Information Lost and Found

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At the core of every lawsuit is a mix of information—revealing documents that chronicle a party's malfeasance, guarded memos that outline a lawyer's trial strategy, fading memories that recall a jury's key mistakes. Yet the law's system for managing that information is still poorly understood. This Article makes new and better sense of that system. It begins with an original examination of five pieces of our civil information architecture—evidence tampering rules, automatic disclosure requirements, work product doctrine, peremptory challenge law, and bans on juror testimony—and compiles a novel study of how those doctrines intersect and overlap. It then fits these five doctrines into a creative rule typology, one built on the frame of "(in)valid (mis)information." This typology charts our system's most basic commitments—to accuracy, to adversarialism, and to procedural equality. But it also raises a critical question about the space between what our rules now require and what legal actors actually do. To help answer that question, this Article reaches out to an untapped social-science discipline: the rich and instructive field of Information Behavior (IB). This Article uses IB to shed new light on how our information rules function and where they still may fail. It also offers fresh and focused insight on the nature of information in civil litigation—from before a lawsuit opens until well after it ends.

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INTRODUCTION

Information defines litigation. No less than judge or jury, counsel or claim, information drives legal strategy and determines outcomes. Defenses cave at the sight of a critical document. Cases crumble for want of a key fact. The story of any case, then, is the story of its information—some shared, some hidden, some lost, and some found.

This Article is about that information. It studies those clashes and compromises so peculiar to our system of information antagonism— the competition condoned, the cooperation compelled, the sanctions threatened, the blind eyes turned. And it argues for a new way to understand how that system now works—first by paying fresh attention to how our rules fit together, then by introducing something useful outside the law. My goal is not some grand but impossible project of unification, some quixotic attempt to distill all of "evidentiary process" into an essence clean and clear. Our information architecture was messy before—perhaps for good reason—and so it shall stay. But this Article argues that our information architecture can, and should, be

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1. By information antagonism, I mean the kind of structured, information-based adversarialism so central to modern civil adjudication. See ROBERT M. COVER & OWEN M. FISS, THE STRUCTURE OF PROCEDURE 190 (1979) ("Any situation of structured antagonism creates the proper conditions for strategic behavior . . . .").

better understood. It defines litigation by disparate demands and divergent rules. And it does so, in some way, before a case, during it, and after it too.

So think, to start, of three moments. The first arrives early. It comes before a complaint has been filed, though not before a dispute has emerged. A large corporation (let us say) has heard hints of an impending lawsuit, troubling whispers that a former employee, only recently fired, will soon sue for sexual harassment. A full folder of company email chronicles the corporation’s malfeasance—the lewd advances by supervisors, the detailed warnings ignored by managers, the clumsy scheme to punish the accuser—and the corporation knows it. It knows too that it would prefer to destroy this email folder, quickly and quietly, as cunning (if not commendable) counsel might advise.\(^3\) But this folder is information that the corporation must instead preserve and protect, though not also publicize.\(^4\)

A second moment comes later. It arrives soon after a case has formally started, this one in federal civil court. A careful attorney has prepared her side of that case meticulously. She has enlisted a parade of friendly witnesses, gathered stacks of useful physical evidence, and assembled reams of nuanced damage calculations—all at her client’s expense. She would like, too, to keep these things hidden from her adversary, at least for a time. All the better, she may think, to discourage rival free riding, to exploit her hard-won informational advantage, and to facilitate strategic surprise.\(^5\) But this work is information that the attorney must disclose to her opponent immediately—all of it, without court order.\(^6\)

And a third moment comes later still. It arrives after trial has ended and a jury verdict has been entered. A member of that jury has revealed something damning about deliberations: he has reported—to friends, to press, to anyone who might listen—that the jury decided against the plaintiff, not because her suit was wanting, but because they misunderstood the law. Had the jury known what sexual harassment law actually required, he feels sure they would have voted differently. Now the plaintiff, understandably, would like to pursue this

\(^3\) See Stephen McG. Bundy & Einer Richard Elhauge, Do Lawyers Improve the Adversary System? A General Theory of Litigation Advice and Its Regulation, 79 CALIF. L. REV. 313, 315–16 (1991) (“[T]he lawyer certainly may, and arguably must, provide her clients with complete and accurate advice, even when she reasonably believes that doing so will cause them to withhold or suppress evidence.”); Henry J. Friendly, “Some Kind of Hearing,” 123 U. PA. L. REV. 1267, 1288 (1975) (“Under our adversary system the role of counsel is not to make sure that truth is ascertained but to advance his client’s cause by any ethical means”); see also Gideon Parchomovsky & Alex Stein, The Distortionary Effect of Evidence on Primary Behavior, 124 HARV. L. REV. 518, 528 (2010) (“[E]videntiary motivation will often undermine substantive law’s efforts to minimize harm at the lowest possible cost.”).


\(^5\) See, e.g., Sanchirico, supra note 2, at 337 (“[O]ur system still thrives on catching witnesses off guard.”).

revelation. It implies, after all, that only a conceded and correctible jury error kept her from relief. But this revelation is information that the plaintiff can hear but not use—and the court must ignore it too.7

Alone, unconnected, these moments are useful snapshots. Each sketches a kind of information conflict—between access and self-interest, cooperation and competition, accuracy and finality. And each records a rule-based resolution: The corporation must safeguard access to the very information that may later doom it. The careful attorney must cooperate with the very opponent she aims to defeat. And the loose-lipped juror must accept the finality of a verdict he now thinks so wrong.

But together, in concert, these moments do more than only that. They trace the long legal plot of a workplace tort and its failure at trial. And they track an information architecture built of inevitable tensions and essential tradeoffs: The corporation is reprehensible enough to have tolerated sexual harassment—but still responsible enough not to suppress harmful evidence.8 The careful attorney is partisan enough to pursue victory—but still impartial enough not to subvert the search for truth.9 And the loose-lipped juror is authoritative enough to render a verdict—but still irrelevant enough, right after, to ignore in court.10

One goal of this Article is to tie these tensions and tradeoffs together. It aims to explore a set of seemingly disparate "information rules"—about evidence tampering, automatic disclosure, work product doctrine, peremptory challenges, and juror testimony—and then to tease out lasting lessons from close comparison. Others have studied these rules in doctrinal isolation. They have reframed bans on evidence tampering as a kind of "tax" on primary conduct,11 defined automatic disclosure as a sort of noble duty,12 argued for the abolition of work product doctrine,13 urged the elimination of peremptory challenges,14 and listed reasons to pry open the jury's black box.15 This Article

7. See FED. R. EVID. 606(b).
9. See JOHN H. LANGBEIN, THE ORIGINS OF ADVERSARY CRIMINAL TRIAL 332 (2003); Brazil, supra note 6, at 1311 ("[The business of the advocate, simply stated, is to win if possible without violating the law."").
10. See George Fisher, The Jury's Rise as Lie Detector, 107 YALE L.J. 575, 580, 697–708 (1997) ("The jury's secrecy is an aid to legitimacy, for the privacy of the jury box shrouds the shortcomings of its methods.").
11. See Chris William Sanchirico, Evidence Tampering, 53 DUKE L.J. 1215, 1316 (2004) (discussing how evidence tampering rules may influence behavior outside of court). To be fair, Professor Sanchirico's lens is significantly (and consistently) wider than most. See id. at 1227. In many ways, in fact, his "integrated approach" both encourages and foreshadows mine. See id.
aims to do something different, something broader and more integrative. It hopes to show how these rules, so long uncompared and uncoupled, might influence each other—how rules requiring disclosure of favorable information, for example, might mitigate work product doctrine’s secretive bite. It hopes too to highlight how these rules, linked together, might mediate a range of conflicting policy impulses—how the corporation’s and the careful attorney’s forced preverdict openness, for example, might balance the juror’s compelled postverdict silence. And it hopes to chart a more careful way forward, sketching a map for legal progress within a delicate information ecology.

Another goal of this Article is to tie these rules to something instructive outside the law. It reaches out to the growing field of Information Behavior, a rich body of research and theory devoted to making sense of “how people need, seek, give and use information in different contexts.” Information Behavior is to date unexamined in legal scholarship and uncited by courts. But Information Behavior may shed useful light on how the law’s “information rules” fit as well as how they function—how spoliation rules offset our worst information instincts, for example, and how automatic disclosure pits legal self-interest against itself. It may also help answer the very questions raised by the corporation, the careful attorney, and the loose-lipped juror too: When does legitimacy require more information and when less? Should it matter if the information holder is an impartial fact finder or a self-interested foe? How is unwanted information best avoided? And how is undesirable information conduct best controlled? This Article thus takes an initial look at Information

18. My claim here warrants two qualifications. First, the conversation has not been quiet in both directions: Information Behavior (IB) scholarship has been more attentive to lawyers than legal scholarship has been to IB. In bits and pieces, in fact, IB scholars have been studying the conduct of lawyers since the early 1990s. See DONALD O. CASE, LOOKING FOR INFORMATION: A SURVEY OF RESEARCH ON INFORMATION SEEKING, NEEDS, AND BEHAVIOR 278–80 (2d ed. 2007). Second, legal scholarship is not entirely IB-oblivious: though IB itself has gone generally unconsidered, important legal scholars have drawn much from sometimes-parallel fields. See, e.g., Dan Simon, A Third View of the Black Box: Cognitive Coherence in Legal Decisionmaking, 71 U. CHI. L. REV. 511 (2004). I draw heavily on this legal work in the pages below.
Behavior, not as an exclusive basis for legal reform, but as an appeal for engaged exploration and a source of novel insight.  

Neither insight nor exploration is particularly valuable, of course, with too scattered a focus. So a few issues of scope and subject should be addressed at the outset. To start, it is important to stress that this Article concentrates on information rules of a civil, not criminal, type. Some of the rules I examine (like the ban on juror testimony) shape criminal litigation as much as civil, and I will incorporate lessons learned from criminal doctrine when most pertinent. But some rules (like symmetrical mandatory disclosure) are entirely civil, while others (like Miranda and Brady) are criminal alone. So though criminal and civil procedure still have “a lot in common,” civil information rules make up a curious architecture all their own. This Article focuses there.

If that focus is in some ways narrow, however, this Article’s definition of “information” is markedly not. And so it is important, too, to underscore the definition of “information” I use: Information is not just that evidence of fact or opinion presented at trial—though it is certainly that. It is also (as the three moments above hinted) what parties have and hide, what lawyers think and do, and what jurors signal and say. It is, to adapt one common description, any bit of data or knowledge that might make a difference in litigation. By definition, then, many civil rules are “information rules”—from those written into formal codes of evidence and procedure to those found in the murky corners of

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23. See Geoffrey C. Bowker & Susan Leigh Star, Sorting Things Out: Classification and Its Consequences 281 (1999) (“Information . . . is about differences that make a difference.”); see also EJAN MACKAAY, ECONOMICS OF INFORMATION AND LAW 108 (1982) (“The term information . . . is used here in a very general sense. The distinction sometimes made between ‘data,’ ‘information’ and ‘knowledge’ has no useful consequence for the discussion at hand.”). Recent studies of “information privacy” seem to define “information” along similarly expansive lines. See, e.g., Jerry Kang, Information Privacy in Cyberspace Transactions, 50 Stan. L. Rev. 1193, 1205-08 (1998) (separating “personal” from “non-personal” information); Daniel J. Solove, A Taxonomy of Privacy, 154 U. Pa. L. Rev. 477 (2006) (discussing “information collection,” “information processing,” and “information dissemination”). While there is much to admire in this “information privacy” literature, I engage it only at points here. I do not try to chronicle the “breathtaking rise of the Information Age” or the bulky weight of our “informational baggage.” Solove, supra, at 483, 513. Nor do I try to unlock the secrets of cyberspace’s “political, economic, and social impact.” Jerry Kang, Cyber-Race, 113 Harv. L. Rev. 1130, 1132 (2000). I try instead to shed new light on how our civil system manages and manipulates information pertinent to particular cases. And so I stray only rarely from litigation’s long shadow.
common law. And by definition, too, their linked examination is all the more timely and appropriate.

This Article divides that examination into three parts. Part I studies five information rules—those, again, about evidence tampering, automatic disclosure, work product doctrine, peremptory challenges, and juror testimony. Much of this review is doctrine specific. It inspects the conflicts, concessions, and chronologies particular to each doctrine individually. Even as it does, however, Part I hints at areas of overlap and interplay—places where prefiling rules about access and accuracy, say, inform postfiling rules about fairness and finality. It also suggests a need to think differently about information rules overall—how they interact, how they map together, and how they call for novel typologies.

Part II begins that rethinking. It starts by making more explicit those comparative and still speculative lessons implied in Part I. Some of those lessons capture particular doctrinal connections—like the link between evidence tampering's commitment to front-end access and juror testimony's endorsement of back-end concealment. Others suggest a more general information ambivalence, a kind of interrule anxiety about the fluid demands of adjudicative accuracy, civil adversarialism, and procedural equality. Part II uses these different measures to map and remap the five information rules discussed in Part I, illustrating their quiet collaborations, their important counterbalances, and their assorted contributions to litigation legitimacy. It then fits these rules into a new and hopefully illuminating information typology, one built of four basic categories: valid information, invalid information, valid misinformation, and invalid misinformation. These four categories help connect, even synthesize, a range of disparate commitments—to accuracy, to adversarialism, and to procedural equality. But they raise an urgent question too: Are our information rules well tailored to what legal actors actually do?

Part III provides an initial answer. It introduces the research, theory, and still modest empirical work of Information Behavior—what information behaviorists often call "IB." The goal of Part III is self-consciously exploratory and intentionally provisional. It does not purport to summarize

28. See, e.g., CASE, supra note 18, at 278 ("[T]here is little known empirically of the information seeking behavior of attorneys.").
every subtle facet of IB scholarship. Nor does it aim to smuggle in normative preferences in the guise of initial inquiry. It means instead to show how particular information rules do (and do not) abide central IB tenets—how the bar on juror testimony, for example, follows the lesson that “avoiding information is at times a rational strategy.”29 It aims to identify core IB principles—like the idea that information seekers expend the least possible effort,30 or the notion that people overestimate the value of what they know31—and then to ask how these principles comport with the law’s information design. And it hopes to tender both a pessimistic caution and an optimistic call: the caution is to remember that litigation’s central players—whether parties, attorneys, jurors, judges, or witnesses—are likely prone to some of IB’s most serious errors. They misread information simply because it lacks context, reject data simply because it is disagreeable, and struggle to imagine what new information might reveal.32 But the call is to see how our information rules, as a group, already work to temper these errors—and to ask how those rules may do better still.

Some of that improvement will require little change. And so I will argue—for reasons of adversarial balance and common information instincts—that spoliation enforcement should be strengthened and automatic disclosure preserved. But some of that improvement will demand more dramatic measures. And so I will argue that peremptory challenges should, in civil cases, at long last be let go.

A short conclusion then brings this Article to a close. It reiterates two crucial but unchronicled connections—one between various information rules, the other between law and Information Behavior. It recalls the typology that links these connections together. It looks briefly at other information rules, some civil and some not. It suggests additional places where IB and law might profit from deeper engagement. And it reminds that the integrated study of legal information is as essential as it is now overdue. For information defines litigation from start to finish—whether shared or hidden, lost or found.

I.
THE PIECES

Information antagonism is both old and new. Its roots reach back centuries—to an adversarial process forged in the London courts of Old Bailey

29. Id. at 327.
31. See Marcia J. Bates, An Introduction to Metatheories, Theories, and Models, in THEORIES, supra note 17, at 5. I discuss the sources of related and more familiar insights—particularly those from cognitive psychology and behavioral law and economics—at some length below. See infra Part III.
32. CASE, supra note 18, at 98–99, 327; see also Sanchirico, supra note 2, at 364 (“[R]ecasting cognitive limits as instruments, rather than obstacles, brings to the fore central aspects of system design that have languished largely unnoticed in the gray background of evidentiary process.”).
and the Treason Trials Act of 1696. There, in summary session papers and parliamentary decrees, lie the outlines of a now-familiar form: partisan lawyers charged with finding and framing evidence for trial, passive judges conducting no investigation of their own. Yet that form is still distinctly modern, shaped by the quirks of advanced technology and the demands of "restyled" rules.

This Part looks at five features of that modern image. It examines evidence tampering (or spoliation), automatic disclosure, work product doctrine, peremptory challenges, and juror testimony—all with a focus on how they operate now. Neither this Part nor this Article pretends to inspect each and every information rule. My goal, instead, is to take a methodologically eclectic first step, using a formally and chronologically diverse sample to expose and explore new questions of rule interaction, adjudicative policy, and information theory. Part I.A begins this process with a careful, if condensed, doctrinal review. Part I.B then documents how these rules might work in a single (stylized) case, previewing where these rules interact as sources of conflict and as spaces of coordination.

A preliminary note about selection: my choices here aim to be useful, not in spite of their counterintuitive flavor, but precisely because of it. By pairing and comparing seemingly disparate rules, I hope to make my arguments sharper and more penetrating, not merely unexpected and provocative. It may seem strange, of course, to concentrate on any specific batch of rules when advocating integrated analysis. No part, it may seem, can ever entirely explain the whole. But the rules I examine represent a diverse sample—in form and function, in timing and rationale—and so they illustrate many core characteristics of our system overall. Even more, these rules present our system's commitments in often-stark relief, and so their (counter)balances can be most striking. It makes some sense, then, to begin with them.

33. See LANGBEIN, supra note 9, at 3, 181. My history is a touch speculative here. Professor Langbein's canonical study, from which I draw much support, concentrates on criminal, not civil, procedure—and the two are not identical. Id. at 7. But at least in terms of adjudicative practice, my anchor seems entirely secure. "[T]he basics," Langbein tells us, "are not in doubt": our adversarial system grows out of particular English soil, and the "model came from the civil side." Id. at 8.

34. Id. at 1–3, 7–9, 212. See id. at 180–90 (discussing the deficits of the Session Papers).

35. See, e.g., Scott A. Moss, Litigation Discovery Cannot Be Optimal but Could Be Better: The Economics of Improving Discovery Timing in a Digital Age, 58 DUKE L.J. 889 (2009).


37. I acknowledge that other doctrines may inform some of those balances, perhaps quite substantially. My prescriptions in Part III are thus deliberately tentative. Cf. Alschuler, supra note 16, at 154 (arguing that our current approach to juries "capture[s] the worst of two worlds"). But one aim of this project is to show precisely what this quandary of selection indicates—that information rules are deeply interconnected, a kind of tightly-knotted legal web. And another is to prove my choices "more methodical and thoughtful than random shopping." Sklansky & Yeazell, supra note 19, at 737.
A. Five Doctrines

1. Spoliation

Spoliation is a kind of cheating. It is the act of suppressing, altering, or destroying information pertinent to pending or impending litigation—and it often leaves no trace. Those who may benefit from particular information might not know of its existence. So those inclined to tamper may think they can cheat without consequence. It is easy to imagine why they would try.

How often they try is a matter of some dispute. Some claim that evidence tampering is rampant, an "epidemic" taking various noxious forms—from scrubbed computer files to outright perjury. Others question this account of unbridled abuse, noting that relevant empirical studies are both inconclusive and thin. Still, no one argues that our system is "drowning" in litigant integrity. And no one doubts that evidence tampering is a serious concern.

Courts are not oblivious to the problem. They know that parties have ample reason to tamper with unfavorable information—to inflict "evidential damage," that is, in a way that improves their adversarial position and impeded the "search for truth." So almost three centuries ago an English court proposed a solution: it would discipline the spoliator. Litigants caught breaching their duty to preserve evidence would be held accountable in court.

Since then, both courts and scholars have tried to determine precisely how. One option, and the choice of that first English tribunal, is to presume "all

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39. Id.; see also MARGARET M. KOESEL & TRACEY L. TURNBULL, SPOLIATION OF EVIDENCE: SANCTIONS AND REMEDIES FOR DESTRUCTION OF EVIDENCE IN CIVIL LITIGATION 5 (Daniel F. Gourash ed., 2d ed. 2006) ("Absent notice of litigation, or another source of duty to preserve evidence, a company or individual generally has the right to dispose of his own property. . . ."). A note about usage: my definition of "spoliation" is both modest and conventional. It does not include things like "unfair and inadequate disclosure prior to trial"—a related but importantly different thing. Sanchirico, supra note 11, at 1232 n.63.
40. See Sanchirico, supra note 11, at 1219; see also Dale A. Oesterle, A Private Litigant's Remedies for an Opponent's Inappropriate Destruction of Relevant Documents, 61 TEX. L. REV. 1185, 1185 (1983); Wayne D. Brazil, Civil Discovery: Lawyers' Views of Its Effectiveness, Its Principal Problems and Abuses, 1980 AM. B. FOUND. RES. J. 787, 829 ("[I]t is] difficult to exaggerate the pervasiveness of evasive practices.").
41. See Sanchirico, supra note 11, at 1231 ("[F]or a phenomenon that everyone seems to think happens all the time, tampering remains surprisingly elusive in systematic empirical analysis."); id. at 1231–34 (recounting the roundabout tale of "S. Pepke," putative author of a definitive empirical study of evidence tampering); Linda S. Mullenix, Discovery in Disarray: The Pervasive Myth of Pervasive Discovery Abuse and the Consequences for Unfounded Rulemaking, 46 STAN. L. REV. 1393, 1396 (1994) (doubting empirical evidence of "alleged massive discovery abuse in the federal courts").
42. Sanchirico, supra note 11, at 1247.
44. Nesson, supra note 38, at 793; see Frankel, supra note 24, at 1041.
45. From the Latin contra spoliatorem omnia praesumuntur. KOESEL & TURNBULL, supra note 39, at ix.
things” against the spoliator—to require, that is, a negative inference against
the tampering party.46 A second is to permit a separate (tort-like) claim against
the spoliator.47 And a third is to fashion a new, spoliation-specific rule of
procedure—or at least to encourage judges to make better use of the
antitampering tools they have.48

Each of these approaches has its problems. A negative inference, for one,
is scarcely punishment at all. It leaves the spoliator in no worse a position than
if he had dutifully preserved and produced the evidence—a position hardly
uncomfortable enough to dissuade Holmes’s instrumental “bad man.”49 A
separate claim, in turn, may carry more costs than benefits. It presents “patently
impracticable” damage assessments, promises the wholesale “replaying or
rehearsing” of the underlying lawsuit,50 and provides even greater reason for
cynical parties to “suppress and settle.”51 And procedural rules, whether new or
old, may fail to deter cheaters in a world of weak-kneed courts. Most civil
sanction rules—like Federal Rule of Civil Procedure 37—are already potent in
theory, permitting judges to punish those who spoliate and to dismiss or default
cases tainted by tampering. But these rules are often toothless in practice,
applied by courts in ways that minimize spoliation problems—or avoid them
outright.52

Not that “victims” of spoliation are entirely without hope of redress.53
Federal courts do discipline spoliators—sometimes through negative inference
jury instructions, occasionally by default or dismissal, but never through
separate legal action.54 Yet federal courts will impose no sanction at all unless

46. Id. at 63 (“Under this inference, the jury is instructed that it may assume that the lost
evidence, if available, would have been unfavorable to the spoliator.”). For a helpful summary of the
adverse inference process, see Kronisch v. United States, 150 F.3d 112, 126–27 (2d Cir. 1998) (“In
order for an adverse inference to arise from the destruction of evidence, the party having control over
the evidence must have had an obligation to preserve it at the time it was destroyed. . . . Once a court
has concluded that a party was under an obligation to preserve the evidence that it destroyed, it must
then consider whether the evidence was intentionally destroyed, and the likely contents of that
evidence.”).
47. Porat & Stein, supra note 43, at 1895.
48. Sanctions under Federal Rules of Civil Procedure 26(g) and 37, referrals to the Bar, and
statutes criminalizing the obstruction of justice all purport to combat evidence tampering already. See
Nesson, supra note 38, at 794 (“Judges have a wealth of tools with which to punish spoliation . . . .”);
id. at 806 (“Existing rules are more than adequate. . . . But . . . judges are extremely reluctant . . . to
punish discovery violations once exposed . . . .”).
49. Id. at 797, 805–06; Sanchirico, supra note 11, at 1277. And the “bad man” would seem
least dissuaded when dissuasion matters most. Perhaps a negative inference could discourage a cynical
actor from spoliating otherwise insignificant evidence—duplicate documents, say, or anodyne reports.
But that inference may do little to dissuade the destruction of something far worse—a unique and
damning physical object, perhaps, or a “smoking gun” email.
51. Nesson, supra note 38, at 796.
52. Id. at 806.
53. See Sanchirico, supra note 11, at 1301 n.354.
54. KOESEL & TURNBULL, supra note 39, at 257–58.
the spoliator had prior notice of the pending or impending action and of the spoliated information's relevance.\textsuperscript{55} Nor will they readily reopen final judgments, even when spoliated evidence belatedly appears.\textsuperscript{56}

There may be a reason for this reticence. It may reflect a concern about judicial dockets, a sense that vigorous punishment of evidence tampering will encourage more spoliation accusations—and, in time, overwhelm the courts.\textsuperscript{57} Or it may imply a judicial focus, not solely on truth in adjudication, but on carefully calibrated incentives for "primary activity."\textsuperscript{58} Yet truth remains at the hopeful heart of spoliation doctrine. It aims to preserve information so that litigation outcomes are more truthful and more accurate. And like automatic civil disclosure, it attempts to force adversaries to cooperate rather than compete—if only at the start.

2. Automatic Disclosure

Automatic civil disclosure is relatively new to federal court. It first took hold there in 1993, when an amendment to Federal Rule of Civil Procedure 26 initially required parties to share particular types of information without court order or request.\textsuperscript{59} And it reached its current form even more recently, when an Advisory Committee "restyled" the Federal Rules.

Today's Rule 26 obliges federal civil parties to disclose four things automatically: the name of any individual "likely to have discoverable information... that the disclosing party may use to support its claims or defenses, unless the use would be solely for impeachment"; a copy or description of all "documents, electronically stored information, and tangible things" that the disclosing party possesses or controls and "may use to support its claims or defenses, unless the use would be solely for impeachment"; a computation of damages with related materials; and a copy of any insurance agreement pertinent to the dispute.\textsuperscript{60}

Prior versions of the rule required more. They demanded that parties divulge, not just information that would "support" their claims or defenses, but

\textsuperscript{55} See id. at 258 (discussing these limits in the context of adverse inferences).
\textsuperscript{56} "[T]he risk from disclosure of previously suppressed evidence," Professor Nesson explains, "diminishes rapidly." Nesson, supra note 38, at 798. Federal Rule of Civil Procedure 59 gives litigants only twenty-eight days to file new trial motions—including for reasons of spoliation. After that short window closes, a party seeking relief must show more than that her adversary spoliated evidence. She must show that information was suppressed and that the suppression was undiscoverable before. \textit{Id.}
And things only get harder from there: to earn relief for spoliation more than a year after judgment, the complaining party must show "fraud upon the court." \textit{Id.}
\textsuperscript{57} \textit{Id.} at 806.
\textsuperscript{58} Sanchirico, supra note 11, at 1292–94.
\textsuperscript{59} FED. R. CIV. P. 26. The rule was first proposed as part of Edson Sunderland's sweeping package of discovery devices, see Stephen N. Subrin, \textit{Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules}, 39 B.C. L. REV. 691, 718–19, 727–28 (1998), and then revived decades later by scholars like Wayne Brazil, see supra note 6.
\textsuperscript{60} FED. R. CIV. P. 26(a)(1)(A).
also relevant information that would not. A lawyer holding a document devastating to her client’s case, for example, would have to disclose that information to her adversary—automatically.61 It was no surprise, then, that critics warned of adversarial distortion and ethical “strain.”62

At least some of that strain was to be expected. Early advocates of modern discovery touted lofty objectives—litigation streamlined by “mutual knowledge,” outcomes improved by shared information.63 But these advocates also understood how adversarialism tends to work: lawyers seek to exploit every advantage; new rules encourage novel kinds of “gamesmanship.”64 The aim of automatic disclosure was thus to change this “game” at its core. It sought to shift attorneys’ “primary” loyalties during discovery from client to court,65 to elevate lawyer “professionalism,”66 and to transform a sport of information “hide and seek” into one of “show and tell.”67

It is unclear if the project has succeeded. One detailed study, a late 1990s investigation by the Federal Judicial Center, reported something positive: it found that automatic civil disclosure was “working as intended”—even if many respondents still disliked the rule.68 Another late 1990s study, this one conducted by RAND, described something less promising: it found that mandatory disclosure produced neither “significantly reduced lawyer work hours” nor “significantly reduced time to disposition.”69 Automatic disclosure may thus seem (to some) like a failed experiment.70 Or it may seem (to others) like a solution in search of a problem, an unwarranted reaction to the “myth” of pervasive discovery abuse.71

61. FED. R. CIV. P. 26(a) advisory committee’s note (“The initial disclosure obligations of [Rule 26(a)] . . . have been narrowed to identification of witnesses and documents that the disclosing party may use to support its claims or defenses . . . . A party is no longer obligated to disclose witnesses or documents, whether favorable or unfavorable, that it does not intend to use.”).


63. Brazil, supra note 40, at 810; see Hickman v. Taylor, 329 U.S. 495 (1947).

64. “Because so many civil cases are settled before trial . . . much of the decisive gamesmanship of modern litigation takes place in private settings.” Brazil, supra note 6, at 1304. Linda S. Mullenix, Hope Over Experience: Mandatory Informal Discovery and the Politics of Rulemaking, 69 N.C. L. REV. 795, 820 (1991) (“[C]ontemporary federal practice instead encourages gamesmanship.”).

65. Brazil, supra note 6, at 1350.

66. Mullenix, supra note 64, at 808 n.64.

67. Id. at 821–22.


69. Id. at 687; see also Paul D. Carrington, Renovating Discovery, 49 ALA. L. REV. 51 (1997).

70. Kuo-Chang Huang, Mandatory Disclosure: A Controversial Device with No Effects, 21 PACE L. REV. 203, 207–08 (2000). My goal is not to refute these skeptics. It may be that Rule 26(a) is as ineffective in practice as it is dramatic in theory. But the rule’s day-to-day operation is separate from (if still revealing about) my chief concern: the rule’s purported information role.

But if automatic disclosure remains a "triumph of hope over experience,"\textsuperscript{72} its information commitments are no less plain. Automatic disclosure favors access over adversarialism, cooperation over competition, and adjudicative accuracy over litigation sport. And like evidence tampering before it, automatic disclosure tilts against keeping secrets—leaning the opposite direction of work product doctrine.

3. Work Product Doctrine

Work product doctrine is an information shield. It protects from ordinary discovery information "prepared in anticipation of litigation or for trial"\textsuperscript{73}—though not always to the same extent. Some of that information, like an attorney's mental impressions, is always off-limits.\textsuperscript{74} Some, like a document's facts, can be accessed upon a special showing.\textsuperscript{75} And some, like a person's own statements, can be acquired by that person on demand.\textsuperscript{76}

This shield was for a long time unnecessary. Before the late 1930s, when the Federal Rules of Civil Procedure were first promulgated and liberal discovery first took hold,\textsuperscript{77} federal civil litigation involved scant pretrial exchange: parties knew only those facts their opponents put into their pleadings;\textsuperscript{78} attorneys withheld information and tried to engineer surprise.\textsuperscript{79} Work product doctrine had no place in this game of "blindman's bluff."\textsuperscript{80} It would have protected only information that would not have been disclosed.

Things changed in the 1940s. The new Federal Rules of Civil Procedure forced litigants to make relevant information available to their adversaries—like Federal Rules of Civil Procedure 26(d) and (f)(3)(B)—empower courts to prevent "unwarranted 'fishing expeditions'."

\begin{itemize}
    \item \textsuperscript{72} Mullenix, \textit{supra} note 64, at 820.
    \item \textsuperscript{73} FED. R. CIV. P. 26(b)(3)(A).
    \item \textsuperscript{74} See FED. R. CIV. P. 26(b)(3)(B) (shielding "the mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative").
    \item \textsuperscript{75} See FED. R. CIV. P. 26(b)(3)(A) ("Ordinarily, a party may not discover documents and tangible things that are prepared in anticipation of litigation or for trial by or for another party or its representative ... ").
    \item \textsuperscript{76} See FED. R. CIV. P. 26(b)(3)(C) ("Any party or other person may, on request and without the required showing, obtain the person's own previous statement about the action or its subject matter.").
    \item \textsuperscript{78} See Cohn, \textit{supra} note 77, at 918.
    \item \textsuperscript{80} See Cohn, \textit{supra} note 77, at 918.
\end{itemize}
before trial, at least when properly asked.\textsuperscript{81} Litigants in turn urged courts to exclude certain categories of information from discovery’s wide purview. Information compiled specifically for litigation—or “trial preparation material”—was one such category.\textsuperscript{82}

The Supreme Court responded in 1947. In \textit{Hickman v. Taylor}, it created a common law doctrine designed to curb “unwarranted inquiries” into attorneys’ minds and files.\textsuperscript{83} Not all information was equal under \textit{Hickman}: It made facts located in trial preparation materials accessible only upon a heightened showing. And it made attorney mental impressions legally sacrosanct, beyond the reach of even discovery’s most expansive tools. Still, \textit{Hickman} proved a challenge to implement: Lower courts struggled to delimit the doctrine’s scope and to deploy its heightened standard.\textsuperscript{84} And advisory committee members struggled to fit the doctrine into a body of preexisting rules.\textsuperscript{85} It was 1970 before work product doctrine was codified in Federal Rule of Civil Procedure 26(b)(3).\textsuperscript{86}

Like \textit{Hickman} itself, Rule 26(b)(3) concentrates on trial preparation material. It separates facts from opinions. And it provides for the ready disclosure of a person’s own statements.\textsuperscript{87} But Rule 26(b)(3) varies from \textit{Hickman} in notable part too. \textit{Hickman} covers both tangible and intangible work product, Rule 26(b)(3) only “documents and tangible things.” \textit{Hickman} protects work product of attorneys alone, Rule 26(b)(3) of non-attorneys as well. And \textit{Hickman} announces a doctrine that may seem somehow “flexible,” Rule 26(b)(3) a more rigid-seeming rule.\textsuperscript{88}

Yet if these work product standards slightly differ, they grow from justifications largely the same. One of those justifications is utilitarian: work product doctrine aims to smooth the operation of our adversarial process. It carves out space for antagonistic attorneys to assemble information, to test legal theories, and to devise litigation strategy without fear of unwelcome...

\textsuperscript{81} FED. R. CIV. P. 26–37. Yeazell, \textit{supra} note 79, at 699 (“We have put in the hands of civil litigants powers that in many legal systems only state officials enjoy.”).
\textsuperscript{82} See Anderson et al., \textit{supra} note 77, at 765 (“Courts developed the work product doctrine to ease [the] tension” that existed “between an attorney's obligation to his client and his duty to respond to discovery requests.”).
\textsuperscript{83} Hickman v. Taylor, 329 U.S. 495, 510 (1947).
\textsuperscript{84} See Anderson et al., \textit{supra} note 77, at 780–84 (discussing the period after \textit{Hickman} but before Rule 26(b)(3)).
\textsuperscript{85} Id. at 782.
\textsuperscript{86} See Thomburg, \textit{supra} note 13, at 1519–20.
\textsuperscript{87} See FED. R. CIV. P. 26(b)(3)(C).
\textsuperscript{88} Anderson et al., \textit{supra} note 77, at 763; see also Frank Betz Assocs., Inc. v. Jim Walter Homes, Inc., 226 F.R.D. 533, 534 (D.S.C. 2005) (“When applying the work product privilege to...nontangible information, the principles enunciated in \textit{Hickman} apply, as opposed to Rule 26(b)(3)....”); Jack H. Friedenthal, \textit{The Rulemaking Power of the Supreme Court: A Contemporary Crisis}, 27 STAN. L. REV. 673, 679 (1975) (noting that a party could argue that Rule 26(b)(3) supersedes \textit{Hickman}).
exposure.\textsuperscript{89} It assures parties that they are receiving faithful and unfettered legal advice.\textsuperscript{90} And it protects attorneys as professionals—their reputations, their roles at trial, and their proprietary interests in the work they do.\textsuperscript{91} Another (related) justification links to law and economics: work product doctrine is meant to safeguard legal preparation and thus to encourage more valuable preparation to be done.\textsuperscript{92} Absent work product doctrine, some say, parties would lack sufficient incentive to investigate—and they might overinvest in hiding what information they have.\textsuperscript{93} Hickman and Rule 26(b)(3) help forestall such inefficiency. They promote zealous advocacy by keeping some of its pieces concealed.

Not everyone finds this account convincing. Some argue that work product doctrine should be abolished—that it favors well-heeled defendants, stifles fair outcomes, and imposes too high a social cost.\textsuperscript{94} But work product doctrine frames these features as inevitable. It subordinates truth to privacy, full access to adversarialism, and cooperation to competition, not for glib or disposable reasons, but so “our adversarial system” can work.\textsuperscript{95} And unlike peremptory-challenge doctrine, work product doctrine suggests that attorneys’ thoughts and opinions simply should not be probed.

4. Peremptory Challenges

Peremptory challenges were first a tool of sovereigns.\textsuperscript{96} The earliest such challenges, limited to capital cases but unlimited in number, gave the Crown the sole power to strike jurors without assignment of reason or cause.\textsuperscript{97} Royal prosecutors could thus remove jurors without explanation—not because of an abiding faith in their ability to root out bias by hunch or intuition, but because they were agents of an infallible king. All of the Crown’s challenges, explained or not, were assumed to be well taken.\textsuperscript{98}

\textsuperscript{89} Hickman v. Taylor, 329 U.S. 495, 511 (1947).
\textsuperscript{90} Id.
\textsuperscript{91} See Thornburg, supra note 13, at 1538.
\textsuperscript{93} See Easterbrook, supra note 92, at 360; Thornburg, supra note 13, at 1546 (“Work product immunity...is necessary to provide adequate private incentive to investigate.”).
\textsuperscript{94} See Thornburg, supra note 13, at 1550–61 (noting too that current doctrine particularly benefits repeat players).
\textsuperscript{95} Or so the argument goes. See Cohn, supra note 77, at 919.
\textsuperscript{96} See, e.g., Hoffman, supra note 14, at 819.
\textsuperscript{97} Id.
\textsuperscript{98} For this reason, scholars have distinguished early peremptories from modern ones. See id. at 819–20 (“In the beginning the Crown’s unlimited peremptory challenges were in fact challenges for cause . . . .”). Id. at 844–47 (“Thus, the royal peremptory challenge was not really a peremptory challenge at all . . . .”); Alschuler, supra note 16, at 165 n.51 (“[T]he [early] peremptory challenge was
Almost as soon as royal prosecutors began to use peremptory challenges, however, defendants did too. English courts first allowed defendants to exercise peremptory challenges as a matter of common law—though not in unlimited numbers. Then Parliament turned peremptories completely over: it endorsed defendant challenges while eliminating prosecutorial ones in 1305. For more than five centuries after—in England and then in America—jury selection looked largely that way: peremptory challenges were the “exclusive right” of defendants. Prosecutors had recourse only to other kinds of tools.

American prosecutors regained the peremptory power mostly in the shadow of the Civil War. In 1865, Congress provided for a small number of prosecutor peremptories in federal criminal trials—and many states followed suit. Numbers varied in subsequent statutes. But by 1946—with the adoption of the Federal Rules of Criminal Procedure—both defense and prosecution had as many as twenty peremptory challenges in some criminal cases. Federal civil parties were “entitled” to no fewer than three.

Explanations for this “entitlement” are by now familiar. Some cast peremptory challenges as a crucial procedural bulwark—a backstop for “for cause” challenges, a means to express stereotypes “we dare not say but know [are] true,” and a didactic (or “symbolic-educative”) device for teaching the public about the jury’s civic significance. Others claim that peremptories make jury decisions appear fairer and more palatable, if only because they give litigants a measure of juror choice. But still others see in peremptories very simply an economical means of accomplishing objectives that we now pursue by permitting challenges for cause.”

101. When it lost the power of the peremptory, the Crown simply turned to other devices. See Alschuler, supra note 16, at 166 n.53 (“In practice . . . the Crown’s power to ask prospective jurors to ‘stand by’ affords the Crown a broader power to exclude . . .”).
102. Colbert, supra note 100, at 11. Some states allowed prosecutor peremptories a bit earlier.
104. Id. at 827.
105. FED. R. CRIM. P. 24(b).
108. See id.
109. See id. at 552, 555.
110. See id. at 552 (“[T]he decision should be followed because in a real sense the jury belongs to the litigant: he chooses it.”). This “buy-in” argument has a deep provenance: Lord Blackstone argued that a “prisoner . . . should have a good opinion of his jury.” 4 WILLIAM BLACKSTONE, COMMENTARIES *346–47. And Justice White, in the now-derided Swain v. Alabama, added a modern voice:

The function of the challenge is not only to eliminate extremes of partiality on both sides, but to assure the parties that the jurors before whom they try the case will decide on the
little worth preserving. They see instead a device that invites jury stacking, limits the "range of perspectives" voiced in any jury room, leaves jurors cynical about the trial system generally, and divides people by pernicious means—not transparent choices or extraordinary knowledge, but biased guesses and crude group stereotypes. Peremptory challenges are not, to these critics, essential to empanelling an impartial jury. They are the "most undemocratic feature of our democratic trial system" and the "Last Best Tool of Jim Crow."

Still, for much of its American history, that "last best tool" was celebrated and scarcely regulated by courts. Parties exercised their peremptory challenges for all manner of reasons—race and gender, hairstyle and whim—and courts did little to stop them. But by the early 1990s a different "rule" had emerged: No lawyer in any civil or criminal case could peremptorily strike a juror on the basis of race or gender. Parties could remove jurors for odd and idiosyncratic reasons—or for no reason at all—but not for select prohibited ones.

basis of the evidence placed before them, and not otherwise. In this way the peremptory satisfies the rule that to perform its high function in the best way justice must satisfy the appearance of justice. 380 U.S. 202, 219 (1965) (citation and quotation marks omitted).


112. Nancy S. Marder, Beyond Gender: Peremptory Challenges and the Roles of the Jury, 73 Tex. L. Rev. 1041, 1064 (1995); see Peters v. Kiff, 407 U.S. 493, 503 (1972) (plurality opinion) (Marshall, J.) ("When any large and identifiable segment of the community is excluded from jury service, the effect is to remove from the jury room qualities of human nature and experience, the range of which is unknown . . .").

113. Hoffman, supra note 14, at 856–58. Excused jurors are not alone in their cynicism. Seated jurors too may feel the hard effects of peremptory practice, and the juries on which they serve may come to seem strategically "balkaniz[ed]." Id. at 866 ("Even if peremptory challenges do not in fact result in the balkanization of juries, they create the unmistakable impression that balkanization is the goal.").

114. Alschuler, supra note 16, at 156, 163, 167, 211.

115. Id. at 156.

116. Hoffman, supra note 14, at 827; see also Neil Vidmar & Valerie P. Hans, American Juries: The Verdict 97 (2007) ("Contemporary studies of peremptory challenges show clear patterns linked to race.").

117. See, e.g., Frazier v. United States, 335 U.S. 497, 506 n.11 (1948) (deeming the peremptory challenge "one of the most important of the rights secured to the accused").


120. See Batson v. Kentucky, 476 U.S. 79 (1986); J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127 (1994) (extending Batson's prohibition on race-based peremptory challenges to challenges based on prospective juror's gender); see also United States v. De Gross, 960 F.2d 1433, 1438–39 (9th Cir. 1992) (en banc) (comparing race and gender bias while chronicling the pernicious gender stereotypes—like the so-called "defect of sex"—that long excluded women from jury service) (citations omitted).
Enforcing this rule has proven quite difficult. That enforcement entails three steps. To show that a party impermissibly exercised a peremptory challenge, her opponent must first make a prima facie showing: she must raise an inference that the excused juror was challenged because of gender or race. If that prima facie showing is made, the other party must then proffer race- or gender-neutral explanations for making her strikes; she must provide reasons, that is, for using a tool designed not to require reasons at all. Then a court must weigh all of the evidence, asking if the neutral reasons are pretextual and if prohibited discrimination in fact occurred.

Courts find such discrimination only rarely. Skeptical parties do make prima facie cases “relatively” easily—or so detailed studies tend to show. But their opponents state “neutral” reasons just as readily—and courts often accept even the thinnest ones. Modern peremptory challenges may thus aim to purge discrimination from the jury selection process. They may also hope, in their way, to force sensitive information about trial strategy into the open. But they may succeed at pushing discrimination only deeper beneath the surface. And they may prompt attorneys to tell only more facile sorts of lies.

The story of peremptory challenges may thus be a story of unintended consequences. But it is a story too of information commitments—to competition over cooperation, to privacy over access, and to intuition over explanation—though only to a point. Peremptory challenge doctrine opens a window into the minds of adversarial attorneys, forcing them (after a threshold showing) to explain something that may defy explanation. Unlike work product doctrine, then, peremptory challenge doctrine may expose attorney thoughts

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123. J.E.B., 511 U.S. at 127.
124. Id.
125. See Kenneth J. Melilli, Batson in Practice: What We Have Learned About Batson and Peremptory Challenges, 71 NOTRE DAME L. REV. 447, 460–69 (1996). Melilli’s study “considers virtually every relevant reported decision of every federal and state court” for a seven-year period. Id. at 448. It thus avoids the deficits and distortions that might follow looking only at appellate court opinions.
126. Id. at 460, 467.
127. Id. at 460–61, 468; Jeffrey Bellin & Junichi P. Semitsu, Widening Batson’s Net to Ensnare More Than the Unapologetically Bigoted or Painfully Unimaginative Attorney, 96 CORNELL L. REV. 1075 (2011) (concluding that Batson fails—and will continue to fail—to eliminate race-based use of peremptories); Antony Page, Batson’s Blind-Spot: Unconscious Stereotyping and the Peremptory Challenge, 85 B.U. L. REV. 155, 169 (2005) (“Satisfying Batson’s second step is trivial.”). That Batson’s second step is trivial may be both true and unremarkable. All of the real legal energy may focus on step three, when the court is called on to weigh evidence of discrimination. So the failure of Batson, if indeed it has failed, comes as much at its end as in its middle.
128. See Melilli, supra note 125, at 484 (“Up until Batson, the peremptory challenge was not only a sacred cow . . . but a secret one as well.”).
129. Minetos v. City Univ. of N.Y., 925 F. Supp. 177, 185 (S.D.N.Y. 1996) (“Judicial experience with peremptory challenges proves that they are a cloak for discrimination . . . .”).
and mental impressions. And unlike bans on juror testimony, peremptory challenge doctrine may seek out—rather than stifle—unsettling facts.

5. Juror Testimony

Juries keep powerful secrets. Our trial system asks its jurors to make ultimate judgments—about guilt and liability, imprisonment and fines—but then turns its head to how they decide. Jury conclusions come mostly in the form of “impenetrable” general verdicts. Deliberations remain largely confined to the jury room’s “black box.” Only when deliberations are infected by extraneous prejudice or outside influence may jurors testify about them. So only rarely will jurors divulge to courts what occurred. Modern trial practice may still conceal a great deal from juries—legal concepts, pertinent facts—but this juries hide in return.

Their secrecy is not new. More than two centuries ago, Lord Mansfield first forbade jurors from impeaching their own verdicts—even when reporting their own misdeeds. Others soon refuted Mansfield’s key premise, a civil law maxim holding that witnesses “shall not be heard to allege [their] own turpitude.” But the ban on juror testimony persisted—and, before long, new justifications emerged.

These justifications draw on varied impulses. One is plainly religious: it casts the jury as divinely inspired—and it deems any threat to jury secrecy as “impious” as doubting the judgments of God. Still more are pragmatic: they emphasize the importance of finality, the need to shield jurors from postverdict harassment, and the value of secrecy in promoting full, free, and

133. My description here is overstated by a shade: jurors may also testify about mistakes on the verdict form. Fed. R. Evid. 606(b).
134. See Fisher, supra note 10, at 578.
137. See Alschuler, supra note 16, at 222.
138. 1 William Holdsworth, A History of English Law 317 (A.L. Goodhart & H.G. Hanbury eds., 7th ed. 1956). Holdsworth also explained that trial by jury, like the ordeals by water and fire it supplanted, was supposed to work mysteriously. Id.
And yet another is more cynical: it frames jury secrecy as a way to secure public confidence and enhance system legitimacy—not by ensuring flawless decisions, but by hiding any inaccuracy inside the jury’s black box. Attempts to peek into this box have often ended badly. In 1954, for example, the Chicago Jury Project recorded deliberations in five federal civil cases. Though both court and counsel consented to the effort, the jurors were taped without their knowledge—and news of the study soon leaked. By 1955, an angry Senate subcommittee had summoned project leaders, labeled their research a threat to national security, and compared their work to the most sensational “Communist bugaboos of the day.” By 1956, it was a crime to record, listen to, or observe any federal jury deliberations.

Less than two decades later, the Federal Rules of Evidence added an express prohibition on certain kinds of juror testimony. Like the common law rule it followed, Federal Rule of Evidence 606(b) bars jurors from testifying about their deliberations—at least when that testimony would impeach the jury’s verdict. And like the Supreme Court’s own pre-606(b) doctrine, Rule 606(b) admits some narrow exceptions: Jurors may help correct mistakes on verdict forms. They may also testify about the impact of extraneous prejudice or outside influence on the decision-making process. A court may thus hear postverdict juror testimony about bribes, independent research, and threats to

141. See id.; Goldstein, supra note 130, at 300 (noting that the functional justifications of Rule 606(b) “conform perfectly to the utilitarian conception of privileged communications”).
142. See Fisher, supra note 10, at 579-80; Alschuler, supra note 16, at 228 (critiquing the rule’s “hear-no-evil posture”). Steve Yeazell offers a more sanguine explanation: “If summary judgment and judgment as a matter of law are operating properly, only close cases—cases that could rationally be decided either way—will go to the jury. In such cases, any verdict should be sustainable. And, some would add, in such cases the soft variables that constitute the jury’s sense of justice should come into play, even when those variables are hard to justify from the lofty plane of rationalism. By preventing too close an inquiry into a jury’s decision processes, one allows these variables some free play.”

STEPHEN C. YEAZELL, CIVIL PROCEDURE 622 (7th ed. 2008).
143. Though the project took the name of Chicago, the taping occurred in Wichita. HARRY KALVEN, JR. & HANS ZEISEL, THE AMERICAN JURY, at xiv-xv (Phoenix ed., 1971); cf Shari Seidman Diamond & Neil Vidmar, Jury Room Rumination on Forbidden Topics, 87 VA. L. REV. 1857 (2001) (presenting the “Arizona Jury Project,” which involved Arizona Supreme Court-approved videotaping of forty civil cases, deliberations included).
144. GEORGE FISHER, EVIDENCE 6 (2d ed. 2008). The Attorney General also issued a public censure. KALVEN & ZEISEL, supra note 143, at xv.
146. FED. R. EVID. 606(b).
147. Id.; see also Mattox v. United States, 146 U.S. 140, 150-51 (1892) (permitting a juror to testify about “improper influences” and “external causes”—but not internal ones).
juror safety. But it must ignore tales of aggressive jury room politicking, poorly made decisions, and drug-addled jurors too.148

There is a bluntness to this ban. It shields “improper juror behavior” as much as robust jury argument—cocaine abuse as much as forceful dialogue.149 But this awkwardness cannot be avoided—or so contends the Court. Rule 606(b) must favor finality over “perfect[ion],” appearance over access, and secrecy over spotlight simply for the “jury system [to] survive.”150 Justice may require some information to be available when trial begins, then, but it may also demand that some stay hidden after trial ends.

B. A Stylized Case

Of course, few cases get that far. Most federal civil claims stop well short of trial—many because of pretrial mechanisms like summary judgment, even more because of settlement.151 The fictional “case” that follows is thus stylized in two senses: First, it traces a dispute from before filing until after verdict, a timeline that fewer than two percent of all federal civil cases complete.152 Second, it self-consciously—and perhaps atypically—emphasizes some of the information themes and tensions raised in the doctrinal review above. Still, there is nothing far-fetched in this fiction, and it illustrates how information rules can both coordinate and clash.

So think, again, of a workplace dispute. An employee of a large corporation contends that she was fired, not because her work was inadequate, but because she rebuffed the lewd advances of her longtime boss. The boss and his supervisors know all about the employee’s unhappiness—both because she

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149. Id. at 120.
150. Id.
152. See Marc Galanter, The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts, 1 J. EMPIRICAL LEGAL STUD. 459, 512 tbl.7 (2004) (illustrating that, in 2002, only 1.8 percent of federal civil cases reached trial). Fewer still proceed through jury verdict, since some of the 2 percent are bench trials and some settle at the trial stage. I leave it to others, for now, to condemn or to cheer the vanishing trial. See ROBERT P. BURNS, THE DEATH OF THE AMERICAN TRIAL (2009) (charting the evolution of modern jury trials, chronicling their demise, and mourning their loss).
has already hinted at legal action and because a full folder of company email chronicles their various (mis)deeds. Access to this folder might seal the employee’s case—or at least strengthen it markedly—so her adversaries would likely wish to destroy it. But spoliation rules require the opposite: the corporation must preserve the very information that may later doom it. Availability and accuracy trump adversarialism, at least at the start.

If the corporation plans to use one of those emails in support of a defense, of course, it must disclose that email once the case is filed. The employee’s careful attorney must share much of her work too—the line of friendly witnesses she has assembled, the stacks of favorable evidence she has compiled, and the intricate damage calculations she has made—for this is what automatic civil disclosure now requires. Neither the corporation’s counsel nor the careful attorney must automatically divulge unfavorable information. And work product doctrine would seem to prohibit any access to the lawyers’ opinions and trial strategies. But this work-product protection is already precarious: by disclosing so much information that they deem to be favorable, the corporation and the careful attorney may reveal their strategies anyway—in the shadows if not in the light.

They may also reveal those strategies later, though still before trial starts. Imagine, then, that automatic disclosure and formal discovery have finished. Both parties, equipped with more information than before, still wish to take their chances before a jury. The employee and her careful attorney think their strong evidentiary case will fare well at trial. The corporation and its counsel believe they can persuade a skeptical fact finder—particularly if it is mostly (or entirely) male.\textsuperscript{153} So as jury selection proceeds, the corporation exercises its peremptory challenges in a predictable but troubling way: it excuses as many women as it can. Spotting this pattern, the careful attorney asks the court to act—and she makes a prima facie showing of improper peremptory use. The corporation responds with an array of neutral reasons: one juror looked drowsy, it says; another seemed preoccupied. Both the court and the careful attorney think these reasons dubious, but the court chooses not to intervene.\textsuperscript{154} It empanels a jury with only one woman. The corporation’s strategy works even as it becomes obvious. And what would have been hidden under work product doctrine becomes, as trial inches forward, abundantly clear.

\textsuperscript{153} Cf. Hans Zeisel & Shari Seidman Diamond, \textit{The Effect of Peremptory Challenges on Jury and Verdict: An Experiment in a Federal District Court}, 30 STAN. L. REV. 491, 491–92, 519 (noting that lawyers believe that “they occasionally win” cases by “shrewd use of their peremptory challenges,” and concluding that “cases in which peremptory challenges have an important effect on the verdict occur with some frequency”); David C. Baldus et al., \textit{The Use of Peremptory Challenges in Capital Murder Trials: A Legal and Empirical Analysis}, 3 U. PA. J. CONST. L. 3, 10, 122–28 (2001) (concluding that discriminatory use of peremptories had an effect on outcomes, increasing the likelihood of death verdicts for defendants).

\textsuperscript{154} Cf. Melilli, \textit{supra} note 125 (examining \textit{Batson} practice empirically).
Here that trial favors the defendant. The jury delivers a verdict against the employee, offering no explanation on its “general” form.\textsuperscript{155} But a few days later a single juror makes an unsettling announcement: he reveals that the jury decided against the employee, not because her evidence was lacking, but because the jurors misunderstood the law. Had those jurors better understood the employee’s claim, he feels sure, they would have decided her way. Only a clumsy but correctible jury error kept her from relief.

Happy as the employee may be to hear this revelation, it will do her little good. Limits on juror testimony keep courts from using this kind of information to impeach jury verdicts. The loose-lipped juror’s insight may well be instructive. It may even seem as critical to an accurate outcome as the preservation of the corporation’s email folder and the compelled exchange of supporting evidence. But here finality trumps accuracy. The black box stays effectively sealed—and the system turns a deaf ear.

A troubling workplace dispute thus ends almost where it began. A discharged employee is still upset by her dismissal; a large corporation is still free of liability. But the story of this dispute hints at something less case specific too. It hints at an information architecture built of inevitable tensions and essential tradeoffs. Aspects of that architecture express varied (and variable) information commitments—to accuracy and access, finality and fairness, cooperation and competition. They also cast legal actors in ambivalent roles—a corporation both reprehensible enough to tolerate sexual harassment and responsible enough to preserve harmful evidence;\textsuperscript{156} a careful attorney both partisan enough to pursue victory and impartial enough to promote the search for truth;\textsuperscript{157} and a loose-lipped juror both authoritative enough to render a verdict and incidental enough, soon after, to ignore in court.\textsuperscript{158} These roles and commitments may be global oddities, legal anomalies largely absent from other nations’ courts.\textsuperscript{159} But they are central to modern American civil litigation. And they are what Part II more thoroughly explores.

\textsuperscript{155} Sunderland, supra note 131.

\textsuperscript{156} See Bundy & Elhaug, supra note 3, at 315 (“[T]he lawyer certainly may, and arguably must, provide her clients with complete and accurate advice, even when she reasonably believes that doing so will cause them to withhold or suppress evidence.”); cf. Sanchirico, supra note 11, at 1218 (“[A]ccording to many judges and practitioners, evidence tampering is hardly confined to blockbuster events.”).

\textsuperscript{157} See Langbein, supra note 9, at 332; cf. Stuntz, supra note 25, at 1915 (“[A]ll major classes of civil litigants seem to view evidence gathering, together with defensive tactics to fight opponents’ evidence gathering, as primarily the job of lawyers.”).

\textsuperscript{158} See Fed. R. Evid. 606(b).

\textsuperscript{159} See Sklansky & Yeazell, supra note 19, at 733.
American civil litigation has a clever versatility. Parties may use it to give voice to grievance. Courts may use it to give shape to standards. And society may use it to edge closer to truth. At each occasion, the system’s values surface and recede, sometimes pulling in tandem and sometimes peeling apart: Zealous advocacy ensures participatory access—but then obstructs the search for “right” answers. Efficient process promotes timely resolution—but then limits consideration of individual need. Blind eyes control public perception—but then cloud our understanding of legal outcomes.

This Part makes better sense of those conflicting impulses and complicated demands. It begins, in Part II.A, with a partial catalog of the many tandems and tensions introduced in Part I—some that trace specific rule interactions (like the uneasy link between automatic disclosure and work product doctrine), others that suggest ambivalence about our elastic information preferences. Part II.B then maps and remaps the information rules examined above along three familiar lines—adjudicative accuracy, civil adversarialism, and procedural equality—searching out where those rules collaborate, when they counterbalance, and how they might contribute to litigation legitimacy. Part II.C then fits these information rules into a new (and hopefully instructive) typology, one made of four basic categories: valid information, invalid information, the elusive middle, and the empty middle. Each category has its own characteristics and its own implications for the system’s overall legitimacy.

160. See, e.g., id. at 737 (touting “the American legal system[’s] . . . remarkable ability to hold the powerful to account while treating the weak with some respect”); Frank I. Michelman, The Supreme Court and Litigation Access Fees: The Right to Protect One’s Rights, 1973 DUKE L.J. 1153, 1172–77 (noting that litigation allows parties’ “wills” to be “counted”).


162. I do not claim that these are litigation’s only objectives. Nor do I claim that any one commitment outranks any other. See Sklansky & Yeazell, supra note 19, at 737 (“[A]ny sentence that begins ‘The goal of X is . . . ’ [is] either vacuous or demonstrably false.”). A more exhaustive catalog of values would be long and familiar. See, e.g., Michelman, supra note 160, at 1172–77 (dignity, participation, deterrence, and effectuation); Martin H. Redish & Lawrence C. Marshall, Adjudicatory Independence and the Values of Procedural Due Process, 95 YALE L. J. 455, 482–91 (1986) (equality, appearance of fairness, predictability, transparency, rationality, participation, revelation, and privacy-dignity); Judith Resnik, Tiers, 57 S. CAL. L. REV. 837, 859 (1984) (consistency, autonomy, impartiality, rationality, formality, finality, and economy); see also TOM R. TYLER, WHY PEOPLE OBEY THE LAW 270 (2006) (“[P]eople’s motivation to cooperate with others, in this case legal authorities, is rooted in social relationships and ethical judgments . . . .”).

163. See Bundy & Elhauge, supra note 3, at 315–16 (noting that detecting truth-obscuring forms of legal advice is difficult); Frankel, supra note 24, at 1039 (“[T]he gladiator using the weapons in the courtroom is not primarily crusading after truth, but seeking to win.”).

164. See Fisher, supra note 10, at 705 (“The jury’s secrecy is an aid to legitimacy, for the privacy of the jury box shrouds the shortcomings of its methods.”).
information, valid misinformation, and invalid misinformation. The goal of this typology is not to displace all others. It aims instead to rethink a complex system of legal information—to reconsider, that is, how our system’s commitments to accuracy, adversarialism, and equality help fashion our information rules. And it hopes to begin a broader dialogue about civil litigation, linking the rule-focused detail from the pages above to the important IB study that comes below.

A. Intersections Big and Small

A related caveat: what follows is limited and speculative by design. It aims to identify areas of overlap and intersection, not to offer an exhaustive comparative summary or to anchor a program of law reform. Members of both bench and bar know how easy it is to draw lines between two points: disparate cases can be joined by loose analogy, dissimilar concepts connected by thin thread. What follows aims to be more durable than that—both as the beginning of an inquiry and a frame for its end.

A first information intersection thus links a rule more forceful before a case starts with a rule more important almost after it stops. It connects, that is, bars on evidence tampering with those on juror testimony. These rules have something crucial in common: Both speak in terms of proscription. Both prevent those holding pertinent information, that is, from using (or abusing) it in any way they might like. But the rules are hardly identical: The bar on evidence tampering purports to include more information in the adjudicative mix, the bar on juror testimony to include less. The first preserves information so it can be later revealed; the other silences information so it can be judicially ignored.

A second intersection marks a similar tension. Automatic civil disclosure and work product doctrine both shape the beginning of litigation—one by mandating the early exchange of favorable information, the other by shielding a range of preparatory work. But like the limits on evidence tampering and juror testimony, automatic disclosure and work product doctrine pull in two ways at once. Automatic disclosure aims to lay a case-in-chief bare. It hopes to enhance accuracy, not just through easy access to opponent information, but through the elimination of strategic surprise: no surprise evidence, “no surprise witnesses,

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165. As I will stress again below, this new typology is meant simply to shed new light on under-appreciated themes and to raise the questions taken up in Part III.

166. See, e.g., Keith A. Rosten, The Scaffolding for Legal Infrastructure: Developing Sustainable Approaches, 16 TUL. J. INT’L & COMP. L. 395, 408–09 (2008) (“The Hora is a Jewish folk dance, which, presumably, would not be particularly useful to teach in a country such as Iraq. Yet, when it comes to developing legal infrastructure in Iraq, even some of the brightest minds thought little of imposing a wholly alien U.S. financial disclosure law on postwar Iraq.”).

167. “[I]n the vast majority of cases the verdict is a complete mystery, throwing a mantle of impenetrable darkness over the operations of the jury.” Sunderland, supra note 131, at 260.
and no surprise testimony. Work product doctrine, by contrast, aims to hold some information in reserve. It hopes to sustain adversarialism through “uncooperative action” and litigation secrecy: Some bits of information, like the facts in an informal interview, are made harder to uncover. And some bits of information, like attorney mental impressions, are said to be untouchable. Yet even these impressions are not so perfectly guarded, at least when automatic disclosure works. Attorneys who share what automatic disclosure demands reveal more than the identities of knowledgeable individuals or the location of relevant things. They reveal portions of their professional opinions and trial strategies too. What they disclose, after all, is not aimless. It is “to support,” however faintly, some legal plan.

A third intersection tracks a comparable line. It links the secretive element of work product doctrine with something similar in peremptory challenge law. Both work product and peremptory challenges aim to conceal litigant strategy. And both try, in the name of adversarialism, to seal off the inner workings of attorneys’ minds. But the two splinter in form if not in effect: work product doctrine builds a screen that aims to be impenetrable. No heightened work-product showing will spur exposure of an attorney’s legal opinions or tactical thoughts. Peremptory challenge law, by contrast, raises a screen that can ostensibly be pierced. A prima facie showing of peremptory misuse attempts to force attorneys to state real reasons for their challenges, thus pushing their strategic priorities much closer to the light.

A fourth intersection involves peremptory challenges as well. But this pair knits peremptories, not to work product doctrine, but to bans on juror testimony. The connection is not entirely subtle: Both doctrines concern juries. Both have deep roots in common law. And both evince a fundamental mistrust, a kind of paternalistic tendency to treat jurors like “children” incapable of meeting “adult standards of responsibility.” Still, the timing of that mistrust is notably different: peremptory challenge doctrine locates its mistrust before trial begins, testimonial bans after trial ends. And the information currents flow

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168. Sklansky & Yeazell, supra note 19, at 713.
169. Thornburg, supra note 13, at 1516.
172. See Hoffman, supra note 14, at 870 (“[T]he peremptory challenge system is a kind of adversary process gone amok . . . .”).
173. Cf Melilli, supra note 125, at 460–68 (noting that current peremptory doctrine makes it easy for lawyers to offer neutral and sometimes pretextual explanations).
174. Alschuler, supra note 16, at 211, 232. This metaphor may strike some as oversold. Some may still think, like Professor Alschuler, that both peremptories and Rule 606(b) cast jurors as children—the first because it assumes they cannot set aside preexisting notions, the second because it silences some who may now be eager to speak. But one person’s paternalism is another person’s respect: rather than treating jurors like children, peremptories may simply credit the knowledge and experience jurors bring to jury service; Rule 606(b), in turn, may simply encourage jurors to speak anywhere but the witness box.
differently too: Peremptory challenge doctrine shields information about jurors—opinions formed by others (perhaps clumsily or cynically) about the jurors themselves. Bans on juror testimony, by contrast, shield information held by jurors—facts available only to those with access to the deliberation room. The first keeps secrets about why jurors were selected. The second keeps secrets about what they have done.\(^\text{175}\)

A fifth intersection looks rather different. It pairs spoliation with automatic civil disclosure. The two rules diverge in key places: Automatic disclosure requires the affirmative sharing of items favorable to the discloser. Spoliation demands only the safeguarding of sometimes-unfavorable things.\(^\text{176}\) But the match is still quite compatible: Both rules promote greater access to information—one by releasing information between adversaries, the other by preserving information in actual form. Both also shape the beginning of civil disputes.

And there may be something to this shared timing. Spoliation and automatic disclosure may share information commitments, that is, precisely because they are early-case rules.\(^\text{177}\) But these rules and their commitments shift just as the cases do. Automatic disclosure’s demand for cooperation slides, slowly but steadily, into work product doctrine’s more competitive custom. Spoliation’s focus on information access inches, incrementally but perceptibly, toward the bar on juror testimony’s preference for finality. As a case moves from start to finish, then, other things change with it. A system’s information commitments move in particular directions too.

At least one of those directions is predictable, even obvious: our system favors finality more as its cases draw nearer to their close. Some information rules, like spoliation, carry a hint of finality even before a case commences.\(^\text{178}\) And others, like the bar on juror testimony, ask courts to ignore late-but-probative evidence that “the [trial] process did not work.”\(^\text{179}\) But if the shift is neither inexorable nor costless, the trend is no less evident: finality gains traction as cases grow old.

\(^\text{175}\) Or, to be precise, it lets courts ignore those secrets precisely when they may matter most.

\(^\text{176}\) It does not, that is, require the proactive disclosure of those sometimes-unfavorable things—at least under the current incarnation of Rule 26. Older versions of that rule demanded the disclosure of relevant items, even those not favorable to the discloser’s case. But today’s Rule 26 focuses only on the favorable, leaving discovery of unfavorable items to follow more formal demands. See FED. R. CIV. P. 26. advisory committee’s notes (“A party is no longer obligated to disclose witnesses or documents, whether favorable or unfavorable, that it does not intend to use.”).

\(^\text{177}\) Rule 26’s exemptions to initial disclosure may help confirm this point. Actions for review on an administrative record, actions to enforce arbitration awards, and habeas proceedings are disputes that are substantially framed and founded by the time they reach federal court. The need for early access is, by extension, less acute in these actions—and Rule 26 thus excuses them, and some others, from the demands of automatic disclosure. FED. R. CIV. P. 26(a)(1)(B).

\(^\text{178}\) See Nesson, supra note 38, at 798 (“[I]f you can suppress evidence for a year after the verdict, you are home-free.”).

\(^\text{179}\) Alschuler, supra note 16, at 226.
Other things may lose traction at the same time. One may be our system’s willingness to force information into the open instead of hiding it from the light—to compel sharing among litigants instead of endorsing adversarial fights. And another may be the urge to send standard signals to a diverse audience. A dubious corporate defendant may hear those signals to demand common evidentiary baselines. A wily attorney may hear them to invite, at times, thinly convincing lies. And a lay juror may hear them to exhibit a kind of startling disinterest, an odd indifference to the pursuit of truth ex ante and ex post.180

What may startle lay jurors, of course, may do little to stir more seasoned observers of federal courts. But this matter of timing is no less important for seeming so obvious to some. Modern civil cases proceed in deliberate, sequential, and sometimes overlapping stages.181 And how our legal system treats information changes just as a case does.

B. Three Maps

But there is more to this system than case chronology. There is more too than efficient process and administrative ease.182 Adjudicative accuracy, civil adversarialism, and procedural equality also shape our information architecture—as Part I preliminarily showed. This Part examines those commitments in greater detail. It explores their core meanings, their subtle tensions, and their apparent tradeoffs, using accuracy, adversarialism, and equality to map and remap a set of information rules.183 It raises a question, answered later, about what information our system considers (in)valid. And it asks how those rules might sustain that system’s legitimacy too.

At one time, of course, that legitimacy was said to flow from a single source: the accuracy of judicial outcomes.184 Lawsuits were designed, some

180. Cf. Sanchirico, supra note 11, at 1316 (noting that, in many places, “the goal of finding truth ex post [can seem] a poor proxy for the goal of shaping truth ex ante”).

181. See, e.g., Richard H. Fallon, Jr., The Linkage Between Justiciability and Remedies—And Their Connections to Substantive Rights, 92 Va. L. Rev. 633 (2006) (proposing that lawsuits track three stages: a determination of justiciability, a ruling on the merits, and a selection of remedy); COVER & FISS, supra note 1, at 376 (“Adjudication entails a process of (1) informing the adversaries, their representatives, and the decisionmaker of relevant matters; (2) assessing that information; and (3) arriving at relevant conclusions.”).

182. Not all rules are administrative equals. Indeed, some rules seem substantially friendlier to efficient judicial administration than others: bans on juror testimony, for example, seem more likely to speed legal resolution than do the burden-shifting steps of peremptory challenge doctrine. But the devil of administration is in the application details. Rule 606(b) may seem easy to implement in theory, for example, but it may bog down stubbornly on hard facts. I thus concentrate instead on other commitments—and I fold in some administrative and efficiency ideas as I do.

183. My maps are meant to be general descriptions, not normative endorsements. I do not try to justify any of these procedural rules by reference to some particular instrumental or moral end, but instead to capture what the rules do—or at least purport to do.

184. See GEOFFREY GILBERT, THE LAW OF EVIDENCE 2 (7th ed. 1805) (noting that evidence must be used “to make the most exact discernment . . . in relation to right”); Michael L. Seigel, A
claimed, not to salve hurt feelings or to sate participatory urges, but to search out "truth" and achieve "right result[s]." Accuracy was more in this account than a goal of litigation. It was the "single dominant value" of our adjudicative system—as important to civil practice as to science itself.187

But accuracy, even then, never really stood alone.188 Trial's truth-seeking function instead "competed[d] with other considerations,"189—dignity, finality, stability, cost control—that often constrained the search for truth.190 Some of those competitions reduced accuracy to a "very minor" station.191 Others treated uncovering truth as an instrumental means for reaching socially "acceptable" results.192 But if accuracy's measure is but one of many, it still

Pragmatic Critique of Modern Evidence Scholarship, 88 NW. U. L. REV. 995, 996 (1994) (lamenting "evidence scholars' near-universal acceptance of 'optimistic rationalism,' that is, the belief that the overarching function of evidence law is to maximize the . . . probability that factfinders . . . accurately determine objective . . . truth") (citation omitted); see also Louis Kaplow, The Value of Accuracy in Adjudication: An Economic Analysis, 23 J. LEGAL STUD. 307, 382 (1994) ("[A]ccuracy may be valued because it advances fairness and justice . . . [or] it is important to the system's legitimacy that adjudication appears to be as accurate as possible . . . ").

185. In this account, finding truth is deemed the "paramount" aim of trial and the "sole" purpose of a judge. Frankel, supra note 24, at 1033, 1035.

186. Seigel, supra note 184, at 1011 (describing the "rationalist ideal—that the central object of the law of evidence is to maximize the accuracy of trial verdicts"—as a "foundationalist" theory of law); see also Eleanor Swift, A Foundation Fact Approach to Hearsay, 75 CALIF. L. REV. 1339, 1348 (1987) ("Rules of evidence and procedure are routinely evaluated by their alleged effect on the accuracy of the trier's factfinding.").

187. To borrow from Stephen Carter:

Science is merely a process, an approach to solving problems, a way of gaining knowledge.

In particular, science seeks to find the best among available answers to questions, to demonstrate that one hypothesis is so consistent with observation and experiment that we are justified in calling it "the truth."


188. See, e.g., Frankel, supra note 24, at 1037 ("[I]n the last analysis truth is not the only goal."). None other than Jeremy Bentham, a vigorous critic of truth-stifling evidence rules, acknowledged that "evidence, even justice itself, like gold, may be bought too dear. It always is bought too dear, if bought at the expense of a preponderant injustice." 4 JEREMY BENTHAM, RATIONALE OF JUDICIAL EVIDENCE, SPECIALLY APPLIED TO ENGLISH PRACTICE 482 (1995).


190. See, e.g., Charles Nesson, The Evidence or the Event? On Judicial Proof and the Acceptability of Verdicts, 98 HARV. L. REV. 1357, 1358-59, 1373, 1378 (1985) ("[T]he object of judicial factfinding is the generation and projection of acceptable verdicts—verdicts that the public will view as statements about what actually happened . . . "); Damaška, supra note 16, at 301 ("[T]ruth-conducive values cannot be an overriding consideration in legal proceedings; it is generally recognized that several social needs and values exercise a constraining effect on attempts to achieve fact-finding precision."). By some measures, the search for truth may seem futile—even "misconceived, or quixotic." Id. at 297 (adding that futility "is no argument against . . . effort").


192. Charles R. Nesson, Reasonable Doubt and Permissive Inferences: The Value of Complexity, 92 HARV. L. REV. 1187, 1198-99 (1979) ("It is the function of the jury to produce an acceptable, albeit artificial, resolution . . . "); see Damaška, supra note 16, at 304; Kaplow, supra note 184, at 308 (noting that the question is one of achieving the right balance between accuracy and cost); Nesson, supra note 190, at 1358; Laurence H. Tribe, Trial by Mathematics: Precision and Ritual in the Legal Process, 84 HARV. L. REV. 1329, 1376 (1971) ("It would be a terrible mistake to forget that a
tends to come first. Most studies of procedure and evidence still begin where Bentham, Thayer, and Wigmore did: with the distinctively "rationalist" assumption that trial is, at bottom, a search for truth. A first map of information rules thus starts there too.

**FIGURE 1: Adjudicative accuracy**

This map is marked by two chronological themes. The first is broader and more historically peculiar: newer information rules tend to lean more sharply toward accuracy than older rules do. Automatic civil disclosure, for example, postdates the bar on juror testimony by centuries. It also emerged long after most scholars acknowledged real constraints on the law's pursuit of truth. But automatic disclosure still tilts toward truth more than its Rule 606(b) analog—and more than tools like peremptory challenges too. The second theme is more case-centric and familiar: accuracy's (reputed) peerlessness fades as cases grow old. Truth seeking may begin as an unrivaled value, the driving typical lawsuit, whether civil or criminal, is only in part an objective search for historical truth. It is also, and no less importantly, a ritual.

193. See William L. Twining, Rethinking Evidence 71 (1990); Kaplow, supra note 184, at 307 ("[T]he value of more accurate adjudication is largely taken for granted."); Sanchirico, supra note 188, at 1228 ("Most evidence scholarship takes as given that trial is at its core a search for truth . . . .").

194. A caution: My construction of all three maps is as tentative as it is deliberate—deliberate in that it reflects a careful plotting of the rules' informational commitments, but tentative in that it remains open to suggestion and change. As a start, my maps take the rules at their word—accepting the notion that Rule 26(a) seeks cooperation, for example, and that Rule 606(b) promotes finality. But this credulousness is not without consequence: It may elide the fact that some doctrines, like automatic disclosure, deliver far less than they promise. See supra text accompanying note 70. And it may confine our view to one perspective where it may be best served by two: Work product may seem less committed to accuracy under a static lens, for example, because it allows attorneys to shield some useful information that they have. But it may seem more committed to accuracy under a dynamic lens, in turn, because it induces parties to do more of their own information-generating work. I return to some of these themes and ideas. See infra Part III. But I acknowledge and attempt to attend to them here.

195. The initial federal automatic disclosure provision took effect in 1993, supra Part I, more than a decade after Judge Frankel's call (for example) for a return to truth. See Frankel, supra note 24.
impulse of automatic disclosure and spoliation rules. But other factors, like efficiency and finality, gain influence as cases inch forward. Accuracy’s map thus confirms something both obvious and often elided: our information architecture favors reaching “correct” outcomes—but it sometimes proves indifferent to that pursuit.

A second commitment—to civil adversarialism—helps explain why. American civil litigation functions by way of two-sided partisanship: plaintiffs gather their own evidence, frame their own arguments, and advance their own interests—and defendants do too. This distinctive mode of practice is not necessarily hostile to accuracy. It is often defended, in fact, as a clear route to accurate answers—a way for clashes between motivated partisans to uncover legal truth. But legal reality is sometimes less romantic. Adversarial process can invite, not ennobling conflict, but a kind of hardnosed “combat”—fights by means of self-serving distortion and suppressed evidence. Parties in these fights seek victory, not accuracy. Attorneys serve clients, not justice. All the while truth is left to “emerge” with “no one . . . in charge of seeking it.”

Yet some information rules still push against adversarialism’s strong pull. A second map shows at least two that do.

**FIGURE 2: Civil adversarialism**

A first look at this map suggests something curious. It suggests that civil adversarialism is both more and less than it seems: More because its clashes follow varied blueprints—some with preset winners, others with slanting

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196. See, e.g., David Peck, *The Complement of Court and Counsel* 9 (1954) (arguing that identifying truth is the “sole objective of the judge”).

197. See Langbein, supra note 9, at 8, 332.


200. Langbein, supra note 9, at 8, 333.

201. Like work product protection of attorney mental impressions, which holds those impressions off limits regardless of merit or need.
fields. Yet less because contemporary civil practice is not adversarial from bottom to top. Modern civil process instead includes deliberately cooperative devices—like spoliation and automatic civil disclosure. And it prohibits outright deception, perhaps because such trickery produces information of little civil use.

A second look hints at something different. It hints at a pattern based on the information’s holder: Information held by attorneys and jurors seems more likely to be shielded. Information held by parties appears more likely to be exposed. Like many legal patterns, this one has exceptions—peremptory challenge rules that purport to lay bare attorney strategy, privilege rules that cloak party-held details. It also discounts the reality that attorneys and jurors, not parties, sometimes hold a case’s most pertinent facts. But this pattern is no less instructive for its inevitable gaps: if the kind of information at issue often matters—fact or opinion, helpful or harmful—the holder of that information may well matter too.

It may also matter if a party can afford a difficult fight. Today’s civil litigants enjoy uncommon informational power—to search out elusive evidence, to subpoena unfriendly witnesses, to compel sworn testimony, to gather tangible things. But these litigants also assume a heavy burden: they must pay for the tools that they use. This “private” model of civil practice fits well with adversarialism. It leaves litigation to the efforts of self-interested parties, not to the investments of impassive courts. But this model also bestows unequal advantage. It favors those with abundant resources—and hinders those with comparatively few.

A third information commitment—to procedural equality—offers some compromise. Equality in civil practice has long been burdened with grand labels: “indispensable” to legal process, “necessary” to just adjudication, and perhaps the “most important” feature of any procedural framework. But equality’s promise still proves more rhetorical than real. Well-positioned parties still begin (and end) litigation with easier access to relevant documents, closer connections to persuasive witnesses, and deeper pockets to fund sympathetic investigation. Skillful attorneys still deploy (and then bill for) their

202. Like peremptory challenge doctrine, which makes attorneys’ reasons difficult, but not impossible, to access.

203. See Stuntz, supra note 25, at 1904, 1912, 1914 (noting that criminal litigation is different).

204. Cf. Cammack, supra note 15 (arguing that Rule 606(b) should operate as a privilege, not a prohibition).


206. See Sklansky & Yeazell, supra note 19, at 694–95.

207. For a foundational discussion of the “wealth effect” in adversarial litigation, see LANGBEIN, supra note 9, at 1–2, 332–33.

superior fact-gathering guile. Modern trial practice thus offers information equality of only a limited kind. It rations the type and quantity of discovery tools available to each party. And it gives every litigant the baseline capacity to produce arguments and tender proof. A third map suggests how.

**FIGURE 3: Procedural equality.**

One look at this map confirms something obvious: our system’s pledge to equality runs but part of the way. Some information rules, like the bar on juror testimony, seem largely indifferent to questions of equal “equipage.” And others, like work product doctrine, push firmly against party equivalence—inhbiting rival free riding, endorsing lawyerly industry, and carving out gaps for able advocates to exploit.

But still other rules close more gaps than they open. Spoliation rules, for example, demand that adversaries preserve evidence helpful only to their opponents, not just after a lawsuit commences, but even before a case starts. Automatic disclosure compels parties to divulge supporting data, to itemize useful evidence, and to forego much hope of last-ditch surprise. And peremptory challenge doctrine constrains lawyerly cunning, roots out illicit motives, and (like automatic disclosure) sheds faint light on a party’s trial strategy. So though the civil process still tolerates many kinds of information inequality, it aspires to something different. It aspires to “equaliz[e] the information available to each side.”

The reason for this is far from abstract. Our system’s commitment to equalized information does not grow from some inchoate faith in equality for its own sake. Nor is it an attempt to break down entrenched structures of wealth and power, those “caste-like” layers so resistant to redistributive rules. It is instead an instrumental means to a now-familiar end: equally informed litigants

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209. See, e.g., FED. R. CIV. P. 30(a)(2) (giving each party a maximum of ten depositions, absent court leave).

210. Rubenstein, supra note 26, at 1873–78. I recognize, as Professors Mashaw and Rubenstein counsel, that equality is a “notoriously slippery concept.” Id. at 1866 (citing Jerry L. Mashaw, Administrative Due Process: The Quest for a Dignitary Theory, 61 B.U. L. REV. 885, 899 (1981)). I do not mean to ignore that slipperiness here. I mean instead to consider how our rules prompt or prevent a particular kind of equality—namely that of case-pertinent information. Id. at 1866 n.9 (“I label this the concern of ‘equipage’ equality because what we are worried about is whether parties are equally ‘equipped’ to engage in adversarial adjudicatory procedures.”). I leave the rest of the concept alone.

211. Id. at 1880.

212. Id. at 1886.
are thought to wage the most vigorous adversarial battles. And the most vigorous adversarial battles are thought to produce the most accurate and acceptable results.\textsuperscript{213} Our information architecture values equality less for what it is, then, than for what it does.

And so here, by fluke or by fashion, three disparate commitments fall haltingly in line. Accurate judgments rely on fervent adversarialism. Fervent adversarialism profits from equalized information. Equalized information thus hooks back to adjudicative accuracy—and the legitimacy of legal outcomes comes to depend on all three.\textsuperscript{214}

This is not, of course, legitimacy of an unqualified kind. It is instead a specific type of adjudicative legitimacy—what Professor Fallon might call legal-sociological legitimacy—that both comports with legal norms and maintains public support.\textsuperscript{215} Individual decisions may still prove lacking, both practically and epistemologically; they may still, that is, be wrong.\textsuperscript{216} But our information architecture locates legitimacy more in process and in packaging than in particular results. It prescribes a process that offers strong (early) assurances of access and availability, of evidence carefully safeguarded and information fully disclosed. And it packages its decisions in “impenetrable” boxes, inscrutable verdicts sealing both blemish and uncertainty inside the jury room’s “black hole.”\textsuperscript{217} This, then, is a strange (even ironic) brand of legitimacy. Civil adversarialism works, not by way of unfettered self-interest, but through tempered cooperation and partial equality. Pretrial openness balances postverdict secrets. And still, almost without exception, the system generates judgments that a public will accept.\textsuperscript{218}

C. A Typology

A careful study of civil information could well end there. More examples might be added—about propensity evidence and physical examinations, about oral depositions and spousal privileges. But these additions would only

\begin{itemize}
\item \textsuperscript{213} See id. at 1881.
\item \textsuperscript{214} See id. at 1886 (“Equality is important . . . because it is thought to contribute to an efficient and legitimate resolution of legal controversies.”). In this sense, equality and adversarialism may seem like instrumental means to accurate legal ends.
\item \textsuperscript{215} See Fallon, supra note 27, at 1794–96. I leave aside what Professor Fallon calls “moral” legitimacy—legitimacy, that is, rooted in a legal enactment’s moral justification. Id. at 1796. My argument is thus distinctly (if indifferently) positivist, for it “assumes that an enactment can count as law despite serious moral defects.” Id. at 1801; cf. ST. THOMAS AQVINAS, SUMMA THEOLOGICA Pt. II-I, Q. 95, Art. 2, Objection 4, \textit{reprinted in} GEORGE C. CHRISTIE & PATRICK H. MARTIN, \textit{JURISPRUDENCE: TEXT AND READINGS ON THE PHILOSOPHY OF LAW} 166 (1995) (claiming that an unjust law is “no law at all”).
\item \textsuperscript{216} Fallon, supra note 27, at 1817–18, 1851.
\item \textsuperscript{217} Fisher, supra note 10, at 705–09.
\item \textsuperscript{218} See id. at 580 n.8 (“When I speak of . . . legitimacy, I mean only . . . mak[ing] the system’s judgments acceptable to the public and . . . packaged . . . in a way . . . the public would accept.”); see also TYLER, supra note 162 (arguing that people accept judgments based on the way they were made—that is, on their procedural justice).\end{itemize}
reinforce a now-established theme: our information system’s commitments are both real and elastic. And so that system aims, by coordination and concession, to be many things at once.

To this point, I have taken the rules within this system largely as we find them: as a scattered collection of provisions and prohibitions, set in formal rule structures and common law corners, interacting and overlapping outside any rigorous typology. This Part proposes one such typology.\textsuperscript{219} It divides information rules into four basic categories—valid information, invalid information, valid misinformation, and invalid misinformation—and offers introductory examples of each.\textsuperscript{220} My hope, as before, is not that these classifications will mark a singularly seamless way to understand all civil information. My hope is rather that this careful and creative typology will do two no-less-valuable things: It will reveal, for one, how our commitments to accuracy, adversarialism, and equality operate within a shared architecture—what pieces fit together, where they splinter, and why they do. And it will raise, for another, the core question at the heart of that architecture: Do our rules successfully manage (in)valid (mis)information—and the behavior of legal actors too?

\begin{table}
\centering
\begin{tabular}{|p{2cm}|p{2cm}|p{2cm}|}
\hline
 & Information & Misinformation \\
\hline
\textit{Valid} & • Authentic & • Inauthentic \\
 & • Appropriate for consideration & • Appropriate for consideration \\
\hline
\textit{Invalid} & • Authentic & • Inauthentic \\
 & • Inappropriate for consideration & • Inappropriate for consideration \\
\hline
\end{tabular}
\end{table}

A first group in this typology concerns valid information. It is “information” (in this sense) because it is genuine and reliable, not dubious or deceptive. And it is “valid” (in this sense) because it is appropriate, and perhaps even necessary, for inclusion in the litigation process—even at a sizeable

\textsuperscript{219} I use the term typology, not taxonomy, because mine is a conceptual effort, not an exhaustive empirical one. See \textsc{Kenneth D. Bailey}, \textit{Typologies and Taxonomies: An Introduction to Classification Techniques} 4–6 (1994). And even by this laxer standard, my effort is self-consciously modest: my categories do not aim to displace all others, nor are they entirely mutually exclusive. See \textit{id.} at 3.

\textsuperscript{220} Here and elsewhere, I use the term “information” in an admittedly but justifiably broad way. See \textit{supra} note 23 and accompanying text. And I use the term “valid” to suggest that the information is pertinent to some legal process broadly defined, not just to a jury’s deliberation at trial. Some of that valid information will be admissible, of course, but not all will: information automatically disclosed is valid, for example, but not always admissible.
Valid information thus includes rules like automatic disclosure and the own-statement provision of work product doctrine, both of which ensure that certain facts are accessible easily or without request. A careful attorney’s roster of friendly witnesses is thus valid information. So too are a potential witness’s own words.\textsuperscript{222}

But a juror’s account of quarrelsome, angry, or even drug-addled deliberation is notably not. That account fits instead into a second category: invalid information. Like the category before it, this one involves information that is genuine and reliable, not deceptive or doubtful. But this information is inappropriate for legal consideration, despite its authenticity. Invalid information thus includes rules like the bar on juror testimony and the attorney-thought prohibition of work product doctrine, both of which put potentially instructive information out of legal sight. A loose-lipped juror’s truthful tale of jury misbehavior is thus off-limits as invalid information. So too is a document that summarizes an attorney’s opinions and strategic plans.

A third group concerns almost precisely the opposite. It concerns valid misinformation: “misinformation” because it comprises inauthentic evidence—fakes or feints or fissures where information once was; but “valid” because it is appropriate for inclusion in litigation all the same. Valid misinformation thus includes the adverse inference sanction for sins of spoliation\textsuperscript{223} and the courts’ credulous acceptance of peremptory challenge pretext, both of which sustain information lacking legitimate anchor. An order to assume a fact that lacks evidentiary backing is thus valid misinformation. So too is a convincing-but-dishonest story that a peremptory challenge was used because of a lawful, if ineffable, hunch.

But if this third category covers some successful dishonesty, it excludes the knowing destruction of pertinent evidence. That kind of deception fits instead into a fourth—and final—novel category: invalid misinformation. Like the third group before it, this category involves fakes, feints, and fissures, not authentic evidence. But here such misinformation is unsuited for consideration in the litigation process. Invalid misinformation thus includes the core of spoliation doctrine and the courts’ rejection of peremptory challenge pretext, both of which seek to erase the value of self-serving lies. A corporation’s intentional destruction of disturbing email is thus invalid misinformation,\textsuperscript{224} as is an attorney’s unconvincing explanation of an unlawful peremptory strike.

\textsuperscript{221} See Bell et al., supra note 62, at 46 (observing that automatic disclosure undermines the adversarial process).

\textsuperscript{222} Other rules—like Federal Rules of Evidence 802 and 403—may still exclude those words from consideration at trial.

\textsuperscript{223} The same may be true of parts of pleading doctrine. See FED. R. CIV. P. 8(b)(6) (explaining that even untrue facts may be taken as admitted if not properly denied).

\textsuperscript{224} Or perhaps makes it invalid misinformation.
Each kind of civil information thus fits an "(in)valid (mis)information" category. And each category offers a new way to consider—and a new vocabulary for discussing—civil information more generally.

### Table 2: (In)valid (mis)information—Examples

<table>
<thead>
<tr>
<th>Information</th>
<th>Misinformation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valid</strong></td>
<td></td>
</tr>
<tr>
<td>- Automatic disclosure</td>
<td>- Spoliation (adverse inference)</td>
</tr>
<tr>
<td>- Work product doctrine (own statement)</td>
<td>- Peremptory challenges (successful pretext)</td>
</tr>
<tr>
<td><strong>Invalid</strong></td>
<td></td>
</tr>
<tr>
<td>- Bar on juror testimony</td>
<td>- Spoliation (destruction)</td>
</tr>
<tr>
<td>- Work product doctrine (attorney thoughts)</td>
<td>- Peremptory challenges (unsuccessful pretext)</td>
</tr>
</tbody>
</table>

But what this typology captures is more textured than transformative. It aims less to alter how litigation operates than to encourage a more nuanced understanding of our set of information rules.

A single comparison captures much of this subtlety. It also shows how the "(in)valid (mis)information" typology links similar pieces usefully together while keeping disparate rules helpfully apart. The comparison considers two now-familiar concepts: automatic disclosure under Rule 26(a) and the adverse inference sanction under spoliation doctrine. The two are akin in important measure: Both involve facts or things deemed appropriate for legal consideration. Both reach information that will influence, if not determine, a case's outcome.\(^{225}\) But the two should not be lumped hastily together, nor should they be grouped under the vague and misleading banner of "usable things." The two rules, for one, derive from dissimilar instincts—automatic disclosure a commitment to truth through collaborative enterprise, adverse inferences an urge to punish informational misdeeds. And the two rules, for another, involve different facts and data—automatic disclosure a batch of real and verifiable items, adverse inferences a kind of fiction sustained by judicial decree. It makes better sense, then, to say that one rule involves valid information while the other involves a type of valid misinformation. And it makes better sense too to trace this interdoctrinal variation, to spot this structural nuance, and to highlight the details of a cautious design.

Even in its caution, of course, that design does something difficult. It processes and prioritizes an entire universe of information—facts and opinions, secrets and lies. It fills a set of longstanding commitments with legal content—

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225. See, e.g., Zubulake v. UBS Warburg LLC, 220 F.R.D. 212, 219 (S.D.N.Y. 2003) ("In practice, an adverse inference instruction often ends litigation—it is too difficult a hurdle for the spoliator to overcome.").
accuracy in the form of shared disclosures, adversarialism in the guise of hidden thoughts. And it records where a system’s diligent attention gives way to blind eyes.

But this design asks an unanswered question too: Does what we are learning about human “Information Behavior” correspond with what we know about our legal rules? The (in)valid (mis)information typology may tie together our system’s commitments, chart our doctrinal choices, and clarify by way of new category. But it does not tally legal successes. It does not ask how those who use, operate, and so often depend on civil litigation make sense of our information rules. Part III frames a first response to those questions. And it roots its search for answers in an approach rather new.

III.

INFORMATION BEHAVIOR

Civil litigation is a study in information behavior. There as much as anywhere, in the clash of legal adversaries, information conduct follows customary form: parties gather facts to narrow “gap[s] in [their] knowledge”; courts receive data in stylized bundles; juries deliver verdicts omitting details that others wish to avoid. The stakes in these suits can be high, the skills deployed extraordinary. But the shape of these disputes is resilient at its core: in cases big and small, outcomes follow facts. Attorneys are both legal experts and “information engineers.”

Not long ago, a group of scholars set out to explore information conduct of a similar kind. They did not begin their study in courtrooms, in the offices of litigators, or in the law at all. They started instead in the quiet confines of science libraries and along the high-tech pathways of the worldwide web. What has grown from this initial exploration is the field of “information behavior,” a discipline its practitioners often call “IB.”

This Part links IB to the (legal) information architecture detailed in Parts I and II. It aims, originally if provisionally, to initiate a process of deeper IB-law engagement, to relate that process to more familiar legal research, and to outline this legal dialogue’s enduring contours. To date, IB and law have touched only at the margins. This Part thus considers what IB can learn from

226. CASE, supra note 18, at 5; see also Sunderland, supra note 131, at 262 (“[T]he law puts the general verdict out of sight and then, because no flaws appear in it, the conclusive presumption is indulged that no flaws exist.”).


229. THEORIES, supra note 17; CASE, supra note 18.

230. See, e.g., BEHAVIORAL LAW & ECONOMICS (Cass R. Sunstein ed., 2000) (describing how behavioral economics provides insights into legal decision making); Simon, supra note 18 (explaining the connections between “coherence-based” decision making and legal decision making).
the behavior of legal actors—and where our information architecture might benefit from the lessons of IB too.

Part III.A introduces the history, scope, and abiding lessons of IB. My aim here is not to itemize every subtle facet of IB scholarship. Nor do I mean to stake out any particular normative claim. I hope instead to present IB as a source of novel insight, a place to learn new and useful things about the law’s information design. Part III.B concentrates in turn on three core IB principles—

the principle of least effort, the threatening nature of knowledge, and the minefield of misestimation—paying careful attention to our information architecture, its information rules, and the story of the corporation, the careful attorney, and the loose-lipped juror too. Part III.C then sounds a pessimistic caution and an optimistic call, asking where our legal information system may fall short of IB’s standards—as well as where it may already exceed them.

A. IB

In 1948, a Royal Society Conference posed an alluring question. It asked “how people used information in relation to their work.”231 The query was not new, even then, but the call for an answer may have seemed particularly acute. Faced with a post-war boom in scientific literature, everyone from casual readers to academic specialists (and their dutiful librarians) met unprecedented challenges of information access, source, and scope.

The first studies to address these challenges were deliberately narrow. Early IB work considered how medical scientists engaged specific information systems and how atomic engineers retrieved particular documents—not how people made sense of their wider information world.232 But in the decades that followed, IB research grew in focus and in form. Introductory questions about scientific “information-seeking” blossomed into richer explorations of human “information needs.”233 Preliminary forays into IB theory gave way to more expansive (and contentious) conceptual frameworks.234 And initial attention to library stacks and card catalogs spread to more critical engagements with the lessons of social science and the insights of cognitive psychology.235 This striking expansion enlivened and diversified IB analysis, transforming a specialist’s inquiry into a wholesale examination of “information use.” It also made IB’s challenges more difficult: New sources of information only added analytical complexity. New technologies only complicated matters of access and scope.

231. Wilson, supra note 228, at 50.
232. See id.
233. Id. at 50–51.
234. See, e.g., Brenda Dervin, What Methodology Does to Theory: Sense-Making Methodology as Exemplar, in THEORIES, supra note 17, at 25–29 (proposing a “sense-making methodology” to reconcile two antecedent notions of IB theory).
235. See Wilson, supra note 228, at 52.
Current IB scholarship reflects this growing, persistent, and sometimes vexing diversity. It includes scholars tracing the process of information “sense-making,” a theory that takes information as internally “constructed” rather than externally imposed.236 It features scientists exploring fertile “information grounds,” those “synergistic” (and often temporary) environments in which people exchange information largely by chance.237 And it prompts reviews of best information practices, including preliminary reports of “almost formulaic devices” that might “stimulate lawyers” (and others) to consider how “information [might best] be used.”238

Amid this IB variety are some intriguing disagreements. IB scholars differ, for example, in the way they group information concepts—some dividing among information’s “environmental,” “internal,” and “social” representations; others splitting between “information-as-process,” “information-as-knowledge,” and “information-as-thing.”239 IB scholars diverge too on the nuances of information acquisition—some contending that acquisition occurs through discrete stage-based processes,240 others suggesting that acquisition involves a set of interactive tasks (like “browsing” and “extracting”) that depend heavily on context and time.241 And IB scholars also dispute the connection between truth and information—some believing that information must be “truthlike” to “fit” any useful definition, others claiming that true-false questions are immaterial to IB’s chief concerns.242

Yet despite this debate and diversity, modern IB scholarship still imparts a set of shared ideas. One is that people prefer information ease to information quality—that they choose less useful but more accessible information over higher value facts that are harder to find.243 Another is that new information can be disconcerting and disorienting, so much so that acquiring new knowledge can itself prove threatening.244 And a third is that people tend to misestimate the value of information—sometimes overestimating the value of facts recently gathered, sometimes underestimating the worth of things they do not know.245

The Section that follows looks carefully at these three IB principles, both as abstract information concepts and as sources of legal inquiry. As it does, it calls again on the rules and stories outlined above. But Part III.B calls on more

236. See, e.g., CASE, supra note 18, at 158.
238. CASE, supra note 18, at 279 (recounting the work of Cole and Kuhlthau).
239. Id. at 43-44 (comparing the approaches of Brent Ruben and Michael Buckland).
240. See, e.g., Carol Collier Kuhlthau, Kuhlthau’s Information Search Process, in THEORIES, supra note 17, at 230-34.
242. CASE, supra note 18, at 59-60.
243. See id. at 151; Bates, supra note 31, at 4.
244. See Bates, supra note 31, at 5.
245. See id. at 4-5; CASE, supra note 18, at 97-100.
than that too. It calls in particular on the cognitive decision making work of scholars already firmly rooted in the law. For IB offers more than new perspective on familiar legal doctrines. It offers a chance to refine an already vigorous engagement with judges, jurors, and legal decision making too.

A related proviso: IB may tell us little about attorneys even as it tells us much about the law. IB can shed new light on the law’s information architecture. It can reveal how certain rules might fit together and when core commitments may peel apart. But IB may also pass over some of the most insistent pressures that lawyers face—to boost their billable hours, to meet their clients’ wishes, and to burnish their professional reputations. What follows thus aims at something more general than specific: it asks, that is, only what IB may teach us about our system of information rules. But it acknowledges that individual lawyers, as information actors, may be different too.

B. Three Themes

1. The Principle of Least Effort

At the core of IB theory is a seed of bare complacence: information seekers expend as little effort as they can. Given a choice between low-value-but-easily-accessible information and high-value-but-harder-to-find substitutes, people pick low value time and again. And the easier the access, it seems, the simpler the choice.

This is the principle of least effort, perhaps the “most solid” lesson in all of IB. Pioneered by linguist George Zipf, the principle of least effort reaches all manner of human conduct—from word choice and web searches to citation patterns and tool selection. It recalls key concepts of social cognition—like the notion that “mere exposure” to information can shape individual

246. See Bates, supra note 31, at 4; CASE, supra note 18, at 51. A key caveat: I am not claiming that people always pick a path of least resistance, whether in information settings or outside of them. Any lawyer made to comb through piles of redundant documents, to search endless email, or to Shepardize endless cases knows just the opposite. I mean instead only to set an anchor for this introduction of IB.

247. See CASE, supra note 18, at 51.


249. CASE, supra note 18, at 151–53. Zipf was more than a linguist. He was a University Lecturer at Harvard with a wide-ranging curiosity. His least-effort theory derived in part from what he called “harmonic distributions,” patterns of use and nonuse detectable in every manner of human conduct—including word choice in famous fiction. In Ulysses, for example, Zipf noted that the 10th most common word appeared 2653 times, the 100th most common 265 times, and the 1000th most common only 26 times. ZIPF, supra note 30, at 23–51. To Zipf, this was more than stylistic coincidence. It was “clear evidence of the existence of a vocabulary balance”—and a harmonic distribution—among the novel’s 29,899 different (and 260,430 total) words. Id. at 23–24.
preference and the idea that "resistance" to contrary sentiments increases attitude certainty. And it sheds light on at least three information rules.

One is work product doctrine. As the pages above recount, work product doctrine grows in part from an aversion to free riding—a sense that even motivated attorneys will sometimes choose indolent piggybacking over more strenuous work. Fears of abuse, concerns about lawyer morale, and worries about proprietary interests also inform work product doctrine, as does a special solicitude for adversarial self-interest. But work product doctrine both reflects and restrains what the principle implies: a lawyer may well opt for easily-available-but-lesser-value information wherever she can. A corporation's counsel, for example, may rely on the efforts of her more active legal adversary, even if more useful information could be found through more vigorous independent work. Work product doctrine thus puts the active attorney's efforts partly off-limits, demanding effort from her opponent where she may be otherwise inclined to rest.

But not all of the careful attorney's efforts are inaccessible to others. Far more of her work may be subject to automatic disclosure, a doctrine the principle of least effort frames quite differently. Automatic disclosure, to recall, mandates the sharing of many kinds of favorable information—names of friendly witnesses, copies of helpful things. The aim of this doctrine is not to induce legal laziness but to increase adjudicative accuracy, to ensure information equality, and to reduce litigation surprise. Yet this doctrine also has its hazards. One is confused adversarialism—a careful attorney compelled to do some of her opponent's work. And another may be informational idleness—a corporation all too content with its adversary's facts. Unlike work product doctrine, then, automatic disclosure seems to accept and accede to our least effort instincts, excusing (even inviting) the corporation to coast in part on the careful attorney's work. But this acceptance reflects the principle too. It acknowledges that attorneys may not always dig deeply enough to anchor

252. See supra Part I.
253. I ignore, for now, the perverse incentives of hourly billing practices—an incentive that may, I recognize, turn many least effort instincts on their head.
254. FED. R. CIV. P. 26(a).
255. See Bell et al., supra note 62, at 46 (noting the ethical strain that could accompany automatic disclosure).
256. This risk may well have diminished since Rule 26(a)'s most recent substantive amendment. Before that amendment, parties were required to disclose "relevant" information, not just information "in support of" their defenses or claims. Now parties need only disclose information that supports their arguments—at least automatically. FED. R. CIV. P. 26(a). Unfavorable information may still be revealed by other discovery means, but the shift in automatic disclosure may itself be significant: it may make it harder (or less likely) for one party to coast on the initial disclosures of another.
effective litigation. So automatic disclosure compels partial cooperation—a kind of mutual free riding that aims to improve judicial results.

A third rule—spoliation—links to least effort more directly than that. And it implicates another IB lesson as well: in a world rife with intangible data, people still favor more tangible things.\textsuperscript{257} Spoliation, once more, is a kind of cheating: it is the suppression, alteration, or destruction of evidence relevant to a pending or impending case. Limits on spoliation do not grow from any sophisticated sense of litigant lassitude. They grow instead from a desire for accurate outcomes and repugnance for party deceit. But that deceit confirms the principle no less powerfully: suppressing evidence may be the quickest path to victory. It may be easier, that is, for the corporation to destroy a former employee’s evidence than to build a case of its own. Spoliation rules thus acknowledge and answer the principle of least effort. By limiting an easy form of cheating, they may promote greater information diligence.\textsuperscript{258}

Not that this diligence proceeds by information rule alone. Hourly compensation, client expectation, and professional reputation may also inspire greater information effort.\textsuperscript{259} But the principle of least effort helps link IB and law together, not merely by abstract theory, but by connection to an array of (in)valid (mis)information rules. Even more, this principle holds the promise of enriched understanding and the power of more thoughtful rule-based change. A second IB principle—the threatening nature of knowledge—does too.

2. The Threatening Nature of Knowledge

There is a risk in collecting new information: those who see it may not like what they learn.\textsuperscript{260} A corporation hoping to tar a former employee as litigious, for example, may hunt for new facts to confirm that opinion—and feel relief when it finds them. A juror may think those same facts enlightening, if not exactly pertinent. But the sullied employee may find those facts distressing and small minded—and perhaps even “threatening to [her] sense of self.”\textsuperscript{261}

Such is the threatening nature of knowledge, another primary lesson of IB. Built on the work of Jurgen Ruesch and Gregory Bateson, the threatening nature grows from a distinction between “value-seeking” and “information-seeking”—the first a practice of finding facts to “match” preset agendas, the second a less-programmed process of fact-acquisition.\textsuperscript{262} Like the principle of least effort, the threatening nature of knowledge comports with recent studies in

\begin{itemize}
\item \textsuperscript{257} See Bates, supra note 31, at 5.
\item \textsuperscript{258} See supra Part I.
\item \textsuperscript{259} See, e.g., Bundy & Elhauge, supra note 3; Bundy & Elhauge, supra note 199; Galanter, supra note 151; Stuntz, supra note 25.
\item \textsuperscript{260} See Bates, supra note 31, at 5.
\item \textsuperscript{261} Id.; see also CASE, supra note 18, at 97–100.
\item \textsuperscript{262} Bates, supra note 31, at 5.
\end{itemize}
social cognition—about how we seek to reduce cognitive dissonance,263 about how we try to avoid unwanted data,264 and about how we search for evidence in hypothesis-confirming (i.e., “biased”) ways.265 And like the principle of least effort, the threatening nature of knowledge connects to three (or more) information rules.

The most obvious is Rule 606(b). Rule 606(b), to recall, prohibits jurors from testifying about their deliberative processes—about nearly everything, that is, internal to the jury’s black box. Explanations for this bar include a preference for robust jury discourse, an interest in case finality, and a desire to shield jurors from postverdict harassment. But Rule 606(b) rests on threatening nature grounds too: Rule 606(b) shuts the system’s ears to facts it prefers not to hear. A loose-lipped juror, for example, can tell anyone who will listen that his jury based its decision on a crucial but correctible error. He may even reveal that his jury would now find the opposite way. But federal courts will still refuse to hear him. Rule 606(b) thus keeps this “shallow secret,”266 and by avoiding threatening knowledge, a system maintains its certainty.267

Peremptory challenge law may do something similar. But here threatening facts retreat, not behind a formal rule of evidence, but into a burden-shifting mess. Peremptory challenges, again, permit parties to strike prospective jurors without first providing cause or reason. Only after a prima facie showing of impermissible use must a party explain her peremptory practice, and even then the thinnest rationalizations tend to work. Supporters of peremptories say these strikes still educate the public, enhance the appearance of fairness, and enable skillful attorneys to act on ineffable hunch. But peremptory practice may serve a less noble function too: it may hide information that would otherwise discomfit, disguising guesses that grow unspeakable biases and crude group stereotypes.268 A corporation, for example, can bury its strategy to eliminate all women from a jury pool beneath a primary screen of “no reasons” and, if necessary, a range of thinly convincing lies.269 Here a process meant to root out unsettling information comes instead to conceal it. Here courts and parties

264. CASE, supra note 18, at 97–100.
265. KUNDA, supra note 250, at 115; see also id. at 148 (“People are more upset by negative outcomes when these result from exceptional behavior than they are when the identical outcomes result from routine behavior.”).
266. KIM LANE SCHEPPELE, LEGAL SECRETS: EQUALITY AND EFFICIENCY IN THE COMMON LAW 21, 76 (1988) (defining a shallow secret as one that only partly hides—that leaves the secret’s target with “at least some shadowy sense” that she is missing pertinent information).
268. See Babcock, supra note 107, at 544.
269. For a thoroughgoing account of lies in both public and private settings, see SISSELA BOK, LYING: MORAL CHOICE IN PUBLIC AND PRIVATE LIFE (1978).
participate in another "shallow secret."\textsuperscript{270} And here threatening knowledge is avoided all the same.

Spoliation captures the threatening nature of knowledge from the opposite side. It concentrates on tampering, not avoidance—on steps litigants take to purge unwelcome information, not on screens that conceal facts we might otherwise find. Spoliation rules prevent a corporation, for example, from destroying a damning set of email and from erasing unfavorable data, not from ignoring employees’ work-related complaints. Yet if this reaction is importantly different, the threatening lesson is largely unchanged: Information can discomfit because new facts surprise and disorient. Or it can discomfit because known facts put parties at risk.\textsuperscript{271} Rule 606(b) demands that the courts turn deaf ears to new-and-threatening facts when they emerge from the jury. Spoliation rules demand the preservation of known-but-risky facts within party control. In both contexts the knowledge is threatening. And in both contexts the threatening knowledge notion sheds light on the reach and reasons of an information rule.

Like the principle of least effort, of course, the threatening nature of knowledge remains only a theory. And like all theories its insights carry only so far. The threatening nature of knowledge says little about certain portions of our information architecture—like the own-statement provision of work product doctrine.\textsuperscript{272} And it offers but one way to assess a wide range of information rules. But the aim of this enterprise is not to suggest that any tentative IB theory can, or should, displace related claims about the impact of cognitive dissonance, the practice of information avoidance, or the notion that we search for facts in hypothesis-confirming ways. The aim is instead to support those studies with a novel IB toolset—and, in the process, to rethink a batch of longstanding rules. The threatening nature of knowledge does this. So too does the minefield of misestimation, a third and final IB theory.

3. The Minefield of Misestimation

Information may be what people make of it. But what people make of it can often be quite wrong. People overestimate the value of things they know.\textsuperscript{273}

\textsuperscript{270} S\textsc{chepp}e\textsc{le}, supra note 266, at 21.
\textsuperscript{271} See Bates, supra note 31, at 5.
\textsuperscript{272} Even more, rules like automatic disclosure may cut the opposite way, forcing parties to confront—and perhaps carefully engage—information that seems threatening. At this juncture, then, the law-IB link may seem to break apart. But I do not pretend that each IB theme explains every information rule. See S\textsc{k}l\textsc{ansky} & Y\textsc{ea}zell, supra note 19, at 737 ("A\textsc{ny} sentence that begins 'The goal of \textsc{X} is ...' \textsc{is} either vacuous or demonstrably false."); see also Z\textsc{ipf}, supra note 30, at ix ("\textsc{O}ur \textsc{t}heory ... \textsc{d}oes \textsc{not} \textsc{c}laim \textsc{e}ither \textsc{t}hat \textsc{n}o \textsc{t}heory \textsc{c}an \textsc{b}e \textsc{f}ound \textsc{t}hat \textsc{w}ill \textsc{a}lso \textsc{r}ationalize \textsc{o}ur \textsc{d}ata, \textsc{o}r \textsc{t}hat \textsc{n}o \textsc{o}ther \textsc{d}ata \textsc{w}ill \textsc{e}ver \textsc{b}e \textsc{f}ound \textsc{t}hat \textsc{d}o\textsc{n}t \textsc{c}ontro\textsc{v}ert \textsc{o}ur \textsc{t}he\textsc{ory}.'"). Nor do I claim that any partial theory can (or will) explain the whole. I claim only that IB may teach us something useful about our information system. And I argue only that the threatening nature sheds light on some information rules.
\textsuperscript{273} Bates, supra note 31, at 5.
They underestimate the value of things they do not know. In this sense, information is more than a "complicated business." It is a lasting source of cognitive hiccup and a minefield of misestimation.

That minefield is hardly exclusive IB terrain. Of the three IB themes detailed here, in fact, the minefield of misestimation seems most tightly joined to work done elsewhere: Daniel Kahneman and Amos Tversky have described the sway of heuristics on human decision making, the variety of biases that distort human judgment, and the role of uncertainty in Prospect Theory. Ziva Kunda has summarized the ways that "expectancies" ex ante influence recollections ex post. And Dan Simon has outlined two standard conceptions of legal decision making—and then crafted his own nuanced third.

Conventional models of legal decision making, Simon notes, split between the "Rationalist" and the "Critical"—the first seeing legal decision making as logical, Bayesian, and forward-moving, "strictly" tracking inferences built on "deductions, inductions, and analogies"; the second casting legal decision making as intuitive, Realist, and erratic, driven by experience, expedience, and "the felt necessities of the time." Simon’s alternative—what he calls "coherence-based reasoning"—takes a different tack. It suggests that people respond to "complex and difficult decision tasks," not by confronting them directly, but by unconsciously "reconstructing them" as "easy" calls. Central to this "coherence-based" view is its acceptance of "bidirectionality"—its recognition that decision makers employ both forward-focused (Rationalist) logic and backward-glancing (Critical)

274. Id.
275. See Case, supra note 18, at 154 (noting that some people are "oversensitive to the costs involved in acquiring information and undersensitive to issues of information quality").
278. Kunda, supra note 250, at 162.
279. See Simon, supra note 18.
280. Id. at 511–15. For a terrific and accessible discussion of Bayesian analysis—as well as its critics—see Friedman, supra note 19, at 2041–44. Bayesian skeptics, Professor Friedman notes, frame Bayesian analysis as "algorithmic," a "mechanical" process by which fact finders "ingest and digest the evidence one elemental piece at a time—byte by byte, so to speak—and update its probability estimates with each new ingestion." Id. But these "Bayesioskeptics," Friedman claims, oversate their criticisms and undervalue Bayesian tools. Nothing "requires" the assumption that Bayesian analysis proceeds "byte by byte," Friedman argues. Even more, in evidence law, Bayes may provide a "virtually inevitable tool." Id. at 2043–44.
281. See Simon, supra note 18, at 511–15 (citing Oliver Wendell Holmes, Jr., The Common Law 1 (1881)).
282. Id. at 512–13.
283. Id.
And central to this “coherence-based” view is the existence of “coherence shifts”—those mostly unconscious changes in a decision maker’s mindset that steer her away from ambiguity and “toward conformity.” Hard decisions here are reflexively transformed into “seemingly straightforward” choices, clear-cut judgments that a person can make with confidence and strength. Our loose-lipped juror does something different than compile and compare contradictory data. He “morphs” hard questions into easy ones, “shifts” unconsciously toward a set of simple answers, and filters evidence to support a conclusion he has already reached.

Similar patterns have been discussed in other places. Simon himself has explored “constraint satisfaction,” the idea that “the mind shuns incoherent representations and constructs coherent ones in their place.” Reid Hastie and Nancy Pennington have developed the “Story Model” of jury decision making, a theory suggesting that jurors build (internal) narrative structures and then organize evidence to fit those preset frames. And Thomas Shultz and Mark Lepper have explained how reductions in cognitive dissonance help instill a potent (if inaccurate) sense of mental consistency.

IB scholars have recorded something similar. They have charted a natural “drift toward” friendly data—a tendency to seek and consume a “diet of information that is mostly congruent with our [preset] beliefs.” These drifts and diets owe a debt to other disciplines, for they echo parts of what others


286. Id. at 513, 516–18.

287. Id. at 517, 524–28.

288. See Simon et al., supra note 284, at 816.


290. Shultz & Lepper, supra note 263, at 220; see also OLIVER WENDELL HOLMES, THE POET AT THE BREAKFAST-TABLE: His Talks With His Fellow-Boarders and the Reader 344 (1872) (“The very minute a thought is threatened with publicity it seems to shrink towards mediocrity . . . ”); Timothy D. Wilson & Nancy Brekke, Mental Contamination and Mental Correction: Unwanted Influences on Judgments and Evaluations, 116 PSYCHOL. BULL. 117, 117–18 (1994) (“[B]ecause of a lack of awareness of mental processes, the limitations of mental control, and the difficulty of detecting bias, it is often very difficult to avoid or undo mental contamination.”).

291. CASE, supra note 18, at 98.
have said before.292 But IB’s lessons are no less instructive for their roots in other places. And the minefield of misestimation is no less promising for its cross-cutting support. People do overestimate the value of things they know, underestimate the value of things they do not know, struggle to picture unknown information, and “under-invest” in searching for it too.293 The minefield of misestimation thus runs straight through the rarified world of legal decision making. It also sheds light on many information rules.

One such rule is automatic disclosure. More than any other information rule, in fact, automatic disclosure may unseat misestimation at its core. Civil parties, like ordinary people, are prone to misestimation: they overvalue facts they have gathered and underestimate the strength of contrary claims.294 Automatic disclosure confronts this misestimation bluntly and quickly. It forces parties to reveal facts they deem favorable and to face unfavorable data they might not have otherwise sought. Even more, it does so early in litigation, perhaps before parties embed their misestimations too deeply and the allure of their misimpressions grows too strong. A principal, if controversial, advantage of this process may be a confluence of party expectation: the corporation and the aggrieved employee, for example, may inch closer to settlement as their understandings of the facts converge.295 Another benefit may be better-informed counsel, even at the cost of some ethical strain. And though stubborn parties may get stuck in the minefield, automatic disclosure puts their self-delusion to good use. It permits litigants to drift toward favorable information—but also compels them to consider their adversaries’ best facts. It pits misestimation against misestimation in the hope of improved legal results.296

Rule 606(b) leverages misestimation in a different way. It discounts rather than discloses. It tells federal courts to ignore almost everything a juror might say about her deliberative processes—and so it keeps those facts undervalued because they stay unknown. Our legal system may find legitimacy in this self-created ignorance.298 And courts may cover their ears because they quietly

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292. See id. (recalling the work of Hyman and Sheatsley, Sears and Freedman, and others).
293. See Bates, supra note 31, at 5.
294. See, e.g., City of Vincennes v. Marland Refining Co., 33 F.2d 427, 432 (7th Cir. 1929) ("Unfortunately each side is prone to overestimate his or its ‘rights’ and to understate the strength of the other’s position."); Cassandra Burke Robertson, Judgment, Identity, and Independence, 42 CONN. L. REV. 1, 30 (2009) ("[T]hose who represented plaintiffs or defendants tended to overestimate the strength of their case and to underestimate the strength of their opponents’ case.").
295. See, e.g., Fiss, supra note 151, at 1073, 1075 (labeling settlement a “capitulation” that “should be neither encouraged nor praised”).
297. See id.; Brazil, supra note 6, at 1349; cf. ROBERT K. MERTON, SOCIAL THEORY AND SOCIAL STRUCTURE 457–60 (rev. & enlarged ed. 1965) (asking if different social experiences make parties incapable of understanding each other).
suspect the worst—jurors who act on preconceptions, disregard instructions, and use deliberation time to snort cocaine. But Rule 606(b) makes use of misestimation too: it encourages undervaluation by keeping information secret. By sealing facts inside the black box, that is, Rule 606(b) makes it easier to believe that those facts are insignificant—and so courts’ ears are that much easier to close.

Spoliation and work product doctrine may seem to do the opposite. They may seem to flip the unknown-is-undervalued trend over, giving opponent-held information a kind of inflated allure. The careful attorney may overinvest in uncovering her adversary’s facts, for example, not because those facts are absolutely critical, but because to her they are mysterious. But if legal information seekers act like occasional minefield anomalies, legal information holders are more conventional minefield stock: they tend to believe that they hold the most valuable information, and so they go to great lengths to control it, even when they are wrong. The corporation aims not just to keep its attorney’s advice confidential, for example, but to destroy pertinent documents. And the law permits the first half of this: work product shields attorney strategy; spoliation restricts only misestimation’s more destructive turns.

The law also invites litigants to stack their juries. And here peremptory challenges provide an obliging tool. But strategic use of peremptories remains at best imperfect, implicating misestimation as much as other information rules. One kind of peremptory misestimation concerns attorney capacity: lawyers may think they can determine who to strike and who to empanel, but they often overestimate their diagnostic skill. Almost half of the jurors challenged in one famous study would have helped, not hurt, the striking-party’s case. A second misestimation involves juror rigidity: attorneys may think they can prod and persuade jurors during trial, but they often underestimate how hard jurors are to shake. Silver-tongued attorneys will sometimes succeed in converting skeptical fact finders. And dogmatic jurors may find, on occasion, that their opinions can be changed. But peremptory challenges do less to allay misestimation than to exaggerate it. They invite litigants to trade in overconfident guesses—and then lend court sanction to their jury-stacking stabs.

301. Zeisel, supra note 111, at 1166 (“It turned out that about half of the jurors [that attorneys] challenged would have helped them.”).
302. See, e.g., Tormala & Petty, supra note 251, at 1298.
303. See Simon, supra note 18, at 544 (noting that “simple instruction[s]” can reduce juror stubbornness “substantially”).
304. See Zeisel, supra note 111, at 1166.
These guesses have their critics. And so too do the demands of automatic disclosure, the terms of work product doctrine, and the tight corners of the jury's black box. What follows puts this criticism in relevant context. It does not propose some fantastic project of legal renovation. Nor does it apologize for our information status quo. It instead surveys what might follow this initial IB-law engagement, asking where that engagement counsels caution and where it sounds the call for change.

C. A Caution and a Call

Recall, for a moment, the workplace dispute outlined earlier. There, an employee of a large corporation believed she had been fired, not for shoddy performance, but for rejecting the coarse advances of her longtime boss. In the legal drama that followed, the defendant-corporation considered destroying unfavorable email; dutiful attorneys disclosed a range of client-friendly data; and the corporation succeeded in striking almost every woman from the jury pool. That jury then delivered a verdict for the defendant, though perhaps not because of any shortcoming in the plaintiff's case: a loose-lipped juror came forward after the verdict to report a key misunderstanding—but he arrived too late to make much difference, for his account of muddled deliberations was by then off-limits to federal courts.

Elements of this story may be troubling. Some may flinch at the corporation's obvious cynicism, others at the juror's too-late admission, still more at the court's after-verdict inattention. But most of this story is sadly ordinary, which is precisely what it aims to be. The aggrieved employee's tale aims to be illustrative, not by its excess of drama, but by its lack of it—and in that way to raise real questions about the operation of real rules.

One of those questions concerns the state of current law. Recent calls for reform touch every information rule I have considered: Some propose a toughening of spoliation enforcement, others a retreat from automatic disclosure. Some argue for an end to peremptory challenges and work product doctrine, others for an opening of the jury's black box.

At least two of these appeals seem especially persuasive—and one oversold: putting teeth into spoliation enforcement seems wise as a matter of adjudicative accuracy and judicial integrity. Bringing an end to peremptory

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305. See, e.g., Hoffman, supra note 14.
306. See, e.g., Thornburg, supra note 13.
307. See, e.g., Nesson, supra note 38, at 806 ("Existing rules are more than adequate. But . . . judges are extremely reluctant . . . to punish discovery violations once exposed.").
308. See, e.g., Bell et al., supra note 62.
309. See, e.g., Hoffman, supra note 14.
310. Thornburg, supra note 13.
312. By putting teeth into spoliation enforcement, I mean something different than encouraging courts to draw more adverse inferences. Adverse inferences may weigh heavy in the minds of some
challenges seems right as a matter of civic misimpression and pessimistic stereotypes. And ending automatic disclosure seems wrong as a matter of adversarial balance and litigation surprise.

But what makes these prescriptions valuable is not their allure in doctrinal isolation. And what will render them unhelpful is to assume that they stand alone. All of these changes can, and should, be understood within an architectural context—as a part of a messy, elaborate, and interlocked system of information rules. It is not just spoliation’s peculiar lack of bite, for example, that urges the rule’s reinforcement. It is also the rule’s role in offsetting our system’s postverdict silence, its part in achieving some equality among adversaries, and its value in screening out the ugly effects of invalid misinformation. It is not just the dubious mechanics of peremptory challenges, in turn, that advise their abolition. It is also peremptories’ trade in invalid misinformation, their appeal to litigants’ baser information instincts, and their (apparent) non-contribution to our network of information rules. And it is not just automatic disclosure’s proaccuracy posture that favors its retention. It is also the doctrine’s counterpoint to unchecked adversarialism, its pushback against litigants’ self-serving impulses, and its front-end counterbalancing of our system’s back-end secrets.

Something outside the law can, and should, be considered here too. All of these changes should be assessed, that is, against the helpful lessons of LB. Spoliation bars should be fortified, for example, not simply because they help preserve pertinent evidence, but because they help preserve pertinent evidence, but because they help restrain parties’ least effort tendencies and restrict their destructive misestimations. Peremptory challenges

jurors, and some courts may believe them to be particularly harmful. See, e.g., Zubulake v. UBS Warburg LLC, 220 F.R.D. 212, 219 (S.D.N.Y. 2003) (“In practice, an adverse inference instruction . . . is too difficult a hurdle for the spoliator to overcome.”); see also Richard D. Friedman, Dealing with Evidentiary Deficiency, 18 CARDOZO L. REV. 1961, 1964 (1997) (“[M]issing evidence inference is extremely useful and powerful. Its strength lies in large part in its informality . . . .”). But given what the spoliator is likely to be hiding, an adverse inference may not seem like much of a sanction at all. To borrow Professor Sanchirico’s helpful summary, “A negative inference from spoliation seems no worse than the negative inference that the evidence would have inspired had it not been destroyed.” Sanchirico, supra note 11, at 1277 (citation omitted). Effective spoliation enforcement may thus require more than that—at least to dissuade the proverbial “Bad Man.” See Chris William Sanchirico, Detection Avoidance, 81 N.Y.U. L. REV. 1331, 1337 (2006) (“Sanctioning a given species of violation not only discourages that violation, it also encourages those who still commit the violation to expend additional resources avoiding detection. The greater the penalty, that is, the more imperative the cover-up.”) Still, it would not require the creation of an entirely new set of tools. Courts have sufficient tools already. See Nesson, supra note 38, at 797.

313. See, e.g., Hoffman, supra note 14 (worrying that current peremptory practice leaves jurors with a distorted and disappointing view of civil litigation). I do not mean to imply that this shift will be invariably costless. For parties bearing the burden of proof, in fact, the loss of peremptory strikes may prove particularly worrisome: one fluky or bitter juror, unhappy to be asked to serve, may grow to resent the entire process—and to focus her ire on the party responsible for starting that process at all.

314. See, e.g., Sklansky & Yeazell, supra note 19, at 737 (recalling the anti-surprise impetus of modern discovery rules). But see Huang, supra note 70, at 208 (arguing that automatic disclosure does little, if any, work).
should be abandoned because they cloak threatening knowledge too easily and endorse rank misestimations of lawyerly skill. And automatic disclosure should be defended because it steers our least effort instincts in useful directions and sets litigants’ self-serving misestimations against themselves.

My aim, to be clear, is not to set out a formula for informational paralysis. I do not mean to tie up every proposal for change in endless questions about rule-interactivity and IB theory. My aim is instead to refine our analytical lenses, to recall overlooked doctrinal interactions, to resist the allure of myopic tinkering, and to rethink the tally of victories and failures at the heart of our system of information rules.

That system may be doomed to untidy imperfection. Litigation’s central players will remain prone to IB errors. Cases will still turn on things other than valid information. Parties, jurors, and attorneys will still occupy conflicted legal roles. But our information rules, as a group, do some things well already: they strike a balance between accuracy and adversarialism; they provide an important dose of procedural equality; they acknowledge core notions of human information behavior; and they address many of those notions effectively too. The caution, then, is to proceed carefully in the quest to improve our information system. And the call is to ask, critically and comprehensively, how it may do better still.

CONCLUSION

Edson Sunderland may have been the first modern champion of American civil information. A lawyer by training and a reformer by trade, Sunderland was assigned, in 1935, the task of drafting the discovery provisions of the original version of civil procedure’s Federal Rules. The scope of Sunderland’s survey was expansive, and the breadth of his study shaped his project’s result: Sunderland’s “initial draft included every type of discovery [device] that was known in the United States and probably England up to that time.”

Not everything on that initial list took hold immediately. Sunderland’s version of mandatory civil disclosure, for example, would not enter federal courts until 1993. But if some of Sunderland’s proposals gained acceptance only recently, nearly all seem quite likely to endure. Sunderland’s roster of rules is now “familiar to [every] American litigator.” It guides civil litigation

315. Subrin, supra note 59, at 718.
316. Id.; see also id. at 702 (discussing the influence of George Ragland’s Discovery Before Trial on Sunderland and Charles Clark); Charles E. Clark, Discovery Before Trial, 42 YALE L.J. 988 (1933) (book review) (“Under modern practice...[discovery] should be freely available...”).
318. Subrin, supra note 59, at 718.
in federal and many state jurisdictions. And it has survived, mostly unaltered, from its very start.\textsuperscript{319}

Top scholars have read this endurance to require a kind of critical vigilance. They have looked at the various components of our information system, studied its pieces as stand-alone entities, and offered thoughtful suggestions for sometimes sizable change.\textsuperscript{320} But the story of Edson Sunderland offers more than a starting point for would-be rule reformers. And it recalls more than a familiar catalog of fragmented discovery tools. Sunderland’s story tells of an inclusive legal attitude. It urges resistance to doctrinal isolationism. And it invites integrated evaluation of our system of information rules.

This Article has accepted that invitation. It has suggested two crucial but largely unchronicled ways to expand our information outlook—one that tracks the tradeoffs and tensions built into our information system, another that establishes an early but enlightening link between the law and IB. Each way offers something useful without the other: rule interaction highlights the bargains and balances struck by seemingly unrelated doctrines; IB offers theories like the principle of least effort, the threatening nature of knowledge, and the minefield of misestimation. But rule interaction and IB do more still when put together: They show, for one, how our system of information antagonism—and not simply its pieces—anchors and accommodates the actions of those inside it. And they filter our system’s deepest commitments, not merely through a frame of (in)valid (mis)information, but through a screen of human information conduct.

In many ways, then, this Article is broad in its scope and ambition. It argues for a different way to understand how our information system now works. But this Article’s focus is also deliberately narrow. It does not attempt to consider every conceivable information doctrine, opting instead to present an illustrative handful. Nor does it try to recount every possible IB lesson, choosing instead to outline an essential few. More work should be done, then, on the influence of other doctrinal pieces—the lasting vitality of communication-hiding privileges, the public policy behind settlement-related silence,\textsuperscript{321} and the asymmetrical incentives of \textit{Miranda}\textsuperscript{322} and \textit{Brady}.\textsuperscript{323} And more should be learned too from IB—about how information might shape the law’s “communities of practice”\textsuperscript{324} and the ways behavior might change in response to clients’ “imposed queries.”\textsuperscript{325}

\begin{itemize}
  \item \textsuperscript{319} \textit{See id.}
  \item \textsuperscript{320} \textit{See supra} notes 303–306 and accompanying text.
  \item \textsuperscript{321} \textit{See FED. R. EVID. 408.}
  \item \textsuperscript{322} \textit{Miranda} v. \textit{Arizona}, 384 U.S. 436 (1966).
  \item \textsuperscript{323} \textit{Brady} v. \textit{Maryland}, 373 U.S. 83 (1963).
  \item \textsuperscript{324} Elisabeth Davies, \textit{Communities of Practice}, in \textit{THEORIES}, \textit{supra} note 17, at 104.
  \item \textsuperscript{325} Melissa Gross, \textit{The Imposed Query}, in \textit{THEORIES}, \textit{supra} note 17, at 164–65.
\end{itemize}
But if this Article aims in part to be a beginning, it also serves multiple ends. It studies five information rules—spoliation, automatic disclosure, work product doctrine, peremptory challenges, and juror testimony—with an eye toward how those rules work together and apart. It explores too-long unstudied doctrinal connections—like the link between automatic disclosure and Rule 606(b)—and then maps those connections along the values of accuracy, adversarialism, and equality. It fits old information rules into a novel typology, forging new and helpful distinctions among types of (in)valid (mis)information. And it unlocks a fresh source of information insight, introducing IB as a way to sound both a pessimistic caution and an optimistic call.

Those signs may leave some wanting. They may ring too timid and too limited against a whirl of such awkward compromise—a corporation made responsible for preserving evidence of its own wrongdoing, a careful attorney cast as victory-chasing partisan and truth-promoting neutral, a loose-lipped juror given ultimate decision-making power and then, soon after, ignored in court. But these compromises may reflect something more than legal accident or historical blunder. And the best response may involve something other than quick amendment of individual rules.

Some amendments may still be worth making. Spoliation doctrine, for example, seems to demand more vigorous enforcement. And peremptory challenges may have reached their long-anticipated end. But neither change can, or should, be seen in doctrinal isolation. And neither change can, or should, be made without a careful consideration of the ideas this Article brings into view—the rule-interactive overlaps built into our information system, and the lessons IB teaches about the ways information is sought and silenced, used and abused.

The issues here are pressing, the stakes of our choices high. Our civil process serves an indispensable function, finding solutions for disputes that might not otherwise be solved. We may choose to change that process piecemeal or to reform it by grand gesture. We may tinker at the margins or build new archetypes—and we have done both before. But whatever we do our choice will be significant. For information more than matters: it defines litigation and determines outcomes.

In many American courtrooms stands a figure of Lady Justice. With a scale in one hand and a sword in the other, this figure waits ready to decide and to discipline—to weigh the merits of our cases and to impose fair punishment. But Lady Justice also wears a blindfold. She may consider some information,

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326. Compare the recent restyling of the Federal Rules of Civil Procedure, see Levi, supra note 36, with the dramatic reshaping of civil litigation that the rules first occasioned almost seventy years ago, see Subrin, supra note 59, at 691 (“The Federal Rules discovery provisions dramatically increased the potential for discovery . . . ”); see also Kang, Cyber-Race, supra note 23, at 1136 (“The choice—of what we would like to achieve and how—is up to us.”); Sklansky & Yeazell, supra note 19, at 737 (“Civil procedure has gone into hypertrophy. The subject of multiple waves of change . . . ”).
but must stay ignorant of some too. Even now we may read this blindfold as something hopeful, even poetic—a sign that the law is unconcerned with what litigants look like and who the parties are. But we should also read this blindfold for something more prosaic, concrete, even information-bound. Real Justice depends on what it sees and what it misses. It depends on information lost and found.