HOW DO JUDGES MAXIMIZE? (THE SAME WAY EVERYBODY ELSE DOES—BOUNDEDLY): RULES OF THUMB IN SECURITIES FRAUD OPINIONS

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ABSTRACT

Judicial opinions in securities fraud class actions frequently do not conform to standard theories of adjudication. Instead of the complex modes of legal reasoning predicted by standard models, decisions in this area commonly rely on rules of thumb—decisionmaking heuristics or shortcuts. To the extent prior literature has focused on the use of decisionmaking heuristics in adjudication, commentators have emphasized procedural shortcuts, such as the doctrine whereby courts refuse to address issues that have not been squarely argued. In contrast, the heuristics we identify are substantive law doctrinal rules of thumb enabling a judge to avoid analysis of a case's full complexities. This distinction is significant. Procedural shortcuts do not affect the evolution of substantive legal doctrines, except as to produce no doctrine. Substantive heuristics, however, not only become doctrine but can come to dominate the ongoing evolution of substantive law. We suggest that the desire to avoid complexity is an important factor in explaining the emergence of a number of the newer doctrines in the securities area.

Underlying all of these doctrines are assumptions about either: (a) investor responses to information, or (b) managerial responses to incentives. The standard approaches used by commentators in the area would be to explain either why the assumptions are accurate or why they are not and how they

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should be corrected. What we suggest, however, is that the real puzzle is that federal judges are claiming—at least implicitly—a level of expertise about the workings of markets and organizations that, in some areas, not even the most sophisticated researchers in financial economics and organizational theory have reached. Federal judges, however, are far from being experts in these areas. As a group, they have little expertise on the topics of markets and organizational behavior. Further, they are consistently faced with overwhelming caseloads where only a small fraction of cases are securities cases. As a result, there is little opportunity to develop expertise in the area. Finally, judges are known to delegate much of the work of drafting their decisions to their law clerks, who are typically recent law school graduates.

Generalizing from the securities regulation context, we contend that standard theories of adjudication are flawed because they fail to account adequately for institutional constraints. Drawing on the tools of new institutional economics (bounded rationality, transaction costs, and agency costs), we tell a story about recent doctrinal developments in the lower federal courts in the area of securities class actions. The story highlights the link between doctrinal developments and the characteristics of the institutions that produce them. That story is then extended to the contexts of the Supreme Court and the Delaware state courts. Our claim is that the institutional perspective provides insights into the evolution of doctrine that today's dominant models fail to provide.

INTRODUCTION

Judicial opinions in securities fraud litigation frequently do not conform to standard theories of adjudication. Instead of the complex modes of legal reasoning predicted by standard models,[1] decisions in this area commonly rely on rules of thumb—decisionmaking heuristics. The limited prior scholarship on these doctrines focused on their merits, offering either justifications or critiques of the doctrines premised on sophisticated models of both: (a) investor responses to information (in the case of materiality-based heuristics), and (b) managerial responses to incentives (in the case of scienter-based

[1] Although there has been some academic work on style in judicial opinions, it has primarily focused on the styles of the stars such as Holmes, Cardozo, Hand, and Posner. *See, e.g.*, RICHARD A. POSNER, LAW AND LITERATURE 255-302 (2d ed. 1998); Robert F. Blomquist, *Playing on Words: Judge Richard A. Posner's Appellate Opinions, 1981-82—Ruminations on Sexy Opinion Style During an Extraordinary Rookie Season*, 68 U. CIN. L. REV. 651 (2000); Symposium, *Judicial Opinion Writing*, 62 U. CHI. L. REV. 1363-1519 (1995).

heuristics). Yet, surely it is implausible to ascribe to federal judges a level of expertise about the workings of markets and organizations that, in some areas, not even the most sophisticated researchers in financial economics and organizational theory have achieved.[2] Consider, for example, the doctrine that there is no duty to update ordinary earnings forecasts.[3] This doctrine allows a court to dismiss any duty to update claim where the claim is made vis-à-vis an ordinary earnings forecast. This substantive law heuristic invokes a doctrine premised on assumptions about the behavior of securities markets—namely, that investors understand that, when a company makes an ordinary earnings forecast, they should not expect the company to correct that forecast if things change later such that the forecast no longer appears valid. All of these assumptions are highly contestable.[4]

Thinking seriously about doctrinal heuristics, therefore, requires a new model of adjudication that refrains from heroic assumptions about the judicial decisionmaking process. Federal judges, in fact, generally are not experts in the area of securities.[5] As a group, it is safe to say that they have little

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[2] The "federal judges" we talk about here are both trial and appellate court judges. The heuristics that we discuss are principles of substantive law. Given that almost all the cases involve disputes at the threshold stages, the analyses applied by the different levels of courts are supposed to be the same. Further, both sets of judges are overworked and resource-constrained. While it is true that the levels and types of resource constraints are different in the two types of courts (and, indeed, across courts) and that appellate court judges have a greater obligation to write reasoned opinions, we think that the incentives and pressures on these two sets of judges are sufficiently similar to justify lumping them together for purposes of our analysis.

[3] *See, e.g.*, *In re* Verity, Inc. Sec. Litig., 2000 WL 1175580, at *5 (N.D. Cal.); *In re* Home Health Corp. of America, Inc. Sec. Litig., 1999 U.S. Dist. LEXIS 1230, at *55 (E.D. Pa).

[4] In his article about the bespeaks caution doctrine, Donald Langevoort made a similar point about empirical assumptions about "the reasonable investor" that necessarily underlie the applications of that doctrine:

> It is very difficult to determine with confidence what reasonable investors consider important, or can be misled by, except perhaps in well-developed trading markets that operate with a high degree of efficiency. There are no broad-based empirical studies that adequately describe how the normal investing population makes its investment decisions. In the absence of good data, lawyers and judges asked to determine what a reasonable investor would do have little choice but to draw implicitly on their own knowledge and experience.
>
> This introduces a serious risk of unconscious bias, for perceptions about the economic behavior of others can be quite inventive.

Donald C. Langevoort, *Disclosures That "Bespeak Caution"*, 49 BUS. LAWYER 481 (1994).

[5] *See* Stephen M. Bainbridge, *Insider Trading Regulation: The Path Dependent Choice between Property Rights and Securities Fraud*, 52 SMU L. REV. 1589, 1635-40 (1999) (making the observation with respect to Supreme Court Justices); Mitu Gulati & Catherine M.A. McCauliff, *On Not Making Law*, 61 L. & CONTEMP. PROB. 156 (1998) (making the observation with respect to federal appellate court judges).

expertise on the topics of markets and organizational behavior.[6] Further, they are consistently faced with overwhelming caseloads where only a small fraction of cases are securities cases.[7] As a result, there is little opportunity to develop expertise in the area. Finally, judges are known to delegate much of the work of drafting their opinions to their law clerks, who are typically recent law school graduates.[8]

Accordingly, we begin by assuming that we are dealing with a nonexpert federal judge faced with an overwhelming caseload and limited time and resources with which to decide those cases. We add the assumption that most judges do not find securities law interesting. From these institutional characteristics, we infer an explanation for the development and popularity of the heuristics, premised on limited cognitive capabilities, resource constraints, and a judicial desire to move cases off the docket in an acceptable fashion.

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[6] As for those judges who can claim some expertise in these areas—for example, Winter, Easterbrook, and Posner—they are not the ones on the forefront of developing and using these heuristics. That is not to say, however, that these judges never use the heuristics that are discussed in this Article. *See, e.g.*, Eisenstadt v. Centel Corp., 113 F.3d 738, 745-46 (7th Cir. 1997) (Posner, J.) (applying the puffery doctrine); DiLeo v. Ernst & Young, 901 F.2d 624, 627 (7th Cir. 1990) (Easterbrook, J.) (applying the no fraud by hindsight doctrine). One question that arises with the presence of both experts and nonexperts on the bench is that of why the nonexperts do not simply defer to the experts (something that in and of itself is a heuristic or rule of thumb). To the extent that the issue in question has been previously tackled by an expert or there is an expert on the panel, we do expect deference. The problem is that often there is no expert opinion available.

Some might say that Posner, Easterbrook, and Winter are not the true experts in the securities area. Instead, the real experts are the district court judges in the districts in New York and California who see securities fraud cases as a routine matter. The point is a valid one in that these judges likely have developed a better understanding of securities cases than their colleagues. That said, the expertise that judges are asserting in using the doctrines that we describe in this paper relates to empirical assumptions about investor and organizational behavior. That is not an expertise that can be gained by seeing a lot of cases. That is expertise that can only be gained by looking at the academic research on these topics (assuming that the judge is not out doing empirical research on his or her own).

[7] There is a large literature on the caseload crisis and ways in which courts have adapted to tackle their heavier caseloads. *See, e.g.*, Martha Dragich, *Once a Century: Time for a Structural Overhaul of the Federal Courts*, 1996 WIS. L. REV. 11 (1996); Stephen Reinhardt, *A Plea To Save the Federal Courts: Too Few Judges, Too Many Cases*, A.B.A. J., Jan. 1993, at 52-54; Lauren K. Robel, *Caseload and Judging: Judicial Adaptations to Caseload*, 1990 BYU L. REV. 3; J. Harvie Wilkinson, III, *The Drawbacks of Growth in the Federal Judiciary*, 43 EMORY L.J. 1147 (1994); Diane P. Wood, *Generalist Judges in a Specialized World*, 50 SMU L. REV. 1755 (1997).

[8] *See, e.g.*, WILLIAM DOMNARSKI, IN THE OPINION OF THE COURT 42-45 (1996) (discussing the extensive delegation of opinion writing tasks to law clerks); RICHARD A. POSNER, THE FEDERAL COURTS: CRISIS AND REFORM 102-119 (1985) (same). In addition, a collection of short articles and interviews on the subject can be accessed at the website for "The Long Term View" *at* http://www.mslaw.edu/longterm31.htm (including interviews on the subject with Richard Posner and Alex Kozinski).

To be sure, commentators previously have observed that institutional constraints shape the adjudicatory process.[9] Prior analyses, however, have largely focused on procedural heuristics that enable a court to dispose of an issue or case without tackling the substantive issue. An example of such a heuristic is the doctrine whereby courts refuse to address issues that have not been squarely argued.[10] In contrast, the heuristics we identify are substantive law doctrines. In other words, they take on the substantive issue but use a rule of thumb to decide it. Yet, our analysis does not merely identify a new category of heuristics.

First, our model is based on a different understanding of adjudication than was the prior literature on procedural heuristics. That literature tends to criticize judicial rules of thumb as being biased towards defendants.[11] Concededly, as with procedural heuristics, substantive heuristics may have pro-defendant effects. In the securities law area, substantive heuristics typically are used in early stages of litigation, most commonly at the motion to dismiss.[12] The analysis typically centers on issues of materiality and scienter. The focus on these issues is somewhat surprising, as determinations of materiality and intent are supposed to be left to the triers of fact.[13] Instead of leaving those determinations for trial, as we show herein, judges are using substantive heuristics to dispose of securities cases at the motion to dismiss stage. In contrast to prior commentary, however, we argue this result reflects

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[9] *See infra* note 71 and accompanying text.

[10] *See, e.g.*, United States v. Torres, 162 F.3d 6, 11 (1st Cir. 1998) (observing that issues raised for the first time in an appellant's reply brief are generally deemed waived); Grella v. Salem Five Cent Savings Bank, 42 F.3d 26, 36 (1st Cir. 1994) (stating "we have warned litigants that issues averted to in a perfunctory manner, unaccompanied by some effort at developed argumentation, are deemed waived for purposes of appeal"); Laborers' Int'l Union of N. Am. v. Foster Wheeler Corp,. 26 F.3d 375, 398 (3d Cir. 1994) (stating an issue is waived unless a party raises it in its opening brief and for those purposes "a passing reference to an issue . . . will not suffice to bring that issue before this court").

[11] *See infra* note 40 and accompanying text.

[12] As part of this project, we collected a random sample of 100 class action securities disclosure opinions to test some of our impressions about the developing case law in the area. The cases were collected off the Westlaw database for securities cases and include both published and unpublished dispositions for the period March 1, 1996 to March 1, 2001. In our sample, 91 of the 100 opinions involved decisions at the motion to dismiss stage. *Cf.* Donald C. Langevoort, *Half-Truths: Protecting Mistaken Inferences by Investors and Others*, 52 STAN. L. REV. 87, 91 n.16 (1999) (noting that most securities fraud cases involving half-truths and omissions are decided at the motion to dismiss or early summary judgment stage of the proceedings; further noting that cases which are not dismissed tend to settle). As Lars Noah pointed out to us, our reliance on published decisions may bias our data set. In particular, unpublished decisions may be more likely to deny a motion to dismiss than are published opinions. Our primary concern, however, is not with the empirics of securities litigation, but rather with the evolution of doctrine. Hence, our focus is on published opinions, which have much greater influence on future decisions.

[13] *See, e.g.*, TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 450 (1976).

not a pro-defendant bias, but rather institutional constraints that give judges incentives to eliminate securities cases from their dockets with minimal effort.

Second, our focus on substantive heuristics highlights a previously unobserved link between institutional constraints and the evolution of substantive doctrine. When judges invoke procedural heuristics that enable them to avoid tackling a substantive issue, there is no effect on the evolution of substantive law (except that no law is created). When judges invoke substantive heuristics, however, the use of such heuristics channels, and even dominates, the ongoing evolutionary processes of the (quasi-common) law of securities regulation. As we demonstrate, for example, the development of substantive securities law heuristics has resulted in a highly developed law on both materiality and scienter. At the same time, however, other issues, such as the scope of different duties to disclose, are largely ignored (except perhaps to say why they were not deserving of attention).[14]

This Article proceeds in four Parts. Part I discusses competing models of adjudication. In doing so, it fleshes out the standard models and contrasts them to the institutional model that we propose. The securities and corporate law literature commonly focuses on a specific doctrinal development and then

[14] Donald Langevoort's response to this Article validly argues that heuristics "do not always dominate." *See* Donald C. Langevoort, *Are Judges Motivated To Create "Good" Securities Fraud Doctrine?*, 51 EMORY L.J. 309, 311 (2002) (*"Judges"*). Of the cases in our sample, however, fewer than 15 percent (14 out of 100) contained extensive discussions of substantive securities law doctrines other than scienter, particularity, or materiality. In our view, this empirical observation answers a question posed by some of our more skeptical commentators—namely, why do judges care about dismissing a case, if denying the motion (thereby ruling for the plaintiff) also results in a settlement. Under both ways, the case goes away. Therefore, there should be no bias in favor of dismissals. Our answer points to the frequency with which courts dismiss on threshold issues such as materiality and scienter. If the judge dismisses on these issues, there is no need for the judge to get into more complex questions such as the duty to disclose (questions one would have to get into if one were to deny the motion). If, however, those other questions are easy, a denial of the motion is a good option because the case will be settled.

At first cut, as Steve Salop has pointed out to us, decision theory appears to predict the pattern that we see in the securities opinions. Decision theory tells us that judges will rationally (and legitimately) favor deciding a case on certain issues rather than others at different stages of the litigation process. These decisions as to which issues to focus on, the theory says, will be a function of the information available at that particular stage. At early stages of the litigation, such as the motion to dismiss, one would expect, therefore, to see the judges focusing on issues that require few facts. After all, if the case can be decided with a high level of accuracy at an early stage, that furthers the goal of efficiency. In the securities cases, we do see that judges focus on deciding cases on a particular subset of issues at the early stages of the litigation (i.e., where few facts are available). Decision theory predicts that these issues will be the ones that are relatively fact-insensitive. What we see in the securities opinions, however, is the reverse, which is a focus on the fact-sensitive issues at the early stages of the litigation where the judge has the fewest set of facts. For a discussion of decision theory and issue sequencing as applied to antitrust, see C. Frederick Beckner III & Steven C. Salop, *Decision Theory and Antitrust Rules*, 67 ANTITRUST L.J. 41 (1999).

works backwards either to explain why that development is efficient or, more commonly, to show that it is inefficient. We argue, however, for the development of an institutional perspective: one that links doctrinal developments to the characteristics of the institutions that produce them.[15] In a sense, this article is as much about styles of securities law scholarship as it is about styles of judicial opinion writing. Part II describes ten judicial heuristics, and runs them through the competing models from Part I. Part III extends the analysis to the areas of Supreme Court and state court opinion writing. Part IV concludes with some brief thoughts on further work in the direction of bringing an institutional perspective to the analysis of judicial opinions in the area.

I. COMPETING MODELS OF ADJUDICATION

Under standard rational choice-based theories of adjudication, we are faced with some rather curious anomalies in how securities cases are decided. Consider, for example, the puzzling differences between how doctrines like the half-truth rule are applied to face-to-face transactions under the common law of fraud and to impersonal capital market transactions under the federal securities laws. Securities law has incorporated (through judicial decisionmaking) a number of common law doctrines, such as those governing half-truths, puffery, and the duty to update.[16] In each case, the application of the doctrine has been harsher on securities plaintiffs than it was on plaintiffs in face-to-face common law cases.[17] Why?

To be sure, systematic differences exist between investor expectations and interpretation of statements made in a national market context and those made in face-to-face transactions.[18] A standard rational choice-based critique of this body of law would assert that judges recognize these differences and have tweaked the law to reflect them. We regard this approach as giving judges too much credit for being intendedly rational, however, and taking too little account of the limitedly rational nature of judicial decisionmaking. Judges are

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[15] *See* Ian F. Haney López, *Institutional Racism: Judicial Conduct and a New Theory of Racial Discrimination*, 109 YALE L.J. 1717 (2000) (using an institutional focus to study judicial behavior and concluding that judges tend to rely on "scripts"); Edward L. Rubin, *Legal Reasoning, Legal Process, and the Judiciary as an Institution*, 85 CAL. L. REV. 265 (1997) (suggesting that an institutional focus is likely to provide valuable insights into the nature of judicial opinions).

[16] *See infra* Part II (describing relevant heuristics).

[17] *See* Langevoort, *supra* note 12, at 91 (observing that courts are more inclined to dismiss half-truth claims in securities cases than in those sounding in common law fraud).

[18] *See id.* at 103-05 (summarizing differences).

not sophisticated thinkers about market dynamics—or, at least, most of them are not. Instead, judges are boundedly rational decisionmakers who, worse yet, are overworked and resource-constrained.[19] For the most part, they tend to have little expertise on matters of corporate and securities laws.[20] Given these conditions, what would one expect?

One way that actors attempt to minimize effort in making complex decisions is by satisficing—settling for an acceptable outcome rather than holding out for the maximizing outcome.[21] The difference between satisficing and optimizing has been described as the difference between searching for the sharpest needle in a haystack and searching for a needle that is good enough.[22] In this context, we argue that judges have an incentive to rely on standard-based doctrines that can be used to dispose of a wide variety of cases on simple threshold issues—such outcomes are "good enough," but avoid the need to decide more complex and difficult issues.[23] In securities cases, we argue, the primary goal of the judge (and, perhaps more important, the clerk) is to move the case off the docket in a respectable manner; the goal is generally not one of attempting to advance the law in the area. The result is a systematic failure by overworked judges (and their clerks) to address some of the more difficult securities laws issues.

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[19] *See supra* notes 7-8.

[20] *See, e.g.*, Frank Partnoy, Synthetic Common Law (Oct. 2000) (unpublished manuscript, on file with authors) (discussing the problems of nonexpert judges tackling complex derivatives cases); *cf.* Edward S. Adams & Daniel A. Farber, *Beyond the Formalism Debate: Expert Reasoning, Fuzzy Logic, and Complex Statutes*, 52 VAND. L. REV. 1241, 1243 (1999) (noting that "judges in specialty courts, such as the Bankruptcy Courts, are probably in a better position than generalist appellate judges to interpret complex statutes . . . and that Generalist judges should approach complex statutory issues with a strong degree of deference to the 'local culture' of the field").

[21] *See* Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051, 1075-76 (1999).

[22] *See* L.J. Bourgeois, III, *On the Measurement of Organizational Slack*, 6 ACAD. MGMT. REV. 29, 35-36 (1981) (discussing satisficing); *see also* Melvin A. Eisenberg, *The Limits of Cognition and the Limits of Contract*, 47 STAN. L. REV. 211, 214 (1995).

[23] In a recent article, Hillary Sale also has noted the trend towards the use of heuristics in securities cases. She, however, describes these heuristics as "clear rules." Hillary A. Sale, Judging Heuristics (undated working paper on file with authors). Along lines similar to Sale, Jonathan Macey has argued that judges (especially generalist judges with a lack of specific knowledge about cases) have an incentive to use "clear rules" of procedure to decrease caseloads. *See* Jonathan R. Macey, *Judicial Preference, Public Choice, and the Rules of Procedure*, 23 J. LEGAL. STUD. 627, 629-31 (1994). Note that Macey, as the title of his article suggests, was talking about procedural rules and not styles of opinion writing.

A. *Herculean Judges and Wannabes*

Much of legal academic writing, and certainly the bulk of law teaching, involves the analysis of case law. Implicit in case analysis is inevitably a model of judging. Two models dominate the discussions of securities law cases, each with two variants: (a) the Herculean model,[24] in which the judge has full information and full knowledge and, generally speaking, gets it right; and (b) the Wannabe model, in which the judge seeks to be Herculean, but errs because he or she is mortal.[25] The sub-variants of each model depend on what the scholar in question believes that judges seek to maximize: social welfare or personal policy preferences.

1. *Herculean Judges*

A Herculean model of adjudication starts with a given doctrinal development and seeks to demonstrate that the rule is the economically efficient one. Consider, for example, the doctrine of puffery. In its strong form, the puffery doctrine says that vague statements of optimism by corporate managers are per se immaterial.[26] Investors are assumed to understand that when corporate managers make vague optimistic statements about their companies, such as "we expect our earnings to go up significantly in the near future," the managers are doing what salesmen always do—for example, puffing their products. Investors are further assumed to discount these vague statements and, accordingly, are not fooled by them.[27]

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[24] We borrow the term "Herculean" from Ronald Dworkin. Dworkin was not claiming that judges are Herculean, but rather suggesting that they should be. In addition, Dworkin's conception of the Herculean judge was not one of a judge who solely seeks to maximize efficiency. *See* RONALD DWORKIN, LAW'S EMPIRE 400-407 (1986).

[25] These two approaches roughly correspond to the two dominant approaches in Law and Economics, that is, the positive and normative approaches. Under the positive approach, the economic model is used to show that the judges (even if unconsciously) base their decisions on efficiency goals. The normative approach, in contrast, evaluates doctrines in terms of how far they fall from the efficiency goal and urges judges to move towards that goal. *See, e.g.*, Lewis D. Solomon, *Humanistic Economics: A New Model for the Corporate Constituency Debate*, 59 U. CIN. L. REV. 321, 322-23 (1990) (describing the approaches). For a more detailed discussion of these approaches, see Jules Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 HOFSTRA L. REV. 509 (1980); Owen Fiss, *The Death of the Law?*, 72 CORNELL L. REV. 1 (1986); Richard A. Posner, *A Reply to Some Recent Criticisms of the Efficiency Theory of the Common Law*, 9 HOFSTRA L. REV. 775 (1981); Richard A. Posner, *Some Uses and Abuses of Economics in Law*, 46 U. CHI. L. REV. 281 (1979).

[26] *See, e.g.*, *In re* Boston Technology Inc. Sec. Litig., 8 F. Supp. 2d 43, 54 (D. Mass. 1998). For a more detailed discussion of puffery, see *infra* notes 100-06 and accompanying text.

[27] *See, e.g.*, Schaffer v. Timberland Co., 924 F. Supp. 1298, 1313 (D.N.H. 1996).

A legal academic operating from a Herculean perspective would explain the puffery doctrine by pointing to research in financial economics showing that investors (and the markets) are sophisticated enough to (and do) discount vague statements by corporate officers. The intellectual arbitrage from financial economics, therefore, demonstrates that it was economically efficient for the puffery doctrine to develop. Implicit in this analysis of puffery is a Herculean judge, who: (a) values efficiency, and (b) either possesses or intuits a sophisticated understanding of the dynamics of financial markets and investor decisionmaking.[28] Hence, the judge, after careful and thoughtful analysis, gets it right.[29]

Unfortunately, Herculean models are both descriptively inaccurate and misleading. As Judge (and former professor) Frank H. Easterbrook observes: "Much of the judge-centered scholarship in contemporary law schools assumes that judges have the leisure to examine subjects deeply and resolve debates wisely. Professors believe they have this capacity and attribute it to judges. Pfah!"[30]

Herculean models err because they assume neoclassical rationality, while judges are just as subject to cognitive biases and constraints on analytical abilities as anyone else.[31] The Herculean models also err to the extent they assume perfect information. Unlike academics who have the time and ability to read the latest research on financial market theory, judges are severely time and knowledge-constrained.[32]

The Herculean model encourages a couple of common errors. First, because the model assumes judges get it right, it pushes academics analyzing the relevant doctrine to develop stories suggesting that the doctrine is efficient. Put another way, because the Herculean model frequently works by hindsight, there is a form of the selection bias problem. Continuing with the puffery

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[28] *See, e.g.*, Marilyn F. Johnson et al., *In re* Silicon Graphics, Inc.: *Shareholder Wealth Effects Resulting from the Interpretation of the Private Securities Litigation Reform Act's Pleading Standard*, 73 S. CAL. L. REV. 773, 800-04 (2000) (positing that judges ought to use shareholder wealth maximization as the principal interpretative norm with respect to the titular statute and implying that judges should rely on event studies in determining what interpretation achieves that goal).

[29] There is an alternative story in the literature on the efficiency of the common law which posits that judges do not necessarily get it right (or even aim to do so), but that markets and quasi-markets correct their errors. *See infra* note 41 (citing articles on the subject).

[30] Frank H. Easterbrook, *What's So Special About Judges?*, 61 U. COLO. L. REV. 773, 778 (1990).

[31] *See generally* Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL. L. REV. 777 (2001) (describing empirical findings of cognitive errors by judges); *see also* authorities cited *infra* note 63.

[32] *See infra* note 68 and accompanying text.

example, a Herculean-biased commentator will observe that judges routinely dismiss cases involving vague statements of optimism. After puzzling about it for a bit, our hypothetical Herculean-minded scholar comes up with an explanation. For example, there may be a handful of studies suggesting that markets are sophisticated enough to discount vague information accurately. Using these studies as evidence, the scholar concludes that investors must treat statements of the sort at issue here as "mere puffery." Because that prediction is consistent with the neoclassical model of rational behavior and efficient markets, the scholar can then tell a plausible story in which the puffery doctrine makes sense from that perspective.

Suppose, however, that courts had rejected the puffery doctrine (as indeed, they appeared to have done at one time). What would our hypothetical Herculean-minded commentator do with those cases? Because the Herculean model pushes one towards choosing stories that justify the doctrine, our commentator would reflect a bit and then focus on studies contending that investor behavior frequently appears to be irrational. Our commentator would bring to bear the emerging insights of behavioral economics, noise theory, and the like, to contend that investors react strongly to vague statements. Hence, the story would be that the judges got it right when they rejected puffery.

A Herculean-biased commentator will look for evidence that the doctrines at bar are efficient. He or she typically will find that evidence, but only because he or she solved the efficiency puzzle only after first learning the relevant doctrines. As to most securities law doctrines, there is enough conflicting evidence and theory that a moderately clever scholar can come up with an explanation and justification for existing doctrine. The Herculean model thus biases commentators towards a self-fulfilling prophecy.

A second problem is that the Herculean model leads to an assumption that judges know what they are doing, which in turn leads to an assumption that judges mean what they say. Academics thus frequently fall into the trap of approaching judicial opinions as an inerrantist approaches Holy Writ.[33] They read decisions as though: (i) those opinions were statutes to be interpreted from

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[33] Inerrancy is a theological position most closely associated with evangelical Protestants, who assert that "the Bible in its original autographs and correctly interpreted is entirely true and never false in all it affirms . . . ." *See* EVANGELICAL DICTIONARY OF THEOLOGY 142 (Walter A. Ewell ed., 1984).

a strict textualist perspective, and (ii) one could ascribe intentionality to the judge's utterances. As we shall see, this model leads one astray.[34]

As we have described it, the basic Herculean model assumes judges who selflessly pursue some widely accepted conception of social welfare with perfect information and unbounded rationality. A variant on this model assumes that judges pursue not some extrinsic conception of the good, but rather their personal policy preferences. Adjudication thus is not what it claims to be—a neutral, objective application of distinctly legal expertise to a specific problem—but a mask for the personal values and preferences of the adjudicator.[35]

Consider the puffery doctrine again. At its root, puffery is a doctrine of immateriality. In other words, it allows judges to dismiss a host of securities claims on the basis that the underlying statements were immaterial as a matter of law because they were "mere puffery." A commentator relying on this realist variant of the Herculean model likely will explain the extensive use of (and expansion of) the puffery doctrine on the ground that judges believe

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[34] For an analogous critique of legal scholarship, see Charles W. Collier, *The Use and Abuse of Humanistic Theory in Law: Reexamining the Assumptions of Interdisciplinary Legal Scholarship*, 41 DUKE L.J. 191 (1991). Collier writes that institutional constraints on adjudication "make inherently implausible any attempts to attribute grand, philosophical doctrines to the judiciary—which is precisely what those I criticize do." *Id.* at 221. Elsewhere, Collier writes:

> One could look outside judicial doctrine, language, and opinions for other sources of law, but humanistic legal scholars *do not*. Rather, they focus exclusively on judicial opinions, but then use theories to explain them (from outside the law) that are conspicuously at odds with our judicial system and the institutional realities of adjudication.

Id. at 224.

[35] *See, e.g.*, RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 534 (4th ed. 1992) ("[J]udges seek to impose their personal preferences and values on society."); Tracey E. George, *Developing a Positive Theory of Decisionmaking on U.S. Courts of Appeals*, 58 OHIO ST. L. J. 1635, 1640 (1998) (describing, in the context of an empirical test of the two dominant models of judging in the political science literature, the attitudinal model which assumes that judges seek to maximize their sincere policy preferences). One of us has elsewhere argued that this policy preferential vision of the judicial role is unappealing, at best, from a normative perspective. *See* Stephen M. Bainbridge, *Social Propositions and Common Law Adjudication*, 1990 U. ILL. L. REV. 231 (asserting that judges should seek to enforce not their personal preferences, but rather those policies and moral norms that have substantial support in the community). Suffice it to say that, at least insofar as securities regulation is concerned, we find this model unpersuasive from an explanatory perspective. For a recent extended discussion of adjudication and the contrasting models of judges (realist versus formalist), either faithfully following and applying the law or doing whatever their political and policy preferences prompt, see ALLAN C. HUTCHINSON, IT'S ALL IN THE GAME: A NONFOUNDATIONALIST ACCOUNT OF LAW AND ADJUDICATION (2000).

securities class actions tend to be frivolous and, therefore, are looking for quick and dirty ways of disposing of such class actions.[36]

This is an especially prominent model of adjudication in the securities literature. There was a time, not so very long ago, when the Supreme Court quite explicitly took public policy concerns into account in deciding securities cases.[37] In recent years, however, the Court has sometimes denied the propriety of doing so.[38] Yet, many scholars contend, the Court still does so, albeit somewhat less explicitly. Where the Court once pursued investor protection though expansive interpretations of the liability provisions,[39] these scholars argue, the current Court pursues a policy preference of having fewer securities lawsuits—sometimes more charitably put as a desire to prevent excessive, vexatious, often frivolous litigation.[40]

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[36] In her article on heuristics, Sale contends that heuristics emerge from the dislike of the judges for both securities cases and the plaintiffs lawyers who bring them. *See* Sale, *supra* note 23. As Sale sees it, Congress, by adopting harsher standards for securities fraud cases in the Private Securities Litigation Reform Act ("PSLRA") in 1995, gave judges the green light to be aggressive in dismissing these cases. *See id.* Sale argues, however, that the judges, in taking their aggressive posture well beyond what Congress authorized in the PSLRA, misread Congressional intentions. *See id.* In a sense, Sale's model of adjudication has elements of both a realist position (the judges exercising their dislikes) and an intentionalist perspective (where judges fill the gaps in the law by looking to what legislative intent might have been). The second part, the intentionalist perspective, is close to Posner's account of interpretation under which judges are supposed to engage in "imaginative reconstruction" of legislative intentions. *See* HUTCHINSON, *supra* note 35, at 92 (discussing Posner's views).

[37] *See, e.g.*, Landreth Timber Co. v. Landreth, 471 U.S. 681, 695 n.7 (1985) ("[I]t is proper for a court to consider . . . policy considerations in construing terms in [the federal securities] Acts.").

[38] *See* Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A., 511 U.S. 164, 188 (1994) ("Policy considerations cannot override our interpretation of the text and structure of the Act, except to the extent that they may help to show that adherence to the text and structure would lead to a result 'so bizarre' that Congress could not have intended it.").

[39] *See, e.g.*, J.I. Case Co. v. Borak, 377 U.S. 426 (1964) (creating implied private right of action to ensure investor protection).

[40] *See, e.g.*, Stephen M. Bainbridge, *Securities Act Section 12(2) After the* Gustafson *Debacle*, 50 BUS. L. 1231 (1995). Professor Marc Steinberg opines, for example:

> Along with other recent high court decisions that narrow the scope of the federal securities laws, *Central Bank of Denver* will increasingly prompt allegedly aggrieved litigants to bring suit in state courts. Perhaps this tact has been the Court's objective for well over a decade. If so, the Court is effectuating this strategy with mechanistic efficiency.

Marc I. Steinberg, *The Ramifications of Recent U.S. Supreme Court Decisions on Federal and State Securities Regulation*, 70 NOTRE DAME L. REV. 489, 490 (1995) (footnotes omitted). *See also* Roberta S. Karmel, *Curtailing Civil Liability*, N.Y.L.J., Apr. 20, 1995, at 3 (same point); *cf.* Donald C. Langevoort, Seeking Sunlight in Santa Fe's Shadow: The SEC's Strategic Pursuit of Managerial Accountability (Mar. 17, 2001) (unpublished manuscript, on file with authors) (making the same point with respect to the development (or reinvigoration) of the doctrines of "bespeaks caution" and "puffery" in the lower courts and the "stunning willingness of these judges to decide difficult materiality issues as a matter of law").

Although it is undeniably attractive, and contains more than a grain of truth, this variant on the model is descriptively incomplete. Granted, judges are like other political actors in the sense that they bring to the bench beliefs, ideologies, biases, and even constituencies.[41] Yet, while policy preferences are a part of the story, they are not the whole story. Given the diversity of political beliefs that judges hold, it is unlikely that policy-based preferences will result in a stable and acceptable doctrinal solution that does not have a lot more going for it. On the lower courts, we are aware of no more than a handful of judges who have reputations for pushing their policy agendas. Most judges are relatively staid and, as we see it, are focused on getting through their caseloads. Further, even for those judges who have reputations for pushing their policy goals, securities policymaking generally is not at the top of their agendas.

Even if we err in our intuition as to the limited role policy plays in securities law opinion writing, a variety of corrective forces come into play when lone ranger judges charge off in pursuit of some policy preference. In the first place, informal social norms play a strong role in constraining judicial behavior. "By accepting and retaining office the judge undertakes an ongoing commitment to carry out the rules of the office," one of which is "a moral obligation to faithfully employ the norms of social morality . . . whether or not he privately agrees with those norms."[42] Social norms of this sort, reinforced by both internalization and extrinsic social sanctions, provide a check on the behavior of judges.[43]

A variety of external corrective forces also come into play when a judge strays from widely accepted conceptions of the good. From the aggrieved litigant's perspective, the best outcome is a reversal on appeal. Even if the decision stands, however, it is still open to criticism. If they perceive that the decision is out of

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[41] One study found, for example, that female and minority federal judges are more pro-plaintiff in sex discrimination cases than are white male judges. Nancy Crowe, Diversity on the Federal Bench: The Effect of Judges' Sex and Race on Judicial Decisionmaking (unpublished), *available at* http://www.src.uchicago.edu/depts/polsci/research/american/crowe.html. Another recent study found partisan affiliation predictive of judicial review of agency determinations. *See* Richard Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717 (1997). We do not dispute the general explanatory power of such models, but rather simply doubt their relevance for much of securities litigation.

[42] MELVIN ARON EISENBERG, THE NATURE OF THE COMMON LAW 24 (1988).

[43] For discussions of the important role that informal norms can play in constraining judicial behavior, see Evan Caminker, *Sincere and Strategic Voting on Multi Member Courts*, 97 MICH. L. REV. 2297 (1999); Gulati & McCauliff, *supra* note 5. Perhaps the most well-known norm that constrains judicial behavior is that of stare decisis. *See* Jack Knight & Lee Epstein, *The Norm of Stare Decisis*, 40 AM. J. POL. SCI. 1018, 1032-34 (1996).

line with what other judges believe, lawyers will argue that the rule should be overturned or distinguished in future cases. Commentators and other courts may point out the decision's flawed reasoning. In extreme cases, the legislature may step in. As we explain in the following section, judges care about prestige, status, and reputation. Where possible, they will seek to avoid criticism from the outside that will hurt them on those counts.[44]

The temptation of this analysis is the hypothesis that those doctrinal solutions that survive both endogenous and exogenous checks on judicial behavior are socially optimal. Such a hypothesis, however, requires heroic assumptions. It might hold up if judges are capable of discerning the socially optimal outcome. This requirement, of course, applies both to the Herculean judges who render trial decisions and the equally Herculean judges who review those decisions on appeal. Ditto with respect to commentators and legislators. Alternatively, the claim would also hold up if some Adam Smith-like invisible hand guides the adjudicatory process towards socially optimal doctrines from a nonoptimal starting point. Neither assumption strikes us as plausible. Instead, we argue that the evolution, expansion, and survival of certain securities law doctrines are best explained neither as personal policy preferences nor as socially optimal rulemaking, but rather as an inevitable side effect of constraints on judicial decisionmaking.

In the securities and corporate law area, commentators using either variant of the Herculean model almost never acknowledge the theory of adjudication that informs their work. A skeptic might say, therefore, that we are wrong and that the Herculean model does not feature prominently in securities law scholarship. As noted above, a non-Herculean explanation might be that scholars believe that market and quasi-market forces operate to push doctrines towards efficiency—an argument akin to the one that was much discussed in debates over the efficiency of the common law.[45] Because, to our knowledge,

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[44] For a recent study of the factors influencing judicial behavior, see Gregory C. Sisk et al., *Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning*, 73 N.Y.U. L. REV. 1377 (1998).

[45] For reviews of the literature on the subject, see Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LIT. 1092 (1989) (finding that there is at best a weak tendency towards efficiency); Jefferey Evans Stake, *Status and Incentive Aspects of Judicial Decisions*, 79 GEO. L.J. 1447, 1478-1497 (1991) (identifying flaws in a number of the standard models). For other examples of discussions on the subject, see Yoram Barzel, *Dispute and Its Resolution: Delineating the Economic Role of the Common Law*, 2 AM. L. & ECON. REV. 238 (2000); Todd J. Zywicki, *A Unanimity-Reinforcing Model of Efficiency in the Common Law: An Institutional Comparison of Common Law and Legislative Solutions to Large Number Externality Problems*, 46 CASE W. RES. L. REV. 961 (1996); *see also* D.N. Dewees & Michale Halewood, *The Efficiency of the Common Law: Sulphur Dioxide Emissions in*

the argument has not been made in the securities context, it is hard to know what those market forces might be, but a simplistic version might claim that bad doctrines generally produce a larger number of disputes and that heightened litigation continues until the doctrines evolve to their socially optimal point.[46]

Alternatively, our skeptic might say that scholars put a Herculean spin on decisions they know to be the product of constrained decisionmaking because doing so provides a road map for later courts to follow to interpret and apply the doctrine optimally. Perhaps so, but that is a reach—for one, it assumes that judges are reading these articles to see how to apply these doctrines optimally.[47] In any case, without an explanation along these lines, the Herculean model remains highly problematic.

2. *Wannabes*

Legal scholars in the more formalistic traditions frequently persuade themselves that there is a right answer to even the most complex legal problem. Judicial decisions are then held up to this discovered truth for comparison. If the judge got it right, the Herculean model is invoked. In some cases, however, the scholar concludes that the judge got it wrong. Hercules proves to be mortal or, to mix mythological metaphors, the judge proves to have an Achilles-like heel. The rewards for novelty in the academic world have been much commented upon.[48] That reward structure may lead

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Sudbury, 42 U. TORONTO L.J. 1 (1992); Ramona L. Paetzold & Steven L. Willborn, *The Efficiency of the Common Law Reconsidered*, 14 GEO. MASON L. REV. 157 (1991).

To be clear, we are not challenging the claim that the common law evolves towards efficiency. First, while the doctrines we discuss are judge created, they evolve within a statutory framework and are, at best, a kind of quasi-common law. Second, and more important, our challenge is not to the broad claim that these doctrines result in economic efficiency or optimality. It is possible that some of the anti-plaintiff doctrines that we discuss do work towards producing the socially optimal number of suits (although we are skeptical about this). Our present challenge is directed solely to the version of the optimality story claiming that the empirical assumptions about market and managerial behavior that necessarily underlie these doctrines are accurate.

[46] *Cf.* George Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEG. STUD. 1 (1984) (describing the process by which disputes evolve through litigation); *see also* Stake, *infra* note 45, 1478-1495 (describing the literature).

[47] There is an extensive debate over the value of legal scholarship to judges that we have no desire to enter into here. For our purposes, what is important is that there is little indication in the caselaw that judges are looking to legal scholarship for insights as to the heuristics that we discuss. Indeed, the scholarship on these topics is only beginning to emerge.

[48] For a recent critique of, among other things, legal scholarship, see Patrick J. Schiltz, *Legal Ethics in Decline: The Elite Law Firm, the Elite Law School, and the Moral Formation of the Novice Attorney*, 82 MINN. L. REV. 705 (1998).

scholars—especially when the merits of a doctrine are fuzzy—to err on the side of deciding that existing doctrine needs to be swept away in favor of some new standard devised by the scholar.

A standard scholarly move, thus, is to take a doctrinal development, evaluate it based on some combination of theories of markets, investor behavior, and legislative intent, and demonstrate how the judge got it wrong. The next move is to elucidate the author's view of the socially optimal outcome and propose legal reforms that will achieve that outcome. Implicit in this model is a conception of the judge as Wannabe: He or she tried to be Herculean—that is, set out to arrive at the optimal outcome—but failed (probably miserably). The scholar's task then is to show where the judge went awry and set future courts and legislators on the right track.

Once again, let us use puffery as our exemplar. A scholar operating from a Wannabe perspective will point to evidence suggesting that investors are unable to distinguish between honest, but vague, statements and misleading puffery. Under those conditions, the commentator might explain, what results is a standard "lemons" problem in which investors discount all statements as amounting to spin. In turn, the commentator argues, the lemons problem pushes the market to an inefficient, but stable, equilibrium in which everyone lies. The commentator concludes by recommending that judges cease using the puffery doctrine and, instead, rigorously enforce a doctrine requiring the statements of corporate managers to be literally true.

The flaws in this model are the related assumptions that: (1) the judge in fact wishes to be Herculean, and (2) that erring judges can be set on a path that leads to enlightenment. It fails to take into account the constraints under which judges make decisions. Accordingly, it fails to be either descriptive or predictive. Continuing with the puffery example, it is noteworthy that the limited scholarly work on that doctrine has been largely critical.[49] Yet, it not only remains in use, but has undergone considerable recent expansion.

3. Summary

The two basic models described above, and their variants, are oversimplifications. The authors who use them have likely had nuanced reasons for their assumptions about judges. Further, each of the models has value. Our

[49] *See, e.g.*, Jennifer O'Hare, *The Resurrection of the Dodo: The Unfortunate Re-Emergence of the Puffery Defense in Private Securities Fraud Actions*, 59 OHIO ST. L.J. 1697 (1998).

claim, however, is that there is a crucial and important part of the story that is missing—namely, the effects of workload, skill, and knowledge constraints on the evolution of doctrine.

B. The Incentives To Use Heuristics

This Part sets forth our model of adjudication. The goal is to understand one specific aspect of adjudication—that is, the process of writing an opinion in a securities class action case. Given that, we limit ourselves to using as building blocks those institutional features that bear most directly on the opinion writing process.[50] Those three features are: (1) cognitive and resource constraints; (2) constraints imposed by the norms of judging; and (3) agency problems that arise from using clerks in the writing process.[51]

1. Judges as Constrained

Neoclassical rational choice theory assumes that individuals act so as to maximize their expected utility. Typically, it acknowledges no cognitive limits on their power so to do.[52] New Institutional Economics accepts that economic actors seek to maximize utility, but takes into account limits on cognition. Those limits, in turn, are posited to result in decisions that often fail to maximize utility.[53] Hence, the phrase "bounded rationality,"[54] which posits decisionmakers who are subject to inherent limits on their ability to gather and

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[50] Currently, in Law and Economics, there is a debate between Posnerians, on the one hand, who are seen to pay little attention to institutional details in building their models, and the disciples of Coase and Williamson, on the other, who have urged that scholars move away from "black box" conceptions of production and look carefully at the institutional arrangements that determine what is produced. *See, e.g.*, David Campbell & Sol Picciotto, *Exploring the Interaction Between Law and Economics: The Limits of Formalism*, 18 LEG. STUD. 249 (1998). In the terms articulated above, we fall within the institutional camp. That said, Posner has been at the forefront of urging greater attention to the workings of the judiciary. For his most recent investigation into the workings of the federal courts, see William M. Landes & Richard A. Posner, *Harmless Error*, 30 J. LEGAL STUD. 161 (2001).

[51] A fuller model of adjudication (and even of opinion writing) would undoubtedly specify a larger number of institutional features such as the role of the lawyers and the incentives and constraints that operate on them. Other relevant features to consider might be the group decisionmaking process at the appellate level and the process by which judges are selected.

[52] Korobkin & Ulen, *supra* note 21, at 1075-76.

[53] *See* OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM 45-46 (1985) (quoting Herbert Simon to the effect that economic actors are "*intendedly* rational, but only *limitedly* so").

[54] The term "bounded rationality" was coined by Herbert Simon. *See* Herbert A. Simon, *Rational Choice in the Structure of the Environment*, *in* MODELS OF MAN 261, 271 (1957).

process information.[55] To varying degrees, all humans have inherently limited memories, computational skills, and other mental tools.[56]

Bounded rationality becomes a significant constraint on decisionmaking under conditions of complexity and uncertainty. A problem may be complex either because it involves many options or because a limited number of initial options cascade into a decision tree with many branches. A closely related problem is that of ambiguity, or uncertainty, which exists when decisionmakers are uncertain about the content of the alternatives available to them or otherwise lack the information necessary to make an optimizing choice.

Under conditions of uncertainty and complexity, boundedly rational decisionmakers are unable to devise either a fully specified solution to the problem at hand or fully assess the probable outcomes of their action.[57] In effect, cognitive power is a scarce resource, which the inexorable laws of economics tell us decisionmakers will seek to allocate efficiently (to the best of their ability). Consistent with that prediction, there is evidence that actors attempt to minimize effort in the face of complexity and ambiguity.[58] One way in which they do that is by using decisionmaking "heuristics."[59] Ironically, this is a rational adaptation to bounded rationality—in response to the limits on their cognitive powers, decisionmakers seek to reduce both the likelihood of error and the costs of decisionmaking.[60]

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[55] For a taxonomy of the various forms bounded rationality takes, see Roy Radner, *Bounded Rationality, Indeterminacy, and the Theory of the Firm*, 106 ECON. J. 1360, 1362-68 (1996).

[56] Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN L. REV. 1471, 1477 (1998). Donald Langevoort's response to this Article criticizes us for failing to rely on "any of the known heuristics or biases that psychologists find so robust." Langevoort, *Judges*, *supra* note 14, at 312. In addition, he asserts that we do not "identify any underlying subconscious psychological process" that would motivate the use of heuristics. *Id.* at 312. We do not deny that behavioral economics—the incorporation of systematic cognitive biases into the traditional rational choice model—has "become a standard part of both positive and normative [economic] analysis." Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023, 1058 (2000). As developed in this section, however, we believe that the well-established principle of bounded rationality provides a parsimonious account of the incentives judges have to rely on heuristics. *See also infra* note 195 (discussing potential enrichment of our model through greater reliance on behavioral characteristics).

[57] *See* OLIVER E. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS 23 (1975) (Under conditions of uncertainty and complexity, it becomes "very costly, perhaps impossible, to describe the complete decision tree . . . .").

[58] *See* Korobkin & Ulen, *supra* note 21, at 1078 (citing studies).

[59] *See, e.g.*, Roger G. Noll & James E. Krier, *Some Implications of Cognitive Psychology for Risk Regulation*, 19 J. LEGAL STUD. 747, 750 (1990).

[60] There is something of a chicken and egg problem here. In contrast to the New Institutional Economics account, behavioral economists assert that bounded rationality is a consequence of the widespread unconscious use of heuristics in decisionmaking. Korobkin & Ulen, *supra* note 21, at 1075-76. People constantly rely on

As applied to judicial decisionmaking in the context of securities adjudication, the inherent cognitive limitations implied by bounded rationality are reinforced by significant institutional constraints providing further incentives for judges to minimize effort. That federal judges, at both the trial and circuit court levels, are under severe resource and expertise constraints is well-documented.[61] There has been a dramatic increase in the size of the federal courts' dockets over the past few decades, with which judicial appointments have not kept pace. Simultaneously, not only have technological and other advances increased the complexity of applying existing laws, but the ongoing expansion of the regulatory state continues to drive federal legislation into new and ever more complex areas. One of the areas influenced most by changes in technology is the financial market. Technology appears to be rapidly altering the nature of investing, the dynamics of markets, and the kinds of financial products. At the least, fundamental assumptions about these aspects of financial markets are being questioned more seriously than they have been in a while. For example, notions of efficient markets that ruled the roost for a time are regularly ridiculed these days by the financial press,[62] and increasing numbers of academics are moving towards theories of cognitive biases.[63]

None of this is controversial. The controversies have tended to be over the solutions—whether there should be more judges, whether cases on certain subjects should be delegated to expert and specialist courts, and whether the

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mental heuristics and rules of thumb, not as a consciously rational economizing strategy, but without even being aware they are doing so. *Id.*

[61] *See, e.g.*, Easterbrook, *supra* note 30, at 778-79 (describing institutional constraints on judicial decisionmaking).

[62] An illustration of this phenomenon is the recent media attention lavished on Robert Shiller's recent book, *Irrational Exuberance*, which pulls together his academic work on debunking efficient market theories. *See* ROBERT J. SHILLER, IRRATIONAL EXUBERANCE (2000); *see, e.g.*, Louis Uchitelle, *Why Speculate?*, N.Y. TIMES, May 7, 2000, § 7, at 38; Barton G. Malkiel, *Where Logic Ends and Speculation Begins*, WALL ST. J., Apr. 4, 2000, at A24.

[63] Indeed, there is growing evidence that judges are subject to the same sort of cognitive biases that behavioral economics have identified elsewhere. *See, e.g.*, Jeffrey J. Rachlinski et al., Cognitive Psychology (undated working paper, on file with authors); *see also* Jeffrey J. Rachlinski, *Heuristics and Biases in the Courts: Ignorance or Adaptation?* 79 OR. L. REV. 93 (2000) (arguing that trial judges are more likely to recognize cognitive errors made by juries than those made by the judges themselves, so that when judges act as fact finders they are subject to cognitive biases that can lead to erroneous judgments); W. Kip Viscusi, *Jurors, Judges, and the Mistreatment of Risk by the Courts*, 30 J. LEGAL STUD. 107 (2001) (reporting experimental results in which judges exhibited cognitive errors in assessing risk, but also that jurors were much more likely to do so).

numbers of law clerks and staff attorneys should be increased.[64] Our interest, however, is how these constraints are shaping the evolution of judge-made doctrine, especially the evolution of securities law.

When deciding securities cases, courts are often faced with hard, dry, and highly technical substantive law issues. Most judges and clerks come to the court with little expertise in securities law.[65] In addition, we think it safe to assume that neither the judges, nor their clerks, have much interest in developing substantial institutional expertise in this area after they arrive, nor much incentive to do so. To quote Eric Posner, they are "radically incompetent."[66]

We assume that judges, like everyone, are utility maximizers. But what do judges maximize? It cannot be wealth, for most judges could earn far more as law firm partners than as federal judges. As noted in the preceding section, it could be the power to impose their personal policy preferences on society. As we saw in the preceding section, however, while this theory of adjudication has some plausibility, it falls short when applied to the broad spectrum of judicial decisions. Once one acknowledges that judges are only boundedly rational, the theory becomes even less plausible.

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[64] *See, e.g.*, William M. Richman & William L. Reynolds, *Elitism, Expediency, and the New Certiorari: Requiem for the Learned Hand Tradition*, 81 CORNELL L. REV. 273 (1996).

[65] In an examination of the backgrounds of the different active federal appellate judges who served on the bench during the period 1995-97 for a different project, one of us found that fewer than ten percent of the judges had, what might be described as, an extensive commercial practice background. Mitu Gulati & Veronica Sanchez, Giants and Pygmies (June 2001) (unpublished draft, on file with authors). Trial judges, who have to be able to run trials, are even less likely to come from commercial practice backgrounds. *Cf.* Easterbrook, *supra* note 30, at 779 ("Judges have a broad understanding of the law, not a deep one."). Of course, as Donald Langevoort's response to this Article suggests, many judges may have some seat-of-the-pants experience with securities law issues by virtue of being investors. *See* Langevoort, *supra* note 14, at 317.

[66] *See* Eric A. Posner, *A Theory of Contract Law Under Conditions of Radical Judicial Error*, JOHN M. OLIN LAW & ECONOMICS WORKING PAPER #80 (1999), *available at* http://papers.ssrn.com/paper.taf?abstract_id=173788 (last visited Nov. 30, 2001). Posner's article is a critique of Ian Macneil's theory of relational contracts. Early relational contracts scholarship acknowledged that courts will not necessarily enforce agreements at low cost or even accurately. "So the debate was explicitly about the accuracy or inaccuracy of the courts." *Id.* at 3. Macneil reposed great confidence in the courts, assuming that judges would understand both the nature of the dispute and the parties' relationship. In contrast, Goetz and Scott placed less confidence in judicial abilities, but nevertheless gave judges the difficult task of determining what actions are value-maximizing in the context of the specific dispute. Finally, Schwartz placed such little confidence in judicial abilities that he required them to enforce contracts literally. *Id.* at 6. Posner doubts whether any of the three went far enough in doubting judicial abilities. In contrast, albeit for reasons somewhat different than ours, Posner assumes that courts are "radically incompetent." *Id.* at 7.

Suppose judges have a policy preference for economically efficient outcomes (we think it unlikely that any such generalization is valid as applied to all judges, but here we make the necessary assumption arguendo). As one economist who studies law observed, it may be doubted whether "judges understand enough economics" to hold or effectuate such a preference.[67] "Quite a lot of twentieth-century law . . . seems to bear the stamp of economic ignorance."[68] Indeed, even economically sophisticated judges like Posner—who seems unaffected by workload constraints and is known to be one of the few, along with Easterbrook, who does not use law clerks to draft opinions[69]—frequently get it wrong when trying to determine the economically efficient outcome.[70] Nonexpert judges, subject to the constraints on cognitive power implied by bounded rationality, are unlikely to do any better.

Even if the policy preference theory of adjudication were generally valid, however, we doubt whether many judges derive much utility from deciding securities cases (former corporate and securities law professors excepted). Instead, judges derive the most utility from (and thus expend the greatest effort on) deciding cases in areas in which the opinion will bring the judge prestige and other reputational benefits. Hence, the cases in which the judge has an incentive to tackle complex issues will be either areas in which the judge has special expertise (and, therefore, unlikely to be securities law) or areas that receive significant attention from the constituencies such as the press, academics, and other judges (for example, first amendment cases).

Under such conditions, bounded rationality and the institutional constraints on judicial decisionmaking argue for finding ways of deciding securities cases with minimal effort. An actor can economize limited cognitive resources in two ways. First, by adopting institutional governance structures designed to promote more efficient decisionmaking. Second, by invoking heuristics—that is, heuristic problem-solving processes. The emphasis here is on the second approach.

Others have likewise posited that resource constraints are pushing judges towards the use of heuristics. Among the heuristics posited in prior literature, which we generally accept, are: a sharp reduction in the fraction of dispositions

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[67] DAVID D. FRIEDMAN, LAW'S ORDER: WHAT ECONOMICS HAS TO DO WITH LAW AND WHY IT MATTERS 298 (2000).

[68] *Id.*

[69] *See* DOMNARSKI, *supra* note 8, at 122.

[70] FRIEDMAN, *supra* note 67, at 299.

that are made with published opinions; increased use of summary dispositions; extensive use of law clerks and staff attorneys; and subtle and not-so-subtle pressures on parties to settle out of court.[71] Note that prior work on heuristics focused almost exclusively on procedural devices. What has been largely left out—surprisingly, given the fraction of legal academics who focus their research efforts on parsing published opinions—has been an inquiry into the effects of these constraints on the content and evolution of the substantive law.

2. *Judges as Agents*

Ironically, while agency cost economics is a staple of securities law scholarship, the focus is almost always on the behavior of managers and investors. Little attention is paid to the fact that the relationship between society and the judge is one of agency (in the economic sense) and, accordingly, that judicial conduct can be analyzed in agency cost terms.

Agency costs are defined as the sum of the monitoring and bonding costs, plus any residual loss, incurred to prevent shirking by agents.[72] In turn, shirking is defined to include any action by a member of a production team that diverges from the interests of the team as a whole. As such, shirking includes not only culpable cheating, but also negligence, oversight, incapacity, and even honest mistakes.[73] A sole proprietorship with no agents internalizes all costs of shirking, because the proprietor's optimal trade-off between labor and leisure is, by definition, the same as the firm's optimal trade-off. Agents of a firm, however, will not internalize all of the costs of shirking—the principal reaps part of the value of hard work by the agent, but the agent receives all of the value of shirking. Unless the agent is monitored so that shirking is deterred, the disutility of labor

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[71] *See, e.g.*, Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1, 21 (1993) (noting "the multitude of devices, most judge-invented, for ducking issues presented by the parties to appeals"). As many readers will have noticed, our title—*How Do Judges Maximize? (The Same Way Everybody Else Does—Boundedly): Rules of Thumb in Securities Fraud Opinions*—is a play on the title of Posner's justly famous article.

[72] The obligatory reference is Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Cost, and Ownership Structure*, 3 J. FIN. ECON. 305, 308 (1976). *See also* Eugene F. Fama & Michael C. Jensen, *Separation of Ownership and Control*, 26 J. L. & ECON. 301, 304 (1983).

[73] Hence, Donald Langevoort's response to this Article correctly assumes that we are not ascribing conscious bad faith to judges or law clerks. *See* Langevoort, *supra* note 14, at 312. We disagree, however, with Langevoort's assertion that we "want [cognitive sloth] to be *the* story and dismiss all other possibilities. *Id.* at 313. We are simply arguing that cognitive sloth is an important part of the story—and one that is all too often overlooked.

implies that agents will shirk because their reward is unlikely to be closely related to conscientiousness.[74]

As an ordinary matter, agency problems are thought to be solved by setting up incentive mechanisms. In the economics literature, the most commonly discussed incentive mechanisms involve promotions and pay increases.[75] On the plus side, people are induced to exert effort by the prospect of promotions and pay increases and, on the minus side, they are deterred from shirking by the prospect of terminations and bad job references. U.S. federal judges present something of a puzzle here in that they are subject to few such carrots and sticks. On the carrot side, their salaries are fixed and their prospects for promotion are miniscule. And, on the stick side, except in very extreme circumstances, there is little prospect of termination. The simple pay and promotion perspective, therefore, suggests that judges should shirk all the time. No one claims that. If anything, there is probably general agreement that judges work quite hard. The question is, what is the incentive system that gets them to work and how does that incentive system operate with respect to opinion writing?

Given the absence of pay and promotion incentives, the next set of candidates for incentives are those factors that economists generally ignore—things like status, prestige, esteem, and reputation. In recent literature, these are discussed under the rubric of "informal social norms."[76] The limited literature on judging as an agency problem suggests that these are indeed the factors at play.[77] On both the plus and minus side, judges appear to attach importance to status, prestige, esteem, and reputation. But that only scratches the surface. There are two threshold questions to be answered before we can say much about the impact of these incentive mechanisms on the use of heuristics. First is the question of the audience. In other words, status, prestige, esteem, and reputation from whom? There are at least five plausible

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[74] For an argument that judges' utility functions include "leisure-seeking," see Posner, *supra* note 71, at 19-21.

[75] *See, e.g.*, EDWARD LAZEAR, PERSONNEL ECONOMICS 39-40 (1995); PAUL MILGROM & JOHN ROBERTS, ECONOMICS, ORGANIZATION, AND MANAGEMENT 214, 366-67 (1992).

[76] Behavior is regulated by both law and social norms. A standard example of the distinction between the two is that leaving a tip after one eats in a restaurant is a social norm, while paying for one's food is a legal requirement. Kaushik Basu, *Social Norms and the Law 1* (undated), *available at* http://papers.ssrn.com/paper.taf?abstract_id=42840 (last visited Nov. 30, 2001). Accordingly, we can roughly define a social norm as a social attitude specifying the behavior an actor ought to exhibit in a given situation. Korobkin & Ulen, *supra* note 21, at 1127.

[77] *See* Gulati & McCauliff, *supra* note 5, at 202 (citing studies and discussing the evidence); *see generally* LAWRENCE BAUM, THE PUZZLE OF JUDICIAL BEHAVIOR (1997).

audiences: the public, lawyers, other judges, academics, and the legislature. Second, given the audience structure, how is the pursuit of prestige, esteem, status, and reputation likely to manifest itself with regard to opinion writing? Will there be an intense no-holds barred competition for attention from these audiences? Or will there be a holding pattern; one of seeking attention in a few areas where they have expertise and avoiding the risk of negative attention with the majority of cases?

In terms of audiences, the primary issue is that of scrutiny. Who pays attention to opinions and whose attention matters to the judges? The bulk of attention from the public, academics, and the legislature is reserved for Supreme Court opinions. Lower court opinions—except for those that involve highly controversial issues or those by a handful of high visibility judges—receive negligible attention from these audiences. Even if a particular judge cares about attention from these audiences, the judge is unlikely to receive much attention unless the judge is fortunate enough to have a high profile and controversial case show up on his or her docket. But "high profile" and "controversial" are almost never words used to describe securities class action cases.

The level of attention from lawyers, who have to use these cases in their work, is likely higher. Securities litigators, in particular, are likely least to at skim recent securities opinions. But there is the question of how much the judges care about what the securities litigators think of them. Judges may care a little—securities, at least on the defense side, is a high prestige practice area that will likely involve high status lawyers who may socialize in the same circles as judges—but we are skeptical that social pressures from local securities lawyers, who constitute but a small portion of the bar, have much of an impact on the behavior of judges.[78]

The most important audience is likely to be that of other judges. These are the people with whom judges do interact on a routine basis. In particular, judges routinely interact with the other judges in their own circuit.[79] They may not actually meet often (although many do), but they do interact with each

[78] The classic work on lawyer prestige is CHICAGO LAWYERS: THE SOCIAL STRUCTURE OF THE BAR 66 (John P. Heinz & Edward O. Laumann eds., rev. ed. 1994) (showing the relatively high level of prestige accorded to securities lawyers).

[79] Workload constraints and the sheer volume of opinions that are put out everyday, however, mean that the level of attention judges receive from judges in other circuits—except for the superstars who serve as sources of extra authority—is probably minimal. That said, because securities is not a high volume area for opinions—as compared, for example, to criminal law—there may be some cross-circuit attention.

other's opinions in that they read them, follow them, and use them. And displeasure with opinions can be clearly signaled in a variety of ways, ranging from saying so at a social occasion to a failure to cite to an explicit statement of disagreement or, in the case of circuit judges vis-à-vis district judges, by reversal. In sum, the audience that likely matters is that of the other judges, with the primary audience being that of local judges. In agency terms, it is the informal norms of the judiciary—their scrutiny and pressure—that operate to keep the judges from shirking.[80]

Given the audience, the next question is that of how the pursuit of positive attention (and avoidance of negative attention) from this audience is likely to manifest itself in opinion writing. As noted, judges are a generalist audience with little skill or interest in securities issues. Accordingly, securities opinions likely receive low levels of scrutiny. Securities opinions then will be in the pool of those more likely to be delegated to the law clerks. What judges want to see from their clerks are opinions that pass muster with the other judges. To the extent that the clerks write opinions following formulas that other judges have generally accepted—even if they make little sense when examined in isolation—that is good. And if the clerk can write an opinion relatively quickly that avoids getting into too many complicated issues, which the judge would otherwise have to scrutinize and spend time evaluating, that is even better.

The nature of the market for opinions, moreover, makes it unlikely that many judges will focus on writing opinions intended to impress their colleagues.[81] Instead, the market for opinions (or, more accurately, the market for citations) will be dominated by a few superstars. Opinions are a distinct product. It costs nothing extra to use the opinion of one judge as opposed to

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[80] *See* Bruce M. Selya, *Publish and Perish: The Fate of the Federal Appeals Judge in the Information Age*, 55 OHIO ST. L.J. 405, 412 (1994) (suggesting that the primary pressures that get judges to publish opinions are those from other judges); *cf.* Richard McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997) (positing that people value the esteem of others and that compliance with social norms earns one esteem, while violating such norms causes one to lose esteem).

[81] This may explain why most judges delegate the bulk of their opinion writing to their clerks. Indeed, we have heard more than one district court judge refer sarcastically to the Federal Supplement as the "vanity press." In contrast to us, Nicholas Georgakopoulos argues that judges in the U.S. system are likely to pursue prestige through the process of opinion writing and specifically through the acquisition of citations. *See* Nicholas L. Georgakopoulos, *Discretion in the Career and Recognition Judiciary*, 7 U. CHI. L. SCH. ROUNDTABLE 205, 213 (2000). As noted in the text, while we think that Georgakopoulos' claim may hold true for the superstar judges—Cardozo, Learned Hand, Friendly, Posner, and the like—the pursuit of prestige through displays of superior opinion writing is unlikely to be a major driving force for the vast majority of appellate and district court judges.

that of another. Hence, if a few judges write opinions that are better articulated and easier to understand and apply than the opinions of all the other judges, and these judges write opinions in enough different areas, only the opinions of these judges will be cited. In addition, there is a skew at the outset. There are a handful of judges who far exceed the others both in terms of preexisting reputations and in terms of writing skills. If these judges develop good reputations, which they inevitably will if everyone uses their opinions, then the incentive to rely on their opinions increases even more because these opinions now carry extra reputational value.[82] Accordingly, the winners of the competition for attention in terms of opinions are preordained.

As a result, there is likely to be a dramatic skew in the spoils. The bulk of the prestige, status, reputation, and esteem will go to the handful of judges who write the best opinions. All others will get next to nothing. Data on variables such as citations, invocations, numbers of cases in casebooks, and the like suggest that this is indeed the pattern that the market follows—a few judges get the bulk of the attention and the rest receive a negligible amount.[83] The incentives for the vast majority of judges—the ones who know that it is pointless to compete to be opinion writing superstars—therefore will be to delegate opinions to the clerks and focus their own attention on making sure that the opinions are "good enough" so as to avoid negative attention.[84]

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[82] These are what are often referred to as "superstar" markets. *See* Moshe Adler, *Stardom and Talent*, 75 AM. ECON. REV. 208, 208 (1985); Sherwin Rosen, *The Economics of Superstars*, 71 AM. ECON. REV. 845, 845 (1981). For a recent application, see William M. Landes & Richard A. Posner, *Citations, Age, Fame, and the Web*, 29 J. LEGAL STUD. 319 (2000).

[83] *See* Gulati & Sanchez, *supra* note 65. For other recent articles on prestige and reputation measures regarding appellate judges, see David Klein & Darby Morrisroe, *The Prestige and Influence of Individual Judges on the U.S. Courts of Appeals*, 28 J. LEGAL STUD. 371 (1999); William M. Landes et al., *Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges*, 27 J. LEGAL STUD. 271 (1998).

[84] Judges lose prestige and status if they are perceived by fellow judges as not doing their work, which entails things like being prepared for oral argument, following precedent, giving adequate reasons for their decisions, and deciding cases on time. Judges are able to maintain the high status and prestige that their offices confer on them as long as they are able to "get by" in terms of tackling their large workloads. There is little expectation or pressure on judges to aspire to write opinions like Holmes or Cardozo. The remarks of one judge in a survey of federal judges conducted by the federal judicial center are illustrative. He said:

> Keeping current with the docket has to be a high priority for any judge. I am unable to keep my work current if I read the records and do the writing and take time for thinking in those cases where it is needed. I spend time moving mail with little decisions (protecting the law clerks from being interrupted) and editing the work of clerks.

1 Federal Courts Study Committee: Working Papers and Subcommittee Reports 73 (July 1990) ("Federal Courts Study Committee"). In Posnerian terms, the game that the vast majority of judges are playing is not a competition over opinion writing skill—it is one of keeping one's head above water in terms of the workload. *See* Posner, *supra* note 71, at 29 (positing that "[t]he judicial 'game' has rules that lawyers learn in law school

The agency story does not necessarily predict that a pattern of using heuristics will emerge. What it does tell us is that informal social norms play a key role in governing what the judges do and that the conditions are ripe for the emergence of heuristics. Put differently, the story suggests that if there is a critical mass of judges who signal that they accept heuristics, there are incentives for others judges to follow along (because there is now a low likelihood of negative attention). Further, once it is known that a particular formula of using heuristics is likely to be used, judges who do compete in the market for citations have an incentive to produce new heuristics that fit the formula.

3. *Judges as Principals (Clerks as Agents)*

The fact that judges rely heavily on their law clerks for assistance in the opinion writing process is one that has been observed by many commentators.[85] For our purposes, this reliance is important because it increases the likelihood that securities cases will be decided through the use of heuristics. Assuming an overcrowded docket, it is going to be more efficient for the judge to spend his resources on cases on which he is an expert. In particular, as one of us experienced as a district court clerk, many judges will develop substantial expertise in dealing with the routine cases—prisoners' rights, social security, and the like—that clog the dockets. Clerks will therefore be used mainly on cases in areas in which the judge lacks that comparative advantage, which usually will include securities cases. Unfortunately, the clerks, typically being fresh out of law school, are unlikely to be experts in anything, including securities regulation. As to the law clerk faced with complex issues in an area with which he or she is unfamiliar, the incentives to use available heuristics are further exacerbated. The law clerk is faced with the task of drafting an opinion that passes muster with the judge (and, on an appellate court, with the other panelists). To tackle the case's core

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and then in practice or teaching, and both self-selection and the careful screening of federal judicial candidates help to assure that most lawyers who become federal judges will be lawyers who enjoy this particular game").

[85] *See, e.g.*, Thomas E. Baker, *Intramural Reforms: How the U.S. Courts of Appeals Have Helped Themselves*, 22 FLA. ST. U. L. REV. 913, 944 (1995); Nadine J. Wichern, Comment, *A Court of Clerks, Not of Men: Serving Justice in the Media Age*, 49 DEPAUL L. REV. 621, 649-50 (1999); *see also* Fed. Cts. Study Comm., *supra* note 84 (survey reporting that the majority of judges self-report that they delegated drafting opinions to law clerks). For acknowledgments by prominent judges of their reliance on clerks to draft opinions and of their roles as editors, see FRANK COFFIN, ON APPEAL: COURTS, LAWYERING AND JUDGING 193-209 (1994); Particia Wald, *Selecting Law Clerks*, 89 MICH. L. REV. 152, 153 (1990); Luther Swygert, *Swygert's Story*, 11 CHI. LAW. 16-17 (1988); Patricia Wald, *The Problem with the Courts: Black-Robed Bureaucracy, or Collegiality Under Challenge?* 42 MD. L. REV. 766, 777-78 (1983).

complexities is not only going to take additional time (and the clerks, like the judges, are likely to be overloaded), but will also risk the judge disagreeing and asking for revisions. Unless the case involves issues about which the clerk especially cares, the clerk's incentives are to draft the opinion using heuristics that avoid complex issues.

4. Summary

The threshold premise, therefore, is that the judge is faced with a complex securities law case, to which doing full justice would require a detailed and highly technical analysis of both the statute and the underlying financial transaction. Tackling the case's doctrinal and business complexities would require time- and resource-consuming effort, for which the judge and the clerks get little reward.[86] They also know that if they tackle the complex issues head on, they are likely to get it wrong and attract criticism. Consistent with the model of judges as utility maximizers who derive utility mainly from prestige and other reputational factors, we assume that judges experience significant disutility from being criticized (and worse, from being reversed). As such, judges may well care more (at least subconsciously) about avoiding negative attention than about getting it right.

On the other hand, summary disposition without a plausible basis likewise invites reversal or, at least, criticism. This is why we think prior scholarship focused on procedural heuristics misses an important part of the story. A judge

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[86] The above-noted increasing complexity of financial transactions subject to the securities laws strikes us as an especially significant consideration. As Eric Posner observes:

> [C]ourts have trouble understanding the simplest of business relationships. This is not surprising. Judges must be generalists but usually they have narrow backgrounds in a particular field of the law, and they often owe their positions to political connections, not to merit. Their frequent failure to understand transactions is well-documented. One survey of cases involving consumer credit, for example, showed that the judges did not even understand the concept of present value. [Citing Jeffrey E. Allen & Robert J. Staaf, *The Nexus Between Usury, "Time Price," and Unconscionability in Installment Sales*, 14 UCC L. J. 219 (1982)]. The judges struck down contracts because the credit price was higher than the cash price, not taking account of risk and of the time value of money. The authors showed that the implicit interest rates were reasonable. Even when judges do not misunderstand basic ideas, we must take their interpretation of facts on faith. Judges' reasoning can be evaluated only against the canned facts described in the opinion, which themselves are the result of a fact-finding process that does not inspire confidence. . . . Skepticism about the quality of judicial decision-making is reflected in many legal doctrines, including the business judgment rule in corporate law, which restrains courts from second-guessing managers and directors, and the many contract doctrines that restrain courts from second-guessing parties to contracts.

Posner, *supra* note 66, at 12-13 (footnotes omitted).

cannot summarily dismiss a complex securities case without a plausible doctrinal basis for doing so, lest the decision be reversed on appeal. Hence, the need for heuristics first manifests itself substantively, with the development of doctrines that facilitate summary dismissal of later cases.

Before proceeding, two disclaimers. First, courts do not *always* shirk, merely that they *often* do so. This section stakes out the extreme case for analytic and expository purposes, which leads to a model of judicial behavior in which materiality and other doctrines are used to dispose of potentially difficult hard cases with lower amounts of effort. In subsequent sections, we relax the strong bounded rationality and agency cost assumptions of our model to take into account cases in which those factors seem less significant.

Second, the use of shortcuts by the courts is neither a new phenomenon nor one unique to securities doctrine. There are a number of time-honored court practices that might be seen as shortcuts. Take, for example, stare decisis. Undoubtedly, following precedent provides certainty. But it also enables later courts to save on analytic resources because they do not have to reason through a doctrine from first principles. After all, they are bound by the prior doctrine. The area of securities fraud doctrine, because of its particular characteristics, is an especially fertile area for the growth of shortcuts.[87] But this Article contends that the phenomenon of seeking shortcuts is one that extends well beyond the confines of securities law.

C. The Production and Evolution of Heuristics

The story thus far has been one about how the constraints and incentives that operate on judges and their staffs result in the use of heuristics. For heuristics to be used, however, they have to be available. The question then is one of how heuristics emerge and evolve. The model requires a theory of why constrained judges would expend the effort and take the risks required to develop heuristics.

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[87] James Cox points out, for example, that courts have used recklessness and negligence-based standards of fault in the securities fraud area as a means of avoiding the more difficult determination of whether the defendant intended to defraud. *See* James D. Cox, Ernst & Ernst v. Hochfelder: *A Critique and an Evaluation of Its Impact upon the Scheme of the Federal Securities Laws*, 28 HASTINGS L.J. 569 (1977) (discussing standard of fault in securities litigation).

1. Creating Rules of Thumb

Step one is the creation of the heuristic. Both trial and circuit court judges are overburdened, and there are incentives for both sets of judges to use heuristics. The initial creation of the heuristics, however, is likely to occur at the circuit court level. The primary responsibility for law creation lies with the circuit courts; this being especially true in areas such as securities law, which the Supreme Court rarely addresses. The district courts do some law-making, but their primary responsibility (and comparative advantage) lies in determining facts.

Say then that a complex securities case arrives on appeal before a circuit court. The district court has done a reasonable job of laying out the facts, but its determinations on the legal issues are confused. In particular, say that there is a complex statutory interpretation question that the district court seems to have ignored altogether.

If the issues in the case are complex, and there were detailed briefs by expensive lawyers (as there typically are in securities cases), the appellate panel likely will feel obliged to issue a published opinion. Given the small number of judges who are experts in the area, the writing judge is likely to be a nonexpert. As discussed in the prior section, the focus of the judge is likely to be on disposing of the case with the minimal amount of effort. If there exist well-established heuristics that are applicable, they will be invoked. If there are none available, there is an incentive to develop a new one, if doing so will enable the clerk to avoid the necessity of tackling the complex statutory interpretation question. As the next section shows, heuristics are simple and, indeed, commonsensical.[88] In other words, they do not take a great deal of effort to create. The barrier to their creation is that, with a new heuristic, there is not the protection of precedent for its use. Accordingly, there is the possibility that other judges (including those on the panel) may reject the heuristic as improper. Yet, there is a similar risk in tackling the complex statutory question. Indeed, there are two obvious advantages to the heuristic route. First, this is an area where heuristics appear to be widely accepted. Hence, the risk of rejection is lower. Second, there is the benefit of saving time—the complex statutory question would have most likely taken more time to resolve. Plus, even though the primary goal of the judge and the clerk is likely to be to get the case off the docket and not the acquisition of citations

[88] The problem, as we explain, is that these commonsense heuristics may not approximate either the behavior of markets or of firms.

(and acclaim) for the creation of innovative doctrines, more citations are still a plus. After all, to the extent that the heuristic is an effective one, it is likely to be picked up and used by other clerks faced with similar problems. None of this is to suggest that devising heuristics is trivial. It probably takes some effort and creativity. The point, however, is that the rewards are there and the risks are relatively small vis-à-vis deciding the statutory question.

Getting back to our hypothetical court faced with a case with a complex statutory question, what is necessary is a doctrinal hook on which the appellate court can hang the district court's findings of fact without resolving the case's complexities. In securities disclosure cases, the prime candidate is the question of materiality. If the court can plausibly assert that the information in question is immaterial as a matter of law, the case goes no further. Specifically, there is no need to get to more complex legal issues, such as whether there was a duty to disclose the information in the first place. So long as the heuristic is fact-based, vague, and a matter of discretion (or reasonableness),[89] it is unlikely to produce criticism and even less likely to prompt action by the Supreme Court.[90] Hence, there is little risk of any reputational loss. Conversely, there is some prospect of reputational gains. If the heuristic is clever and results in quick and easy determinations, it will be picked up by other judges (more specifically, their clerks) and be cited frequently.

An example may help illustrate the point. One heuristic that has attracted attention recently is the bespeaks caution doctrine.[91] The doctrine, in its simplest form, says that statements are to be read in context.[92] In practice, courts posit that corporate statements alleged by plaintiffs to be materially misleading must be read in the context of any disclaimers the company has made elsewhere. Take a statement by a CEO saying something like, "I am confident that our earnings this year are going to be much better than those in the past." Let us say that the facts suggest that the company was doing badly

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[89] *Cf.* Easterbrook, *supra* note 30, at 779-80 (asserting that when one turns "a generalist loose in a complex world," one tends to get balancing tests).

[90] One of the Supreme Court's few forays into this area was to reject a bright line rule regarding the stage of the negotiations beyond which merger talks would be considered material. *See* Basic, Inc. v. Levinson, 485 U.S. 224, 236 n.14 (1988).

[91] For a discussion of the doctrine, see 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). In reality, the particular statement discussed in the text would most likely be dismissed on the grounds of puffery because that doctrine would be simpler to apply (with puffery, there is generally no need to examine context). On puffery, see *infra* text accompanying notes 100-06.

[92] *See In re* Donald J. Trump Casino Sec. Litig., 7 F.3d 357, 364 (3d Cir. 1993).

at the time the CEO made the statement, or at least not showing any signs of outdoing its past performances. A court using the bespeaks caution doctrine might point to other language in the prospectus and registration statement along the lines of "this company exists in a volatile marketplace and there are no guarantees that our stock price will consistently increase" and say that, in the context of the warning, the CEO's statement is immaterial as a matter of law.

What we have is a vague doctrine (that statements have to be read in context), that is fact-based (it depends on the statement and the context) and enables dismissal on a threshold issue (materiality). Further, the doctrine is both clever and intuitively sensible. In an individual case, its use likely appears to be legitimate. What makes this look more like a heuristic rather than an entirely legitimate doctrine is its extensive use at the motion to dismiss stage (where materiality, being a fact question, typically should not be decided), and the fact that these same courts show little interest in looking at context when it would result in keeping the case alive rather than getting rid of it (for example, with the puffery doctrine).

2. Development and Use

Once the heuristic innovation has occurred, the next step is its development and use. Materiality-based heuristics such as bespeaks caution might be problematic to apply on a large scale because it is on a large scale that the problems with the application are most obvious. For example, if a high percentage of securities disclosure cases are dismissed at the motion to dismiss stage on grounds that the information in question was immaterial, but each opinion has in it the caveat that "materiality is ordinarily an issue for the finder of fact, and it is only in the rare case that it can be decided at the motion to dismiss stage," things do begin to look suspicious.[93] The key, however, is that judges (and clerks) decide only individual cases. They do not decide securities

[93] Consider, for example, the following standard caveat:

> Materiality is a mixed question of law and fact ordinarily decided by the trier of fact. "Only if the alleged misrepresentations or omissions are so obviously unimportant to an investor that reasonable minds cannot differ on the question of materiality is it appropriate for the district court to rule that the allegations are inactionable as a matter of law."

Walsingham v. Biocontrol Tech., Inc., 66 F. Supp. 2d 669, 677 (W.D. Pa. 1998) (quoting Shapiro v. UJB Fin. Corp., 964 F.2d 272, 281 n.11 (3d Cir. 1992)). Some courts have begun to recognize that the heurisitics discussed herein "ask the court to engage in judgment calls which are better made by the trier of fact." *In re* Indep. Energy Holdings PLC Sec. Litig., 154 F. Supp. 2d 741, 747 (S.D.N.Y. 2001).

cases on anything resembling a large scale. Indeed, even a circuit court as a whole is unlikely to see more than a handful of securities cases during a year. In an individual case, the heuristic thus may be applied with each court plausibly claiming the case has some special set of facts that permit its application. Flaws in the doctrine appear only when cases from the different courts are put together.[94]

As a heuristic is adopted by more and more courts, its attractiveness increases despite the large scale problem identified above. The reason for this is that it becomes "well-established." As a heuristic is used more and more, its value increases because its use becomes increasingly legitimate. The court can apply the heuristic, attach a lengthy string cite to cases that have used the same heuristic, and be confident that there is low risk of reversal. The case gets decided relatively quickly and the judge (and clerk) gets the credit for having tackled an unpleasant case.

3. An Analogy

The problem is analogous to that of network products. Some products become more valuable as the number of persons using them increases. Each person who adopts the product thus confers positive externalities on other users.[95] Even though network products are worth less in their early stages, there is still an economic incentive to develop them so long as a risk-commensurate return may be earned.

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[94] Thus, according to our survey of opinions, the question of materiality that is "ordinarily" to be a question for the trier of fact and is to be decided in favor of the defendant at a threshold stage only if it is so "obvious" that reasonable minds could not differ, turns out to be the subject of extensive discussion in the majority of the cases. Of the 91 (out of 100) cases that were decided at the motion to dismiss stage, 64 involved materiality determinations in favor of the defendants (i.e., over 70 percent). In other words, what is supposed to be rare and unusual, turns out to be routine. In addition, 72 of the 91 opinions were either full dismissals or dismissals in large part.

It should be noted, however, that our data is potentially biased because of the nature of the sample. We only looked at judicial determinations for which there were opinions available on Westlaw. It is possible—although, we think unlikely—that the overwhelming majority of determinations at the Motion to Dismiss stage are in the form of unpublished orders denying the motions (where the judge refuses to rule on the materiality issue at this early stage). Among the reasons for why we think the above scenario is unlikely is that the primary battleground in the securities class action area is the motion to dismiss stage and the reasons for denying motions are likely to be considered important and worth publishing. The question is worthy of empirical examination though.

[95] *See* Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 763 (1995) (describing network externalities in PC industry). *But see* STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY 68 (1999) (disputing the validity of network externalities and related market failures in the PC industry).

Network products are especially profitable when the network externalities they create are reinforced by herding behavior. Herd behavior occurs when a decisionmaker imitates the actions of others, while ignoring his own information and judgment with regard to the merits of the underlying decision.[96] For example, following the crowd may have a reputational payoff even if the chosen course of action fails. Because even a good agent can make decisions resulting in a bad outcome, the market evaluates the agent by looking at both the outcome and the action before forming a judgment about the agent. If a bad outcome occurs, but the action was consistent with approved conventional wisdom, the hit to the manager's reputation from an adverse outcome is reduced.[97] Herding can also be seen as a response to bounded rationality and information asymmetries. Under conditions of complexity and uncertainty, actors who perceive themselves as having limited information and can observe the actions of presumptively better-informed persons may attempt to free ride by following the latter's decisions. Accordingly, if the product in question generates network externalities, and its procurement is consistent with conventional wisdom, the product will be quickly and widely adopted.

In our model, heuristics are analogous to network products. This is most apparent in the development and use stage. As we have seen, the legitimacy of using a specific heuristic increases as it becomes more widely adopted. In turn, as the heuristic becomes more legitimate, the incentive to use it increases. The likelihood of criticism or reversal falls (after all, one is just following accepted precedent), lessening the potential for hits to one's reputation and self-esteem. Hence, each new adopter generates network externalities that encourage further adoptions.

One can also tell a herding story about the development and use stage of heuristics. Young decisionmakers have more incentive to herd than older ones. The young decisionmaker has less reputational capital and, accordingly, more to lose from unconventional decisions that turn out badly. This is especially true in markets where the costs to acquiring a negative reputation are high, but there are high benefits from remaining unremarkable. The younger decision-

[96] Marcel Kahan & Michael Klausner, *Path Dependence in Corporate Contracting: Increasing Returns, Herd Behavior, and Cognitive Biases*, 74 WASH. U. L.Q. 347, 355-56 (1996). Various explanations for herd behavior have been offered, some of which are more easily squared with rational choice theory than others. *See generally* Peter H. Huang, *Herd Behavior in Designer Genes*, 34 WAKE FOREST L. REV. 639, 645-653 (1999) (providing a detailed review of theories of herd behavior).

[97] Kahan & Klausner, *supra* note 96, at 356. As Keynes famously remarked, "It is better to fail conventionally than to succeed unconventionally." JOHN MAYNARD KEYNES, THE GENERAL THEORY OF EMPLOYMENT, INTEREST, AND MONEY 158 (1936) (quoted in Kahan & Klausner, *supra* note 96, at 356).

maker also is less experienced and thus more likely to free ride on the decisions of others. Consistent with these generalizations, a well-known study of mutual fund managers found that young managers tended to herd into popular market sectors and conventionally weighted portfolios.[98] Law clerks fit nicely within the definition of young decisionmakers who have much to lose from big mistakes and much to gain from playing it safe. By definition, they fall into the young decisionmaker category (in terms of legal experience if not always chronological age), and it is safe to say that most of them expect to go into high paying and/or high status jobs as long as they do not do anything terrible during their clerkships that causes their judges to speak ill of them. Given that, we would expect to observe herding by law clerks around "safe" doctrines.

II. THE HEURISTICS

This Part describes ten separate doctrinal developments in securities class action law. Each of the doctrines evolved in the disclosure context—the arena in which the bulk of securities class action cases arise. What we do with each of these doctrinal developments is: (1) describe them, (2) provide an explanation for them from the Herculean perspective, and (3) suggest that the heuristic perspective can provide a different and more plausible explanation for the doctrine.

The heuristics discussed have two things in common. First, all result in the claim at bar being dismissed or, on occasion, remanded. The key is that the case is removed from the docket, which in the heuristic story is the judge's (and/or clerk's) primary goal. Second, these doctrines are almost invariably invoked in the procedural context of either a motion to dismiss or a motion for summary judgment. It is the fact that these doctrines are rigorously and extensively applied at early procedural stages, where, in theory, the hurdles plaintiffs must cross are low, that suggests that these are heuristics.

That the ten shortcuts discussed result in dismissals in favor of the defendants does not mean that shortcuts necessarily have to result in victories for the defendants. The key point with the shortcuts is that they serve to avoid complexity. Take the fraud on the market doctrine, which we do not discuss as one of our ten heuristics. This is a pro-plaintiff doctrine which provides the

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98 Judith Chevalier & Glenn Ellison, *Career Concerns of Mutual Fund Managers*, 114 Q. J. ECON. 389 (1999).

plaintiff with a strong presumption regarding the issue of reliance.[99] It can still be seen as a shortcut though, because it enables the judge to avoid deciding the often messy issue of reliance. Analogously, the shortcuts that are most likely to gain in popularity are those that allow for dismissal on threshold issues (and, therefore, obviate the need to tackle the deeper and more complex issues). But, this does not mean that there cannot be shortcuts on the more complex issues (such as the duty to disclose) themselves. Sometimes, the courts are not able to dismiss on the threshold issues and have to reach to a more complex one. Here, a shortcut on the more complex issue can help. As the reader will see, this Article identifies some shortcuts on the duty to disclose question (that are a lot less popular than the shortcuts relating to materiality and scienter).

Of the ten heuristics, four are doctrines of materiality, two are doctrines of restrictions on the kinds of information from which inferences can be drawn, two relate to scienter and the particularity standards for fraud cases, and two relate to the duties to disclose.

A. Materiality-Based Heuristics

1. Puffery

The puffery doctrine treats vague statements of optimism by company officials as immaterial.[100] A typical example would be a statement like "I think that this company's future is bright" made by a company's top official.[101] Puffery posits that vague statements of this ilk do not play a part in the investment decisions of reasonable investors. Put differently, such statements by company officials purportedly do not affect the market price of the company's securities. In a large number of cases applying the puffery doctrine, this materiality determination is made at the motion to dismiss stage.

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[99] *See* Basic Inc. v. Levinson, 485 U.S. 224 (1988) (establishing fraud on the market presumption).

[100] *See, e.g., In re* Milestone Scientific Sec. Litig., 103 F. Supp. 2d 425, 457 (D. N.J. 2000) (stating that "vague and general statements of optimism constitute no more than puffery and are understood by reasonable investors as such") (quoting *In re* Burlington Coat Factory Sec. Litig., 114 F.3d 1410, 1428 n.14 (3d Cir. 1997)); *see also In re* Advanta Corp. Sec. Litig., 180 F.3d 525, 538 (3d Cir. 1999); San Leandro Emergency Med. Plan v. Philip Morris Cos., 75 F.3d 801, 811 (2d Cir. 1996); *see generally* O'Hare, *supra* note 49; R. Gregory Roussel, Note, *Securities Fraud or Mere Puffery: Refinement of the Corporate Puffery Defense*, 51 VAND. L. REV. 1049 (1998).

[101] For example, in the *In re Milestone* case, which involved a defendant who manufactured dental products, one of the statements that was held to be mere puffery was "we are very excited over the reaction of dentists . . . ." 103 F. Supp. 2d. at 457. Similarly, in *In re Aetna*, involving claims that statements about a merger were misleading, a statement that the merger integration had been "highly successful" was held to be puffery. 34 F. Supp. 2d. 935, 948 (E.D. Pa. 1999).

In effect, the invoking court is saying that the vague statement "is so obviously unimportant to a reasonable investor that reasonable minds could not differ."[102]

Under the Herculean model, one might tell a story in which courts understand that investors are sophisticated enough to ignore vague statements of optimism by corporate managers. The commentator using this model might further explain that, in markets in which prices are set by sophisticated investors, the market price will not be affected by such statements. The explanation is plausible. It may even be correct, although we note that even sophisticated financial economists do not seem to agree on what drives market prices.[103] 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.[104]

The idea that judges possess the sophisticated understanding of investor behavior and market dynamics necessary to validate the puffery doctrine, however, is bizarre. As we have seen, most judges are not experts on financial market dynamics—to say nothing of law clerks fresh out of law school. Further, our review of opinions invoking the puffery doctrine found little, if any, evidence that judges were looking to the financial economics literature as a basis for their assumptions. Not one case referred to actual evidence that

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[102] Ganino v. Citizens Utilities Co., 228 F.3d 154, 162 (2d Cir. 2000) (quoting Goldman v. Belden, 754 F.2d 1059, 1067 (2d Cir. 1985)).

[103] The topic is one of heated debate. For recent treatments of the subject, see, e.g., Rama Cont & Jean-Phillipe Bouchaud, *Herd Behavior and Aggregate Fluctuations in Financial Markets*, 42 MACROECONOMICS DYNAMICS 170 (2000); Kenneth A. Froot & Emil Dabora, *How Are Stock Prices Affected by the Location of Trade?*, 53 J. FIN. ECON. 189 (1999); Pietro Veronesi, *Stock Market Overreaction to Bad News in Good Times: A Rational Expectations Equilibrium Model*, 12 REV. FIN. STUD. 975 (1999).

[104] The SEC has expressed grave concerns about the market effects of false rumors released in Internet chatrooms by unverifiable sources, which flatly contradicts the puffery doctrine. *See* Daniel Kadlec, *Crimes and Misdemeanors: A Teenager Shows How Easily Stocks Can Be Manipulated and How Hard It Is To Get Away with It*, TIME, Oct. 2, 2000, at 52 (discussing the SEC prosecution of a New Jersey teenager, Jonathan Lebed, who allegedly spread false rumors on the Internet and made significant profits); Michael Schroeder et al., *Teenage Trader Runs Afoul of the SEC as Stock Touting Draws Charges of Fraud*, WALL ST. J., Sept. 21, 2000, at C1. This is not to suggest, however, that the SEC carries any of the blame for the extensive use of the puffery doctrine by judges.

The recent volatility in the markets has resulted in numerous discussions in the press about how investors overreact to information, particularly on the Internet. *See, e.g.*, Corey Boles, *FSA Pumps out a Warning on Net Trash Tips*, MONEY MARKETING, Mar. 10, 2000, at 19; David Dreman, *Don't Be Psyched out*, FORBES, Aug. 9, 1999, at 142; Brian O'Keefe, *The Latest Investor Threat: Infobombs*, FORTUNE, Oct. 16, 2000, at 376; *see also* Robert A. Prentice, *The Future of Corporate Disclosure: The Internet, Securities Fraud, and Rule 10b-5*, 47 EMORY L.J. 1 (1998).

investors or markets were unaffected by vague statements of corporate optimism.

In addition, there is a different doctrine that brings into question the judge's claim that vague statements are almost always immaterial. This heuristic says that a disclosure of a rough estimate as to a variable—in other words, a vague statement—can obviate the need for more specific disclosure.[105] Here, the claim essentially is that vague statements can be so material that they render more specific statements unnecessary. The apparent inconsistency—vague statements being immaterial on the one hand and highly material on the other—makes sense, however, from the perspective that these doctrines are about eliminating suits through easy threshold issues.

The alternative Herculean story, as already noted, is that judges are using puffery to effect a policy agenda of limiting a class of cases perceived as frivolous. This is a plausible story for at least two reasons. First, all of these heuristics, in fact, dispose of securities class action cases. Second, judges in these cases often explicitly invoke the general perception that there are numerous frivolous cases in this area.[106]

Despite the facial plausibility of this variant, however, there are reasons for skepticism. First, if policy preferences are driving developments in this area of the law, one would expect to see policy differences among the judges. Instead, these heuristics seem to be used by judges across the political spectrum. Second, despite the PSLRA, there is little agreement in the academic community on whether there is a problem of frivolous suits in this area. It is hard to believe that judges, especially those who see these types of cases only rarely (and do not appear to be following the academic literature in this area) have a better sense of what percentage of suits are frivolous. Third, we think it implausible that judges are seeking to further a policy of hostility against a certain class of cases in an area about which they know little. This is all the

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[105] *See* Glassman v. Computervision, 90 F.3d 617, 633 (1st Cir. 1996). A version of this doctrine/heuristic is referred to as the "Truth-on-the-Market" doctrine. In its simplest form, the doctrine holds that the need for disclosure of particular information is obviated by the market's prior knowledge of that information (in other words, the allegedly undisclosed information is deemed immaterial). *See* Hillson Partners Ltd. Partnership v. Adage, Inc., 42 F.3d 204, 212 (4th Cir. 1994). This doctrine conflicts with the puffery doctrine because courts use it to say that the market's prior knowledge of vague information (sometimes even rumors) obviates the need for more specific information. *See* Longman v. Food Lion Inc., 197 F.3d 675, 687 (4th Cir. 1999) (Murnaghan, J., dissenting) ("The majority incorrectly suggests that any public information contradicting Food Lion's misleading statements forecloses the possibility of finding those statements were material.").

[106] *See* Sale, *supra* note 23 (describing some of the rhetoric).

more true if one considers that it is the law clerk who likely makes the initial choice to use a heuristic. There are, no doubt, areas of the law in which policy preferences come to the fore. But that is probably either in areas that the judges care about or are experts—areas such as abortion rights, the first amendment, employment discrimination, cases involving presidential elections—and not in an area such as securities law. In securities law, the development of doctrines such as puffery more likely results from courts looking for decisionmaking heuristics.

2. *Bespeaks Caution*

The bespeaks caution doctrine says that statements are to be read in context.[107] It is generally applied by courts who purportedly object to attempts by plaintiffs to single out isolated statements. So, with respect to a statement by a CEO along the lines of, "I expect our sales to increase by at least ten percent this year," a court might invoke the bespeaks caution doctrine by pointing to other statements in the prospectus saying things like, "this is a highly volatile industry in which is it very difficult to predict what will happen." If the first statement is read in the context of the latter, as courts claim reasonable investors do, then no one will attach importance to the former.[108] Hence, or so the story goes, the first statement is immaterial as a matter of law and the claim should be dismissed.

From the Herculean perspective, the story here is straightforward.[109] Of course, investors read statements in context as opposed to isolation. Courts are being sensible (and pursuing efficiency) by recognizing that fact and denying the plaintiffs' claims. The fly in the ointment, once again, is that these cases generally involve materiality determinations made at the motion to dismiss stage. The court, therefore, is not merely saying it is likely that investors read

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[107] *See* Shaw v. Digital Equip. Corp., 82 F.3d 1194 (1st Cir. 1996); *see also* Finkel v. Putnam Convertible Opportunities, 162 F.3d 1147 (2d. Cir. 1998); *cf.* 15 U.S.C. § 78u-5(c) (1994 & Supp. V 1999) (codifying a version of the doctrine).

[108] The standard articulation of the doctrine reads something like this: "[A] misrepresentation or omission will be considered immaterial if cautionary language is sufficiently specific to render reliance on the false or omitted statement unreasonable." Milman v. Box Hill Systems Corp., 72 F. Supp. 2d 220 (S.D.N.Y. 1999) (quoting *Finkel*, 162 F.3d at 1147). On occasion, there is an additional caveat warning that the cautionary language must be specifically related to the risk that was not disclosed. *See id.* (quoting Olkey v. Hyperion, 98 F.3d 2, 5 (2d Cir. 1996)).

[109] As with puffery, one can tell a plausible story that judges who invoke bespeaks caution are simply hostile to securities cases because they believe such cases are generally strike suits. For the same reasons discussed in the preceding subsection, however, we do not find this explanation as persuasive in a model based on judges who are boundedly rational agents.

the offending statement in context. Instead, it is saying that there can be no disagreement, at least among reasonable people, that the cautionary statement negated the market impact of the CEO's optimistic statement. Maybe, but how do the judges know this with such certainty? Even if it could be shown that cautionary statements always temper CEO bombast, moreover, such a showing could only be made on the basis of extensive and highly sophisticated information about how investors evaluate information and how they discount statements. As with puffery, however, judicial invocations of the bespeaks caution doctrine are almost never supported by any research evidence on the behavior of investors or markets.

Perhaps even more salient, however, is the contrast between the courts' emphasis on context in applying the bespeaks caution doctrine and their unwillingness to look at context when applying the puffery doctrine. Under the puffery doctrine, courts take a statement out of context, opine it to be mere puffery, and dismiss the underlying claim. If context were important, one might expect courts to think carefully about the context in which the statements were made before dismissing them. For example, a court might treat a statement made by a corporate officer at a road show differently than one made in a prospectus. One could plausibly argue, for example, that the former statement, made in a hyped sales context, is more likely to be puffery. We still think that it is a reach for judges to be making these determinations at the motion to dismiss stage, but at least nominal attention to context would be expected of a Herculean judge. Instead, for the most part, context seems to matter only when the outcome is dismissal. If putting the statement into context lends credence to a decision to dismiss, the bespeaks caution doctrine is invoked. If taking a statement out of context makes dismissal more plausible, however, puffery is invoked. It is this disparity of treatment, coupled with the superficiality of analysis, which suggests the presence of a heuristic.

3. *Zero Price Change*

In the typical securities fraud case, the price of the affected security drops when the fraud in question is discovered and the misrepresented or omitted information is properly disclosed. Under the zero price change doctrine, if no change in price results when the alleged fraud is disclosed, the information is deemed immaterial as a matter of law, unless plaintiffs are able to provide some countervailing explanation. The doctrine's rationale is that, in an efficient market, prices react to material information. Given that plaintiffs

themselves typically allege that the market was efficient, so as to invoke the fraud-on-the-market doctrine and thereby satisfy the reliance requirement,[110] courts conclude that zero price change (absent adequate explanation) must mean immateriality.[111]

The doctrine is clever. Unlike puffery and bespeaks caution, it does not make any heroic assumptions about investor behavior. Instead, it turns the plaintiffs' own market efficiency allegations against them. Unlike either the puffery or the bespeaks caution doctrines, moreover, the zero price change principle is specific and rule-like—it is premised on no change in price, not a small price change.[112] Nonetheless, because: (1) this is a convenient method of kicking out a claim, and (2) there is no counterpart on the plaintiff side, we regard it as a heuristic. At the motion to dismiss stage, where *plaintiffs*, as opposed to *defendants*, are supposed to get the benefit of all reasonable inferences, symmetry would seem to require that the zero price change doctrine at least be balanced by a negative price change doctrine, under which the materiality of the previously undisclosed bad news is inferred from a price drop upon disclosure. It turns out, however, that courts almost never use negative price changes to infer materiality, even though almost every one of these cases involves a significant price drop.[113]

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[110] Under the fraud-on-the-market theory, investors claim that because the market for a particular security was efficient, they relied on the market to incorporate all the relevant information into the security's price. Their claim, therefore, is that even though they individually may not have been aware of a particular misstatement or omission, the fact that the market was affected is enough to create reliance on their part because they were relying on the market. *See, e.g., In re* Northern Telecom Ltd. Sec. Litig., 116 F. Supp. 2d 446, 455-56 (S.D.N.Y. 2000).

[111] *See* Oran v. Stafford, 226 F.3d 275, 282 (3d Cir. 2000); *In re* Burlington Coat Factory Sec. Litig., 114 F.3d 1410, 1425 (3d Cir. 1997).

[112] There are signs that a vague, standard-based heuristic is developing here, however. At least one court has suggested that a small price drop followed by a rebound in the company's price might suggest immateriality. *See* Leventhal v. Tow, 48 F. Supp. 2d 104, 116 (D. Conn. 1999).

[113] In our sample of cases, ninety-one percent of which were decisions at the motion to dismiss stage and eighty-two percent of which included disputes over materiality, we found only *one* court that was willing to infer materiality from the fact of a price drop. *See In re* MCI Worldcom., Inc. Sec. Litig., 93 F. Supp. 2d 276 (E.D.N.Y. 2000). One of the dilemmas that got us talking about this subject was the fact that student exam answers often quickly dispose of the materiality issue on grounds that it is legitimate to infer materiality from the large price drop described in the question. Strictly speaking, the students were right. In terms of predicting what a court was likely to hold, however, they were off-base—especially if the problem also specified that the offending statement was vague or buttressed by lots of caveats. *Cf.* Coates v. Heartland Wireless Comm. Inc., 55 F. Supp. 2d 628, 640 (N.D. Tex. 1999) ("[It is not] sufficient to rest materiality on the market's reaction once information was disclosed."); *In re* HHCA Sec. Litig., 1999 WL 79057, at *7 (E.D. Pa. Jan. 29, 1999) (rejecting plaintiffs' request for a presumption that a steep decline in the price suggested the materiality of the information in question).

4. *Trivial Matters*

The final materiality heuristic posits that claims of nondisclosures or misstatements with respect to matters involving no more than small percentage of total sales or revenues (or some other variable) fail because the information at issue is immaterial as a matter of law.[114] The rationale, once again, is simple. Such 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.[115] Put differently, the claim is that investors only care about big pieces of the firm.[116]

As with the prior materiality doctrines, one can tell a Herculean story explaining the evolution of this doctrine.[117] Investors, because of constraints on their abilities to process and evaluate information, cannot and do not attempt to use all possible information about a company in making their investment decisions. Instead, they care only about major lines of business.

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[114] Courts invoking this heuristic typically opine that there is no rigid percentage cutoff below which information is deemed immaterial. Instead, the doctrine is to be applied on a case-by-case basis. *See, e.g.*, *In re* Unysys Sec. Litig., 2000 WL 1367951, at *5 (E.D. Pa. Sept. 21, 2000) (noting that the application of the "single rule of thumb materiality criterion of 5%-10% of net income or loss" (quoting *In re* Westinghouse Sec. Litig., 90 F.3d 969, 714 (3d Cir. 1996)) should be applied on a "case-by-case basis"); Giarraputo v. Unuprovident Corp., 2000 WL 1701294, at *13 (D. Me. 2000) (same).

[115] As one might imagine, there is also a broader doctrine/heuristic that says that information that is "too trivial" need not be disclosed. Once again, this makes sense. Of course, information that is too trivial need not be disclosed. Courts apply it, however, to permit corporations to withhold disclosure of problems with key products. That leads us to ask: how do these courts know that a company's internal problems with key products are too trivial? *See, e.g.*, Milman v. Box Hill Systems Corp., 72 F. Supp. 2d 220, 233 (S.D.N.Y. 1999). In a recent variant of this heuristic, a couple of courts have rejected claims by plaintiffs suing drug companies for their failures to disclose problems with their drugs on the ground that internal reports of problems were not "statistically significant." *See Oran*, 226 F.3d at 284; *In re* Carter-Wallace, Inc. Sec. Litig., 150 F.3d 153, 157 (2d Cir. 1998). In other words, the claim is that investors do not think that information is material until it is statistically significant. Even if this is correct, how do the courts know of this magical relationship between statistical significance and investor interest (we also do not know what measure of statistical significance the courts are talking about).

[116] *See Coates*, 55 F. Supp. 2d at 628 (rejecting plaintiffs' claim regarding the materiality of a $5.2 million write down that was undisclosed on the ground that plaintiffs had not provided the court with enough information to be able to test the amount); *see also In re* PetsMart, Inc. Sec. Litig., 61 F. Supp. 2d 982, 992 (D. Ariz. 1999) (holding that a 1.8% decline in revenues was immaterial as a matter of law).

[117] As with many of the other doctrines discussed herein, one can also tell a variant of the Herculean story premised on judicial hostility to securities class action cases. As noted earlier, there is probably some of this going on. However, if this were a pure hostility story, we think there would likely be fewer of the stark inconsistencies pointed out herein. The inconsistencies, we think, often arise because law clerks are using whatever heuristics they can find to get rid of claims in a manner that seems legitimate—and the fact that other courts have used these doctrines in similar ways provides the necessary legitimacy.

That story could be supported by the academic literature on bounded rationality, behavioral economics, and noise trading.[118]

The problem here, however, is the same as with puffery. At the motion to dismiss stage, the claim must be that no reasonable person could disagree that this information was unimportant. It is simply implausible that all reasonable investors ignore information about small aspects of the business. A statistically tiny percentage of a major corporation, moreover, can be worth hundreds of millions of dollars. Finally, losses in small areas can provide investors with important information about the direction of the company's fortunes. We may well be wrong about what investors think is important, but it seems implausible that nonexpert judges (and nonexpert clerks) have a more sophisticated understanding of investor behavior and market dynamics.

Once again, moreover, the cases reveal no evidence that judges rely on evidence relating to investor behavior or market dynamics. There is no examination of how investors reacted to the information about the company that is at issue, something that courts supposedly do in making a case-by-case analysis. Instead, the opinions uniformly support their use of this doctrine by pointing to the fact that other courts have done the same. Consequently, this doctrine too, as at least one court admitted, is just a "rule of thumb."[119]

B. *Inferences*

1. *No Fraud by Hindsight*

In a typical securities disclosure class action, the company announces some bad news that surprises the market, after which disgruntled purchasers sue on grounds that the company had an obligation to disclose that bad news sooner. A crucial question in the preliminary stages of such a case is whether plaintiffs have any basis for their claim that the company knowingly delayed disclosure of bad news. Suppose, for example, that *Company X* discloses on day one that it has begun merger talks with *Company A*. The price of *Company X* stock doubles. Thereafter, in the period between day one and day twenty-five, in response to daily questions from reporters, a *Company X* spokesperson says that, "the merger is proceeding on course." Suddenly, on day twenty-six, there

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[118] One of us did attempt to tell such a story in a prior article. *See* Mitu Gulati, *When Corporate Managers Fear That a Good Thing Is Coming to an End: The Case of Interim Non Disclosure*, 46 UCLA L. REV. 675 (1999).

[119] *In re* Westinghouse Sec. Litig., 90 F.3d 696, 714 (3d Cir. 1996).

is an announcement that the talks have failed and *Company X* is looking for a new merger partner. A number of those who purchased *Company X* stock on day twenty-five are upset because they think that *Company X* must have known by then that the talks were going badly.

The no fraud by hindsight doctrine says that courts will not use hindsight to draw inferences about what information the company may or may not have possessed prior to disclosure of the alleged fraud.[120] If plaintiffs have no evidence sufficient to meet the heightened pleading standards applicable to fraud cases that, prior to day twenty-six, the company knew the merger talks were going badly, the court will dismiss the claim.[121]

A Herculean-minded commentator could tell a plausible story justifying this doctrine. In their studies, psychologists have consistently found a hindsight bias on the part of decisionmakers. If the question is whether a particular decision was a stupid one at time zero, the knowledge that the decision turned out badly at time one will bias the decisionmaker towards answering the stupidity question affirmatively. In our hypothetical case, this hindsight bias might manifest itself as follows: knowing that the merger talks failed on day twenty-six will mislead the finders of fact (some future jury) to be predisposed (biased) to infer that on day twenty-five the parties knew that talks were going badly. The commentator, writing from a Herculean perspective, can defend the no fraud by hindsight doctrine on grounds that it shields against the risk of bias by less-than-Herculean juries.

On its face, the story is plausible in that the hindsight bias is a well-documented behavioral phenomenon.[122] Indeed, a recent study found evidence that judges are not above such biases.[123] Given that evidence, the no fraud by hindsight might well be the socially optimal rule.[124] For us, however, the

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[120] As one court stated in articulating the doctrines that govern the pleading of securities fraud: "It is also impermissible to allege fraud by hindsight, that is, to seize upon disclosures in later reports and allege that they should have been made earlier." *Coates*, 55 F. Supp. 2d at 635; *see also* Freedman v. Value Health, Inc., 958 F. Supp. 745, 756 (D. Conn. 1997) ("A late September announcement of a change [in strategy] cannot by itself give rise to an inference that the change was intended or even seriously contemplated in July or early August.").

[121] *See, e.g., In re PetsMart*, 61 F. Supp. 2d at 988, 991 (citing cases on the "no fraud by hindsight doctrine" and describing the heightened pleading standards under the PSLRA).

[122] *See* JEFFREY J. RACHLINSKI, A POSITIVE PSYCHOLOGICAL THEORY OF JUDGING IN HINDSIGHT, IN BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000).

[123] *See* Rachlinski et al., *supra* note 63.

[124] *See* RACHLINSKI, *supra* note 122, at 108. Mitu Gulati, along with Jeffrey Rachlinski, is in the process of conducting a detailed study of the no fraud by hindsight doctrine.

problem is the assumption that judges have incorporated an understanding of the hindsight bias into their decisionmaking. The securities opinions adopting the no fraud by hindsight doctrine do not cite to the literature on behavioral theory to justify the doctrine—as with the other heuristics, the opinions merely cite other opinions.[125]

When one examines the issue more closely, additional problems crop up. First, there is the question of how problematic the hindsight bias is in a determination of scienter, as opposed to ordinary negligence. Scienter is more than negligence and is at least recklessness. It is easy to see how the biasing effect of evidence of a bad outcome might lead a judge or jury to think that a prior decision was stupid or negligent. But, is the biasing effect so strong as to cause serious problems with determinations of recklessness? In other words, does the bias cause the judicial actor to think that the prior decision was so obviously wrong that it amounted to recklessness? Logically, the nature of the hindsight bias suggests that it will result in judges and juries finding defendants reckless when they were not (after all, the basic point about the bias is that past events seem more predictable). Nevertheless, as Jeffrey Rachlinski has explained:

> [I]t requires an *extra logical inference* from this overestimate [caused by the hindsight bias] to support the conclusion that defendants were, in fact, reckless. Judges and juries must also assume that because past events were so predictable, the defendant actually did predict them. In other words, the judge or jury must convert an objective conclusion (the event was predictable) into a subjective one (the defendant did predict the unwanted outcome).
>
> The evidence that the hindsight bias has this effect, however, is scant. Virtually all of the data on the hindsight bias speak only to the

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[125] *See, e.g., In re* Milestone Scientific Sec. Litig., 103 F. Supp. 2d 425, 465 (D.N.J. 2000) (citing Sinay v. Lamson & Sessions Co., 948 F.2d 1037, 1040 (6th Cir. 1991)); Zucker v. Quasha, 891 F. Supp. 1010, 1014 (D.N.J. 1995), *aff'd*, 82 F.3d 408 (3d Cir. 1996)). The minimal explanation sometimes provided is that securities laws look at things from an ex ante and not an ex post perspective. *See* Glassman v. Computervision Corp., 90 F.3d 617, 626 (1st Cir. 1996) (citing Pommer v. Medtest, 961 F.2d 620, 623 (7th Cir. 1992)). Yes, there is no liability just because things turn out badly, but that does not mean, for example, that one cannot infer from a company declaring bankruptcy that its officers knew that the company was in trouble a few months prior when they did a public offering. Drawing inferences from hindsight is something that we all do all the time. The inferences are not always correct, but certainty is not the standard. The standard is that all reasonable inferences are supposed to be made in favor of the plaintiff. *Cf. Zucker*, 891 F. Supp. at 1016-17 (filing for bankruptcy four months after offering could not be used to support claim that corporation was in a precarious financial position at the time of the offering).

objective judgment.[126]

What we have then is an application of the hindsight bias by the judges in an area where even the researchers are not confident about its applicability. And this does not even get us to the question of whether the exclusion of hindsight evidence results in the elimination of potentially useful information. That the merger talks failed on day twenty-six does make it seem likely that those involved knew this was coming on day twenty-five.[127] For all of the foregoing reasons, we are skeptical of the story that attempts to explain the no fraud by hindsight doctrine as a rational response by judges to the problem of the hindsight bias. We see the doctrine as another heuristic.

2. *Protected Internal Forecasts*

Many securities class actions involve claims that the company made a misleading forecast. Under the securities laws, forecasts only have to be reasonable and made in good faith. Plaintiffs, thus, are not permitted to attack forecasts solely on the basis that they were wrong. Indeed, as per the no fraud by hindsight doctrine, courts will not draw an inference that the forecast was unreasonable from the fact that it proved egregiously incorrect. In practical terms, claims relating to forecasts will survive a motion to dismiss only if plaintiff can plead detailed information, relating to the time at which the forecast was made, suggesting that the forecast was unreasonable and should not have been made.

The fact that the company, at the time the forecast was made public, had other internal forecasts suggesting a starkly different expectation for the future would seem to be just this sort of information. After all, it suggests that the company, at the time it made the bad forecast, had information suggesting that the future was going to turn out differently. Yet, the protected internal forecasts doctrine says that such internal forecasts are not relevant. If the

[126] Jeffrey J. Rachlinski, *Regulating in Foresight Versus Judging Liability in Hindsight: The Case of Tobacco*, 33 GA. L. REV. 813, 840-841 (1999) (emphasis added). For the one study that Rachlinski cites to as showing that the hindsight bias leads people to conclude that others acted recklessly when they did not, see Reid Hastie & W. Kip Viscusi, *What Juries Can't Do Well: The Jury's Performance as Risk Manager*, 40 ARIZ. L. REV. 901 (1998).

[127] For an explanation of why using hindsight evidence can often be a rational form of Bayesian updating, see, e.g., Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551 (1998).

plaintiffs have no other basis for asserting that the forecast was unreasonable when made, the claim will be dismissed.[128]

Once again, there is a Herculean story justifying the protected internal forecasts doctrine. Companies need to make internal forecasts all the time and they are constantly experimenting with forecasting technologies. It is one thing to require that their externally disclosed forecasts be reasonable, but to allow plaintiffs to point to undisclosed internal forecasts as a basis for claiming that the external forecast was unreasonable when made would, in effect, oblige the company to be careful in its internal forecasts as well. That, in turn, would restrict companies' abilities to experiment with forecasts. This extra burden might result in companies refusing to disclose any of their forecasts, which is undesirable because forecasts are precisely the kind of information that investors care about the most.

It is a nice story, but do these overworked judges and clerks really care about fashioning rules that assist in the efficient internal workings of companies? They may care. More to the point, it is questionable whether the law clerks drafting the opinions know enough about the internal workings of companies to be confident about creating a rule that improves efficiency. After all, what is the evidence to suggest that plaintiffs' being allowed to point to conflicting internal forecasts will hamper the workings of companies? And, even if there is some such evidence, how do we know that the social cost of a reduction in efficiency is not outweighed by the social benefits of a reduction in fraud? As with the research on the workings of markets and prices, there is a great deal of work still to be done among academics on the governance aspects of disclosure policy.[129]

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[128] As one court stated, "Plaintiffs' nondisclosure claims fail because they base their allegations solely on discrepancies between actual (but undisclosed) intra-quarterly information and [the company's] undisclosed internal projections." *Glassman*, 90 F.3d at 631. *See also In re* Verifone Sec. Litig., 784 F. Supp. 1471, 1484 (N.D. Cal. 1992) (arguing that, to assert a valid claim, plaintiffs must "establish a link between a misleading statement or implication in the prospectus and an actual fact, not a speculation about the future, omitted from the document.").

[129] For recent efforts in this direction, see Donald C. Langevoort, *Organized Illusions: A Behavioral Theory of Why Corporations Mislead Stock Market Investors (and Cause Other Social Harms)*, 146 U. PA. L. REV. 101 (1997); Timothy F. Malloy, *Regulating by Incentives: Models, Myths, and Micromarkets*, 80 TEX L. REV. 531 (2002).

C. *Scienter Heuristics*

1. *Sounds in Fraud*

Federal Rule of Civil Procedure 9(b), and now the PSLRA, set forth a heightened pleading standard for all fraud claims under which they must be pled with "particularity."[130] In other words, plaintiffs must provide a specific basis for their claim—the who, what, where, and when.[131] In the securities class action area, where most cases involve fraud claims, courts have applied Rule 9(b) in an especially rigorous fashion. The resulting requirement that proved most problematic for plaintiffs was the demand that they plead the state of mind element of their claims with particularity.[132] Congress put that debate to an end in 1995 when it enacted the PSLRA, which adopted a pleading standard effectively incorporating that advanced by the most aggressive courts.[133] There is little doubt that Congress was motivated to do so by a policy conclusion that there were too many frivolous securities strike suits.[134]

From our perspective, however, the significant point is that particularity requirements serve as a quick and easy way of getting rid of securities fraud cases. The sounds in fraud doctrine extends this method of disposing cases to the nonfraud context. In particular, the sounds in fraud doctrine has been invoked to apply the particularity requirements of Rule 9(b) to nonfraud cases arising under Section 11 of the 1933 Act.[135] In theory, these are strict liability cases to which the heightened pleading standards ought not apply. Yet, the sounds in fraud doctrine says that where plaintiffs' allegations amount to a charge of fraud—for example, making claims along the lines of, "the defendants intentionally deceived investors," or, "the defendants failed to disclose information X even though they were fully aware of it"—they are obliged to satisfy the particularity requirements of Rule 9(b) and the PSLRA.

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[130] *See, e.g., In re* Advanta Corp. Sec. Litig., 180 F.3d 525, 531 (3d Cir. 1999).

[131] *See, e.g., In re* BankAmerica Corp. Sec. Litig., 78 F. Supp. 2d 976, 987 (E.D. Mo. 1999).

[132] On the pre- and post-PSLRA pleading standards, see generally Hillary A. Sale, *Heightened Pleading and Discovery Stays: An Analysis of the Effect of the PSLRA's Internal-Information Standard on '33 and '34 Act Claims*, 76 WASH. U. L.Q. 537 (1998); Richard H. Walker & J. Gordon Seymour, *Recent Judicial and Legislative Developments Affecting the Private Securities Fraud Class Actions*, 40 ARIZ. L. REV. 1003 (1998).

[133] There is actually a split in the circuits, with some circuits reading the ambiguous statutory language to say that Congress went beyond codifying the Second Circuit's exacting pre-PSLRA standards to put in place an even higher pleading standard. *See In re BankAmerica*, 78 F. Supp. 2d at 990-91 (describing the split).

[134] *See* CONTRACT WITH AMERICA 150-51 (Ed Gillespie & Bob Schellhas eds., 1994) (criticizing strike suits in securities litigation and claiming that the problem was growing).

[135] *See* TAAM Associates Inc. v. Housecall Medical Resources Inc., No. 1: 96CV2214AJEC 1998 WL 1745361, at *10 (N.D. Ga. Mar. 30, 1998).

From the heuristic perspective, sounds in fraud is an important doctrine because the particularity requirements are typically one of the easiest ways to get rid of a case. Once a judge says that they apply to the Section 11 case, it is easier to make the case go away.[136]

Granted, as with most heuristics, one can tell a Herculean story about the sounds in fraud doctrine. The heightened pleading standards applicable to fraud cases are justified because the allegation of fraud is an especially harsh one. Because such allegations hurt the reputation of the persons against whom they are hurled, it should not be easy to make such allegations. Given that rationale, the same logic should apply when the complaint alleges all sorts of bad things about the defendants that amount to an allegation of fraud. After all, these allegations are going to impose the same reputational cost on the defendant, whether the cause of action is formally called fraud or something else. Once again, it is a nice story. Further, it is one that the courts tell themselves.[137] But we are skeptical that judges or their law clerks know any more about reputational costs than the rest of economics. As far as we know, moreover, it is only in the securities area that the sounds in fraud doctrine has received extensive use. Ironically, if it is really true that most securities class actions are frivolous strike suits, the reputational market will discount allegations of fraud and the courts therefore need not be so concerned about the supposed reputational effect of such allegations. When one adds on the incentives of boundedly rational judicial agents to find ways to dispose of these cases, it strikes us that the sounds in fraud doctrine is but a clever heuristic.

2. *Unusual Insider Trading*

Under the PSLRA, plaintiffs claiming securities fraud must allege the state of mind element with particularity. Since direct evidence often is hard to come by at the pleading stage, plaintiffs are typically forced to rely on circumstantial evidence to demonstrate the defendants had the requisite state of mind (scienter). One type of evidence on which plaintiffs often rely is that of

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[136] While the sounds in fraud doctrine has found favor with courts in at least five circuits, it has been rejected by the Eighth Circuit. *See In re* Stac Electronics Sec. Litig., 89 F.3d 1399, 1404-05 (9th Cir. 1996); Melder v. Morris, 27 F.3d 1097, 1100 n.6 (5th Cir. 1994); Shapiro v. UJB Fin. Corp., 964 F.2d 272 (3d Cir. 1992); Sears v. Likens, 912 F.2d 889, 892-93 (7th Cir. 1990); Krieger v. Gast, No. 4: 99-CV-86 2000 WL 288442, at *4 (W.D. Mich. Jan. 21, 2000); Gross v. Medaphis Corp., 977 F. Supp. 1463, 1470 (N.D. Ga. 1997). *But see In re* Nationsmart Corp. Sec. Litig., 130 F.3d 309 (8th Cir. 1997).

[137] *See, e.g., In re Stac Electronics*, 89 F.3d at 1405; *TAAM Associates*, 1998 WL 1745361, at *11.

company officers having sold firm stock prior to public disclosure of the bad news. They claim that the prior sale allows an inference that the company knew the bad news long before it was disclosed. And, further, that the motive for the delayed disclosure was to permit the company officials to profit or avoid losses.

The unusual insider trading doctrine says that evidence of trading by insiders does not satisfy the scienter pleading requirement.[138] Instead, plaintiffs must point to evidence of *unusual* and *suspicious* levels of such trading.[139] The Herculean rationale here, offered by a number of courts, is that many employees receive portions of their compensation in the form of stock and stock options.[140] This, in turn, means that insiders trade in firm stock on a regular basis. Routine sales of securities by company officials, therefore, are not an indication of fraudulent behavior. To support an inference of scienter, plaintiffs must demonstrate there was *unusual* trading activity by insiders.

Yet again, the story is plausible on its face. There is little doubt that the fraction of employees who are partially compensated with stock and stock options has increased greatly in the past few years. But the question is whether that method of compensation has become so pervasive that courts can make the blanket assertion that evidence of personal sales of company securities by officers prior to the company's official disclosure of bad news is not an indication of suspicious activity—so that the burden falls on the plaintiffs to demonstrate that the insider trading was "unusual." This is an empirical question, the answer to which would require a study of compensation and trading practices across the economy. We suspect some law clerk used anecdotal evidence about changes in compensation patterns to justify the creation of a heuristic that allowed him to dispose of a case quickly and plausibly.[141]

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[138] *See, e.g.*, San Leandro Emergency Med. Plan v. Philip Morris Cos., Inc., 75 F.3d 801, 814 (2d Cir. 1996). ("[T]he sale of stock by one company executive does not give rise to a strong inference of the company's fraudulent intent . . . ."); *see also In re* Advanta Corp. Sec. Litig., 180 F.3d 525, 540 (3d Cir. 1999) (fraudulent intent will not be inferred from the mere fact that some officers sold stock).

[139] *See In re Advanta*, 180 F.3d at 540.

[140] *See In re* Milestone Scientific Sec. Litig., 103 F. Supp. 2d 425, 471 (D.N.J. 2000).

[141] None of the opinions in our survey pointed to empirical evidence supporting their use of the doctrine.

D. Duty To Disclose Heuristics

1. Routine Forecasts

A frequently litigated question in securities class actions is whether a company has an obligation to inform the public of information suggesting that a previously made forward-looking statement is unlikely to come true. In securities parlance, this is often referred to as the duty to update.[142] The routine forecasts doctrine eliminates a large number of such claims by holding there is no duty to update with respect to "ordinary," everyday forecasts.[143]

The underlying question here is whether the original forecast stayed alive in the minds of investors in such a way that the failure to provide an update misled them. The articulated rationale behind the routine forecasts doctrine is that reasonable investors (and the markets in general) do not understand ordinary forecasts to carry an implicit promise by the company to inform the public when new information indicates the forecast was a bad one.[144]

Here is yet another heroic assumption about investor behavior. The assumption might well be correct. Yet again, however, courts using this doctrine make no attempt to justify it with citations to the literature on investor behavior and market dynamics. Instead, as always, they simply cite other cases that have used the doctrine. Indeed, we are unaware of any evidence that investors do not expect to be updated on ordinary forecasts. What if the ordinary forecast is one that earnings will remain steady at their previous positive level, but internal information suggests that the company is about to go bankrupt? Would investors take the prior forecast as containing an implicit representation by the company that, "we will tell you if something extreme like

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[142] *See* William B. Gwyn & W. Christopher Matton, *The Duty To Update the Forecasts, Predictions, and Projections of Public Companies*, 24 SEC. REG. L.J. 366 (1997); Gregory S. Porter, *What Did You Know and When Did You Know It? Public Company Disclosure and the Mythical Duties To Correct and Update*, 68 FORDHAM L. REV. 2199 (2000); Robert H. Rosenblum, *An Issuer's Duty Under Rule 10b-5 To Correct and Update Materially Misleading Statements*, 40 CATH. U. L. REV. 289 (1991); Jeffrey A. Brill, Note, *The Status of the Duty To Update*, 7 CORNELL J.L. & PUB. POL'Y 605 (1998).

[143] *See In re* Home Health Corp. of America, Inc. Sec. Litig., 1999 U.S. Dist. LEXIS 1230, at *55 (E.D. Pa. Jan. 28, 1999); *In re* Verity, Inc. Sec. Litig., 2000 WL 1175580, at *5 (N.D. Cal. Aug. 11, 2000).

[144] *See In re* Burlington Coat Factory Sec. Litig., 114 F.2d 1410, 1433 (3d Cir. 1997). A cousin of this doctrine, which likewise makes heroic assumptions about the messages investors read into disclosures, says that a company's disclosure of a long line of past successes does not create an implication, in the minds of reasonable investors, that the present is equally rosy. *See, e.g., In re* Milestone Scientific Sec. Litig., 103 F. Supp. 2d 425, 457 (D.N.J. 2000); *In re* Boston Technologies Inc. Sec. Litig., 8 F. Supp. 2d 43, 54 (D. Mass. 1998); *see also* Serabian v. Amoskeag Bank Shares Inc., 24 F.3d 357, 361 (1st Cir. 1994).

bankruptcy is on the horizon?" Maybe not. The point is that there is little evidence out there on the subject and it is implausible that courts (and their nonexpert judges and clerks) have somehow been divinely granted that information.

It is worth reiterating that many of the heuristics described appear eminently sensible. Indeed, duty-to-update claims based on routine forecasts probably are largely baseless and the markets likely do not expect updates of these forecasts. The point again, however, is that these doctrines emerged not out of some Herculean understanding of market dynamics, but from a search for heuristics.

2. *Extreme Departure*

The extreme departure doctrine is a cousin of the routine forecasts doctrine, which likewise knocks out a large number of claims on the ground that there was no duty to disclose the information in question. It addresses the question of whether a company, which is in the process of doing a public offering of securities, has an obligation to disclose information about the quarter in progress.[145] The threshold issue is whether there is a general duty to disclose interim information in the context of a public offering. Assuming that the answer to that is yes, and most courts seem to think so, one would assume companies must disclose interim information whenever there is a material change. After all, the relevant rules require disclosure of information suggesting "material changes" in previously disclosed information.[146] One might think that would be the end of the story. In other words, there would be a broad duty in the offering context to disclose interim data showing material changes from what was previously disclosed. But that turns out not to be the case. Courts, despite recognizing the existence of a duty to disclose interim information, use the extreme departure doctrine to limit the duty to the narrow set of cases in which the interim information in question represented an "extreme departure" from investor expectations.[147]

The practical effect of the extreme departure doctrine is to eliminate a large number of possible interim disclosure claims because the doctrine narrows the

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[145] For a detailed analysis of the doctrine, see Gulati, *supra* note 118.

[146] *See* Shaw v. Digital Equip. Corp., 82 F.3d 1194, 1205 (1st Cir. 1996) (describing the relevant rules).

[147] *See, e.g.*, Freedman v. Value Health, 958 F. Supp. 745, 751 (D. Conn. 1997) (An issuer is only required to disclose information that represents "an extreme departure from publicly known trends and uncertainties." (quoting *Shaw*, 82 F.3d at 1211); Glassman v. Computervision Corp., 90 F.3d 617, 632 n.24 (1st Cir. 1996).

class of cases in which there is a duty to disclose interim information. Our hypothetical Herculean-oriented commentator might explain that this is the optimal solution, because rational investors would not want companies to waste resources collecting and processing interim information unless the information suggested something markedly different from what was already in the prospectus and registration statement.[148] After all, investors will care about nondisclosure mainly when the company's officers are trying to take advantage of an information asymmetry. The commentator could go on to explain that the incentives for managers are such that they are likely to behave in this manner only in situations where there is an extreme departure from expectations because the reputational costs of behaving in such a manner are likely to be high. Put differently, it is only the situation in which one could make a huge profit that would justify taking the risk of being discovered to be cheating the market.[149]

The story makes sense. It may even be correct. Unfortunately, it is yet another house of cards built on scant evidence. Even in the academic literature, as noted earlier, there is little agreement on why and when corporate managers mislead the investing public. More important, however, courts using this doctrine do not appear to be aware of this literature, let alone basing their use of the doctrine on it. As with the other heuristics, one court produces the doctrine and the others justify their use of it by citing to prior cases.

E. Normative Implications

The use of decisionmaking heuristics is a rational response to the high costs of information processing in a complex world of scarce resources.[150] As an ordinary matter, people use decisionmaking heuristics and rules of thumb all the time. For the most part, the heuristics work at least passably. If they did not, they would not survive. That story does not, however, apply readily to judging heuristics, because judges do not directly internalize the costs potentially associated with these heuristics. Does this mean that the heuristics are causing horrible problems? Probably not. If they were, there would likely have been loud complaints that would have produced changes. Indeed, heuristics such as the requirement that state of mind be pled with particularity and the bespeaks caution doctrine were approved of and codified by Congress

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[148] *See* Gulati, *supra* note 118.

[149] *See id.* (providing just such an explanation for the doctrine).

[150] Korobkin & Ulen, *supra* note 21, at 1085.

in the PSLRA—something that might have signaled a general approval of these heuristics and encouraged the creation of even more of them. Nonetheless, there are at least three ways in which these heuristics may be causing mischief.

1. Skewed Doctrine

If correct in positing that judges and clerks are focused on heuristics based in materiality and scienter concepts, there will be a skew in the development of doctrine. The materiality and scienter doctrines will be highly developed, with an extensive body of precedent covering a variety of factual situations. In contrast, doctrines relating to more complex questions, such as affirmative duties to disclose, will remain underdeveloped.[151] In turn, un-certainty as to the scope of disclosure duties will persist.

A skeptic might object that it is better for nonexpert judges and their clerks to refrain from explicating the law because they are more likely to create confusion than add clarity. Maybe so, assuming the current state of nonexpert and overburdened judges. Perhaps, however, there should be more expert judges and fewer complex statutes.

2. Mediocre Doctrine

If judges perceive that they can easily dispose of securities cases through the use of heuristics, they are more likely to delegate these unpleasant cases to their clerks. Instead of reflecting insight and judgment, opinions will be formulaic and citation-driven. In terms of articulating and clarifying the law, such opinions do little or nothing. One only needs to take a random sample of routine federal court securities opinions and compare them to corporate opinions out of the Delaware courts to see a stark contrast.[152] Accordingly, to the extent that these securities opinions make empirical claims about the behavior of firms and markets, there is a good chance that the information being conveyed is wrong.

[151] For the observation that these areas are surprisingly underdeveloped, see Gulati, *supra* note 118, at 675-80 (expressing surprise at the lack of doctrine on the interim disclosure question); Porter, *supra* note 142, at 2200 (making the point with respect to the duty to update doctrine, referring to it as "mythical").

[152] On the distinct nature of corporate law in the Delaware courts, see *infra* Part III.B.

3. *Safe Harbors for Bad Behavior*

To the extent heuristics are based on erroneous assumptions about firm and market behavior, they potentially create safe harbors for bad behavior. If investors really are misled by false statements of optimism, for example, the puffery heuristic allows companies to mislead the public without fear of liability. One can tell similar stories with most of the other heuristics such as the bespeaks caution doctrine, the extreme departure doctrine, the ordinary forecast doctrine, etc.[153] We do not claim that firms actually take advantage of these judicially created opportunities to behave badly. The disciplining effects of capital and reputational markets likely suffice to control such behavior. And, to the extent that courts refuse to impose liability for such misstatements, markets may learn to discount these statements precisely because of the lack of liability. It nevertheless seems troubling that heuristics likely create safe harbors for fraud.

In the end, are we saying that judges should not make empirical assumptions about market and managerial behavior without consulting the available empirical evidence? If they did, that would not be a bad thing. But we do not imagine that they could do so under today's workload pressures. What we do question is the tendency in the academic literature to understand doctrines as the product of judges either achieving empirical accuracy in their approximations or seeking to achieve that. Undoubtedly, judges think they are making common sense approximations. But, as Thoreau observed, "common sense always takes a hasty and superficial view."[154] When judicial heuristics are examined as a group, as we have done here, one does not see common sense but plausible and, more important, passable approximations that result in reducing workloads.

III. EXTENSIONS

A. *Securities Adjudication in the Supreme Court*

There is general agreement that the Supreme Court has not done a very good job in the securities area, especially in recent years. Scholars operating in

[153] Sale tells an analogous story about the creation of safe harbors for fraud with a different set of heuristics. *See* Sale, *supra* note 23.

[154] Henry David Thoreau, *A Week on the Concord and Merrimack Rivers (1849)*, *in* 1 THE WRITINGS OF HENRY DAVID THOREAU 347 (1906).

a wide range of paradigms have criticized the Court's recent securities opinions.[155] Supreme Court securities law decisions typically lack a broad, consistent understanding of the relevant public policy considerations. Worse yet, they frequently lack such basics as doctrinal coherence and fidelity to prior opinions.

Why does the Supreme Court not do a better job in securities cases? Our model offers an answer. When deciding securities cases, the Court is faced with hard, dry, and highly technical issues. Supreme Court justices and their clerks arrive on the court with little expertise in securities law. One reasonably assumes that neither the justices nor their clerks have much interest in developing substantial institutional expertise in this area after they arrive. (Former Justice Powell being the exception that proves these rules.) Accordingly, it would be surprising if the Court's securities opinions exhibited anything remotely resembling expert craftsmanship.

Under such conditions, we would expect the Justices to take securities cases rarely, typically when there is a serious circuit split, which is in fact what we observe.[156] When obliged to take a securities issue, the Court will seek to minimize the amount of effort required to render a decision. This observation is not intended pejoratively. To the contrary, in terms of our model, the Justices are acting rationally.

As we have seen, an actor can economize on limited cognitive resources either by invoking heuristic problem-solving decisionmaking processes (heuristics) or by adopting institutional governance structures designed to promote more efficient decisionmaking. Thus far in our analysis, the former economizing move has taken precedence. In applying our model to securities adjudication by the Supreme Court, however, the latter device comes to the fore. Nonetheless, the conception of judges as agents with bounded rationality remains the basic story.

Bounded rationality implies that Supreme Court Justices (and their clerks) have a limited ability to master legal information, including the myriad complexities of doctrine and policy in the host of areas annually presented to the Court. Specialization is a rational response to bounded rationality—the

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[155] See *supra* note 40 for a discussion of various scholars' perspectives.

[156] *See* Donald C. Langevoort, *Words from on High About Rule 10b-5:* Chiarella's *History,* Central Bank's *Future,* 20 DEL. J. CORP. L. 865, 865 (1995) (noting that "the Supreme Court does extremely little . . . adjudicatory work in securities law").

expert in a field makes the most of his limited capacity to absorb and master information by limiting the amount of information that must be processed, by limiting the breadth of the field in which he develops expertise. Supreme Court Justices will therefore need to specialize, just as experts in other fields must do. Specializing in securities law would not be rational. The psychic rewards of being a Justice—present day celebrity and historical fame—are associated with decisions on great constitutional issues, not the minutiae of securities regulation.

When faced with the necessity of deciding securities law issues, the Justices and their clerks doubtless recognize that they lack the expertise necessary to decide such questions with confidence. As specialists in a different field, they may be inclined to defer to specialists in this field. Just as specialization is a rational response to bounded rationality, so too is a nonexpert's decision to defer to a recognized specialist. Like all decisionmakers, but perhaps more so because of their high level of visibility, Supreme Court Justices likely care about their reputation for competence. Because their decisions are highly scrutinized, they have a strong incentive to defer to expert opinion. Recognizing that even a good decisionmaker is subject to the proverbial "act of God," the market for reputation evaluates decisionmakers by looking at both the outcome and the action before forming a judgment. If a bad outcome occurs, but the action was consistent with approved expert opinion, the hit to the decisionmaker's reputation is reduced. In effect, by deferring to specialists, a decisionmaker operating under conditions of bounded rationality is buying insurance against a bad outcome.

In a collegial, multiactor setting, members of the decisionmaking body likely will prefer to rely on internal specialists. Deferring to someone else makes one vulnerable. In this context, Justices who opt for deference are entrusting their reputation to the specialist to whom they defer. Ordinarily, the resulting vulnerability creates agency costs and, as a result, mandates monitoring the specialist. If the deferring Justices trust the specialist, however, they need not expend resources on monitoring. Trust arises out of two primary sources. "Affinity trust" exists ex ante. It is based mostly on shared values and is most likely to exist where there is ethnic or religious affinity. "Learned trust" arises out of repeat transactions in which the players prove consistently trustworthy. In a small but heterogeneous community, such as the Supreme Court, learned trust likely dominates. One will thus be more likely to defer to those who have earned one's trust, which is most likely to be a fellow Justice perceived as having special expertise.

Within a multimember deliberative body, the potential for log-rolling further encourages deference. A specialist in a given field is far more likely to have strong feelings about the outcome of a particular case than is a nonexpert. By deferring to the specialist, the nonexpert may win the specialist's vote in other cases as to which the nonexpert has a stronger stake. Such log-rolling need not be explicit, although it doubtless is at least sometimes, but rather can be a form of the tit-for-tat cooperative game. One powerful strategy in an infinitely repeated game is to play on a tit-for-tat basis: Player 1 begins by cooperating, and then chooses in each subsequent round to play as Player 2 did on his previous choice. In effect, tit-for-tat trains the opposing player to be cooperative.[157] In judicial decisionmaking, deference thus invokes a norm of reciprocation that allows the nonexpert to count on the specialist's vote on other matters.

If this analysis is correct, the widely shared assumption that Justice Powell received substantial deference from his colleagues in this area has a rational economic explanation. We tested the Powell business deference/expertise hypothesis by looking at the proportion of important securities and corporate cases assigned to him during his tenure on the Court. As a proxy for the importance of cases decided by the Court, we looked at opinions that found their way into the casebooks. Specifically, we looked at thirty-eight currently used casebooks on Corporations, Business Associations, Securities Regulation, and Corporate Finance. For each casebook, we counted the number of securities and corporate opinions by the various Supreme Court justices.[158]

The table reveals a dramatic dominance effect for Powell, both in terms of his overall number of securities and corporate cases in casebooks and his per year entry rate. In terms of total cases, Powell has sixty-one, and only three other justices even make it into double figures (Blackmun (twenty-one), Marshall (nineteen), and Burger (eleven)). A similar skew is present in the per year entry rates. Powell has an average of four securities or corporate cases entering the casebooks per year. The next closest number is 1.25. Finally, note that these are comparisons for only those Justices who have securities or corporate cases in the casebooks. Most have none.[159]

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[157] J. KEITH MURNIGHAN, BARGAINING GAMES 81-84 (1992).

[158] If the same case appeared in two casebooks, it was counted twice, and so on. We assumed more important cases would appear in more casebooks and that deference to Justice Powell would translate into his being assigned the most important (and most often reproduced) cases.

[159] For other discussions of Powell's dominance in the securities and corporate areas, see CATHERINE A. BARNES: MEN OF THE SUPREME COURT: PROFILES OF THE JUSTICES (1978); Donald C. Langevoort, *Rule 10b-5*

Table: Securities and Corporate Law Opinions in Casebooks (Comparison Across Supreme Court Justices)

Justices	Total	Total/Years
Black	4	0.12
Blackmun	21	0.88
Brennan	4	0.12
Burger	11	0.65
Clark	8	0.44
Douglas	6	0.17
Ginsburg	5	1.25
Goldberg	3	1.00
Harlan	7	0.44
Kennedy	9	1.00
Marshall	19	0.79
Murphy	4	0.44
O'Connor	5	0.31
Powell	61	4.07
Rehnquist	13	0.52
Scalia	2	0.18
Souter	12	1.70
Stevens	8	0.36
Stewart	4	0.18
White	22	0.71

as an Adaptive Organism, 61 FORDHAM L. REV. S7, S10 (1993); A.C. Pritchard, United States v. O'Hagan*: Agency Law and Justice Powell's Legacy for the Law of Insider Trading*, 78 B.U. L. REV. 13 (1998); *cf.* Michael J. Gerhardt, *The Art of Judicial Biography*, 80 CORNELL L. REV. 1595, 1601 (1995) (commenting on Powell's nearly forty years of corporate practice and criticizing Powell's biographer for failing to discuss its impact on his opinion writing and his legacy).

An alternate to the expertise/deference hypothesis might be that Justice Powell was simply a superior casebook opinion writer. While we have not tested this alternate hypothesis, anecdotal evidence suggests that Justice Powell did not have anything close to the same level of influence in other areas. He was an excellent opinion writer and among the more influential Justices of his time. But his clear dominance was limited to the business areas. *See* RICHARD A. POSNER, CARDOZO: A STUDY IN REPUTATION (1990) (commenting on Powell's skill at opinion writing and comparing the influence levels of a set of different Justices); Montgomery N. Kosma, *Measuring the Influence of Supreme Court Justices*, 27 J. LEGAL STUD. 333 (1998) (ranking the Justices according to influence levels as measured by citations).

In the absence of an internal expert, a situation in which the Supreme Court has found itself since Justice Powell's retirement, nonexpert judges might well choose to rely on external experts.[160] In our view, this is the best explanation for the Supreme Court's widely criticized decision in *United States v. O'Hagan*,[161] which addressed the validity of the so-called misappropriation theory as a basis for imposing insider trading liability under SEC Rule 10b-5. The misappropriation theory was almost two decades old before the Court got around finally to resolving its validity. It did so only after a major circuit split had emerged. In resolving the case, the majority did essentially what the government told it to do—the misappropriation section of Justice Ginsburg's opinion repeatedly quoted from or cited to the government's brief and oral argument, almost always approvingly. She framed the case as one involving a "theory of liability for which the Government seeks recognition,"[162] and adopted the central element of the government's theory.[163] In other words, she quite blatantly deferred to expert opinion.

The normative payoff of this insight is at least two-fold. First, insofar as adjudication by the Supreme Court itself is concerned, the Justices should consciously ask whether deference to specialists is appropriate in a particular instance. Although deference to experts is a rational response by decision-makers in the Justices' position, such deference may lead them astray when the expert also is a party to an adversarial position. The government's interest is to win, not to clarify the law. It is important to recall that the government is represented by individual lawyers, "for whom winning is itself important."[164] One therefore would not expect them to devote much effort to helping the Court work through the complexities of a given case.

Second, the model implies that lower courts should treat Supreme Court rulings in the securities area with a grain of salt. Consider, for example, the possession versus use debate under the federal insider trading prohibition. The

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[160] *Cf.* William A. Klein, *Tailor to the Emperor with No Clothes: The Supreme Court's Tax Rules for Deposits and Advance Payments*, 41 UCLA L. REV. 1685, 1727 (1994) (suggesting that in tax cases, the Supreme Court may defer, perhaps even unconsciously, to specialists at the IRS and Department of Treasury).

[161] 521 U.S. 642, 666-76 (1997). For critiques of *O'Hagan*, see STEPHEN M. BAINBRIDGE, SECURITIES LAW—INSIDER TRADING 109-18 (1999); Richard W. Painter et al., *Don't Ask, Just Tell: Insider Trading After* United States v. O'Hagan, 84 VA. L. REV. 153 (1998); Larry E. Ribstein, *Federalism and Insider Trading*, 6 SUP. CT. ECON. REV. 123 (1998). For a more sympathetic treatment, see Elliott J. Weiss, United States v. O'Hagan: *Pragmatism Returns to the Law of Insider Trading*, 23 J. CORP. L. 395 (1998).

[162] *O'Hagan*, 521 U.S. at 654.

[163] *Id.* at 654-55.

[164] Klein, *supra* note 160, at 1725 n.147 (making the same point with respect to the role of government lawyers in tax cases).

SEC has long argued that trading while in knowing possession of material nonpublic information satisfies rule 10b-5's scienter requirement. In *United States v. Teicher*,[165] the Second Circuit agreed, albeit in a passage that appears to be dictum.[166] In *SEC v. Adler*,[167] the Eleventh Circuit rejected *Teicher* in favor of a use standard.[168] Under *Adler*:

> when an insider trades while in possession of material nonpublic information, a strong inference arises that such information was used by the insider in trading. The insider can attempt to rebut the inference by adducing evidence that there was no causal connection between the information and the trade—for example, that the information was not used.[169]

Although defendant, Pegram, apparently possessed material nonpublic information at the time he traded, he introduced strong evidence that he had a plan to sell company stock and that that plan predated his acquisition of the information in question. If proven at trial, evidence of such a plan would rebut the inference of use and justify an acquittal on grounds that he lacked the requisite scienter. Similarly, the court opined, evidence that the allegedly illegal trades were consistent with trading would likewise rebut the inference of use.[170]

The choice between *Adler* and *Teicher* is a difficult doctrinal question. On the one hand, in adopting the Insider Trading Sanctions Act of 1984, Congress imposed treble money civil fines on those who illegally trade "while in possession" of material nonpublic information.[171] In addition, a use standard significantly complicates the government's burden in insider trading cases,

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[165] 987 F.2d 112 (2d Cir. 1993).

[166] An attorney tipped stock market speculators about transactions involving clients of his firm. *Id.* at 112-18. On appeal, the defendant objected to a jury instruction pursuant to which he could be found guilty of securities fraud based upon the mere possession of fraudulently obtained material nonpublic information, without regard to whether that information was the actual cause of his transactions. The Second Circuit indicated that any error in the instruction was harmless, but went on to opine in favor of a knowing possession test. *Id.* at 118-21.

[167] 137 F.3d 1325 (11th Cir. 1998).

[168] The Ninth Circuit agreed with *Adler* that proof of use, not mere possession, is required. The Ninth Circuit further held that in criminal cases no presumption of use should be drawn from the fact of possession—the government must affirmatively prove use of nonpublic information. United States v. Smith, 155 F.3d 1051, 1068-70 (9th Cir. 1998).

[169] *Adler*, 137 F.3d at 1337.

[170] *Id.* at 1340.

[171] For a discussion of the 1984 Act's implications for the possession versus use debate, see Stephen M. Bainbridge, Note, *A Critique of the Insider Trading Sanctions Act of 1984*, 71 VA. L. REV. 455, 493-97 (1985).

because motivation is always harder to establish than possession, although the inference of use permitted by *Adler* substantially alleviates this concern. On the other hand, a mere possession test is inconsistent with Rule 10b-5's scienter requirement, which requires fraudulent intent (or, at least, recklessness). A number of decisions have acknowledged that a preexisting plan or prior trading pattern can be introduced as an affirmative defense in insider trading cases, as such evidence tends to disprove that the defendant acted with the requisite scienter.[172]

The most instructive aspect of *Adler* and *Teicher*, for our purposes, is their hermeneutical similarity. Not unlike many academics, both courts approached the relevant Supreme Court decisions as an innerantist approaches Holy Writ.[173] Both assume that exegesis at a minute level of Supreme Court opinions in this area is both plausible and practical. In *Teicher*, for example, the Second Circuit interpreted Supreme Court precedent as comporting with "the oft-quoted maxim that one with a fiduciary or similar duty to hold material nonpublic information in confidence must either 'disclose or abstain' with regard to trading."[174] In *Adler*, the Eleventh Circuit carefully parsed language from all leading Supreme Court opinions, which the court concluded supported the use test.[175] The court at times seems to be reading Supreme Court decisions as though: (i) those decisions were statutes to be interpreted from strict textualist perspective, and (ii) one could ascribe intentionality to the justices' utterances. Implicit in this approach to interpreting Supreme Court decisions is the notion that the Court is sufficiently aware of the import of the words it chooses to ascribe meaning thereto. A theory of Supreme Court decisionmaking founded on bounded rationality, by contrast, argues for declining to ascribe intentionality to the Court. Supreme Court decisions in this area should be interpreted narrowly, as reaching only the specific issues before the Court, while dictum should be largely ignored. In other words, the choice between *Adler* and *Teicher* should be made almost without reference to the trilogy of Supreme Court insider trading opinions. None of them squarely

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[172] *Adler*, 137 F.3d at 1335-36 (discussing cases). In 2000, the SEC addressed this issue by adopting Rule 10b5-1, which states that Rule 10b-5's prohibition of insider trading is violated whenever someone trades "on the basis of" material nonpublic information. Exchange Act Release No. 43,154, 73 SEC Docket (Aug. 15, 2000). Because one is deemed, subject to certain narrow exceptions, to have traded "on the basis of" material nonpublic information if one was aware of such information at the time of the trade, Rule 10b5-1 formally rejects the *Adler* position. In practice, however, the difference between *Adler* and Rule 10b5-1 may prove insignificant.

[173] *See supra* text accompanying note 33.

[174] United States v. Teicher, 987 F.2d 112, 120 ((2d Cir. 1993).

[175] *Adler*, 137 F.3d at 1333-34, 1338.

addresses the issue, and dictum in each that seems relevant to other issues, such as the possession versus use debate, should get little deference.

B. State Corporate Law

Various state corporate law doctrines appear to be heuristics. As Eric Posner observed in the passage quoted earlier,[176] the business judgment rule frequently is applied in ways suggesting that it is being used as a heuristic. As any corporate law student knows, the rule requires courts to defer to the business judgments of a board of directors (absent unusual circumstances). Judicial reluctance to review complicated business decisions strikes us as smacking of a heuristic. Indeed, the most famous explanation of the business judgment rule, offered by the Michigan Supreme Court in *Dodge v. Ford Motor Co.,* encapsulates our notion of judges as boundedly rational agents: "The judges are not business experts."[177]

Alternatively, consider the corporate veil piercing doctrine. Judge Frank Easterbrook and his long-time coauthor, Dan Fischel, have offered a classic Herculean explanation of that doctrine. In brief, and at the risk of vastly over-simplifying, their analysis is based on the ability to externalize risk which corporate limited liability gives shareholders of close corporations. They divide the universe of potential claimants on a corporation into two basic categories: contract and other voluntary creditors versus tort and other involuntary creditors. Contract creditors can protect themselves by bargaining with the controlling shareholder and obtaining a modification of the default rule. To the extent contract creditors fail to do so, and accordingly fail to protect their own interests adequately, there seems little reason for the law to protect them. Put another way, the creditor ought to lose because it assumed the risk of doing business with an individual who chose incorporation.[178]

In contrast, as to the tort creditor of the close corporation, Easterbrook and Fischel find this a hard case in which to justify limited liability.[179] As for shareholder incentives, the shareholders of a close corporation frequently are

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[176] *See* Posner, *supra* note 86.

[177] Dodge v. Ford Motor Co., 170 N.W. 668, 684 (Mich. 1919). Yet, the business judgment rule cannot be merely a heuristic. After all, judges are not medical or engineering experts, yet they do not routinely defer to expert opinion in such cases. Hence, Stephen Bainbridge is in the early stages of a project offering a quasi-Herculean explanation of the business judgment rule.

[178] FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 50-52 (1991).

[179] *Id.* at 52-54.

actively engaged in the business on a full-time basis. Intra-firm monitoring costs will be low, although still not zero. Hence, concerns that unlimited liability would deter diversification and encourage active shareholder decisionmaking are far less significant in this context than if we were dealing with a public corporation with dispersed and passive shareholders. Conversely, while in the public corporation context externalization of tort risk is simply a by-product of the corporation's business and affairs, in the close corporation setting externalizing such risks likely is the very purpose of incorporating.

Hence, Easterbrook and Fischel's analysis of limited liability and veil piercing makes the following moves: (1) as a general matter, shareholders ought to internalize tort risk; (2) the social costs of forcing public corporation shareholders to internalize tort risk outweigh the benefits of doing so, hence limited liability is appropriate in that context; and (3) in the close corporation context, however, courts ought to pierce the veil in order to force shareholders to internalize tort risk.[180]

Unfortunately, although this Herculean story seems eminently plausible, it hardly gets going before it starts bumping into some messy facts. Based on Easterbrook and Fischel's story, one would expect to find fewer contract than tort cases and, moreover, that the rate at which courts pierce the corporate veil would be lower in contract than tort cases. Tort creditors do not routinely pierce the corporate veil, however. Indeed, to the contrary, their attempts to do so are only successful about one-third of the time.[181] In fact, an empirical study of veil-piercing cases not only found that veil-piercing claims by contract creditors are more frequent than by tort creditors, but that contract creditors are more likely to prevail than tort creditors.[182] All of which is quite awkward for the theory.

The general absence of meaningful analysis in veil-piercing opinions is also quite telling. Courts rarely, if ever, engage in sophisticated analysis of whether the shareholder used the shield of limited liability to externalize risks. Instead, veil-piercing opinions fairly can be characterized as analysis by epithet. Courts may well have a vague intuitive sense of what constitutes an

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[180] *Id.* at 58-59.

[181] Robert B. Thompson, *Piercing the Corporate Veil: An Empirical Study*, 76 CORNELL L. REV. 1036, 1058 (1991) (finding tort creditor success rate of 31 percent).

[182] *Id.* (finding 779 contract veil-piercing cases versus only 226 tort claims; contract creditor success rate of 42 percent).

appropriate outcome, but, if so, they seem unable to articulate it. Instead of reasoned analysis, courts typically rely on vague labels such as "alter ego" or "lack of separation,"[183] which amount to conclusory announcements of result—in other words, heuristics. Or, in a different manifestation of the heuristic phenomenon, the courts turn to multifactor tests where they appear to have little understanding of why the factors matter (other than the fact that some other court used them).[184] Hence, in application, veil-piercing cases strike us as the product of boundedly rational judicial agents—not of Herculean judges making fine economic distinctions.

Strikingly, veil piercing is one of the few major corporation doctrines in which Delaware law does not figure prominently. As all corporation students know, the corporation law course is not about the law of their state or, indeed, any of the usual suspect large states—it is about the law of Delaware. Yet, not only is Delaware veil-piercing law unusual in not being particularly influential, it also is unusual in being comparatively underdeveloped relative to the rest of Delaware corporate law.[185] Presumably this is because Delaware's dominance is largely a public corporation phenomenon, while veil piercing is a close corporation phenomenon.

It is generally (although not universally) accepted that at least part of Delaware's dominant position in corporate law is attributable to the special expertise of the Delaware Chancery and Supreme Court with respect to that area.[186] If so, an assumption we make arguendo, Delaware's unique status is consistent with our model.

The background facts are well-known. More than half of the 500 largest U.S. corporations are incorporated in Delaware, as are over half of the corporations listed for trading on the New York Stock Exchange.[187] Delaware has a separate court, the Court of Chancery,[188] devoted largely to corporate law

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[183] *See* Stephen M. Bainbridge, *Abolishing Veil Piercing*, 26 J. CORP. L. 479, 506-14 (2001) (describing doctrine).

[184] *See id.* at 509-11 (criticizing the use of multifactor tests in the veil-piercing area).

[185] David L. Cohen, *Theories of the Corporation and the Limited Liability Company: How Should Courts and Legislatures Articulate Rules for Piercing the Veil, Fiduciary Responsibility and Securities Regulation for the Limited Liability Company?*, 51 OKLA. L. REV. 427, 480 (1998).

[186] *See, e.g.*, Jill E. Fisch, *The Peculiar Role of the Delaware Courts in the Competition for Corporate Charters*, 68 U. CIN. L. REV. 1061 (2000).

[187] E. Norman Veasey, *An Economic Rationale for Judicial Decisionmaking in Corporate Law*, 53 BUS. LAW. 681, 682 (1998).

[188] For the sake of semantic simplicity, the analysis that follows focuses on the Chancery Court. We think it also applies in full measure to the justices of the Delaware Supreme Court, as well.

cases. As a result of these factors, there is a considerable body of case law interpreting the Delaware corporate statute. In turn, the process of developing and preserving that corpus of knowledge gives the chancellors great proficiency in corporate law matters. As Chief Justice Rehnquist observed, "[C]orporate lawyers across the United States have praised the expertise of the Court of Chancery."[189]

Our story does not claim the status of universal truth, but simply is a story about the direction in which judicial incentives tend to point. Delaware chancellors face a different set of incentives than do federal judges faced with securities fraud claims (or state judges elsewhere faced with limited liability issues). As is true of everyone, the rationality of Delaware chancellors is bounded. As with all judges, Delaware chancellors are time- and resource-constrained. Yet, the Delaware chancellors have considerable incentives to develop specialized expertise in dealing with complex corporate law issues arising in the context of sophisticated financial transactions. In contrast to federal judges who only decide securities cases episodically, Delaware chancellors decide a lot of corporate law cases on an ongoing basis, which makes it rational for them to devote effort to mastering both doctrine and the financial world to which the doctrine applies. Because of Delaware's prominence in corporate law, the reputation of a Delaware chancellor depends mostly on his or her ability to decide corporate law matters quickly, thoroughly, and accurately. Hence, the payoff to devoting effort to such cases is far higher than is the payoff to a federal judge for devoting effort to securities cases. Conversely, given the small size of the Delaware judiciary and its state's prominence in corporate law, there likely would be a considerable reputational hit if a Delaware chancellor tried to rely on heuristics.

Delaware chancellors also face a different agency cost schedule than do federal judges deciding securities cases. Delaware earns substantial revenues from corporation franchise fees and taxes. Although there is disagreement as to the direction those incentives point Delaware law, there is general agreement that Delaware cares a lot about maintaining that revenue stream.[190]

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[189] William H. Rehnquist, *The Prominence of the Delaware Court of Chancery in the State-Federal Joint Venture of Providing Justice*, Address Delivered on the Bicentennial Celebration of the Delaware Court of Chancery (Sept. 18, 1992), *in* 48 BUS. LAW. 351, 354 (1992).

[190] One school of thought claims that Delaware's desire to maintain the revenue stream generated by its dominant position in corporate law leads to a "race to the bottom," as a result of which Delaware law tends to favor managers (who decide on the state of incorporation). *See, e.g.*, William L. Cary, *Federalism and*

If the Delaware chancellors were perceived as shirking, that revenue stream presumably would be imperiled. As such, we expect to observe a variety of institutional constraints that prevent shirking and, in fact, we do. Chancellors are selected through a merit-based process.[191] They are subject to reappointment by the legislature after a twelve-year term, which allows weeding out. Their court has adopted both rules and norms promoting rapid decisionmaking and facilitating expedited proceedings.[192] All of which tends to buttress the chancellors' incentives to avoid reliance on heuristics.

CONCLUSION

Legal doctrine develops as a function of the disputes that are litigated. If there is a law that never generates disputes, there will be no cases for judges to decide and no opinions that develop and explain the law. On the flip side, laws that generate lots of disputes result in lots of opinions and highly developed doctrine. In studying the evolution of doctrine, therefore, the threshold question is why certain disputes get litigated and others do not. But the arrival of a dispute in court is only stage one.

Once the dispute shows up, there is the question of whether an opinion will be written and, if so, whether it will be published. Assuming the judge decides on a published opinion, the next question is that of allocating the judge's scarce cognitive resources: how much of the opinion writing is delegated to the law clerks, how much time is allocated to the particular case, and so on. These decisions shape the form that an opinion takes. If there is an area that most judges have relatively little skill in, find uninteresting, and do not see long-term benefits in developing expertise in, opinion writing in that area likely will be delegated to law clerks. Further, to the extent that the judge is worried that the central substantive law question in the case is too complex, he or she may encourage the clerk to attempt to find a way to dispose of the case without tackling that question. One can then tell a similar story about the incentives of the law clerk. The point is that there is an important second stage

Corporate Law: Reflections upon Delaware, 83 YALE L.J. 663 (1974). The other major school of thought posits a "race to the top," pursuant to which corporate managers have strong incentives to incorporate in a state offering rules preferred by investors. Competition for corporate charters thus leads Delaware towards optimality. *See, e.g.*, ROBERTA ROMANO, THE GENIUS OF AMERICAN CORPORATE LAW (1993). Both schools of thought assume that Delaware wishes to win the competition for corporate charters and thereby maintain its revenue stream.

[191] Fisch, *supra* note 186, at 1094.

[192] *Id.* at 1086.

to the evolution of legal doctrine that is a function of institutional constraints that courts face.

Using a simple model of courts as institutionally constrained, we tell a story about recent doctrinal developments in the lower federal courts in the area of securities class actions. That story is then extended to the contexts of the Supreme Court and the Delaware state courts. In recent years, some economics-oriented legal scholars have argued that judges are best understood as ordinary self-interested actors maximizing their individual interests.[193] In other words, they are the "same" as "everybody else."[194] This Article attempts to push that insight a few steps forward. Judges being the "same" as "everyone else" means more than that they maximize their own self-interest. It also means they are subject to the constraints and limitations as the rest of us. Judges may maximize self-interest, but they will do it boundedly and subject to institutional constraints.[195] Our claim is that the institutional perspective provides insights into the evolution of doctrine that today's dominant models fail to provide.

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[193] *See* Frederick Schauer, *Incentives, Reputation, and the Inglorious Determinants of Judicial Behavior*, 68 U. CIN. L. REV. 615, 615 n.3 (2000) (citing to articles in this vein and urging that more scholarship along these lines be done); *but cf.* Neil S. Siegel, Comment, *Sen and the Hart of Jurisprudence: A Critique of the Economic Analysis of Judicial Behavior*, 87 CAL. L. REV. 1581 (1999) (using the work of Amartya Sen and H.L.A. Hart to critique the self-interested actor model as limited in its understanding of, and ability to predict, judicial behavior).

[194] *See supra* note 71.

[195] As both Donald Langevoort and Lynn Stout have pointed out, the model can be likely pushed even further by incorporating additional biases and behavioral features that are likely to operate with respect to these judges. Langevoort suggests that judges are biased towards adopting self-serving doctrines. *See* Donald C. Langevoort, Seeking Sunlight in Santa Fe's Shadow: The SEC's Strategic Pursuit of Managerial Accountability (unpublished draft dated Apr. 17, 2001, on file with authors) (describing the tendency of human actors to "justify, even internally to themselves, choices that are in [their] interests to make"). Hence, for example, Langevoort argues that judges have "high self-esteem" and therefore will tend to "overestimate their own prudence, caution, reasonableness, etc., especially in hindsight." Langevoort, *Judges*, *supra* note 14, at 317. In turn, he asserts, judges may project their own purported caution "onto the mental image of the hypothetical 'reasonable investor' employed in making materiality and puffery determinations." *Id.* at 317. See also Langevoort, *supra* note 4, at 493 (arguing that judges are prone to holding that "reasonable investors" would not be taken in by "puffery and other claims that in hindsight seem more based on hope than experience"). In contrast, Lynn Stout's recent work on judges suggests to us that judges may be especially susceptible to subtle signals from sources of authority, such as the higher courts, that suggest approval or disapproval about a class of cases. *See* Lynn A. Stout, *Judges as Altruistic Hierarchs*, 43 WILLIAM & MARY L. REV. 1605 (2002). The point here is that while we claim to be adding institutional context to Posner's model of judging, we acknowledge that there are additional institutional characteristics that might further improve the model. These include biases such as the "self-serving bias" and a possible heightened tendency of judges towards altruistic behavior.