors are not a fixed group, but instead consist of an ever-changing pool of investors, who as they become older and if wiser are replaced by a new cohort still wet behind the ears and ready to be misled emotionally." *Id.*

267. This analysis is somewhat complicated by recent publicity regarding unsavory practices in the mutual fund industry, which may convince investors that investment professionals are unlikely to have their best interests in mind.

businesses realize the protections which the doctrine offers them, they should feel more secure in making certain kinds of disclosures. Thus, I predict that corporations should increasingly seek to shelter disclosure by coupling financial predictions with cautionary statements and encouraging investment by making proportionately more statements of corporate optimism.

Now, we must complicate the analysis which had previously assumed that all investors are alike. Some BLE researchers seek to demonstrate how “rationality” is a cultural construction that is more likely to appeal to white men than other demographic groups. This literature is complex, and I can only offer a small taste of it here.²⁶⁸ One basic and well-established conclusion is that men and women perceive risk differently.²⁶⁹ Many studies have found that on average, men are more comfortable with higher levels of risk, particularly environmental risks than women.²⁷⁰ Women thus exhibit higher rates of loss-aversion than men in evaluating financial investments. Some have argued that this effect results from women’s relative lack of socioeconomic power,²⁷¹ while others attribute the differences to biology.²⁷²

268. See generally Paul Slovic et al., *Trust, Emotion, Sex, Politics and Science: Surveying the Risk-Assessment Battlefield*, in *THE PERCEPTION OF RISK*, *supra* note 89, at 390–412 (arguing for a conception of risk that “highlights the subjective and value-laden nature of risk”).

269. See generally Brad M. Barber & Terrence Odean, *Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment*, 116 Q. J. ECON. 261, 262 (2001) (finding that men trade common stocks more than women and earn less on such investments); James P. Byrnes et al., *Gender Differences in Risk Taking: A Meta-Analysis*, 125 PSYCHOL. BULL. 367 (1999) (noting gender differences in risk taking); Jan L. Hitchcock, *Gender Differences in Risk Perception: Broadening the Contexts*, 12 RISK 179, 182–90 (2001) (summarizing multiple studies).

270. Paul Slovic, *Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield*, 19 RISK ANALYSIS 689, 692 (1999) (“Several dozen studies have documented the finding that men tend to judge risks as smaller and less problematic than do women.”); Kumar, *supra* note 53, at 13 (“[S]ingle men exhibit a significantly stronger preference for lottery-type stocks than single women.”).

271. Slovic, *supra* note 270, at 692 (noting that controlling for income and education level did not reduce the disparity between male and female risk perception). *But see* Renate Schubert et al., *Financial Decision-Making: Are Women Really More Risk-Averse?*, 89 AM. ECON. REV. 381, 384–85 (1999) (attributing gender-specific risk behavior to differences in opportunity rather than differences in gender).

272. Hitchcock, *supra* note 269, at 195–98 (discussing development research).

Class and race also play significantly into perceptions of risk.²⁷³ In the literature, this is known as the "white male effect."²⁷⁴ As a group, white men are significantly less likely to be concerned about higher levels of risk and tolerate higher losses than minorities.²⁷⁵ This effect too is related to feelings of vulnerability and disempowerment: "[minorities] benefit less from many of [the world's] technologies and institutions, and . . . they have less power and control over what happens in their communities and their lives."²⁷⁶

This discussion leads to a final prediction. Presumed immateriality doctrine is based on a model of economic rationality which sometimes will disadvantage risk-averse, affect-driven, investing. To the extent that the doctrine acts in this way, shares of recoveries in securities class actions and settlements will diverge from the demographic characteristics of the all participants in capital markets.²⁷⁷ Women and minorities may recover at lower rates than institutional investors, especially to the extent that materiality disfavors experiential thinking.²⁷⁸

273. See generally Melissa L. Finucane et al., *Gender, Race, and Perceived Risk: The 'White Male' Effect*, 2 HEALTH, RISK & SOC'Y 159, 159, 170 (2000) (noting that the relationship between race and risk perception is complex and "cannot be explained entirely from a biological perspective").

274. See *id.* at 160; see also Cass R. Sunstein, *The Perceptions of Risk*, 115 HARV. L. REV. 1119, 1157–60 (2002) (reviewing PAUL SLOVIC, *THE PERCEPTION OF RISK*, *supra* note 89) (discussing and critiquing data supporting the effect).

275. See Kathy Bunting, *Risk Assessment and Environmental Justice: A Critique of the Current Legal Framework and Suggestions for the Future*, 3 BUFF. ENVTL. L.J. 129, 139 (1995) (discussing the tendency of white males to perceive less risk).

276. James Flynn et al., *Gender, Race, and Perception of Environmental Health Risks*, 14 RISK ANALYSIS 1101, 1107 (1994); see also Bunting, *supra* note 275, at 141.

277. Studies of class action settlements in other contexts suggest this result. See, e.g., Gail Hillebrand & Daniel Torrence, *Claims Procedures in Large Consumer Class Actions and Equitable Distribution of Benefits*, 28 SANTA CLARA L. REV. 747, 760–61 (1988) (stating lower-income and less-educated claimants recover at disproportionately low rates).

278. The problem with this prediction is that it will be difficult to separate out the "rationality effect" from the general trend of increasing participation of institutional investors in securities fraud cases. See Jeffrey Mamorsky, *Empty Nest Eggs*, D & O ADVISOR, Sept. 4, 2004, at 1–2, available at 9/2004 DOADV 31 (Westlaw). Dan Markel, a reader of this paper in draft, suggests that women and minorities may be likely to participate in mutual funds at higher rates than white men, and that the demographic consequences I discuss in the text above may be overdrawn. It must be noted that to the extent that men are overconfident and risk seeking, increased application of puffery and bespeaks caution to deny fraud claims would give an incentive to more prudent inves-

B. THE DUTY TO BE A RATIONAL SHAREHOLDER: SOME CORPORATE LAW COMPLICATIONS

The discussion so far has sought to provide metrics with which to evaluate the practical effects of changes in judge-made securities doctrines on capital market participants. However, this doctrinal evolution should also cause corporate law scholars to explore whether some well-accepted truths about corporate governance are ripe for reevaluation. This section begins the task by considering the irony that presumed immateriality doctrine effectively increases government regulation of the corporate form to serve a model of investor behavior (market-based, wealth maximizing, rationality) that supports the edifice of private ordering in corporate law in the first instance.

I began this Article by emphasizing that a basic principle of corporate law is that investors buy assets under a “no duty” default rule. This rule has three premises, the first grounded in the basic framework of corporate law, the second in an intuition about the relationship between law and markets, and the third based on enforcement concerns. Understanding that the presumed immateriality standard has created a duty affecting all investors requires us to think about how courts are undermining or changing each of these foundational assumptions.

First, the law presumes investors are passive, delegating their control rights to the board and management of the enterprise they are purchasing.²⁷⁹ Second, the law presumes that the best way to encourage economic growth is to encourage market transactions in assets. Encumbering assets with duties may reduce the value of such assets, discouraging transactions, and thus reducing the ability of markets to generate capital for participating businesses.²⁸⁰ Third, the law imposes no duties on common investors because it is difficult to imagine to whom such duties should run. Courts, regulating the corporate form,

tors. This intuition is supported by evidence that some men seem to prefer “lottery” stocks which have lower average returns. *See supra* notes 269–72 and accompanying text. However, there is evidence that investors in mutual funds are “older, wealthier, and better educated than the average American” and also more likely to be men than women. *See* Gordon J. Alexander et al., *Mutual Fund Shareholders: Characteristics, Investor Knowledge, and Sources of Information*, 7 FIN. SERVICES REV. 301, 303–06 (1998) (analyzing the demographics of mutual fund investors).

279. *See* COX & HAZEN, *supra* note 2, § 2.04 (discussing the delegation of control and the issues it presents).

280. *See* Dalley, *supra* note 2, at 221–22 (discussing the effects of fiduciary duties on controlling shareholders).

generally reject the idea of public duties owed to individuals in society at large with merely potential reliance interests.

The scope of presumed immateriality requires us to reconsider whether courts in the securities context are adhering to these assumptions. In particular, courts seem increasingly willing to apply a "public duty" to participants in the corporate enterprise.

In our legal system, creating duties usually entails creating correlative rights.²⁸¹ However, in some circumstances, new duties—such as the duty not to harm endangered species—do not give rise to a private right to a cause of action.²⁸² We can conceptualize such duties as essentially self-regarding, and enforceable, if at all, by society at large.²⁸³ Another way to think about this problem was suggested by John Austin, who thought of duties as correlative not to rights, but to commands:

Being liable to evil from you if I comply not with a wish which you signify, I am *bound* or *obliged* by your command, or I lie under a duty to obey it. If, in spite of that evil in prospect, I comply not with the wish which you signify, I am said to disobey your command, or to violate the duty which it imposes.²⁸⁴

Thus, we can think of the "duty to be a rational shareholder" as an obligation enforced by the "evil" of the loss of the benefit of securities insurance. It is an obligation which benefits society (or the market, or the corporation) but which runs to no one.

While ordinarily a breach of a duty in the corporate context creates a right to sue,²⁸⁵ the duty to be a rational shareholder creates merely a "right" to a defense in a given securities litigation. In this way, presumed immateriality moves corporate law towards a regime that embraces the idea of public, instead of private, solutions for market failures. It supports an expansion

281. See WESLEY NEWCOMB HOHFELD, *FUNDAMENTAL LEGAL CONCEPTIONS AS APPLIED IN JUDICIAL REASONING* 36 (Walter Wheeler Cook ed., 1919) (discussing jural relationships); cf. Richard A. Epstein, *In Defense of the "Old" Public Health*, 69 *BROOK. L. REV.* 1421, 1469 (2004) ("The economic principles of scarcity have as their legal offshoot the principle of correlative rights and duties. No new rights can be created unless new duties are imposed.")

282. See, e.g., John Earl Duke, Note, *Giving Species the Benefit of the Doubt*, 83 *B.U. L. REV.* 209, 230–33 (2003) (discussing the limitation of the principle that duties confer rights).

283. See J.E. PENNER, *THE IDEA OF PROPERTY IN LAW* 120 (1997) (arguing that the state has an exclusive right to certain property law claims).

284. JOHN AUSTIN, *THE PROVINCE OF JURISPRUDENCE DETERMINED* 22 (Rumble ed. 1995).

285. See DOBBS, *supra* note 13, §§ 314–21.

of government power and regulation, and reduced enforcement through private parties.

And so what? This issue deserves further thought and study. If we are to take seriously the idea of privileging investor rationality, then it is just as easy to picture a regime where we punish investors that exhibit especially egregious “irrational” behaviors—or, more moderately, imposing a special “day trader tax.”²⁸⁶ If such proposals are too draconian for our tastes, why accept presumed immateriality, which creates similar economic effects?

Once we realize that the duty to be rational is an ideological choice based on the courts’ model of corporate governance, we should also question whether this model is a good fit for the special purposes and goals of securities law. Is the duty to be rational a natural outgrowth of the 1933 or 1934 Securities Acts,²⁸⁷ which seek to protect functioning (and presumably efficient) markets? Perhaps so, but it is hard to square reduced civil enforcement with an evolving congressional policy to increase access by individual investors to the capital markets.

These questions about the nature of the duty and the source of the right, constitute only some of the difficulties posed by courts’ creation of new shareholder obligations. That courts are willing to dismiss so many claims based on a failure to behave rationally is troubling; that courts have not made the duty clear is worse.

CONCLUSION

The materiality standard’s development as a proxy for economic rationality parallels related movements in areas of the law less commonly associated with wealth creation. The issue in some parts of private law adjudication, particularly torts, is whether to allow juries to substitute their ideas of reasonableness and retribution for what scholars believe should determine reasonableness, i.e., efficiency.²⁸⁸ In evaluating procedural reforms, some argue we should transfer the jury’s role to bureau-

286. See, LAWRENCE E. MITCHELL, CORPORATE IRRESPONSIBILITY: AMERICA’S NEWEST EXPORT 162 (2001) (discussing the rationale behind a day trader tax).

287. Securities Act of 1933, 15 USC §§ 77a-77m (2000); Securities Exchange Act of 1934, 15 USC §§ 78a-78kk (2000).

288. See generally Kaimipono David Wenger & David A. Hoffman, *Nullifictory Juries*, 2003 WIS. L. REV. 1115, 1122-28.

crats, who are better able to assess societal risks and benefits rationally.²⁸⁹

Inevitably, such paternalistic solutions appear an attractive remedy to the malleability and incoherence of human decision making. Indeed, as observed earlier, BLE threatens proposals which remove power from citizens and delegitimizes decisions unrelated to economically rational ends.

The doctrine of presumed immateriality provides an opportunity to reflect on this trend. Courts, ignoring BLE insights, are nonetheless doing precisely what some BLE scholars would have them do: deferring reflexively to the government when it sues, and thus empowering government regulators. At the same time, as the legal regime shifts its focus from the specific facts of each corporation's financial state to the disclosure's language, courts help wealthy defendants at the expense of "less rational" and often poorer, plaintiffs.²⁹⁰ And, as I have explored, the duty to be a rational shareholder may create demographic and redistributive effects that courts have not contemplated. Finally, presumed immateriality appears to permit corporations to intentionally make disclosures they hope and expect will engender detrimental reliance while avoiding the consequences the securities laws intended to impose.²⁹¹ Thus, current doctrine should satisfy no one.

There is a possibility that presumed immateriality will have increased consequences in the near future. Recent proposals seek to "privatize" social security through the creation of individual retirement accounts.²⁹² Under such proposals, presumed immateriality, which undermines unreasonable investors' protection against fraud, might endanger the retirement funds of millions of Americans.²⁹³

289. See SUNSTEIN ET AL., *supra* note 54, at 248.

290. Less wealthy and sophisticated corporate defendants will also be disadvantaged because of their failure to purchase sophisticated counseling regarding disclosure.

291. Cf. Preston, *supra* note 168, at 95 ("There has never been a better example of people having their cake and eating it too than advertisers using claims on the assumption that they work, while being protected by the law's assumption that they don't.").

292. Jeanne Sahadi, *Bush's Plan for Social Security*, CNNMONEY, Mar. 4, 2005, http://money.cnn.com/2005/02/02/retirement/stofunion_socsec/ (summarizing President Bush's social security reform plan).

293. That courts are deferring to the SEC, thus increasing its power, is reassuring. And, needless to say, Congress or the SEC may remedy problems created by the duty to be rational by appropriate legislation or regulation.

What, then, to do? Some have argued that courts ought to equate materiality with market effects: when stock prices react to disclosures, we should presume that the disclosure was material to a reasonable investor.²⁹⁴ Such proposals would make it substantially more difficult for courts to impose any given ideology.²⁹⁵ It might also create proper incentives for corporations to present information in as clear a way as possible. However, the market-materiality proposal appears to assume that Congress intended the securities laws to be a form of insurance, as I have suggested, and not a mechanism to protect the market itself, as many believe.²⁹⁶ Market-materiality, moreover, could result in weaker lawsuits proceeding further in litigation than current doctrine permits.²⁹⁷ In short, if this is the solution to the problems this Article has uncovered, it may be an impractical one.

Fixing the doctrine is only a small part in the larger story, which relates to how courts ought to rethink their traditional approaches to the construct of the “reasonable person.” Courts have used three basic methods to evaluate reasonableness: (1) divine a standard from first principles or previously existing

294. Langevoort, *supra* note 36, at 157.

295. A good objection to this proposal is to question whether juries are better than judges at evaluating investor behavior in ways that are not in tension with BLE. There are three responses. First, juries, unlike judges, can evaluate materiality along a spectrum, because their ability to compromise on damages allows them to calibrate their findings of materiality to their determinations of injury. Second, because juries need not explain their decision making, they may be less likely to “rationalize” materiality. Likewise, forcing judges to discuss what materiality means makes them more likely to find disclosures immaterial. Third, juries are not subject to the problem of docket management, and are instead one-off decision makers for whom the institutional pressures of time and appellate review are missing. *But cf.* Dan Markel, *Against Mercy*, 88 MINN. L. REV. 1421, 1426–27 n.19 (2004) (noting that juries’ one-off membership renders them immune from the carrots and sticks approach which legal policymakers generally use to prevent bad decisions).

296. See, e.g., Troy A. Paredes, *After the Sarbanes-Oxley Act: The Future of the Mandatory Disclosure System*, 81 WASH. U. L.Q. 229, 233–34 (2003) (“The goal of the mandatory disclosure regime of the federal securities laws is to promote capital market integrity and the efficient allocation of capital by ensuring that investors have the information they need to make informed investment decisions.”).

297. As well as being difficult to apply, judges would presumably require expensive and litigable event study methodologies before reaching a final decision. See Roussel, *supra* note 22, at 1078 n.141 (explaining that event studies require “extensive factual inquiries into the stock’s historical performance and the nature of the corporate statements, as well as exclusion of confounding events.”).

operative law, (2) leave the decision of reasonableness to a jury, or (3) intuit reasonableness using the judge's own experience as a guide. This problem arose in many areas of law, from traditional first-year subjects like contracts, torts, and criminal law,²⁹⁸ to regulatory topics like false advertising and employment discrimination. This Article has shown that—at least in the securities context—courts have used reasonableness as a proxy for a normative, behavior-shaping, rationality standard. Empirical analysis of courts' treatment of reasonableness in other areas of law might result in similarly interesting results.

Whether certain behaviors are or are not ordinary and reasonable need not be resolved by informed judicial hunches. Courts have a fourth option: use of experimental evidence of human behavior to help guide the relevant decision makers to a better understanding of how individuals actually act. This option is to be preferred. Application of BLE should lead courts to a more cautious approach toward presumed immateriality, or, at the very least, to greater transparency about their ideological goals and the relationship between those goals and the purposes of the securities laws.

298. See, e.g., *Ypsilanti v. Gen. Motors*, 506 N.W.2d 556, 557–62 (Mich. Ct. App. 1993) (considering whether a manufacturer's promises of continued employment in exchange for tax abatements were the kind of statements on which a reasonable person would rely).

APPENDIX
DESCRIPTION OF METHODOLOGY USED IN
EMPIRICAL ANALYSIS OF MATERIALITY

In Part II of this Article, I describe the results of statistical testing I performed on a large sample of federal securities cases that involved the “reasonable shareholder” standard of materiality. To select my sample, I ran the following search on the Westlaw databases for the Second Circuit, the Southern District of New York, the Eastern District of New York, the Western District of New York, the Northern District of New York, the District of Connecticut, and the District of Vermont: “108 S.Ct. 978’ or ‘426 U.S. 438’ or ‘485 U.S. 224’ or ‘96 S.Ct. 2126’ and rational! reasonable! lay ordinary intelligen! average /1 shareholder stockholder investor.” This search thus tests for citations to either *TSC Industries*²⁹⁹ or *Basic*³⁰⁰ when courts also analyze any of the possible variants on the materiality standard. I used citations from both the Supreme Court Reporter and the United States Reports because different courts might use distinct abbreviations and citation forms for case names.

Limiting the search to the Second Circuit makes sense for four reasons. First, the Second Circuit, and more specifically the Southern District of New York, are recognized as experts in securities law cases.³⁰¹ Second, the sample provided the largest universe of representative cases of any of the federal circuits. Third, because the Second Circuit is smaller than the Ninth Circuit, district courts in the Second Circuit should be more constrained in their interpretation of the materiality standard, removing or reducing a possibly confusing variable. Fourth, there is some evidence that the Second Circuit is comparatively “easier” on securities class action plaintiffs than the Ninth Circuit, reducing the risk that I would overrepresent the number of findings of presumed immateriality.³⁰²

Some readers of this paper in draft have suggested that an expanded database consisting of multiple circuits over a shorter period of time would provide a useful robustness check on the results I detail in the text.

299. *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 448–49 (1976).

300. *Basic Inc. v. Levinson*, 485 U.S. 224, 232 (1988).

301. See Bainbridge & Gulati, *supra* note 8, at 85 n.6.

302. See Pritchard & Sale, *supra* note 29, at 142 (indicating “that the Ninth Circuit is a tougher forum in which to bring securities fraud class actions”).

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The search yielded a data set of 472 opinions. 87 cases lacked an identifiable holding that any disclosure was material, possibly material, or immaterial. Such cases fall into many categories. For example, courts routinely analogize *TSC Industries* and *Basic* in deciding the materiality of contract or common law fraud claims. Courts also routinely cite the materiality standard, but then proceed to decide a securities fraud case on different grounds—e.g., no duty to disclose, lack of standing, statute of limitations, and failure to satisfy the “in connection with” requirement. I excluded those 87 cases and coded the remaining 385 cases.

For each case, I marked the following on a separate coding sheet: (1) the date, (2) whether the decision was published or unpublished, (3) jurisdiction, (4) procedural posture, (5) whether there was a finding that any of the disclosures considered should be dismissed pursuant to presumed immateriality, (6) the number of disclosures at issue in the materiality analysis, (7) whether any such disclosures remained for later materiality determination, and (8) the kinds of techniques used to find disclosures immaterial as a matter of law.

I undertook the initial coding. I skimmed each case (approximately 12,000 pages) until I found the discussion of materiality, and then I read that section with some care. My research assistant, Olga Wayne, entered the data I had written onto the coding sheet into a spreadsheet. I asked her to read independently each case in which I had marked a finding of presumed immateriality. When she disagreed with my initial coding, we discussed the case and reached a consensus about a proper treatment. This method resulted in discussion of approximately 100 cases, most of which regarded the number of disclosures at issue or the “reason” given for the court’s determination; my coding methodology was more restrictive than Ms. Wayne’s. I changed approximately ten coding decisions as a result of this consultative process.

I generally coded for applications of a given technique based on what the court itself said it was doing. For example, if a determination is made in the “materiality” section, it was coded as a materiality determination. However, if a court said it was making a materiality determination, while clearly making a determination about the nonexistence of a duty to disclose, my coding reflected it as a nondetermination of materiality. Gulati, Rachlinski and Langevoort similarly “scrutinized” the text to attempt to discern the real reasons for a court’s deci-

sion.³⁰³ Because of structural advantages embedded in the Gulati paper (experience, acumen, and numbers of researchers) it is probably fair to assume that their “corrections” of materiality determinations are more “accurate” in some objective and limited sense than mine.

After the initial run of coding, I made an additional run through of the dataset to locate cases resolving preliminary injunctions before trial, a procedural posture I had originally not coded for. The original data collection sheets are in my possession and are available on request, as is a spreadsheet containing my coding of each of the cases. Obviously, there are risks in engaging in nonblind coding. However, the method was sufficient for the purposes of this preliminary empirical project.

Admittedly, this dataset is not necessarily representative of all court action regarding materiality. There are three kinds of problems: sampling, search, and repeated cases.

First, the Westlaw database is limited to dispositions accompanied by opinions. Westlaw collected fewer opinions in the past than the present, and even now does not collect all opinions issued by federal district courts. This creates problems for empirical research. Courts denying summary judgment or a motion to dismiss are less likely to write an opinion because of the minimal likelihood of an interlocutory appeal. Thus, my results may contain a higher proportion of “presumed immateriality” findings (i.e., granting motions) than actually occurred. There may be a further wrinkle, in that motions to dismiss may be relatively more likely to result in a published opinion in a securities case than a motion for summary judgment.³⁰⁴ Motions for summary judgment, unlike motions to dismiss, if denied, will often be denied by order (because the court knows that post-trial motions are in the wings). Thus, as compared to a universe containing all dispositions, I should find a higher percentage of findings of presumed immateriality on summary judgment versus motions to dismiss.³⁰⁵

303. See Gulati et al., *supra* note 29, at 807. For example, the authors changed an initial determination of 30 percent “fraud by hindsight” to 2 percent. *Id.*

304. See Bainbridge & Gulati, *supra* note 8, at 116 n.94 (concluding that securities decisions on motions to dismiss are likely to be published).

305. See Krawiec & Zeiler, *supra* note 8, at 41–43 (discussing problems with collection of opinions on Westlaw); cf. Susan M. Olson, *Studying Federal District Courts Through Published Cases: A Research Note*, 15 JUST. SYS. J. 782, 790–93 (1992) (suggesting, in a study that compared the rates of publication with filings, that judges may write opinions where cases “involv[e] new

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Second, I only looked for cases that cited to *TSC Industries* or *Basic*. There are cases analyzing materiality which did not cite these landmark decisions.³⁰⁶ I can think of no reason why cases citing the Supreme Court standard are more likely to find disclosures material or immaterial. Moreover, failing to cite these seminal cases suggests a certain degree of haste, and would have potentially made it harder to discern a court's reasoning.

Third, some cases appeared at multiple places in my dataset. I coded for each decision as a separate event. To avoid corrupting the independence assumption, when I undertook regression analyses, I removed repeated cases using a random selection method. This resulted in a reduced database of 348 cases.

Thus, my study produces a preliminary evaluation of how materiality has evolved in courts' opinions; these results may only loosely correspond to what courts are doing in the larger world. Notwithstanding these problems, other authors analyzing the application of the securities law in the district courts used collection methodologies similar to mine.³⁰⁷

legal issues").

306. See, e.g., *Luce v. Edelstein*, 802 F.2d 49 (2d Cir. 1986) (analyzing materiality, announcing the bespeaks-caution doctrine, but not citing either *TSC* or *Basic*).

307. See, e.g., *Perino*, *supra* note 29, at 39.