

ERROR COSTS & IP LAW

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A court in doubt about an IP statute's scope can err in two ways. It can wrongly narrow the IP right's reach, or wrongly broaden it. The latter error, however, is worse: A wrongly broadened IP statute effectively creates new property and thereby diminishes the public domain and others' freedom of action. To correct erroneous broadening, unlike erroneous narrowing, the legislature must thus eliminate a now-established property right. And that is very hard to do. Courts cannot, of course, avoid making at least some mistakes. Courts can, however, prefer the mistakes that are easier, not harder, for the legislature to correct. This Essay explores this error-cost-based approach to IP statutes. The time is ripe for more effective interbranch dialogue on IP law, for the America Invents Act of 2011—comprising some of the most significant changes to patent law since the 1952 Patent Act—came fully into force in March 2013.

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In a case like this, in which Congress has not plainly marked our course, we must be circumspect in construing the scope of rights created by a legislative enactment which never contemplated such a calculus of interests.

*Sony Corp. v. Universal City Studios, Inc.*¹

* Professor, UGA Law School. © 2013 Joseph Scott Miller. My thanks for helpful feedback, to Diane Amann, Susan Davies, Graeme Dinwoodie, Rebecca Eisenberg, Paul Gugliuzza, Paul Heald, Hillel Levin, Jessica Litman, Bill McGeeveran, Rob Merges, Jim Speta, Connie Trela, and Christian Turner, as well as participants in both the Fall 2012 University of Michigan Law School IP Colloquium and the Spring 2013 Oxford University IP Invited Speaker Seminar Series.

Legislatures, with far more comprehensive responsibilities than any other official institution, are unlikely to stop to listen to demands for a change in the law unless it is plain that such a change is needed. This is unlikely to be plain unless a court has spoken.

Hart & Sacks²

I. INTRODUCTION

Imagine: A U.S. court, state or federal, confronts a new question about the substantive scope or application of an intellectual property (“IP”) statute. The court genuinely doubts which of the plausible answers better carries out the statute’s command. What role should the court’s doubt play in how it answers the question? Should the court candidly describe that role in the opinion explaining its judgment?

This question of judicial doubt about a legislative directive is at bottom a cross-branch question about error correction. And “the understanding of what a choice is *about* is of great importance to the making of a choice.”³ To cut to the chase: A court in doubt about the scope of an entitlement that an IP statute creates should choose the narrower scope for the IP right because that error—if error it be—is the easier one for a legislature to correct by subsequent amendment. The opposing error, providing a broader scope for the entitlement, effectively expands a property right at the expense of others’ free action in the public domain; and such an expansion, when in error, is much harder for a legislature to undo.⁴ Nor can courts simply ignore any IP-right-broadening error as harmless; they know that this excessive propertization can harm innovation just as readily as its opposite.⁵ In addition, it is vital for the court,

1. 464 U.S. 417, 431 (1984); *see also id.* at 430–31 (“Repeatedly, as new developments have occurred in this country, it has been the Congress that has fashioned the new rules that new technology made necessary.”).

2. HENRY M. HART, JR. & ALBERT M. SACKS, *THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW* 163 (William N. Eskridge, Jr. & Philip P. Frickey eds., 1994) (prepared for publication from 1958 Tentative Edition).

3. Gillian K. Hadfield, *Changing the Path of the Law*, in *THE PATH OF THE LAW AND ITS INFLUENCE* 278, 283 (Steven J. Burton ed., 2000).

4. Court correction of the error in a subsequent case is unlikely: U.S. courts apply *stare decisis* most vigorously in statutory cases. *See* John R. Sand & Gravel Co. v. United States, 552 U.S. 130, 139 (2008) (“Further, *stare decisis* in respect to statutory interpretation has ‘special force,’ for ‘Congress remains free to alter what we have done.’”) (quoting *Patterson v. McLean Credit Union*, 491 U.S. 164, 172–173 (1989)); *Patterson*, 491 U.S. at 172–73 (1989) (“[T]he burden borne by the party advocating the abandonment of an established precedent is greater where the Court is asked to overrule a point of statutory construction. Considerations of *stare decisis* have special force in the area of statutory interpretation, for here, unlike in the context of constitutional interpretation, the legislative power is implicated, and Congress remains free to alter what we have done.”); *see also* EDWARD H. LEVI, *AN INTRODUCTION TO LEGAL REASONING* 32–33 (1949); William N. Eskridge, Jr., *Overruling Statutory Precedents*, 76 *GEO. L.J.* 1361, 1362 (1988); Lawrence C. Marshall, “*Let Congress Do It*”: *The Case for an Absolute Rule of Statutory Stare Decisis*, 88 *MICH. L. REV.* 177, 181–82 (1989). It is, for the most part, legislative correction or bust.

5. *See, e.g.,* *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1301 (2012) (“[E]ven though rewarding with patents those who discover new laws of nature and the like might well encourage their discovery, those laws and principles, considered generally, are ‘the basic tools of scien-

having applied the statute more modestly, to explain both the particular basis for its doubt about the statutory text and its error-cost rationale for confining the right's reach. Such candor helps the legislature, and the interested public more generally, both to identify the possible need for a corrective amendment and to craft new statutory text that addresses the doubtful scope that the case, helpfully, exposed. Improving interbranch dialogue to produce better tailored IP laws is fitting, given that "[l]egislatures and courts are cooperative law-making bodies."⁶

Most IP law is now statutory.⁷ This Essay explores the foregoing error-cost approach by which to resolve especially challenging cases that turn on an IP statute's substantive scope. To focus discussion, I take as a given that legislatures make the primary choices of legal policy,⁸ includ-

tific and technological work.' And so there is a danger that the grant of patents that tie up their use will inhibit future innovation premised upon them . . .") (internal citation omitted) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) ("And as progress beginning from higher levels of achievement is expected in the normal course, the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts."); *Metro-Goldwyn-Mayer Studios Inc. v. Grokster Ltd.*, 545 U.S. 913, 928 (2005) ("The more artistic protection is favored, the more technological innovation may be discouraged; the administration of copyright law is an exercise in managing the tradeoff.").

6. LEVI, *supra* note 4, at 32; see also William N. Eskridge, Jr., *All About Words: Early Understandings of the "Judicial Power" in Statutory Interpretation, 1776-1806*, 101 COLUM. L. REV. 990, 992 (2001) (concluding that "Article III judges interpreting statutes are both agents carrying our directives laid down by the legislature and partners in the enterprise of law elaboration, for they (like the legislature) are ultimately agents of 'We the People'" (quoting U.S. CONST. pmbl.); Robert A. Katzmann, *Statutes*, 87 N.Y.U. L. REV. 637, 645-46 (2012) ("When a court interprets a statute, it articulates the meaning of the words of the legislative branch. . . . Although in a formal sense the legislative process ends with legislative enactment of a law, in their interpretative role courts inescapably become participants in that process.").

7. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 cmt. b (1995) ("Achieving a proper balance between protection and access is often a complicated and difficult undertaking. Because of the complexity and indeterminacy of the competing interests, rights in intangible trade values such as ideas, innovations, and information have been created primarily through legislation."). Of course, even in these heavily codified areas, courts continue to play a partnership role with legislatures—both because legislatures often frame IP statutes with open-textured language, and because the statutes are framed and construed against a rich common-law backdrop. See, e.g., *Bd. of Trs. of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 131 S. Ct. 2188, 2198-99 (2011) ("It would be noteworthy enough for Congress to supplant one of the fundamental precepts of patent law and deprive inventors of rights in their own inventions. To do so under such unusual terms would be truly surprising. We are confident that if Congress had intended such a sea change in intellectual property rights it would have said so clearly—not obliquely through an ambiguous definition of 'subject invention' and an idiosyncratic use of the word 'retain.'"); *Cmty. for Creative Non-Violence v. Reid*, 490 U.S. 730, 739-41 (1989) (construing the Copyright Act's definition of "work made for hire," 17 U.S.C. § 101, which uses the terms "employee" and "employment," according to common-law principles of agency, given the absence of any special definition for "employee" in the Act); Graeme B. Dinwoodie, *The Common Law and Trade Marks in an Age of Statutes*, in *THE COMMON LAW OF INTELLECTUAL PROPERTY* 331, 333 (Catherine W. Ng et al. eds., 2010) (noting trademark law's mix of "substantial legislative intervention" and "heav[y] dependen[ce] on common law law-making by the courts").

8. See RICHARD EKINS, *THE NATURE OF LEGISLATIVE INTENT* 9 (2012) ("The legislature is the pre-eminent lawmaking body in any good polity, as well as the central political institution, the deliberation and action of which is the focus of democratic political life."); HART & SACKS, *supra* note 2, at 1374 (concluding that a court construing a statute should "[r]espect the position of the legislature as the chief policy-determining agency of the society, subject only to the limitations of the constitution under which it exercises its powers"); James J. Brudney, *Canon Shortfalls and the Virtues of Political Branch Interpretive Assets*, 98 CALIF. L. REV. 1199, 1200 (2010) ("[O]ur separation-of-powers understanding [is] that in the statutory domain, federal courts are expected to act as agents of the politically

ing decisions about what counts as property and what does not. I also take as a given that courts play a unique role in identifying the fuzzy boundaries that IP statutes, like all statutes, are certain to have, as they resolve particular parties' specific disputes about a statute's meaning.⁹ (Legislatures cannot draft comprehensively for all current, much less all future, contingencies.¹⁰) As a result, both legislatures and courts are necessarily involved in the effective framing, application, and maintenance of our IP laws. Common sense suggests that a dialogue that respects and leverages their complementary institutional capacities is better than the alternative.¹¹ Courts can surely contribute to this dialogue by describing plainly their doubts about a murky bit of code that a case reveals, and opting for the reading that, should it prove incorrect by the legislature's lights, is the easier error for the legislature to correct.

The error-cost, or "decision theory,"¹² approach may at first appear strange in the IP context, but it should be familiar from the adjacent branch of the market-structuring legal order—namely, antitrust law.¹³ In antitrust, the Supreme Court has openly shaped doctrine, implementing quite broadly worded statutes, by carefully considering the relative costs of errors and administration that a given doctrine might embody.¹⁴ As I describe below, error-cost analysis plays out differently in the IP branch than in the antitrust branch, but the overall advantages for sound legal development are the same. Rumbblings of an error-cost approach to con-

accountable branches."); Cass R. Sunstein, *Interpreting Statutes in the Regulatory State*, 103 HARV. L. REV. 405, 437 (1989) ("[W]here there is neither interpretive doubt nor constitutional objection, the judgment of the electorally accountable branch should prevail.").

9. However clear a statute may be in its core applications, litigation about the statute comes to focus on uncertainties in its boundaries: "[T]he cases that come to a court are predominantly and disproportionately ones that are in some way hard." FREDERICK SCHAUER, *THINKING LIKE A LAWYER* 13 n.1 (2009); see also *id.* at 20, 22–23, 137 (explaining how litigated cases skew toward those where both sides have good legal arguments in their respective favors).

10. See FREDERICK SCHAUER, *PLAYING BY THE RULES: A PHILOSOPHICAL EXAMINATION OF RULE-BASED DECISION-MAKING IN LAW AND IN LIFE* 32–37 (Tony Honoré & Joseph Raz eds., 1991); Andrew Morrison Stumpff, *The Law is a Fractal: The Attempt to Anticipate Everything*, 44 LOY. U. CHI. L.J. 649, 650–53 (2013). The problem is inherent in any effort to fit words to real-world events, not merely in legislating. Indeed, Judge Posner makes a point about privately created duties similar to Prof. Stumpff's point about publicly created duties. See Richard A. Posner, *The Law and Economics of Contract Interpretation*, 83 TEX. L. REV. 1581, 1582 (2005) (observing that "contracts regulate the future, and [thus] interpretive problems are bound to arise simply because the future is unpredictable. Stated otherwise, perfect foresight is infinitely costly . . .") (footnote omitted).

11. See Katzmann, *supra* note 6, at 646 (highlighting "practical ways in which Congress may better signal its meaning, and how courts may better inform Congress of problems they perceive in the statutes they review").

12. See Alan Devlin & Michael Jacobs, *Antitrust Error*, 52 WM. & MARY L. REV. 75, 83 (2010) (defining "decision theory" as "the branch of microeconomics concerned with optimal choice in the presence of uncertainty"). "As applied to the formulation of legal rules, 'decision theory' considers the likely incidence and costs associated with false convictions (false positives) and false acquittals (false negatives)—collectively, error costs—as well as the costs of administering any particular rule." Andrew I. Gavil, *Moving Beyond Caricature and Characterization: The Modern Rule of Reason in Practice*, 85 S. CAL. L. REV. 733, 735 n.11 (2012).

13. See Christina Bohannon & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm*, 51 B.C. L. REV. 905, 906 (2010) ("Identifying the appropriate scope of IP protection is as much a question of competition policy as of patent or copyright policy.").

14. See generally Thomas A. Lambert, *The Roberts Court and the Limits of Antitrust*, 52 B.C. L. REV. 871 (2011).

struing IP statutes are faint in the Supreme Court's cases, but they do exist. In recent IP jurisprudence, they come primarily from Justice John Paul Stevens, the Court's leading antitrust-law figure¹⁵ at the time of his 2009 retirement.¹⁶ (I do not think it is a coincidence that Justice Stevens has used a familiar antitrust move in his IP opinions,¹⁷ even if he has, on occasion, been critical of the move in antitrust itself.¹⁸) Some IP scholars have applied decision theory's insights to explain the shape of trademark doctrine,¹⁹ and others to explain features of trade secret law,²⁰ but none has discussed the asymmetry—for relative ease of legislative correction—that separates broadening and trimming errors in the construction of IP statutes generally.

The time is ripe to consider a decision-theoretic approach to the way judges respond to uncertainty about an IP statute's boundary. The approach situates the judicial response in its broader institutional context, and in a way that can foster more productive interbranch dialogue.²¹ Indeed, "this framework offers great explanatory and normative force as an evaluative tool."²² The IP literature has taken an institutional turn, of late, and this Essay expands the menu of approaches.²³ Judges and advocates need as many helpful tools for navigating murky IP statutes as scholars can provide, especially now that the America Invents Act of

15. See Spencer Weber Waller, *Justice Stevens and the Rule of Reason*, 62 SMU L. REV. 693, 695, 697–700 (2009) (describing Justice Stevens' extensive background experience with antitrust law prior to his arrival at the Supreme Court).

16. *John Paul Stevens*, THE OYEZ PROJECT AT IIT CHICAGO-KENT C. OF L., http://www.oyez.org/justices/john_paul_stevens (last visited Oct. 9, 2013).

17. See Pamela Samuelson, *The Generativity of Sony v. Universal: The Intellectual Property Legacy of Justice Stevens*, 74 FORDHAM L. REV. 1831, 1832 (2006) ("Perhaps owing to his background as an antitrust lawyer, Justice Stevens views IP law as a limited statutory monopoly that must serve the public interest. He is skeptical of efforts by rights holders to extend their monopolies beyond the bounds set by the legislature.") (footnote omitted); *id.* at 1840 ("When Congress has not clearly expressed its intent to extend protection as far as a plaintiff would like, Justice Stevens tends to construe the monopoly right narrowly because of the impacts that broad rulings will have on competition, commerce, and public access to knowledge.").

18. See Lambert, *supra* note 14, at 929 (discussing Justice Stevens' concurrence-in-the-judgment in *Credit Suisse Sec. (USA) LLC v. Billing*, 551 U.S. 264 (2007)).

19. See Robert G. Bone, *Enforcement Costs and Trademark Puzzles*, 90 VA. L. REV. 2099, 2123 n.73 (2004); William McGeeveran, *The Trademark Fair Use Reform Act*, 90 B.U. L. REV. 2267, 2279 (2010).

20. See LYDIA PALLAS LOREN & JOSEPH SCOTT MILLER, *INTELLECTUAL PROPERTY LAW: CASES & MATERIALS* 27–28 (3d ed. 2012); Michael Risch, *Why Do We Have Trade Secrets?*, 11 MARQ. INTELL. PROP. L. REV. 1, 54–55 (2007).

21. Cf. Einer Elhauge, *Preference-Eliciting Statutory Default Rules*, 102 COLUM. L. REV. 2162, 2165 (2002) (arguing that "judges can and should still serve as honest agents for a democratic polity by responding to unclear legislative instructions with the use of statutory default rules that maximize the extent to which statutory results accurately reflect enactable political preferences," and that "when enactable preferences are unclear, often the best choice is instead a preference-eliciting default rule that is more likely to provoke a legislative reaction that resolves the statutory indeterminacy and thus creates an ultimate statutory result that reflects enactable political preferences more accurately than any judicial estimate possibly could").

22. McGeeveran, *supra* note 19, at 2279.

23. See, e.g., Paul R. Gugliuzza, *IP Injury and the Institutions of Patent Law*, 98 IOWA L. REV. 747, 749–50 & n.18 (2013) (collecting sources reflecting an institutional approach to patent law). Copyright scholars frequently deploy public choice theory, more or less formally, to analyze the contours of IP doctrine. See, e.g., JESSICA LITMAN, *DIGITAL COPYRIGHT* 14 (2001).

2011 (“AIA”) has come fully into force as of March 2013.²⁴ This sweeping set of amendments to the Patent Act of 1952 “completes a 30-year journey to remake, in their entirety, each of the foundational assumptions underlying the operation of the U.S. patent system.”²⁵ It is bound to confront courts with uncertain boundaries that only particular disputes will reveal.

The plan of the Essay is to lay out an error-cost approach to fixing an IP statute’s boundary in a case of doubt (Part II), next to consider the inchoate support for an error-cost approach that past IP cases offer (Part III), and then to examine the well-established support for error-cost analysis that antitrust doctrine provides (Part IV). Part V briefly concludes.

II. ERROR COSTS AND IP STATUTES

Among the provisions in the AIA is a new exclusion from patent protection. It states as follows: “Notwithstanding any other provision of law, no patent may issue on a claim directed to or encompassing a human organism.”²⁶ The example shows that Congress defines an IP right’s net scope by both affirmative provision and by defenses and exclusions. How far does this AIA exclusion reach? It would be easier to answer if the statute prohibited merely a patent claim *directed to* a human organism; the phrase “directed to,” which is common parlance for patent practitioners, indicates a patent claim that recites the subject matter in question.²⁷ But the statute also prohibits claims *encompassing* a human organism. How do such patent claims differ as a group, if at all, from claims directed to a human organism? Should a claim that recites a method for preserving frozen human embryos be held to encompass a human organism, i.e., to fall outside the reach of patentable subject matter? The statutory text’s boundary is unclear. There is legislative history on the provision,²⁸ but it is not especially illuminating for this hypothet-

24. See Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (defining the effective dates of various subsections of the act, ranging from immediately to eighteen months from the enactment date). The AIA’s general effective date was September 16, 2012. See *id.* § 35, 125 Stat. at 341. The Act provided numerous exceptions to this general date, however, and the effective date for the changes that move U.S. patent law from a first-to-invent to a first-to-file system was March 16, 2013. See *id.* § 3(n)(1), 125 Stat. at 293.

25. Robert A. Armitage, *Understanding the America Invents Act and Its Implications for Patenting*, 40 AIPLA Q.J. 1, 4 (2012). Specifically, “[i]t adopted the first-to-file system of determining a patent’s priority date, redefined what constitutes prior art against a patent, created several new post-issuance proceedings for patents and revised existing proceedings, and made many other important changes to the patent code.” Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 435 (2012). Indeed, “it arguably makes the most substantial changes to the law since those imposed by the Patent Act of 1836 . . . , which created the system of patent examination.” *Id.*

26. Leahy-Smith America Invents Act § 33(a), 125 Stat. at 340.

27. See, e.g., *Brilliant Instruments, Inc. v. GuideTech, LLC*, 707 F.3d 1342, 1344 (Fed. Cir. 2013) (“The ‘671 and ‘649 patent claims are directed to internal circuitry of a measurement circuit.”). Examples are legion. In Westlaw’s CTAF database of Federal Circuit opinions, in a search conducted April 7, 2013, the query “claim! /3 ‘directed to’” returned 1,163 hits.

28. See Matal, *supra* note 25, at 510–11 (discussing section thirty-three of the AIA).

ical claim. The point is not earthshattering, or even unfamiliar. Such fuzzy boundaries crop up in statutes all the time.²⁹

What should a court confronted with the putative frozen-human-embryo-preservation-method claim *do*? Strike down the claim based on a broad reading of the statutory exclusion, and it may be an error—specifically, a false negative. Uphold the claim based on a narrow reading of the statutory exclusion, and, again, it may be an error—this time, a false positive. How can one corral these possibilities? Forty years ago, then-Professor Richard Posner suggested a decision-theoretic approach to organizing and weighing the relevant options:

The purpose of legal procedure is conceived to be the minimization of the sum of two types of costs: “error costs” (the social costs generated when a judicial system fails to carry out the allocative or other social functions assigned to it), and the “direct costs” (such as lawyers’, judges’, and litigants’ time) of operating the legal dispute-resolution machinery.³⁰

What he called “direct costs” are now usually called “administrative costs,”³¹ but the same basic approach has become a fixture of legal analysis.³²

How does one minimize the sum of the administrative and error costs of determining a statutory IP right’s scope? Answering the statutory construction question in the case—what is the right’s substantive scope?—has a given level of administrative costs. These costs derive from the conventional methods of statutory construction, which look to text, context, purpose, precedent, and consequence.³³ The costs affect

29. My example is simply a variation on the Hart/Fuller Debate’s famed “no vehicles in the park” problem. See generally Frederick Schauer, *A Critical Guide to Vehicles in the Park*, 83 N.Y.U. L. REV. 1109 (2008). Here, it is “no humans in the patent claim.” For another pointer to this patch of the AIA, see Dan L. Burk, *Patent Reform in the United States: Lessons Learned*, REG., Winter 2012–13, at 20, 24.

30. Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399, 399–400 (1973).

31. See, e.g., McGeeveran, *supra* note 19, at 2279 (“Decision theory suggests that in all subject areas, two types of costs are associated with the structure of legal doctrine: administrative costs (also sometimes called legal process costs or information costs) and error costs.”).

32. *Id.* (“Many legal scholars have borrowed a ‘decision theory’ model from economists to evaluate the optimal form of legal commands.”).

33. See, e.g., *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 1351, 1358 (2013) (“In our view, [Copyright Act] § 109(a)’s language, its context, and the common-law history of the ‘first sale’ doctrine, taken together, favor a *non*-geographical interpretation. We also doubt that Congress would have intended to create the practical copyright-related harms with which a geographical interpretation would threaten ordinary scholarly, artistic, commercial, and consumer activities. We consequently conclude that Kirtsaeng’s nongeographical reading is the better reading of the Act.”) (citation omitted); *Lozman v. City of Riviera Beach*, 133 S. Ct. 735, 741 (2013) (construing the definition of “vessel” in 1 U.S.C. § 3, and concluding that its “view of the statute is consistent with its text, precedent, and relevant purposes”). The literature on statutory construction methods features its share of pitched battles. There is, however, widespread agreement about the principal sources and methods for statutory construction, both among judges and commentators. The continuing debates are intense, but they are closer to the fringe than the core, or touch on variations of emphasis. Compare Jonathan T. Molot, *The Rise and Fall of Textualism*, 106 COLUM. L. REV. 1, 3 (2006) (“On one hand, textualism has so succeeded in discrediting strong purposivism that it has led even nonadherents to give great weight to statutory text. On the other hand, textualists have been so successful in updating their own philosophy, and in distinguishing modern textualism from the old ‘plain meaning’ school, that textualists

both litigants (who must gather and synthesize the necessary information) and judges (who must process it to a conclusion). And, at any given level of administrative cost, some errors are bound to remain. One could focus on the tradeoff between administrative and error costs—which are generally inversely proportional³⁴—by exploring different statutory construction strategies. That is not my focus here.

Consider, instead, the error-cost term in the sum we seek to minimize. Two insights are critical here. *First*, there is no reason—with one exception—to expect false positives to outnumber false negatives, or vice versa, purely on the basis of one’s chosen approach to statutory construction.³⁵ For example, reliance on dictionaries or semantic canons to construe a disputed word or phrase, or on other portions of the IP statute under review for context, or on its legislative history for insight about the statute’s purpose, will not systematically make a false positive less likely at the same time it leaves the likelihood of a false negative unchanged (or worse, increased). The point is important, because cost minimization should take account of the relative frequencies of errors, as well as their magnitude.³⁶ Here, the errors occur equally frequently, so far as a given set of statutory construction sources and methods is concerned.

Second, false positives (erroneous grants of an IP entitlement) are systematically more costly than false negatives (erroneous denials of an IP entitlement). Specifically, false positives are more costly to correct through legislative amendment than are false negatives. The reasons for the differential are both formal and practical. The common thread connecting the reasons is that, unlike false negatives, false positives generate property rights. I consider these differential costs of error correction in more detail, before discussing some likely objections.

themselves will consider a statute’s context as well as its text. Given that nonadherents and adherents of textualism alike place great weight on statutory text and look beyond text to context, it is hard to tell what remains of the textualism-purposivism debate.” (footnote omitted), with John F. Manning, *What Divides Textualists from Purposivists?*, 106 COLUM. L. REV. 70, 75 (2006) (“[B]ecause modern textualists understand that the meaning of statutory language (like all language) depends wholly on context, their asserted distinction between enacted text and unenacted intentions or purposes is somewhat imprecise. In any case posing a meaningful interpretive question, the very process of ascertaining textual meaning inescapably entails resorting to extrastatutory—and thus unenacted—contextual cues.”).

34. McGeveran, *supra* note 19, at 2280.

35. The exception is the Supreme Court’s use of a clear statement rule that disfavors giving the Patent Act extraterritorial effect. See *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 454–55 (2007) (“The presumption that United States law governs domestically but does not rule the world applies with particular force in patent law.”); *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531–32 (1972) (applying the rule). Policy canons such as this “put thumbs on the scale in favor of certain substantive policies.” CALEB NELSON, *STATUTORY INTERPRETATION* 82 (2011). This clear statement rule pushes the Patent Act cases it governs in favor of false negatives—the same direction, I argue, that should apply generally to IP statutes of doubtful scope. The approach I explain here, then, subsumes the presumption against extraterritorial effects for doubtful Patent Act provisions.

36. McGeveran, *supra* note 19, at 2280; see also Devlin & Jacobs, *supra* note 12, at 97–98 (explaining the importance of accounting for an error’s frequency as well as its magnitude when estimating the error’s total social cost).

A. *The Higher Costs of Correcting False Positives*

The *formal* cost driver when correcting a false positive legislatively is the Fifth Amendment's prohibition on uncompensated takings of private property.³⁷ A legislature can, of course, amend an IP statute to narrow rights without raising a takings issue if the amendment applies purely prospectively.³⁸ But that prospective change leaves in place a group of IP rights that, so far as the legislature is concerned, ought never to have existed. To *fully* correct *that* mistake, the legislation would need to apply retroactively, either extinguishing the IP grants outright or—what amounts to the same thing—declaring them unenforceable against any and all parties.³⁹ Legislation could achieve *partial* correction if it applied retroactively and trimmed some, but not all, of the IP owner's rights.⁴⁰

Canceling a property right, in whole or in part, raises a formal legal concern about takings. With respect to the total abrogation of an IP right, in particular, there is no Supreme Court case that answers the question definitively.⁴¹ There is, however, reason to think that such an outright legislative cancellation of an existing group of IP rights could constitute an unconstitutional taking if the cancellation were not compensated.⁴² One can analogize the cancellation to cases in which the

37. See U.S. CONST. amend. V (“[N]or shall private property be taken for public use, without just compensation.”). “Th[is] Clause is made applicable to the States by the Fourteenth Amendment.” *Kelo v. City of New London*, 545 U.S. 469, 472 n.1 (2005).

38. See, e.g., 35 U.S.C. § 287(c)(4) (2006) (limiting a newly created infringement defense so that it applies purely prospectively to patents maturing from applications filed after its enactment).

39. Corrective legislation, completely and fully to eliminate the mistake, should arguably include a one-shot repayment to the defendant(s) who lost against the assertion of the improvidently recognized right (covering attorney fees, damages paid, etc.).

40. See, e.g., 35 U.S.C. § 273 (providing a tightly confined “prior user” defense to patent infringement). For the Supreme Court’s view of the significance of § 273’s enactment, see *Bilski v. Kappos*, 130 S. Ct. 3218, 3228–29 (2010).

41. See DAVID A. DANA & THOMAS W. MERRILL, PROPERTY: TAKINGS 233 (2002) (“The application of the Takings Clause to intellectual property . . . has not yet been seriously tested in the courts.”). *But see* Adam Mossoff, *Patents As Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689, 691 (2007) (arguing that “long-forgotten nineteenth-century jurisprudence in the Supreme Court and in lower federal courts . . . show[s] that jurists once enthusiastically held that patents were protected under the Takings Clause”).

42. See DANA & MERRILL, *supra* note 41, at 239 (“If the government were to transfer title in a patent to itself, or if it were to destroy an intellectual property right (as allegedly occurred with respect to the trade secret information in [*Ruckelshaus v. Monsanto*], 467 U.S. 986 (1984)), then there is no doubt this would constitute a taking.”); *see also Ruckelshaus*, 467 U.S. at 1003–04 (“We therefore hold that to the extent that Monsanto has an interest in its health, safety, and environmental data cognizable as a trade-secret property right under Missouri law, that property right is protected by the Taking Clause of the Fifth Amendment.”); *id.* at 1012 (“This Court has stated that a sovereign, ‘by ipse dixit, may not transform private property into public property without compensation This is the very kind of thing that the Taking Clause of the Fifth Amendment was meant to prevent.’”) (quoting *Webb’s Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 164 (1980)); *James v. Campbell*, 104 U.S. 356, 357–58 (1881) (“That the government of the United States when it grants letters-patent for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser, we have no doubt.”).

courts have held governmental elimination of the right to exclude,⁴³ or governmental elimination of all economically beneficial use of the property,⁴⁴ to be a taking per se. Indeed, the Supreme Court, in a recent decision summarizing decades of takings cases, described the “classic taking” as one “in which government directly appropriates private property or ousts the owner from his domain.”⁴⁵ On the other hand, IP rights are personalty,⁴⁶ not realty, and even quite severe curtailments of rights in personalty have withstood takings challenges.⁴⁷ The courts may thus choose to scrutinize legislative curtailment—even outright elimination—of a class of IP rights under the ad hoc balancing test from *Penn Central*.⁴⁸ That 1978 decision established the prevailing standard for evaluating the claim that a regulation goes so far in readjusting the benefits and burdens of ownership that it amounts to a compensable taking.⁴⁹ The outcome of ad hoc balancing is, of course, difficult to predict.⁵⁰ A legislature that wants to fix a wrongly broadened IP statute may be turned from its goal by the strictures of the Fifth Amendment—about which more in a moment. Alternatively, if the legislature forges ahead to extinguish the improvidently created rights *and* to compensate the rights holders, thus avoiding the takings problem, it has unquestionably undertaken a more costly venture than legislative correction of the corresponding false negative.

The *practical* obstacle to correcting a false positive legislatively is rooted in an interest-group story.⁵¹ When a court decision establishes, incorrectly, an IP entitlement, the false positive calls into being a focused

43. See *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 441 (1982) (imposition of a cable TV wiring easement on a private apartment building); *Kaiser Aetna v. United States*, 444 U.S. 164, 179–80 (1979) (imposition of a navigational easement on a private bay).

44. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019 (1992) (imposition of a building ban on beachfront land).

45. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005); see also *Brown v. Legal Found. of Wash.*, 538 U.S. 216, 235 (2003) (using “a *per se* approach,” rather than *Penn Central* balancing, because “the transfer of the interest [earned in lawyer IOLTA accounts] to the Foundation here seems more akin to the occupation of a small amount of rooftop space [struck down] in *Loretto*”).

46. See, e.g., 17 U.S.C. § 201(d) (2006); 35 U.S.C. § 261.

47. See *Lucas*, 505 U.S. at 1027–28 (“[I]n the case of personal property, by reason of the State’s traditionally high degree of control over commercial dealings, [an owner] ought to be aware of the possibility that new regulation might even render his property economically worthless (at least if the property’s only economically productive use is sale or manufacture for sale.)”; *Andrus v. Allard*, 444 U.S. 51, 65–67 (1979) (concluding that imposition of a ban on eagle feather sales does not effect a taking).

48. *Penn Cent. Transp. Co. v. N. Y. City*, 438 U.S. 104, 123–26 (1978).

49. See *Lingle*, 544 U.S. at 539 (“The *Penn Central* factors—though each has given rise to vexing subsidiary questions—have served as the principal guidelines for resolving regulatory takings claims that do not fall within the physical takings or *Lucas* rules.”). “Under this test, the Court balances (1) the economic impact of the regulation and (2) its interference with the owner’s reasonable investment-backed expectations against (3) the nature of the government’s action.” Daniel A. Lyons, *Virtual Takings: The Coming Fifth Amendment Challenge to Net Neutrality Regulation*, 86 NOTRE DAME L. REV. 65, 90 (2011).

50. See David Crump, *Takings by Regulation: How Should Courts Weigh the Balancing Factors?*, 52 SANTA CLARA L. REV. 1, 2–5 (2012); see also Lyons, *supra* note 49, at 90 (observing that *Penn Central* balancing “offers maddeningly little predictability or consistency across cases”).

51. See generally Einer R. Elhauge, *Does Interest Group Theory Justify More Intrusive Judicial Review?*, 101 YALE L.J. 31 (1991).

interest group for resisting any subsequent legislative correction. In other words, the judicial decision ratifying the claim that the IP statute in question creates a right also spotlights new rights holders, who thereafter form an incumbent group. Relative to the general public, which might want to correct the false positive, these rights holders—who stand to lose most directly from a legislative correction to the statute—constitute a smaller, more easily organized group. As a result, the newly anointed rights holders are likely to be more effective at influencing the legislative process than those who might seek to correct the statute.⁵² This is especially so where, as here, the interest group need only *stop* legislation, i.e., protect the new status quo by vetoing change, to prevent error correction. Traditional U.S. bicameralism-and-presentment lawmaking, at the state and national levels, has many veto points for our imagined rights holders to exploit.⁵³ Of course, with a statute about a different sort of right, considering the cost of error correction might point one away from, rather than toward, favoring false negatives. For example, with a small claim under a vague consumer-protection statute, one might conclude that a false positive (in favor of the consumer's claim) is easier to correct, inasmuch as the defendant producers in the relevant sector may well be far fewer in number and far better organized for repeat play to pursue legislative correction.⁵⁴ With IP statutes, however, courts should avoid property-generating false positives.

One powerful argument that the new group of judicially ratified rights holders will have at their disposal to better oppose legislative amendment is an informal version of the formal legal argument described above—namely, that the sought-for abrogation of the newly identified right is an unconstitutional taking unless it is accompanied by compensation. “People care about property—a lot.”⁵⁵ As a result, an anti-correction interest group can wield this property-based rhetoric to great effect, even if the ultimate legal fate of a formal takings claim would be uncertain.⁵⁶ In the middle inning of the famed *Sony v. Universal* home-

52. The power of an incumbent group is significant even where the status quo does *not* include a property-right grant, and thus the change merely exposes incumbents to new entrants or to more flexible (rather than frozen) rate-setting mechanisms. See Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CALIF. L. REV. 1293, 1296 (1996) (highlighting this contrast between statutory licenses and privately organized licensing bodies); Thomas W. Merrill, *Explaining Market Mechanisms*, 2000 U. ILL. L. REV. 275 (2000) (discussing transitions from command-and-control to market-based environmental regulation). With the formal and practical power of a *property* claim in their favor, however, the newly created anti-correction incumbents hold a uniquely commanding position indeed.

53. See, e.g., Aziz Z. Huq, *Structural Constitutionalism as Counterterrorism*, 100 CALIF. L. REV. 887, 918–19 (2012) (discussing the structural asymmetry); Gillian E. Metzger, *Embracing Administrative Common Law*, 80 GEO. WASH. L. REV. 1293, 1322–23 (2012) (describing obstacles created by congressional structure and internal procedure).

54. See Sunstein, *supra* note 8, at 478 (discussing this type of regulatory scenario).

55. David Fagundes, *Property Rhetoric and the Public Domain*, 94 MINN. L. REV. 652, 652 (2010).

56. See Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 895–903 (1997) (exploring the rhetorical power of “property” talk in the IP context); Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in*

taping case, about which I offer more thoughts below,⁵⁷ the plaintiff studios wielded this very rhetorical cudgel about takings.⁵⁸ Although defendant equipment maker Sony won at trial, the copyright plaintiffs won in the Ninth Circuit, which held in October 1981 that the VCR seller was contributorily liable for the copyright infringement of end-users who were taping broadcast television programs at home.⁵⁹ The initial legislative response was swift: “The following day, members of Congress introduced legislation in both the House and the Senate to legalize home video recording.”⁶⁰ At a “special hearing in Los Angeles” in April 1982 to consider multiple bills that would have abrogated the Ninth Circuit’s broad construction of the Copyright Act in favor of copyright owners,

[t]he motion picture industry’s chief lobbyist, Jack Valenti, was the first witness. He appeared armed with a 49 page legal memorandum authored by Harvard law professor Larry Tribe, which argued that any law that exempted home videotaping from liability for copyright infringement would be an unconstitutional taking of private property in violation of the Fifth Amendment.⁶¹

The legislation was overtaken by subsequent events in the case: “On June 14, 1982, the Supreme Court agreed to hear the *Sony* case, and members of Congress sat back to wait and see what the Court would do.”⁶² After the Supreme Court overturned the Ninth Circuit’s decision and absolved Sony of copyright infringement liability, the draft liability-exemption bills opposed on takings grounds were moot. Congress has never amended the Copyright Act to overturn *Sony*.⁶³

Intellectual Property Law?, 38 CATH. U. L. REV. 365, 395–99 (1989) (same). This far greater formal and rhetorical power of a property-based claim is the reason why the error-cost analysis does not, in my view, simply reduce to a preference for the claimant with lower estimated post-adjudication lobbying power.

57. See *infra* notes 113–25 and accompanying text.

58. Professor Litman covers all facets of the *Sony* case in her comprehensive account. Jessica Litman, *The Story of Sony v. Universal Studios: Mary Poppins Meets the Boston Strangler*, in INTELLECTUAL PROPERTY STORIES 358 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006).

59. *Id.* at 362–64.

60. *Id.* at 365.

61. *Id.* The Tribe Memo is reprinted in a set of materials from the Senate Judiciary Committee hearings on the same topic. See Laurence H. Tribe, *Memorandum of Constitutional Law on Copyright Compensation Issues Raised by the Proposed Congressional Reversal of the Ninth Circuit’s Betamax Ruling* (Dec. 5, 1981), reprinted in *Copyright Infringements (Audio and Video Recorders): Hearings on S. 1758 Before the S. Comm. on the Judiciary*, 97th Cong. 78–128 (1982). Professor Tribe argued that, on one hand, “the pending bills take from the copyright owners the very essence of their property: the exclusive right to control who may copy their work and profit from its reproduction”; while, on the other hand, “none of the contemplated bills take the next step—a step this memorandum argues that the Fifth Amendment to the Constitution requires—because none of the bills ensures compensation to the owners of existing copyrights for the valuable property that the bills take away.” *Id.* at 81 (page 2 of the typescript memo). The important question here is not whether Tribe was right, but rather whether this type of argument is strong enough to help slow or stop legislative correction of a judicial false positive. At least in 1982, paid lobbyists thought the answer to this latter question was “yes,” at least to a confidence level that justified obtaining a written opinion on the matter from a recognized leader in the field from one of the nation’s most distinguished law faculties.

62. Litman, *supra* note 58, at 366.

63. According to Prof. Litman’s account, “[t]he motion picture industry vowed to overturn the decision in Congress, but found little enthusiasm in the Senate and House for imposing a copyright tax on videocassette recorders or blank tapes.” *Id.* at 383.

B. Harmless Error or Policy Delegation?

To recap, the design goal is to minimize the sum of the statutory construction decision's administrative costs and error costs. Assume a conventional approach to statutory construction, which fixes the administrative-cost term. Assume, also, that the court is in genuine doubt as to which plausible answer about statutory scope is right. If false positives and false negatives are equally likely, and false positives have higher correction costs than false negatives, the court minimizes the sum of the costs by preferring false negatives to false positives, i.e., by rejecting the claim to an IP entitlement. Correct denial needs no legislative amendment, and incorrect denial is less costly to correct. In other words, when in doubt about the IP statute's scope, a court should adopt the property-right-denying construction.

"But wait," one might object, "in the IP context, false positives merely generate harmless extra property rights, whereas false negatives harmfully reduce the incentive to innovate." The flaw in this harmless-error objection is that it reflects but one strand in a vigorous, ongoing debate about the circumstances in which the IP strategy—conferring an exclusion right on a private party to encourage parties to invest in generating new information⁶⁴—is a net benefit for innovation. The debate runs the gamut from enthusiastic propertization⁶⁵ to IP abolitionism,⁶⁶ hitting many points in between.⁶⁷ It has, in its contemporary form alone, generated a sprawling literature, which there is no need to canvass here. Three facets of the larger policy terrain are germane to the error-cost approach to construing IP statutes of doubtful scope. First, for products of the mind, free and fair competition—not state-conferred exclusion rights—is the default rule for our economy: "In general, unless an intellectual property right such as a patent or copyright protects an item, it will be subject to copying."⁶⁸ Second, within the IP-strategy frame, the

64. See Amy Kapczynski, *The Cost of Price: Why and How to Get Beyond Intellectual Property Internalism*, 59 UCLA L. REV. 974–75 (2012) (describing the basic IP strategy). For a more general description, see Thomas W. Merrill, *The Property Strategy*, 160 U. PA. L. REV. 2061, 2062–63 (2012) (describing "property [a]s a distinctive strategy for determining how resources will be used and by whom," in which "[s]pecific resources are assigned to designated persons who have unique prerogatives in dealing with the resource relative to all other persons in the relevant normative community").

65. See, e.g., Richard A. Epstein, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455, 521 (2010).

66. See, e.g., MICHELE BOLDRIN & DAVID K. LEVINE, AGAINST INTELLECTUAL MONOPOLY 7 (2008). Boldrin and Levine carve out trademark, training their fire on patent and copyright. *Id.* By contrast, in this paper, I do not differentiate among patent, copyright, trademark, or trade secret law.

67. Perhaps the most amusing point, suspended in a sort of policy midair, is the conclusion that economist Fritz Machlup reached, as to patent law, in his 1958 report to Congress:

If we did not have a patent system, it would be irresponsible, on the basis of our present knowledge of its economic consequences, to recommend instituting one. But since we have had a patent system for a long time, it would be irresponsible, on the basis of our present knowledge, to recommend abolishing it.

STAFF OF S. COMM. ON THE JUDICIARY, 85TH CONG., AN ECONOMIC REVIEW OF THE PATENT SYSTEM 80 (Comm. Print 1958) (Fritz Machlup).

68. *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29 (2001); see also *Int'l News Serv. v. Associated Press*, 248 U.S. 215, 250 (1918) (Brandeis, J., dissenting) ("The general rule of law is, that

merits of commons-enclosing propertization over free competition are deeply situation-specific.⁶⁹ Legislatures can reasonably strike a different balance between property and free use for different times and places.⁷⁰ Third, the IP strategy is not the only tool policy makers can use to foster scientific and cultural production; legislatures can also create grants for basic research, sponsor goal-defined prizes, and rely on commons-based production.⁷¹ A legislature is surely entitled to conclude, in view of these predicates, that a court's false positive for a given statute would harm a given legislative policy project as much as, or more than, would a false negative. Correspondingly, for its part, a court cannot simply assume that, in any given IP case of uncertain statutory scope, the legislature would deem an erroneous broadening of the entitlement to be harmless and an erroneous narrowing of the entitlement to be harmful. The Supreme Court, in any event, certainly does not make that assumption.⁷²

the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communication to others, free as the air to common use.”); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 1 cmt. a (1995) (“The freedom to engage in business and to compete for the patronage of prospective customers is a fundamental premise of the free enterprise system.”); *id.* § 38 cmt. b (“[T]he law has long recognized the right of a competitor to copy the successful product and business methods of others absent protection under patent, copyright, or trademark law.”); WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY* LAW 23 (2003) (“If someone has the bright idea that a particular intersection is a good location for a gas station, and builds one at one corner of the intersection, he cannot prevent someone else from appropriating his idea by building a gas station at the opposite corner. A fundamental principle of American law is that competition is not a tort, that is, an invasion of a legally protected right. Freedom to imitate, to copy, is a cornerstone of competition and operates to minimize monopoly profits.”).

69. Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1060 (2005) (“While there is substantial debate about how best to promote innovation—through the control of monopoly or the spur of competition—there is substantial evidence that, at least in some industries, competition is a stronger spur to innovation.”) (footnote omitted); *see also* BRETT M. FRISCHMANN, *INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES* 275–305 (2012); Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 277 (2007); Mark A. Lemley & Lawrence Lessig, *The End of End-To-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 960–61 (2001); Tim Wu, *Intellectual Property, Innovation, and Decentralized Decisions*, 92 VA. L. REV. 123, 125–26 (2006).

70. *See, e.g.*, 15 U.S.C. § 1125(c)(3)(A)(i) (2006) (exempting comparative advertising from trademark dilution liability); 17 U.S.C. § 109 (exempting a consumer's resale activity from a copyright owner's distribution right, while at the same time fencing off phonorecord and software rentals from the benefit of the exemption); 35 U.S.C. § 271(e)(1) (exempting specified research uses from patent infringement liability).

71. *See* Kapczynski, *supra* note 64 (exploring these alternative mechanisms).

72. *See supra* note 5; *see also* eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 396–97 (2006) (Kennedy, J., concurring) (“An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees. For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent. When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest. In addition injunctive relief may have different consequences for the burgeoning number of patents over business methods, which were not of much economic and legal significance in earlier times.”) (citations omitted).

An “intersystemic adjudication”⁷³ variant on the harmless-error objection also appears flawed, albeit for a different reason. Federal courts can decide questions of state IP law, including unsettled questions, on grounds of either diversity or supplemental jurisdiction.⁷⁴ State courts can decide unsettled questions of federal trademark law under concurrent jurisdiction⁷⁵ and unsettled questions of a sister state’s IP law under choice-of-law principles. As a result, both federal and state courts can find themselves construing an IP statute of doubtful scope, knowing—at the same time—that they are not the last judicial word on the scope of that statute.

In a diversity or supplemental jurisdiction case, a federal court must predict, as best it can, how the relevant state supreme court would construe the statute in question.⁷⁶ But the state supreme court is not bound by that federal determination.⁷⁷ Similarly, a state-court construction of federal law is subject to review by the Supreme Court of the United States but is not binding on any federal court, and a sister state supreme court is not bound by another state’s construction of its statutes or of federal statutes. A court in such a situation, whether state or federal, may conclude—if it considers the matter at all—that it need not be as concerned about an erroneous construction of a different system’s IP statute as it would be with a statute of its own. After all, no one is (seriously) bound by the adjudicating court’s construction. But an intersystemic-adjudication error *is* costly to correct. Consider, for example, a federal court that has wrongly broadened a state trade-secret statute. Parties in a position to benefit from the decision, with a newly expanded sort-of-right, can use the federal decision as leverage in future dealings with others and as persuasive authority in other courts. Should anyone seek to amend the state statute to rule out the construction adopted in the federal case, i.e., to remove that leverage, however, the same parties can oppose the amendment by asserting to state legislators that the federal decision does not actually bind anyone. There is, in other words,

73. See Robert A. Schapiro, *Interjurisdictional Enforcement of Rights in a Post-Erie World*, 46 WM. & MARY L. REV. 1399, 1400 (2005) (defining “intersystemic adjudication” as “the interpretation by a court operating within one political system of laws of another political system”).

74. 28 U.S.C. § 1332 (diversity); 28 U.S.C. § 1367 (supplemental).

75. Federal court jurisdiction of patent law and copyright law matters is exclusive of the states, but concurrent as to federal trademark law. See 28 U.S.C. § 1338(a); see also *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 275 (1997) (“For purposes of the Supremacy Clause, it is simply irrelevant whether the claim is brought in state or federal court. Federal courts, after all, did not have general federal-question jurisdiction until 1875. Assuming the availability of a state forum with the authority and procedures adequate for the effective vindication of federal law, due process concerns would not be implicated by having state tribunals resolve federal-question cases.”); *Tafflin v. Levitt*, 493 U.S. 455, 458 (1990) (“[U]nder our federal system, the States possess sovereignty concurrent with that of the Federal Government, subject only to limitations imposed by the Supremacy Clause. Under this system of dual sovereignty, we have consistently held that state courts have inherent authority, and are thus presumptively competent, to adjudicate claims arising under the laws of the United States.”).

76. *Comm’r v. Estate of Bosch*, 387 U.S. 456, 465 (1967); *King v. Order of United Commercial Travelers of Am.*, 333 U.S. 153, 161 (1948).

77. See, e.g., *State ex rel. Gooseneck Trailer Mfg. v. Barker*, 619 S.W.2d 928, 930 (Mo. Ct. App. 1981) (rejecting federal court decisions in diversity cases on question of Missouri state law).

nothing (really) to correct. A wrongly narrowed statute creates a similarly muddled picture, giving beneficiaries a sort-of-privilege and proponents of correction a spectral quasi-error that vanishes when targeted. The errors are symmetric, and correcting them takes effort: a legislature must first be persuaded that the error is harmful, then moved to remedy that harm. These errors are not harmless.

“But wait,” another might object, “the statute’s fuzzy boundary is a delegation, from legislatures to courts, to fill the gap with what the courts deem to be the best substantive answer. Courts should not dodge that delegation with a detour into legislative correction and error-cost reasoning.” As a conceptual matter, if one were writing on a clean slate, the contention would be plausible. Even if IP statutes are more fulsome than the paradigm of the common-law delegation from legislature to courts, i.e., the Sherman Act in antitrust,⁷⁸ commentators widely recognize that IP statutes often leave the courts with significant policy flexibility in tailoring the legislative directives to particular circumstances.⁷⁹ To take only the most obvious examples: the Patent Act’s damages floor is a “reasonable royalty,”⁸⁰ and its fee-shifting provision applies “in exceptional cases.”⁸¹ The Copyright Act’s fair use defense comprises an open-ended four-factor framework.⁸² The Trademark Act prohibits use of a mark that is “likely to cause confusion . . . as to the origin” of one’s goods, without defining confusion or providing a test to detect it.⁸³ The Uniform Trade Secrets Act requires, as a condition of protectability, that the information in question be “the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”⁸⁴ The courts muddle through with these delegations, just as they should. But, importantly, the delegation slate *isn’t* clean. The Supreme Court has repeatedly emphasized that IP law requires a careful policy balance to be struck between free competition (the rule) and exclusion rights (the exception), and that Congress is to play the primary policymaking role on these matters.⁸⁵

78. See Margaret H. Lemos, *Interpretive Methodology and Delegations to Courts: Are “Common-Law Statutes” Different?*, in *INTELLECTUAL PROPERTY AND THE COMMON LAW* (Shyam Balganeshe ed., forthcoming 2013).

79. *Id.*

80. 35 U.S.C. § 284.

81. *Id.* § 285.

82. 17 U.S.C. § 107.

83. 15 U.S.C. § 1125(a)(1)(A).

84. UNIF. TRADE SECRETS ACT § 1(4)(ii) (1985).

85. *Eldred v. Ashcroft*, 537 U.S. 186, 212 (2003) (“We have also stressed . . . that it is generally for Congress, not the courts, to decide how best to pursue the Copyright Clause’s objectives.”); *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (“As the text of the Constitution makes plain, it is Congress that has been assigned the task of defining the scope of the limited monopoly that should be granted to authors or to inventors in order to give the public appropriate access to their work product.”); *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 530–31 (1972) (“The direction of Art. I is that *Congress* shall have the power to promote the progress of science and the useful arts. When, as here, the Constitution is permissive, the sign of how far Congress has chosen to go can come only from Congress. . . . [W]e should not expand patent rights by overruling or modifying our prior cases construing the patent statutes, unless the argument for expansion of privilege is based on more than mere inference from ambiguous statutory language. We would require a clear and certain signal from Congress before approving the position of a litigant who, as respondent here, argues that

The Court has consistently emphasized IP's careful, congressionally determined balance across copyright,⁸⁶ patent,⁸⁷ and trademark⁸⁸ cases. It does not seem prudent, at this late date, to presume that courts will cease looking principally to legislatures to make the key tradeoffs between competition and exclusion (including by amending IP statutes to take account of new developments).

C. *Clear Statements and Candor*

Two points remain before discussing Supreme Court decisions that comport, if only faintly, with my decision-theoretic approach. One relates to the judicial tradition of using clear statement rules in statutory construction cases. The other relates to the role of judicial candor in my framework.

As to clear statement rules: The focus of my error-cost approach is, as I have emphasized, the case where a court is in genuine doubt about the scope of a statutory IP right. An appreciation for the asymmetric costs of legislative error correction points to a judicial preference for false negatives over false positives *in aid of* legislative correction. The focus on cases of doubt may also call to mind—and one could seek to recast my approach as—a clear statement rule (or substantive policy canon) in favor of free competition over exclusion rights. As Hart and Sacks described the judicial policy-canon technique, “[j]udicial opinions on the interpretation of statutes are replete with references to presumptions, or suggestions of the existence of presumptions, amounting to what are here called policies of clear statement. In effect, these presumptions all say to the legislature, ‘if you mean *this*, you must say so plainly.’”⁸⁹

the beachhead of privilege is wider, and the area of public use narrower, than courts had previously thought.”); *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966) (“Within the limits of the constitutional grant [in Article I, section 8, clause 8], the Congress may, of course, implement the stated purpose of the Framers by selecting the policy which in its judgment best effectuates the constitutional aim.”).

86. *Stewart v. Abend*, 495 U.S. 207, 230 (1990) (“Absent an explicit statement of congressional intent that the rights in the renewal term of an owner of a pre-existing work are extinguished upon incorporation of his work into another work, it is not our role to alter the delicate balance Congress has labored to achieve.”); *Sony*, 464 U.S. at 429 (“Because this task involves a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society’s competing interest in the free flow of ideas, information, and commerce on the other hand, our patent and copyright statutes have been amended repeatedly.”).

87. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989) (“From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.”).

88. *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23, 33–34 (2003) (“The rights of a patentee or copyright holder are part of a ‘carefully crafted bargain’ under which, once the patent or copyright monopoly has expired, the public may use the invention or work at will and without attribution. Thus, in construing the Lanham Act, we have been ‘careful to caution against misuse or over-extension’ of trademark and related protections into areas traditionally occupied by patent or copyright.”) (citation omitted) (quoting *Bonito Boats*, 489 U.S. at 150, and *TrafFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29 (2001)).

89. HART & SACKS, *supra* note 2, at 1209; *see also id.* at 1376 (“[P]olicies of clear statement . . . have been judicially developed to promote objectives of the legal system which transcend the wishes of any particular session of the legislature.”). The leading sources in the contemporary literature on stat-

In the IP domain, the “*this*” would be the creation of a right to exclude. In my view, however, a clear-statement-rule approach confuses more than it clarifies. Specifically, a judicial clear statement rule obscures the *legislative* center of gravity of the error-correction-cost asymmetry that I have highlighted. By obscuring the asymmetry, which points to *legislative* correction, the rule suggests that it is the *judiciary*—rather than the legislature—that is taking the policy lead as to the IP right’s scope. Whatever merit the appearance, or the reality, of a court-centric clear statement rule may have in other contexts, it does not seem as likely to foster interbranch dialogue as does a rationale centered on the relative ease of legislative correction. And that dialogue is key for IP, a matter of social policy in which the only constant is technological change. Legislatures need the case-driven insights that courts can provide on the success with which existing IP statutes are adapted to people’s current needs and technological challenges.

Which brings me to judicial candor. I concede, as I think any realist must, that “[t]o choose candor in situations of uncertainty is not, despite the surface appeal, inevitable.”⁹⁰ In so conceding, I do not mean to take anything away from the vital principle that “[c]andor is an essential component of a judicial opinion.”⁹¹ Inevitable or not, judicial candor about the foregoing error-cost approach is my hope. The reason, again, is to better inform any subsequent legislative debate about ways to better tether an IP statute to our best current understanding of the state of the world.

If courts openly use this error-cost approach to resolve questions of doubt about the scope of statutory IP rights, *some* of that benefit will be realized. Courts, unlike legislatures, confront a steady diet of richly detailed, particularized disputes. Judges must therefore grapple with the ways that generally phrased legislative directives map, better or worse, onto messy facts.⁹² And parties are likelier to require court resolution when the statute maps poorly onto those facts, leaving room for both parties to muster strong arguments on their behalf about the statute’s scope.⁹³ A court can, of course, draft an opinion for the case in a way that downplays the merits of the losing side’s arguments, lending the

utory construction are William N. Eskridge, Jr. & Philip P. Frickey, *Quasi-Constitutional Law: Clear Statement Rules as Constitutional Lawmaking*, 45 VAND. L. REV. 593 (1992), and Sunstein, *supra* note 8. For an up-to-date review of the *many* clear statement rules the courts have formulated, the interested reader should consult Appendix B of WILLIAM N. ESKRIDGE, JR. ET AL., *CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY* 29–41 (4th ed. 2007).

90. GUIDO CALABRESI, *A COMMON LAW FOR THE AGE OF STATUTES* 178 (1982).

91. Gerald Lebovits et al., *Ethical Judicial Opinion Writing*, 21 GEO. J. LEGAL ETHICS 237, 293 (2008).

92. See Sunstein, *supra* note 8, at 439 (“[T]he focus on the particular circumstances enables judges to deal with applications that no legislature, no matter how farsighted, could conceivably have foreseen.”).

93. See SCHAUER, *supra* note 9, at 22.

winner an air of inevitability.⁹⁴ “Judicial opinions are notoriously—even comically—unequivocal.”⁹⁵ Indeed, a court can draft an opinion of this sort even when, privately, it has decided the case on the error-cost grounds I have described (opting for the narrower construction of the statute, which—if incorrect—will at least be a false negative). But should it? I think not.

Such an opinion, with its façade of absolute certainty, is a missed opportunity. If the court has developed a deep, practical sense for the statute’s problematic boundary, it should share that hard-won information about statute-to-fact fit with both the parties and the general public. The direct way to do so is an opinion that engages openly with the problem’s full complexity. Professor Kahan, drawing on the philosophical tradition of *aporia* (ἀπορία), has called this approach to opinion writing “aporetic engagement,” the distinctive feature of which is “acknowledgment of complexity”: “it necessarily treats as *false*—a sign of misunderstanding—any resolution of the problem that purports to be unproblematic.”⁹⁶ This candid acknowledgment of complexity better serves the public, in both the short and the long run. In particular, a court moved to avoid the larger error-correction cost should state that as well, properly pointing to the legislature as the center of policy gravity on the issue. The losing party can then join with others, similarly interested, to take the policy question to that legislature, with the clarity of the judicial opinion in hand as an aid to explanation and understanding.⁹⁷ The winning party, and others similarly interested, can join the discussion as well.

How much new ground, in practice, would a court need to break to resolve doubtful cases about a statutory IP right’s scope in the way, and with the candor, that I have described? The next two sections take up this question.

94. A vivid recent example is *Momenta Pharm., Inc. v. Amphastar Pharm., Inc.*, 686 F.3d 1348 (Fed. Cir. 2012) (construing broadly the defense in 35 U.S.C. § 271(e)(1)). Both the majority and dissenting opinions adopt an all-too-familiar judicial pose that no person could reasonably disagree with the opinion’s analysis. Neither opinion seems to recognize that the alternative opinion’s very existence puts the lie to that pose.

95. Dan M. Kahan, *Foreword: Neutral Principles, Motivated Cognition, and Some Problems for Constitutional Law*, 125 HARV. L. REV. 1, 59 (2011); see also Patricia M. Wald, *The Rhetoric of Results and the Results of Rhetoric: Judicial Writings*, 62 U. CHI. L. REV. 1371, 1417 (1995) (lamenting that “judges still typically write as if they were absolutely certain about the rightness and soundness of their analysis and decisions,” even though “everyone (including the judges) knows that’s not necessarily the case”).

96. Kahan, *supra* note 95, at 62. *Aporia* is not a matter of a given judge’s personal limitations, but rather “emphasizes the limited amenability of the *problem* to a satisfactory solution, along with apprehension of the same.” *Id.* at 62 n.347.

97. See *supra* note 2 and accompanying text.

III. ERROR COSTS IN IP CASES

The Supreme Court's IP cases, in contrast to those in antitrust, do not currently feature robust discussion of the different error-correction costs associated with different doctrinal choices. Some IP cases do, however, show faint threads of the approach. It is enough to build on, should courts choose to do so. There are three decisions that are worthy of special note. Justice Stevens authored all of them.⁹⁸ And his IP decisions, as a group, show a pattern that comports with the error-cost approach that favors false negatives over false positives. As Professor Samuelson has described, “[w]hen Congress has not clearly expressed its intent to extend protection as far as a plaintiff would like, Justice Stevens tends to construe the monopoly right narrowly because of the impacts that broad rulings will have on competition, commerce, and public access to knowledge.”⁹⁹

The first pair of cases pertains to the Court's forty-year struggle¹⁰⁰ to define the contours of patentable subject matter under § 101 of the Patent Act.¹⁰¹ The term “process” in § 101 has proved especially vexing, primarily in the area of computer-implemented processes. This is because the Supreme Court has repeatedly held that the categories in § 101, although broad, have limits: “‘Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.’ A process, claimed separately from the device or materials used to practice it, is already more abstract than a claim to a product. But is it too abstract?”¹⁰²

In *Parker v. Flook*,¹⁰³ the Court considered whether a process for updating a catalytic-conversion alarm limit, which relied on a new mathematical algorithm, was a patentable “process” for purposes of § 101.¹⁰⁴ The Court answered “no,” reasoning from its then-recent decision in the *Benson* case (also rejecting a claim to a computer-based data conversion process), as well as patentable-subject-matter decisions spanning the mid-19th to the early 20th centuries.¹⁰⁵ In the closing portion of the opinion, Justice Stevens noted both that “[t]o a large extent our conclusion is based on reasoning derived from opinions written before the modern business of developing programs for computers was conceived,” and that “[d]ifficult questions of policy concerning the kinds of programs that may be appropriate for patent protection and the form and duration of such

98. Indeed, “[n]o Justice in the past thirty years [1975-2005] has come close to writing as many opinions in IP cases as Justice Stevens.” Samuelson, *supra* note 17, at 1835.

99. *Id.* at 1840.

100. The modern line begins with *Gottschalk v. Benson*, 409 U.S. 63 (1972), and ends, most recently, with *Mayo Collaborative Services v. Prometheus Laboratories*, 132 S. Ct. 1289 (2012).

101. 35 U.S.C. § 101 (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”).

102. Joseph Scott Miller, *Bilski v. Kappos: Everything Old is New Again*, 15 LEWIS & CLARK L. REV. 1, 2 (2011) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

103. 437 U.S. 584 (1978).

104. *Id.* at 585-86.

105. *Id.* at 588-92.

protection can be answered by Congress on the basis of current empirical data not equally available to this tribunal.”¹⁰⁶ He went further, however, to highlight the difficulty of striking out too far ahead of Congress’ directive: “It is our duty to construe the patent statutes as they now read, in light of our prior precedents, and *we must proceed cautiously* when we are asked to *extend patent rights* into areas *wholly unforeseen by Congress*.”¹⁰⁷ When the factual context goes far beyond what the enacting Congress considered, the risk of judicial error is greater, and caution is advised when a claimant seeks a more expansive view of a statutory IP right. To be sure, this is not an explicit recognition of, much less engagement with, an error-cost approach. It does suggest, however, an awareness that judicial error about a legislative directive is a possibility to actively take into account.

The second case in this pair is *Bilski v. Kappos*,¹⁰⁸ Justice Stevens’ last IP case on the Court.¹⁰⁹ The Court unanimously rejected patent claims to a risk-hedging method, concluding that the claims did not recite any patentable “process” under § 101. But the Court divided, five to four, in its rationale. Justice Kennedy, for the majority, simply analogized to the decisions in *Benson* and *Flook*, declaring that “[t]he concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4 [of Bilski’s patent application], is an unpatentable abstract idea”¹¹⁰ Justice Stevens, concurring in the judgment, took a categorical approach, concluding that “a claim that merely describes a method of doing business does not qualify as a ‘process’ under § 101.”¹¹¹ Justice Stevens explained his approach with an exhaustive review of many sources, in an opinion three times as long (twenty-seven pages in West’s *Supreme Court Reporter*) as the majority’s (nine pages). The most important passage here, however, is brief. Summing up a detailed assessment of both English antecedents and long U.S. practice, Justice Stevens both invoked the caution commended in *Flook* and explicitly linked the risk of judicial error to the legislative difficulty of correcting a false positive as to a statutory IP entitlement’s scope:

Since at least the days of Assyrian merchants, people have devised better and better ways to conduct business. Yet it appears that neither the Patent Clause, nor early patent law, nor the current § 101 contemplated or was publicly understood to mean that such innovations are patentable. Although it may be difficult to define with precision what is a patentable “process” under § 101, the historical clues converge on one conclusion: A business method is not a “process.” And *to the extent that there is ambiguity*, we should be

106. *Id.* at 595.

107. *Id.* at 596 (emphasis added).

108. 130 S. Ct. 3218 (2010).

109. The Court issued its *Bilski* decision on June 28, 2010, *id.*, and Justice Stevens retired on June 29, 2010. *John Paul Stevens*, *supra* note 16.

110. 130 S. Ct. at 3231.

111. *Id.* at 3232 (Stevens, J., concurring in the judgment).

mindful of our judicial role. “[W]e must *proceed cautiously* when we are asked to extend patent rights” into an area that the Patent Act likely was not “enacted to protect,” *lest we create a legal regime that Congress never would have endorsed, and that can be repaired only by disturbing settled property rights.*¹¹²

The methodological link to decision theory, although tacit, is unmistakable. When a legislative directive is ambiguous, and thus the risk of judicial error about the scope of the statutory IP right is heightened, the “judicial role” is to practice caution against an expansive reading of the statute. This caution is required because it avoids an error “that can be repaired only by disturbing settled property rights.” Justice Stevens, in *Bilski*, recognized both the need to consider legislative error correction and the asymmetric stakes when fixing a property-conferring false positive about a statutory IP right. In doing so, he put the cautious approach of *Flook* on stronger ground—not caution as an amorphous passive virtue, but as an institution-based reflection of error-correction costs.

The third case in which the Court endorsed caution is *Sony Corp. of America v. Universal City Studios, Inc.*¹¹³ There, again, the Court confronted a factual context that went far beyond what Congress had considered and thus faced a greater risk of judicial error. Decided six years after *Flook*, the *Sony* case turned on a copyright claim. Specifically, Universal and other copyright owners sued Sony for indirect copyright infringement. They contended that because “some individuals had used Betamax video tape recorders (VTR’s) to record some of respondents’ copyrighted works,” thereby directly “infring[ing] [Universal’s] copyrights,” Sony was “liable for the copyright infringement allegedly committed by Betamax consumers because of [its] marketing of the Betamax VTR’s.”¹¹⁴ The case involved new technology, as well as novel questions about both (1) the scope of a copyright owner’s right to recover for indirect infringement (a matter not expressly addressed by the Copyright Act),¹¹⁵ and (2) the scope of the fair use defense for copying that is both noncommercial and nontransformative.¹¹⁶ The complexities divided the Court five to four, and resolving the case took an unusual reargument in a second Court term.¹¹⁷ The Court ruled that Sony was not indirectly liable if its recorders were “widely used for legitimate, unobjectionable purposes,”¹¹⁸ and that home tapers were not liable for direct infringement because their unauthorized time shifting was fair use.¹¹⁹

112. *Id.* at 3249–50 (emphasis added) (parallel citation and internal citation omitted) (quoting *Parker v. Flook* 437 U.S. 593, 596 (1978)).

113. 464 U.S. 417 (1984).

114. *Id.* at 420.

115. *Id.* at 434–35, 439–42 (discussing the indirect liability issue).

116. *Id.* at 447–55 (discussing the fair use issue).

117. See Litman, *supra* note 58, at 378–79.

118. *Sony*, 464 U.S. at 442. “Indeed, [they] need merely [have] be[en] capable of substantial non-infringing uses.” *Id.*

119. *Id.* at 455.

Just as important as these conclusions, however, is the framework Justice Stevens set out for applying an IP statute to new technologies. Before analyzing the specific issues in the case, he highlighted the central role of Congress in setting IP policy: “[I]t is Congress that has been assigned the task of defining the scope of the limited monopoly that should be granted to authors or to inventors[,]” and

[b]ecause this task involves a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society’s competing interest in the free flow of ideas, information, and commerce on the other hand, our patent and copyright statutes have been amended repeatedly.¹²⁰

The policy primacy of Congress, the fact-specific tradeoffs that IP policy entails, and the constant of technological change all shape the posture the judiciary should take in construing IP statutes. “Repeatedly, as new developments have occurred in this country, it has been the Congress that has fashioned the new rules that new technology made necessary.”¹²¹ Correspondingly, “[t]he judiciary’s reluctance to expand the protections afforded by the copyright [entitlement] without explicit legislative guidance is a recurring theme.”¹²² The uncertainties produced when established statutory text meets new technology suggest caution in copyright, just as in patent:

Sound policy, as well as history, supports our consistent deference to Congress when major technological innovations alter the market for copyrighted materials. Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology.¹²³

The heightened risk of judicial error calls for “circumspect[ion] in construing the scope of [the] rights”¹²⁴ False negatives, in short, beat false positives.

On its own terms, “*Sony* provides meaningful guidance about how copyright law should be construed when new technologies pose questions that the legislatures have not anticipated and [for which] case law does not readily provide clear answers.”¹²⁵ When one considers *Sony* together with *Flook* and the concurrence in *Bilski*, however, that guidance moves beyond copyright laws to IP statutes more generally. Moreover, after *Bilski*, the narrow take on statutory IP rights is expressly linked to the

120. *Id.* at 429.

121. *Id.* at 430–31.

122. *Id.* at 431.

123. *Id.*

124. *Id.*

125. Samuelson, *supra* note 17, at 1875–76; *see also id.* at 1849 (“For Justice Stevens, . . . [i]n the absence of a clear congressional direction about the legality of time shifting or other private [acts of] copying or about liability of technology developers for infringing acts of users, the Court should construe the monopoly rights narrowly.”).

greater legislative difficulty of fixing judicial false positives—entailing, as it does, the “disturbing [of] settled property rights.”¹²⁶

Admittedly, this is still a step shy of an explicit decision-theoretic explanation for a given IP decision. But it is a base on which courts can build. As explained below, the Court’s antitrust case law illustrates the fruits such an effort could bear.

IV. ERROR-COST LESSONS FROM ANTITRUST

Antitrust case law has already logged decades of experience shaping doctrine with decision theory, starting in 1977 with “the dramatic infusion of economic and error analysis initiated by the Supreme Court’s opinion in *Continental T.V., Inc. v. GTE Sylvania Inc.*”¹²⁷ Indeed, “the error-cost framework lies at the heart of modern economic and legal debates surrounding antitrust analysis of business arrangements.”¹²⁸

“Judge Easterbrook is the intellectual originator of the application of the error-cost framework to antitrust rules,”¹²⁹ and the *locus classicus* is his 1984 essay entitled *The Limits of Antitrust*. The key passage is brief:

If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practice faces sanctions in the name of stare decisis, no matter the benefits. If the court errs by permitting a deleterious practice, though, the welfare loss decreases over time. Monopoly is self-destructive. Monopoly prices eventually attract entry.¹³⁰

One can apply the insight that market forces can correct false negatives to collusive arrangements as well, for cartels attract cheating much as monopoly attracts entry.¹³¹ The upshot of this asymmetry in error cor-

126. *Bilski v. Kappos*, 130 S. Ct. 3218, 3250 (2010) (Steven, J., concurring in the judgment).

127. M. Laurence Popofsky, *Does Leegin Liberate the Law Governing Horizontal Conspiracies from Its Vertical Contamination?*, 78 ANTITRUST L.J. 23, 23 (2012). In *Continental T.V., Inc. v. GTE Sylvania*, 433 U.S. 36 (1977), the Court “overturned the (then short-lived) rule that most non-price vertical agreements were per se illegal and held that a selective distribution practice—location clauses in distributor agreements employed by a manufacturer with modest market share—was subject to the rule of reason.” Popofsky, *supra*, at 25 (footnote omitted).

128. Judd E. Stone & Joshua D. Wright, *Antitrust Formalism Is Dead! Long Live Antitrust Formalism! Some Implications of American Needle v. NFL*, 2009–10 CATO SUP. CT. REV. 369, 383.

129. Joshua D. Wright, *Abandoning Antitrust’s Chicago Obsession: The Case for Evidence-Based Antitrust*, 78 ANTITRUST L.J. 241, 251 (2012).

130. Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2 (1984). In short, “judicial errors that tolerate baleful practices are self-correcting, while erroneous condemnations are not.” *Id.* at 3. As Professor McGowan has explained,

Judge Easterbrook’s key point here is that judges do not fix bad precedents as surely and as quickly as markets fix (unlawful) market power. Bad precedent does not induce the entry of good precedent, which only judges can provide. Judges are either unlikely to do so (because they like following precedent, which lowers the cost of thinking about new cases) or unable to do so (because they are bound by a superior tribunal or because as a panel they cannot reverse precedent and have to try to invoke the en banc process).

David McGowan, *Between Logic and Experience: Error Costs and United States v. Microsoft Corp.*, 20 BERKELEY TECH. L.J. 1185, 1190 (2005).

131. See Frank H. Easterbrook, *Information and Antitrust*, 2000 U. CHI. LEGAL F. 1, 1 (“Cartels have trouble with cheaters and fringe firms. Mergers, even mergers to monopoly, are undermined by

rection costs? “In the absence of conclusive information on these relative costs, the error-cost framework counsels towards caution in condemning business practices through the antitrust laws.”¹³² False negatives are better than false positives, at a given level of administrative cost.

The Supreme Court has fully integrated these insights into the way it analyzes questions about the scope of the antitrust laws. The context for doing so is not the one I posit for statutory IP rights, i.e., doubt about a textual boundary. The Sherman Act, which is far less detailed than the IP statutes, effectively delegates to the courts a common-law-like function.¹³³ As a result, courts analyze administrative and error costs directly in the service of fashioning the basic structure of antitrust law’s prohibitions on anticompetitive conduct. A key theme in this process has been the difficulty of distinguishing lawful vigorous competition from unlawful competition-destructive activity.¹³⁴

For example, in a series of cases where the harmful conduct alleged was predatory pricing, the Court was wary of the difficulty of distinguishing between below-cost pricing designed to remove a rival on the way to subsequent monopoly—which is unlawful—from aggressive price competition—which is not only perfectly lawful, but highly beneficial to consumers. In the first of these cases, *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*,¹³⁵ the Supreme Court held “that allegations of a two-decade long conspiracy on the part of Japanese electronics manufacturers to charge predatorily low prices in the U.S. market was so implausible that summary judgment in favor of the defendants was proper.”¹³⁶ Analyzing the quality of the evidence needed to raise a genuine issue of fact under Federal Rule of Civil Procedure 56, and thus resist summary judgment, the Court required antitrust plaintiffs to ground their complaint in sound economic reasoning: “[I]f the factual context renders [the plaintiffs’] claim implausible—if the claim is one that simply makes no economic sense—[they] must come forward with more persuasive evi-

new entry that is prompted by higher prices.”); Lambert, *supra* note 14, at 890 (noting that “market power . . . is generally self-correcting by entry or, in the case of collusion, cheating”).

132. Wright, *supra* note 129, at 248; *see also* Lambert, *supra* note 14, at 890 (“False convictions are therefore more likely to cause greater and more durable harm than false acquittals and should thus be more stridently avoided by the governing liability rule.”).

133. As the Supreme Court recently explained, “[f]rom the beginning the Court has treated the Sherman Act as a common-law statute. Just as the common law adapts to modern understanding and greater experience, so too does the Sherman Act’s prohibition on ‘restraint[s] of trade’ evolve to meet the dynamics of present economic conditions.” *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 899 (2007) (citations omitted) (quoting 15 U.S.C. § 1 (2006)).

134. Lambert, *supra* note 14, at 876–77 (“Challenges to concerted conduct are frequently perplexing because a great many, perhaps most, output-enhancing business innovations involve cooperation among independent economic actors, frequently competitors. Challenges to unilateral conduct that may enhance market power are often hard to resolve because all actions that help a seller win business from its rivals—even pro-consumer actions like most price cuts—technically ‘exclude’ those rivals. Distinguishing output-reducing collusion from output-enhancing coordination (in section 1 cases) and unreasonable from reasonable exclusionary acts (in section 2 cases) can be exceedingly difficult.”) (footnotes omitted).

135. 475 U.S. 574 (1986).

136. Diane P. Wood, *Theory and Practice in Antitrust Law: Judge Cudahy’s Example*, 29 YALE J. ON REG. 403, 411 n.51 (2012).

dence to support their claim than would otherwise be necessary.”¹³⁷ This was a tall order for Zenith’s alleged international predatory-pricing conspiracy, given the “consensus among commentators that predatory pricing schemes are rarely tried, and even more rarely successful.”¹³⁸ The Court expressly grounded this greater scrutiny of the record evidence in the greater social cost of a false positive, concluding that

courts should not permit factfinders to infer conspiracies when such inferences are implausible, because the effect of such practices is often to deter procompetitive conduct. Respondents, petitioners’ competitors, seek to hold petitioners liable for damages caused by the alleged conspiracy to cut prices. . . . But cutting prices in order to increase business often is the very essence of competition. Thus, mistaken inferences in cases such as this one are especially costly, because they chill the very conduct the antitrust laws are designed to protect.¹³⁹

To avert this more costly error, courts should use the summary judgment mechanism to weed out weak claims.

Seven years later, the Court continued to treat predatory pricing claims with skepticism. In *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*,¹⁴⁰ the alleged misconduct was that of a single firm, not a group conspiracy. Liggett claimed that Brown & Williamson used “discriminatory volume rebates to wholesalers” to drive competition out of the market for generic cigarettes.¹⁴¹ After engaging in its own (uncharacteristically) lengthy exploration of the evidentiary record in the case, the Court held that Brown & Williamson was entitled to judgment as a matter of law.¹⁴² Following *Matsushita*, the Court laid out the requisites of a predatory pricing claim, explaining that these strictures necessarily follow from the fact that “the costs of an erroneous finding of liability are high.”¹⁴³ Again, the animating concern was to avoid the more socially costly false positive. The difficulty that raises the likelihood of error is that anticompetitive predatory pricing and desirable price competition use the same basic mechanism, “lowering prices.”¹⁴⁴ Additionally, the Court recently extended *Brooke Group*’s analysis of predatory pricing to

137. *Matsushita*, 475 U.S. at 587.

138. *Id.* at 589. Indeed, the Court observed, the underlying “economic realities tend to make predatory pricing conspiracies self-detering: unlike most other conduct that violates the antitrust laws, failed predatory pricing schemes are costly to the conspirators. See Easterbrook, *The Limits of Antitrust*, 63 *Texas L. Rev.* 1, 26 (1984).” *Id.* at 595. Note the early prominence of Easterbrook’s *Limits* essay, just two years after its publication.

139. *Matsushita*, 475 U.S. at 593–94 (citations omitted).

140. 509 U.S. 209 (1993).

141. *Id.* at 220.

142. *Id.* at 230–43.

143. *Id.* at 226.

144. *Id.* (quoting *Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104, 121 n.17 (1986)).

the context of predatory bidding, emphasizing the Court's continuing insistence on minimizing error costs.¹⁴⁵

Concern with the likelihood and cost of error is not isolated to cases about anticompetitive pricing. Since 2004, the Court has twice considered the question whether an antitrust-based duty to deal supplements regulations originating in the telecommunications laws. In the first of these cases, *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*,¹⁴⁶ plaintiff Trinko brought a consumer class action on the ground that Verizon's noncompliance with network sharing obligations to local telcos, mandated by the Telecommunications Act of 1996, violated the antitrust laws.¹⁴⁷ Rejecting the claim, the Court emphasized the downsides of blessing a wider antitrust-based duty to deal than had been established by its prior cases.¹⁴⁸ Moreover, the upsides of antitrust appear paltry where a detailed regulatory scheme—in this case, telecommunications law—already targets harms to competition.¹⁴⁹ Once error costs enter the calculus, the balance tips decisively against permitting a Sherman Act claim:

Against the slight benefits of antitrust intervention here, we must weigh a realistic assessment of its costs. . . . Mistaken inferences and the resulting false condemnations “are especially costly, because they chill the very conduct the antitrust laws are designed to protect.” The cost of false positives counsels against an undue expansion of § 2 liability. One false-positive risk is that an incumbent [local telco]'s failure to provide a service with sufficient alacrity might have nothing to do with exclusion. Allegations of violations of [1996 Telecommunications Act] duties are difficult for antitrust courts to evaluate, not only because they are highly technical, but also because they are likely to be extremely numerous, given the incessant, complex, and constantly changing interaction of competitive and incumbent [local telcos] implementing the sharing and interconnection obligations.¹⁵⁰

The costs of false positives, given their likelihood, swamp any gains from adding a layer of antitrust enforcement to the competition-protecting directives of the telecommunications laws.

145. *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312, 315 (2007). “Both claims involve the deliberate use of unilateral pricing measures for anticompetitive purposes. And both claims logically require firms to incur short-term losses on the chance that they might reap supracompetitive profits in the future.” *Id.* at 322 (footnote omitted).

146. 540 U.S. 398 (2004).

147. *Id.* at 401.

148. *Id.* at 407–08.

149. *Id.* at 412 (“Where such a structure exists, the additional benefit to competition provided by antitrust enforcement will tend to be small, and it will be less plausible that the antitrust laws contemplate such additional scrutiny.”).

150. *Id.* at 414 (citations omitted) (quoting *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986)).

In the second of the two cases, *Pacific Bell Telephone Co. v. Linkline Communications, Inc.*,¹⁵¹ the telecomm duty came not from a statute, but from an FCC condition imposed on AT&T's merger with Bell South.¹⁵² The plaintiff resellers of digital subscriber line ("DSL") service, who bought AT&T's DSL transport at wholesale, alleged that AT&T put the resellers in an anticompetitive "price squeeze" in an effort to monopolize the California DSL market.¹⁵³ Error-cost analysis ultimately doomed the claim, which the Court viewed as nothing more than the failed union of a *Trinko*-foreclosed duty-to-deal claim and a factually baseless predatory-pricing claim of the sort rejected in *Brooke Group*.¹⁵⁴ The Court summed up its analysis as follows:

In this case, plaintiffs have not stated a duty-to-deal claim under *Trinko* and have not stated a predatory pricing claim under *Brooke Group*. They have nonetheless tried to join . . . and alchemize them into a new form of antitrust liability never before recognized by this Court. We decline the invitation to recognize such claims. Two wrong claims do not make one that is right.¹⁵⁵

Matsushita's error-cost analysis had anchored both *Brooke Group* and *Trinko*, and thus foreclosed the antitrust claim in *Linkline*.

The error-cost "framework is widely recognized as an indispensable element of modern competition policy."¹⁵⁶ The Supreme Court has deployed the framework to explain its reasoning about the basic shape of antitrust liability. IP statutes, no less than antitrust doctrine, establish ground rules on the basis of which firms compete and innovate.¹⁵⁷ It is odd, in a way, that the error-cost approach so common to antitrust has had so little effect on resolving close questions about the scope of statutory IP rights. The courts can change that, and they should.

V. CONCLUSION

IP statutes, like all statutes, have ambiguities that only case-by-case adjudication reveals. When that ambiguity goes to the scope of the IP right, courts can err with underbreadth or with overbreadth. Decision theory counsels that courts should minimize the sum of the error costs for any given level of administrative cost (here, the cost of the conventional approach to construing statutes by means of text, context, purpose,

151. 555 U.S. 438 (2009).

152. *Id.* at 443.

153. *Id.* at 442–44; *see also id.* at 442 ("[A 'price squeeze' claim] can arise when a vertically integrated firm sells inputs at wholesale and also sells finished goods or services at retail. If that firm has power in the wholesale market, it can simultaneously raise the wholesale price of inputs and cut the retail price of the finished good. This will have the effect of 'squeezing' the profit margins of any competitors in the retail market. Those firms will have to pay more for the inputs they need; at the same time, they will have to cut their retail prices to match the other firm's prices.")

154. *Id.* at 449–51.

155. *Id.* at 457.

156. Wright, *supra* note 129, at 249.

157. *See generally* Joseph Scott Miller, *Patent Ships Sail an Antitrust Sea*, 30 SEATTLE U. L. REV. 395 (2007).

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precedent, and consequence). If false positives and false negatives are equally likely, and false positives have higher correction costs than false negatives, the court minimizes their sum by preferring false negatives to false positives, i.e., by rejecting the claim to an IP entitlement. When in doubt about the statutory scope of an IP right, a court should thus adopt the property-right-denying construction. And to better help the legislature and the public respond to the newly revealed ambiguity in the statute, the court should explain this basis for its reasoning.

