1-2013

IP Injury and the Institutions of Patent Law

Paul Gugliuzza
Boston University School of Law

IP Injury and the Institutions of Patent Law

Paul R. Gugliuzza[*]

CREATION WITHOUT RESTRAINT: PROMOTING LIBERTY AND RIVALRY IN INNOVATION. By *Christina Bohannan & Herbert Hovenkamp.* Oxford and New York: Oxford University Press. 2012. Pp. xviii, 416. $45.

* Visiting Assistant Professor, University of Florida Levin College of Law. For helpful comments, I thank Michael Carrier, Joe Miller, Bill Page, Rachel Rebouché, Danny Sokol, and the editors of the *Iowa Law Review.*

INTRODUCTION

In March 2012, the U.S. Supreme Court dealt a blow to the biotechnology industry, issuing a decision that will render many methods of medical diagnosis unpatentable. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, the Court invalidated patents on a method to determine the appropriate dosage level of the drug thiopurine, which is used to treat autoimmune diseases.[1] This method, in the Court's view, did nothing more than apply an unpatentable law of nature, the correlation between thiopurine levels in the bloodstream and the drug's efficacy, in a manner that was well-understood by doctors.[2] The Court reasoned that allowing exclusive rights over this method would "inhibit future innovation premised upon [it]," such as investigations into the underlying diseases or improved methods of treating them.[3] To support its analysis, the Court twice cited *Creation Without Restraint*,[4] the recent, pathbreaking book by Christina Bohannan[5] and Herbert Hovenkamp.[6]

As the Supreme Court's recently heightened interest in patent law illustrates,[7] there is widespread belief that intellectual property ("IP") law is in crisis. Common critiques of patent law are that the Patent and Trademark Office ("PTO") grants too many patents, that these patents have poorly defined boundaries, and that patent litigation is too expensive and unpredictable. Patent law's problems have inspired dozens of books,[8] exponentially more scholarly articles, and even an episode of NPR's *This American Life*.[9] Congress has also recognized that patent reform is needed, passing the America Invents Act,[10] which is intended to "improve patent

1. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1294 (2012).

2. *Id.* at 1297–98.

3. *Id.* at 1301.

4. *Id.* at 1302, 1305.

5. Christina Bohannan, Professor and Lauridsen Family Fellow in Law, University of Iowa College of Law.

6. Herbert Hovenkamp, Ben and Dorothy Willie Chair, University of Iowa College of Law.

7. *See* Rochelle Cooper Dreyfuss, *What the Federal Circuit Can Learn from the Supreme Court—and Vice Versa*, 59 AM. U. L. REV. 787, 792–93 (2010).

8. In addition to *Creation Without Restraint*, notable examples include: JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK (2008); DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT (2009); MICHAEL A. CARRIER, INNOVATION FOR THE 21ST CENTURY: HARNESSING THE POWER OF INTELLECTUAL PROPERTY AND ANTITRUST LAW (2009); ADAM B. JAFFE & JOSH LERNER, INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT (2004).

9. *When Patents Attack*, NPR (July 26, 2011, 3:00 PM), http://www.npr.org/blogs/money/2011/07/26/138576167/when-patents-attack.

10. Leahy–Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (to be codified in scattered sections of 28 and 35 U.S.C.).

quality and limit unnecessary and counterproductive litigation costs."[11] As for copyright law, the primary concern is interest-group capture of the legislative process by content owners (such as movie studios and record companies) at the expense of users (consumers, educators, and other artists), resulting in vast expansions of the rights and enforcement powers of copyright holders.[12]

The core objective of *Creation Without Restraint* is to reorient IP law to its constitutional purpose: promoting innovation.[13] To do this, the authors recommend, among other things, adopting an "IP injury" requirement in infringement litigation. Similar to the better-known antitrust injury requirement—which mandates that an antitrust plaintiff prove not just any injury, but an injury to competition[14]—the IP injury requirement would mandate that an infringement plaintiff prove an injury to the incentive to innovate (p. 51).

An IP injury requirement is a commendable policy recommendation and, just as important, is easy to justify under governing law. But there is more to Bohannan and Hovenkamp's argument. By reconceptualizing IP law with an eye toward its constitutional roots, the authors make a compelling case for related doctrinal reforms. They are not the first to identify the need for less ambiguous patent claims,[15] for restrictions on the remedies available to patent holders who do not use the patented technology,[16] and for shorter but renewable copyright terms.[17] The fundamental contribution of *Creation Without Restraint* is that the authors' expertise in both IP and antitrust yields novel, nuanced, and persuasive justifications for these and other proposals. In particular, antitrust-inspired proposals such as restricting the use of patents in networked markets and expanding the role of IP misuse doctrine are buttressed by sophisticated analyses showing how these changes to IP law can enhance competition, which, in turn, should promote innovation.

This Review supplements the important contributions made by *Creation Without Restraint* by exploring a complementary approach to reforming IP law, and in particular patent law, that the book affords little attention. This

---

11. H.R. REP. NO. 112-98, pt. 1, at 40 (2011).

12. *See, e.g.*, JESSICA LITMAN, DIGITAL COPYRIGHT 62–63 (2001). *See generally* ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 667–78 (5th ed. 2010) (summarizing recent copyright legislation).

13. *See* U.S. CONST. art. I, § 8, cls. 1, 8 ("The Congress shall have Power . . . *To promote the Progress of Science and useful Arts*, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries . . . ." (emphasis added)).

14. *See* Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977).

15. *See, e.g.*, BESSEN & MEURER, *supra* note 8, at 2–3.

16. *See, e.g.*, eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 395 (2006) (Kennedy, J., concurring).

17. *See, e.g.*, LAWRENCE LESSIG, THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD 251 (2001).

approach focuses on the institutions that engage with patent law, such as the courts and the PTO, and considers how institutional structure affects substantive law.[18] Accordingly, this Review considers how the institutional design of the patent system might impede (or facilitate) adoption of the reforms recommended in *Creation Without Restraint*. Approaching the authors' proposals from an institutional perspective can help determine which government body is best positioned to resolve the current IP crisis in the thoughtful ways suggested by their book.

This Review proceeds in two parts. Part I summarizes the book's descriptive insights and normative recommendations. It also describes how IP law could easily incorporate the authors' innovation-centered approach. Indeed, many of their concerns are already reflected in recent Supreme Court decisions in the field of patent law. Part I concludes by engaging the IP injury proposal and questioning whether it will help courts resolve the most vexing problems in modern patent law. For example, under the authors' approach, it is unclear whether the Supreme Court was correct in *Prometheus* when it invalidated patents on methods of medical diagnosis, even though the Court cited *Creation Without Restraint* to support its holding.

Part II broadens the perspective of *Creation Without Restraint* by looking to the dynamic and growing literature on the institutional structure of the patent system. The Review considers how the institutions that mold patent law might limit the potential of the authors' proposals. In particular, the presence of a semi-specialized court for patent appeals, the U.S. Court of Appeals for the Federal Circuit, might impede the reformative capability of the authors' innovation-centered approach. However, other institutions, such as the Office of the Solicitor General, play a critical role in shaping patent law and may help bring Bohannan and Hovenkamp's proposals into effect.

I. IP INJURY

This Part explains the authors' fundamental arguments and, focusing on the IP injury requirement in particular, suggests that their proposal is a

18. *See, e.g.*, Michael J. Burstein, *Rules for Patents*, 52 WM. & MARY L. REV. 1747 (2011); Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444 (2010); John M. Golden, *The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657 (2009); Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437 (2012); Sapna Kumar, *Expert Court, Expert Agency*, 44 U.C. DAVIS L. REV. 1547 (2011); Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470 (2011); Joseph Scott Miller, *Substance, Procedure, and the Divided Patent Power*, 63 ADMIN. L. REV. 31 (2011); Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619 (2007); Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035 (2003); Sarah Tran, *Administrative Law, Patents, and Distorted Rules*, 80 GEO. WASH. L. REV. 831 (2012); Liza Vertinsky, *Comparing Alternative Institutional Paths to Patent Reform*, 61 ALA. L. REV. 501 (2010); Melissa F. Wasserman, *The PTO's Asymmetric Incentives: Pressure To Expand Substantive Patent Law*, 72 OHIO ST. L.J. 379 (2011).

realistic solution that is actually reflected in some recent and important Supreme Court decisions. It also explores the potential limitations of the IP injury concept by using the example of patentable subject matter, perhaps the most vexing issue in patent law today.

A. THE PROPOSAL

Bohannan and Hovenkamp's recommendations are based largely on the economic insights that "innovation contributes much more to economic progress than the simple creation and maintenance of competitive markets" and that the amount of economic competition is directly related to the amount of innovation (pp. xi–xii). Accordingly, the core concern of both IP and competition law should be, in the authors' view, promoting innovation. The authors define innovation broadly, as "human idea[s] that add[] something important to what we already have" (p. ix). While Bohannan and Hovenkamp approach their task in a thoughtful and evenhanded fashion, they are clearly skeptical of the increasing propertization of ideas (see p. xiv). As a general matter, their reforms would limit the rights of IP owners and make it harder to obtain IP protection.

The starting point for their analysis is the IP injury requirement, which would require infringement plaintiffs to prove injury to innovation incentives. Bohannan and Hovenkamp have introduced this concept in a prior article,[19] and it provides a theoretical hook for more specific proposals that follow. The IP injury requirement is inspired by antitrust law's antitrust injury requirement. As the authors explain, antitrust law once faced a situation similar to today's crisis in IP law. By the early 1970s, the Supreme Court, largely at the behest of the executive branch, had condemned various practices that would today be considered pro-competitive (or at least competitively neutral), such as tying arrangements and mergers by firms with no market power (pp. 35–37).[20] In general, this approach shielded businesses from price competition that would have benefitted consumers (p. 35). This focus on the protection of particular firms, rather than on protection of competition generally, was heavily criticized by academic commentators, both from the Chicago School and the more centrist Harvard School (p. 38).

These critiques bore fruit in 1977, when the Supreme Court, in a unanimous opinion by Justice Thurgood Marshall, imposed on private

19. *See* Christina Bohannan & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm*, 51 B.C. L. REV. 905 (2010); *see also* Christina Bohannan, *Copyright Harm, Foreseeability, and Fair Use*, 85 WASH. U. L. REV. 969, 970 (2007) (developing the concept of "copyright harm," which would "limit[] infringement to foreseeable uses and other harmful uses that are likely to reduce ex ante incentives to create or distribute copyrighted works").

20. *See* Brown Shoe Co. v. United States, 370 U.S. 294 (1962); Int'l Salt Co. v. United States, 332 U.S. 392 (1947), *abrogated by* Ill. Tool Works, Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

antitrust plaintiffs a requirement that they demonstrate "*antitrust* injury" before recovering damages.[21] The defendant in that case, Brunswick, was a leading supplier of bowling equipment, which it sold to alleys on credit.[22] When the bowling industry went into decline in the 1960s, many alleys defaulted on their equipment purchases.[23] To collect on its debts, Brunswick began acquiring and operating those defaulting alleys.[24] The plaintiffs in *Brunswick* operated bowling alleys in markets in which Brunswick had made acquisitions.[25] The antitrust violation alleged was that the plaintiffs had lost profits because Brunswick prevented the defaulting alleys from closing.[26]

The Supreme Court rejected the antitrust claim. Justice Marshall's opinion emphasized—without any particular statutory or constitutional support—that "[t]he antitrust laws . . . were enacted for 'the protection of competition, not competitors.'"[27] To recover treble damages for antitrust violations, the Court concluded that plaintiffs "must prove antitrust injury, which is to say injury of the type the antitrust laws were intended to prevent."[28] In other words, antitrust plaintiffs now had to prove that their claimed injury flowed from a loss of competition. Since the plaintiffs in *Brunswick* were arguing that they had been harmed due to the *maintenance* of competition (Brunswick's acquisition and continued operation of the failing alleys), the plaintiffs could not recover damages.

Bohannan and Hovenkamp's IP injury proposal is similar to the antitrust injury requirement. It would refocus IP law on its fundamental purpose of promoting innovation, rather than protecting only individual property rights. In the authors' view, "IP law should recognize harm only for [unauthorized] uses that are likely to interfere with IP holders' decisions to create or distribute their works" (p. 51). This IP injury requirement measures incentives ex ante. So, an IP holder suffers IP injury when an infringer's actions diminish returns "that are reasonably foreseeable at the time innovation occurs" (p. 56).

The IP injury requirement would change patent law in many ways. For example, it suggests that patent law should be hesitant to allow infringement suits based on claims that were added to a patent application after it was submitted to the PTO, as it is unlikely (but not impossible) that those claims

---

21. Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977); *see also* William H. Page, *The Chicago School and the Evolution of Antitrust: Characterization, Antitrust Injury, and Evidentiary Sufficiency*, 75 VA. L. REV. 1221, 1269–78 (1989) (discussing how the Chicago School influenced judicial adoption of the antitrust injury requirement).

22. *Brunswick*, 429 U.S. at 479.

23. *Id.*

24. *Id.* at 479–80.

25. *Id.* at 480.

26. *Id.*

27. *Id.* at 488 (emphasis omitted) (quoting Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962)).

28. *Id.* at 489 (emphasis omitted).

provided an incentive to innovate in the first place (p. 53). Rather, an applicant might have added those claims specifically to cover technology that its competitors developed after the original application was filed (p. 73).

Like the antitrust injury requirement, the IP injury requirement might be viewed as a prerequisite for an infringement claim. But Bohannan and Hovenkamp also develop IP injury as a tool for constitutional and statutory interpretation (p. xiv). As a constitutional example from copyright law, consider *Eldred v. Ashcroft*[29] and *Golan v. Holder*,[30] cases in which the Supreme Court upheld under the Constitution's IP Clause statutes that extended the duration of copyright protection on pre-existing works, including works that had already entered the public domain. An approach to constitutional interpretation focused on innovation incentives would have emphasized that the term extensions could not possibly have provided ex ante incentives for those works' creation, and therefore did not "promote the Progress of Science and useful Arts," as the Constitution requires.[31]

As for statutory interpretation, Bohannan and Hovenkamp see this purposive approach as a tool to combat the interest-group capture that permeates recent copyright legislation. For example, the authors urge that "ambiguous statutes should be construed according to [any] stated public-interest purpose" (p. 216). The legislative history of the Digital Millennium Copyright Act ("DMCA"),[32] for instance, purports to balance the rights of copyright owners and users (pp. 217–18). Focusing on this supposed purpose could mediate some of the law's more draconian provisions. For example, the DMCA prohibits the sale of devices that enable copying of encrypted works, like commercial DVDs.[33] This provision plainly prevents some uses that would otherwise be permissible under copyright law's fair use doctrine, such as copying short movie clips for educational purposes. (Imagine the Evidence professor who wishes to insert into his PowerPoint slides the expert testimony of Mona Lisa Vito from *My Cousin Vinny*.) A court applying the innovation-focused insights of IP injury could reason that the public benefit of that educational use trumps the rights of the copyright owner, who would likely suffer no lost sales due to use of the clip.

B. A DOCTRINALLY REALISTIC SOLUTION TO THE CRISIS IN IP LAW

Before considering possible critiques of Bohannan and Hovenkamp's proposal, it is important to note that the IP injury requirement is well-grounded in existing law. In fact, it is much easier to justify the IP injury

29. Eldred v. Ashcroft, 537 U.S. 186 (2003).
30. Golan v. Holder, 132 S. Ct. 873 (2012).
31. U.S. CONST. art. I, § 8, cl. 8.
32. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998).
33. *See* 17 U.S.C. § 1201(b) (2006).

requirement under the patent and copyright laws than it is to justify the antitrust injury requirement under the Sherman Act (pp. 50–51).

The Constitution explicitly states the purpose of the patent and copyright laws: "To promote the Progress of Science and useful Arts."[34] In other words, to promote innovation. The Sherman Act, by contrast, says nothing about its purpose. Section 1, for example, simply prohibits "contract[s] . . . in restraint of trade."[35] Further, Congress passed the Sherman Act under its constitutional power to "regulate Commerce . . . among the several States,"[36] which tells us little about the law's intended purpose. In fact, as Bohannan and Hovenkamp note, "[t]he history of the Sherman Act suggests that Congress may not have favored 'competition' or efficiency in the abstract, but rather the protection of small businesses that were threatened by large, aggressive low-cost rivals" (p. 4). Nevertheless, since it decided *Brunswick* in 1977, the Supreme Court has required private antitrust plaintiffs to prove that their claimed injury stems from impaired competition.

Not only does the Constitution provide a justification for an IP injury requirement, the federal patent and copyright statutes are built for purposive interpretation. Although recent legislation has added length and complexity to both statutes (p. 44), relatively sparse provisions govern the most important requirements of patentability: patentable subject matter,[37] novelty,[38] nonobviousness,[39] and sufficient disclosure.[40] And while copyright statutes like the DMCA contain very detailed provisions, malleable concepts like fair use provide courts with significant interpretative leeway.[41] In these critical respects, the IP laws are similar to the Sherman Act, with its open-ended prohibition on "restraint[s] of trade."[42] Sparse provisions give the courts leeway to develop, in the common-law tradition, judicial rules consistent with public policies underlying the relevant field of law.[43]

---

34. U.S. CONST. art. I, § 8, cl. 8.

35. 15 U.S.C. § 1. The statute's broad prohibition further complicates the search for its purpose because "restraint is the very essence of *every* contract," so, as the Supreme Court has noted, § 1 "cannot mean what it says." Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 687–88 (1978) (emphasis added).

36. U.S. CONST. art. I, § 8, cl. 3.

37. 35 U.S.C. § 101.

38. *Id.* § 102.

39. *Id.* § 103(a).

40. *Id.* § 112.

41. *See* 17 U.S.C. § 107 (statutory fair-use provision); *see also* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 447–48 (1984) (noting that § 107 "enable[s] a court to apply an 'equitable rule of reason' analysis to particular claims of infringement").

42. 15 U.S.C. § 1.

43. *See* Frank H. Easterbrook, *Statutes' Domains*, 50 U. CHI. L. REV. 533, 544 (1983) ("The statute books are full of laws, of which the Sherman Act is a good example, that effectively authorize courts to create new lines of common law.").

Most encouraging for those who hope to see Bohannan and Hovenkamp's proposals adopted are some of the Supreme Court's recent patent law decisions, which reflect concern about innovation incentives. Consider, for example, *KSR International Co. v. Teleflex Inc.*, which involved Teleflex's patent on an automobile pedal with an electronic sensor.[44] When sued for infringement, KSR argued that Teleflex's patent was impermissibly obvious under the Patent Act because it simply combined already-known technology.[45] On appeal, the Federal Circuit applied its "teaching, suggestion, or motivation" ("TSM") test and rejected KSR's obviousness argument.[46] Under the TSM test, a patent could be proved obvious only if an explicit "teaching, suggestion, or motivation" to combine the known technology could be "found in the prior art" (such as issued patents and existing publications), "the nature of the problem, or the knowledge of a person [with] ordinary skill in the art."[47]

The Supreme Court reversed, rejecting the Federal Circuit's rigid TSM analysis.[48] Instead, the Court emphasized a more holistic approach that recognizes the importance of non-patent incentives—particularly market incentives—as a spur to innovation. Rather than looking strictly at published articles and issued patents, the Supreme Court instructed that an obviousness analysis should also consider "the effects of demands known to the design community or present in the marketplace," among other factors, "to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue."[49] By attempting to limit patent protection to pathbreaking advancements, *KSR*, in theory, should reduce the expected costs of innovation by preventing infringement claims based on nominal improvements, such as Teleflex's combination of an existing automobile pedal with a conventional electronic sensor.

In addition to *KSR*, other recent Supreme Court patent decisions reflect concerns about whether the law is sufficiently protecting incentives to innovate. For example, in *eBay Inc. v. MercExchange, L.L.C.*, the Court rejected the Federal Circuit's "general rule" that an adjudicated infringer will be enjoined from selling its product.[50] Instead, the Court held that the

44. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007).

45. *Id.* at 411–12; *see* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.").

46. *KSR*, 550 U.S. at 413–14.

47. *Id.* at 407.

48. *Id.*

49. *Id.* at 418.

50. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 393–94 (2006).

usual equitable test for injunctive relief should apply.[51] As opposed to the Federal Circuit's presumption in favor of an injunction, this test allows lower courts more room to consider whether the requested remedy might harm the public's interest in innovative (but infringing) products and services.[52]

Likewise, in *MedImmune, Inc. v. Genentech, Inc.*, the Court made it easier for patent licensees to bring declaratory judgment suits challenging the validity of the licensed patent.[53] Specifically, the Court permitted licensees to challenge patent validity even if they had not yet breached the license agreement.[54] This decision should encourage licensees to more actively challenge patents of questionable validity and result in the invalidation of more patents that would otherwise drag on innovation (p. 63).

Following the Supreme Court's lead, lower courts have also begun to more closely scrutinize the alleged harm underlying patent infringement claims. One notable example is Judge Posner's recent opinion in *Apple, Inc. v. Motorola, Inc.*[55] Sitting by designation on the district court, Judge Posner dismissed both parties' infringement claims because neither party could prove entitlement to damages or an injunction.[56] In reasoning that echoes Bohannan and Hovenkamp's approach, Judge Posner rejected Apple's argument for an injunction because it was "wild conjecture" that a company as large as Apple would suffer "loss of market share, brand recognition, or customer goodwill as a result of" patent infringement and because an injunction might harm consumers who could no longer buy Motorola's products, even though they would prefer to do so.[57]

C. IP INJURY AND HARD CASES

In the areas where the insights of an innovation-centered approach have started to take hold, the consequences of the legal rules seem relatively

---

51. *Id.* This test requires a plaintiff to prove (1) "that it has suffered an irreparable injury," (2) that money damages are inadequate, (3) that "the balance of hardships" favors an injunction, and (4) that an injunction would not disserve the public interest. *Id.*

52. *See, e.g.*, z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 443–44 (E.D. Tex. 2006) (refusing an injunction that could have removed Microsoft Windows and Office from the market, noting that "it is likely that any minor disruption to the distribution of the products in question . . . would have an effect on the public due to the public's undisputed and enormous reliance on these products").

53. *See* MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 137 (2007).

54. *Id.*

55. Apple, Inc. v. Motorola, Inc., No. 1:11–cv–08540, 2012 WL 2376664 (N.D. Ill. June 22, 2012).

56. *Id.* at *22–23.

57. *Id.* at *18, *20. Considerations of harm were also central to the dismissal of the damages claims. *See id.* at *6 (rejecting that a claim for nominal damages could save Apple's suit from dismissal because nominal damages are merely "a symbolic recognition of a wrong that produced no harm"); *id.* at *7 (ruling that reasonable-royalty damages were not available because such "compensatory damages" are not available when there has been "no tangible injury").

clear. For example, *eBay*, by eliminating the presumption in favor of an injunction, would seem to ensure that innovative products that lack substitutes will remain available to the public, even if the products infringe. While this rule would seem to provide the short-run benefit of protecting consumer choice, longer term effects on innovation are not always easy to definitively predict or measure, as Bohannan and Hovenkamp recognize (p. 254).[58]

Patentable subject matter under § 101 of the Patent Act is perhaps the most contentious area of modern patent law and exemplifies the difficulty in discerning innovation effects.[59] The IP injury approach can no doubt provide useful guidance in some § 101 cases. For example, the Supreme Court's decision in *Bilski v. Kappos*[60] can be understood through the lens of IP injury. The specification of Bilski's patent application described a method of hedging price-fluctuation risk in energy markets, but the application's first claim recited a method of hedging "commodity" price-fluctuation risk.[61] Bilski did not invent this broad principle. At most, he invented the idea of applying known hedging principles to a particular field. Yet his patent would have preempted use of these principles in *any* field. Under the IP injury approach, Bilski could not have plausibly claimed that the foreseeable returns from his "invention" would have included the use of known hedging principles in *all* commodity markets.

But the innovation consequences of judicial decisions become more complex outside the realm of abstract business-method patents. Take, for example, the Supreme Court's recent decision in *Prometheus*, which invalidated patents on a process that doctors could use to determine whether drug dosage levels were too high or too low for effective treatment.[62] The patents (which had been licensed to Prometheus) claimed a method of (1) administering thiopurine to a person with a gastrointestinal disorder and (2) determining whether, based on observed levels of thiopurine metabolites in the person's bloodstream, the dose was too small or too large for safe and effective treatment.[63] The Court reasoned that the patents simply applied an unpatentable law of nature, the correlation

58. *Cf.* F. Scott Kieff, *Removing Property from Intellectual Property and (Intended?) Pernicious Impacts on Innovation and Competition*, 19 SUP. CT. ECON. REV. 25, 41–43 (2011) (arguing that *eBay* overly reduces the negotiating leverage of patent holders, impairing "the deals needed to build small- and medium-sized business[es] that create new lines of business to compete against existing ones").

59. The requirement of patentable subject matter stems from the language of § 101 that permits patents on "any new and useful *process*, *machine*, *manufacture*, or *composition of matter*, or any new and useful improvement thereof," subject to the other requirements of the Patent Act. 35 U.S.C. § 101 (2006) (emphasis added).

60. Bilski v. Kappos, 130 S. Ct. 3218 (2010).

61. *Id.* at 3223–24.

62. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012).

63. *Id.* at 1295.

between metabolite levels and the likelihood that a dosage of thiopurine will be safe and effective.[64] Although the claims instructed a particular audience (doctors) about a practical application of that natural law (to treat gastrointestinal disorders), that application was, in the Court's view, a "well-understood, routine, conventional activity" that did not, as a doctrinal matter, make the method patentable.[65]

As a normative matter, however, the question *Creation Without Restraint* would pose in *Prometheus* is whether Mayo's infringement diminishes returns that the inventor would have expected in developing the patented technology. On one hand, the patents in *Prometheus*, like the patent in *Bilski*, were broad. They seemed to claim all observations of a natural phenomenon, namely the biological correlation between thiopurine metabolite levels and patient health. The patentee in *Prometheus* did not invent this correlation, and the patents could hinder further improvements upon the basic principles claimed, such as the new (and infringing) test that Mayo had developed.[66] On the other hand, personalized medicine is an emerging field. Broad patents like Prometheus's might be necessary to incentivize initial commercialization efforts, and invalidating those patents might deter further innovation.[67]

The Court in *Prometheus* actually acknowledged the question of innovation incentives. The Court noted its "concern that patent law not inhibit further discovery by improperly tying up the future use of laws of nature."[68] The Court even quoted *Creation Without Restraint*'s discussion of problematic process claims, noting that "[t]hey risk being applied to a wide range of situations that were not anticipated by the patentee."[69] However, rather than passing judgment, the Court concluded that the mere "presence" of "the basic underlying concern that these patents tie up too much future use of laws of nature" reinforced its holding that the process was not patentable.[70]

In discussing the views of those who participate in the market for diagnostic testing (such as doctors, researchers, and sellers of diagnostic tests), the Court noted that Prometheus and several amici argued that invalidating patents like Prometheus's would "interfere significantly with the ability of medical researchers to make valuable discoveries."[71] However, the

64. *See id.* at 1296–97.

65. *Id.* at 1298.

66. *See id.* at 1296.

67. *Cf.* Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 267–71 (1977) (developing the prospect theory of patents, under which the purpose of the patent system is to induce commercialization of as-yet-unrealized ideas).

68. *Prometheus*, 132 S. Ct. at 1301.

69. *Id.* at 1302 (quoting p. 112) (internal quotation marks omitted).

70. *Id.*

71. *Id.* at 1304.

Court also noted that several other amici contended that allowing patents like Prometheus's would result in "a vast thicket of exclusive rights over the use of critical scientific data that must remain widely available if physicians are to provide sound medical care."[72] The Court did not take sides in this dispute over innovation effects. Rather, the Court noted only that it "need not determine here whether, from a policy perspective, increased protection for discoveries of diagnostic laws of nature is desirable."[73]

The Court's agnosticism should not be surprising. At this point, it is just not clear which approach provides stronger ex ante innovation incentives: patent exclusivity or free use of diagnostic methods as building blocks for further innovation. Moreover, the analysis of innovation incentives might differ among different industries, meaning that IP injury concerns may need to be articulated differently depending on the industry at issue.[74] To their credit, Bohannan and Hovenkamp acknowledge the difficulty of constructing metrics and predictors of innovation (p. 242). As they colorfully note, "IP law is based on a series of hunches about such things as what types of markets and innovations require protection, or when we would be better off to let more market-centered approaches . . . control" (p. 15). None of this is to say that the IP injury requirement is flawed. But the unclear consequences in cases like *Prometheus* highlight the need to further refine the authors' proposal to aid courts in solving vexing issues such as the permissible scope of patentable subject matter.

II. IP INJURY AND INSTITUTIONAL STRUCTURE

While patent courts might have difficulty measuring and predicting innovation effects, the institutional structure of the patent system could also present a barrier to adoption of the authors' proposals for reform. Bohannan and Hovenkamp cogently explain how the movement toward a competition-protective antitrust regime took hold because of two related developments. First, increasingly sophisticated economic analyses created a consensus among scholars, judges, and policymakers that antitrust law should be reoriented to focus on protecting competition (pp. 37–38). And this consensus transferred into the case law because antitrust policy remained mostly free from special interest influence (p. 44).[75]

These insights raise an important question for those seeking to refocus patent law on promoting innovation: Does the institutional structure of the

72. *Id.* at 1304–05 (internal quotation marks omitted).

73. *Id.* at 1305.

74. *Cf.* Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1156 (2002) (arguing that "patent law is technology-neutral in theory" but "technology-specific in application").

75. *But see* D. Daniel Sokol, *Antitrust, Institutions, and Merger Control*, 17 GEO. MASON L. REV. 1055, 1072–74 (2010) (discussing public-choice issues in the antitrust enforcement process).

patent system facilitate a judicial approach that explicitly focuses on innovation consequences? Although this question is too complex to definitively answer in this space, this Part provides an initial assessment of how institutional dynamics might affect Bohannan and Hovenkamp's proposals. It first highlights the role that interest-group politics have played in creating the structure of the patent system. Then it considers whether the unique institution that arose from those politics, the U.S. Court of Appeals for the Federal Circuit, would adopt any of the reforms proposed. This Part concludes by considering which institution, if not the nation's expert patent court, might best effect the changes called for in *Creation Without Restraint*.

A. INTEREST GROUPS AND THE STRUCTURE OF THE PATENT SYSTEM

As noted, the substance of the IP laws has been heavily influenced by special interests. But special interests have also affected the structure of the IP system, most notably in the creation of the Federal Circuit in 1982.[76]

Federal judges are mostly generalists; they usually do not specialize in any one area of law.[77] Legal scholars and policymakers have sometimes been skeptical of courts, particularly appellate courts, with jurisdiction defined by case subject matter rather than by geography. Various fears fuel this skepticism. For example, judges of a so-called specialized court may be subject to interest-group capture, the judges might lose sight of the social values at stake in their decisions, the court might suffer from a lack of prestige of its judicial positions, and the "expert" judges on the appellate court might lack appropriate deference to trial judges.[78]

Despite this skepticism, U.S. patent law is shaped by the only Article III court of appeals whose jurisdiction is defined by case subject matter and not geography. Why does patent law get special treatment? The legislative history of the Federal Courts Improvement Act of 1982 ("FCIA"),[79] the law that created the Federal Circuit, alludes to what Lawrence Baum has called the "neutral virtues" of specialization: efficiency, quality, and uniformity.[80] Committee reports on the Act suggest that the Federal Circuit was needed because patent cases were consuming too much of the regional circuits'

76. For a more detailed discussion of the role of interest groups in the Federal Circuit's creation, see Gugliuzza, *supra* note 18, at 1445–61.

77. *See* Diane P. Wood, Circuit Judge, U.S. Court of Appeals for the Seventh Circuit, Generalist Judges in a Specialized World, Speech Delivered at the Southern Methodist University School of Law (Feb. 11, 1997), *in* 50 SMU L. REV. 1755, 1755–56 (1997). *But see* Edward K. Cheng, *The Myth of the Generalist Judge*, 61 STAN. L. REV. 519, 526 (2008) (showing that judges on the federal circuit courts of appeals often "specialize" by writing many opinions in specific subject areas).

78. *See* PAUL D. CARRINGTON ET AL., JUSTICE ON APPEAL 168 (1976).

79. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25.

80. LAWRENCE BAUM, SPECIALIZING THE COURTS 32 (2011).

time, inexperienced generalist judges were rendering poor quality decisions, and patent law varied greatly among the circuits.[81]

The possibility of appellate centralization in patent law had been explored frequently in the twentieth century, particularly in the 1960s and 1970s as the caseloads of the federal appellate courts exploded.[82] For example, in 1975, a notable congressional commission emphasized that forum shopping had become a "widespread" problem in patent cases due to the perception that some circuits were hostile to patent rights while others were not.[83] The commission's patent law consultants blamed this problem on the lack of an appellate institution to issue "nationally binding decisions" on patent law.[84] Indeed, long before the caseload exploded, distinguished jurists such as Felix Frankfurter, Learned Hand, and Henry Friendly expressed skepticism about the ability of generalist judges to understand patent disputes.[85] Yet none of these voices spurred institutional change.

Why then did the Federal Circuit proposal gain traction? One reason may lie in the strong corporate support for the Federal Circuit.[86] By the late 1970s, business interests seem to have taken the view that greater certainty in patent litigation would simplify business planning and stimulate research and development.[87] Perhaps as important was that a centralized patent court, especially one formed from the patent-friendly Court of Customs and Patent Appeals ("CCPA"), would be likely to uphold patents against validity challenges.[88] The corresponding increase in the value of patent rights would benefit patent owners, particularly large corporations with extensive portfolios, and their patent lawyers. This explanation of the Federal Circuit's creation is consistent with Professor Baum's argument that the most

81. *See, e.g.*, H.R. REP. NO. 97-312, at 22–23 (1981).

82. *See* RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM 72–73 tbl.3.6 (1996) (showing courts of appeals' caseload growth).

83. COMM'N ON REVISION OF THE FED. COURT APPELLATE SYS., STRUCTURE AND INTERNAL PROCEDURES: RECOMMENDATIONS FOR CHANGE, *reprinted in* 67 F.R.D. 195, 220 (1975).

84. *Id.*

85. *See* Marconi Wireless Tel. Co. v. United States, 320 U.S. 1, 60–61 (1943) (Frankfurter, J., dissenting); Parke-Davis & Co. v. H.K. Mulford Co., 189 F. 95, 115 (S.D.N.Y. 1911) (Hand, J.); HENRY J. FRIENDLY, FEDERAL JURISDICTION: A GENERAL VIEW 157 (1973).

86. *See, e.g.*, H.R. REP. NO. 97-312, at 22 (citing a poll conducted by the Industrial Research Institute, "a private, non-profit corporation with a membership of approximately 250 industrial companies that account for a major portion of the industrial research and development conducted in the United States," which "overwhelmingly" favored the creation of the Federal Circuit); 127 CONG. REC. 27,793–94 (1981) (listing corporate supporters of the FCIA, including Dow Chemical, Eli Lilly, Exxon, General Motors, Goodyear, IBM, Johnson & Johnson, Merck, Monsanto, 3M, Phillips Petroleum, Polaroid, Procter & Gamble, Shell Oil, Standard Oil, and Xerox).

87. *See* S. REP. NO. 97-275, at 6 (1981) (noting the testimony of the general patent counsel of General Electric, Harry F. Manbeck, Jr.).

88. *See* Lawrence Baum, *Specializing the Federal Courts: Neutral Reforms or Efforts To Shape Judicial Policy?*, 74 JUDICATURE 217, 223 (1991).

powerful driver for forming a specialized court is interest-group desire to influence the substance of judicial policy, and not the "neutral virtues" that permeate the political debate.[89] It is also consistent with broader public-choice literature suggesting that legislative reform can often be understood as self-interested behavior by a small, well-organized group, as corporate patent owners and their lawyers seemed to have been in the lead-up to the FCIA.[90]

To be sure, the support of large businesses and their lawyers was not the sole stimulus for the Federal Circuit's creation. The U.S. Department of Justice played a crucial role in rallying congressional support.[91] The Federal Circuit's creation may have also depended on the approval of the judges of the two courts that were being abolished, the CCPA and the Court of Claims, as well as the Judicial Conference of the United States.[92] And the support of eminent scholars and notable federal judges was surely influential.[93]

Even so, those most closely associated with the Federal Circuit's creation acknowledged the importance of industry support. Daniel Meador, for example, noted that his staff at the Department of Justice "had organized the corporate patent counsel into an effective support group for the Federal Circuit."[94] At the final judicial conference of the CCPA, Chief Judge Howard Markey recognized representatives from Monsanto, DuPont, FMC Corporation, and Combustion Engineering Corporation as "contribut[ing] so much to what will be the Court of Appeals for the Federal Circuit."[95] Perhaps most telling is the title of a monograph published in 1982 by the National Chamber Foundation, a policy research group affiliated with the U.S. Chamber of Commerce: *The Court American Business Wanted and Got: The United States Court of Appeals for the Federal Circuit.*[96]

In *Creation Without Restraint*, Bohannan and Hovenkamp thoroughly explore how the substance of IP law (unlike antitrust law) has been deeply affected by interest-group politics (see, e.g., ch. 6). The potential interest-

89. *Id.* at 217–19; *accord* JAFFE & LERNER, *supra* note 8, at 10.

90. *See* MAXWELL L. STEARNS & TODD J. ZYWICKI, PUBLIC CHOICE CONCEPTS AND APPLICATIONS IN LAW 50 (2009). *But see* Mark D. Janis, *Patent Law in the Age of the Invisible Supreme Court*, 2001 U. ILL. L. REV. 387, 399 (raising questions about "public choice theoretical predictions about the formation of the Federal Circuit").

91. *See generally* Daniel J. Meador, *Origin of the Federal Circuit: A Personal Account*, 41 AM. U. L. REV. 581 (1992).

92. *See* Charles W. Adams, *The Court of Appeals for the Federal Circuit: More than a National Patent Court*, 49 MO. L. REV. 43, 63 (1984).

93. *See* 127 CONG. REC. 27,793 (1981).

94. Meador, *supra* note 91, at 610.

95. Hon. Howard T. Markey, Chief Judge, Court of Customs and Patent Appeals, Introductory Remarks at the Ninth Annual Judicial Conference of the U.S. Court of Customs and Patent Appeals, *in* 94 F.R.D. 350, 350 (1982).

96. FRANK P. CIHLAR, THE COURT AMERICAN BUSINESS WANTED AND GOT: THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT (1982).

group influence in creating the structure of the patent system raises concerns about whether that structure affects the feasibility of the authors' reform proposals.

B. IP INJURY IN THE FEDERAL CIRCUIT?

As those urging the creation of the Federal Circuit may have hoped, the court has been relatively protective of the validity of patents.[97] The result of adopting many of Bohannan and Hovenkamp's proposals, however, would be fewer patents being issued and a weakened bundle of accompanying rights. Thus, there are questions about whether the Federal Circuit, if given the opportunity to do so, would consider pushing patent law in the direction suggested by Bohannan and Hovenkamp.

Even if the Federal Circuit were willing to pursue the normative aim of weakening patent rights and reducing the number and scope of patents, it is questionable whether the court would deploy the specific recommendation of an IP injury requirement in patent infringement cases. As noted, an IP injury analysis would require courts deciding infringement cases to consider the constitutional purpose of the patent laws: promoting incentives for innovation. Yet Federal Circuit judges have been peculiarly resistant to adopting a purposive approach to patent adjudication. Many of the court's judges have publicly contended that patent policy is irrelevant to their work.[98]

In an era in which federal judges must, as a seeming requirement of confirmation, claim to simply "call balls and strikes," one cannot necessarily fault these judges for contending that their decisions merely apply the letter

---

97. *See* WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 336–37 (2003); John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 251 (1998); *see also* Matthew D. Henry & John L. Turner, *The Court of Appeals for the Federal Circuit's Impact on Patent Litigation*, 35 J. LEGAL STUD. 85, 90, 114 (2006) (noting that since the Federal Circuit was created, court decisions invalidating patents have significantly decreased, but the number of decisions finding infringement has stayed the same or decreased); Glynn S. Lunney, Jr., *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 2–3 (2003) (noting that the Federal Circuit has been relatively protective of patent validity, but has also narrowed the scope of infringement).

98. *See, e.g.*, Paul Michel, *Judicial Constellations: Guiding Principles as Navigational Aids*, 54 CASE W. RES. L. REV. 757, 764–65 (2004) (rejecting the notion that the court should have a "discussion of philosophy"); S. Jay Plager & Lynne E. Pettigrew, *Rethinking Patent Law's Uniformity Principle: A Response to Nard and Duffy*, 101 NW. U. L. REV. 1735, 1737–38 (2007) (arguing that "the [Federal Circuit's] function is not . . . to determine how well-tuned the [patent] statute is to . . . market conditions"); Alan D. Lourie, Judge, U.S. Court of Appeals for the Fed. Circuit, A View from the Court, Address at the Fifth Annual Seton Hall Law and New Jersey Intellectual Property Law Association Fall Lecture Series (Oct. 23, 2007), *in* 75 PAT., TRADEMARK & COPYRIGHT J. (BNA) 22, 24 (2007) ("[N]ot once have we had a discussion as to what direction the law should take . . . . That is because we are not a policy-making body. We have just applied precedent as best we could determine it to the cases that have come before us.").

of the law. But the Federal Circuit's lack of concern for the consequences of decisions can be extreme.[99] Moreover, those who call for more attention to patent policy are not asking the court to subvert the text of the Patent Act to the judges' personal preferences. Rather, they want the court to appreciate the discretion built into the statute, just as courts have recognized the discretion built into the antitrust statutes, and to use that discretion to allow patent law to be flexibly applied to the varied needs of different innovating industries.[100]

Another relevant concern in analyzing whether the Federal Circuit would adopt Bohannan and Hovenkamp's proposals stems from not knowing what exactly motivates the decisions of federal appellate judges, who have the security of life tenure and a salary that cannot be reduced, in cases where the law provides no clear directive. The answer to this question is particularly mysterious in the Federal Circuit, where difficult cases do not necessarily have clear political consequences and the judges have practically no hope of the one promotion available to other judges—elevation to the Supreme Court.[101]

Judge Posner has suggested that one important motivator for life-tenured judges is prestige.[102] A desire for prestige might be uniquely important to Federal Circuit judges, who toil on a court that remains a mystery to many practicing lawyers and might still be considered something of an experiment.[103] To the extent Federal Circuit judges are interested in self-preservation, it might be in their interest to, if at all possible, enhance

---

99. *See, e.g.*, *In re* Fisher, 421 F.3d 1365, 1378 (Fed. Cir. 2005) ("Congress did not intend for . . . practical implications to affect the determination of whether an invention satisfies the requirements [of the Patent Act]. They are public policy considerations which are more appropriately directed to Congress as the legislative branch of government, rather than this court as a judicial body responsible simply for interpreting and applying statutory law.").

100. *See* Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1674 (2003). For examples of recent decisions embracing the discretion available under the antitrust statutes, see *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877, 881–82 (2007) (overruling *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911), which held that it was per se illegal for a manufacturer to set the minimum price a distributor can charge for the manufacturer's goods), and *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 31 (2006) (rejecting the presumption that a patent on a tying product establishes the market power necessary to support an antitrust claim, abrogating older case law on the issue).

101. No Federal Circuit judge has ever been elevated to the Supreme Court, nor, to my knowledge, has any Federal Circuit judge been seriously considered for appointment.

102. Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1, 13 (1993) (noting that "prestige is unquestionably an element of the judicial utility function"); *see also* LYNN M. LOPUCKI, COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS 20–24 (2005) (arguing that bankruptcy judges compete for the bankruptcy cases of large public companies because of, among other things, the power and celebrity that accompany the cases).

103. *See, e.g.*, Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment in Specialization*, 54 CASE W. RES. L. REV. 769 (2004); John F. Duffy, Comment, *Experiments After the Federal Circuit*, 54 CASE W. RES. L. REV. 803 (2004).

the prominence and economic importance of the patent system. At the risk of overgeneralizing, one might surmise that a large number of patents with a strong bundle of corresponding rights would make patent law important to business planning, elevate the importance of the Federal Circuit and its decisions, and cement the court as a permanent institution.[104]

So, while Bohannan and Hovenkamp direct most of their proposals at the courts (p. 395), their primary target for patent law reform, the Federal Circuit, may not want to hear the message. For an innovation-centered approach to take hold, there must be an institutional audience that has incentives to seek change. If that institution is not the Federal Circuit, is there another body that might take the lead?

C. *THE AUDIENCE FOR* CREATION WITHOUT RESTRAINT

The executive branch significantly impacts judicially created antitrust law through the enforcement powers and amicus work of the Federal Trade Commission and the Department of Justice. The economics-based approach of those agencies has taken hold in the Supreme Court, which has consistently overruled pre-1970s antitrust decisions over the past thirty years (pp. 38–39).[105] In comparison, the agency that administers the Patent Act, the PTO, lacks institutional strength. It has no authority to interpret the statutory requirements for patentability, and its actions do not receive the deference commonly afforded to other administrative agencies.[106] Although the PTO frequently litigates in the Federal Circuit, often defending its decisions in appeals from patent denials, the limited available data suggests that the PTO is no more successful than the average litigant.[107] In short, the

104. One might also think that the court's increasing importance and permanence would make the court more attractive to potential appointees and more important to the President and senators involved in the confirmation process. The court is no doubt staffed with jurists who are quite capable. All of President Obama's nominees to the court, for example, have been rated as "well qualified" by the American Bar Association. *See Ratings for Judicial Nominees*, AM. BAR ASS'N, http://www.americanbar.org/groups/committees/federal_judiciary/resources/ratings_for_judicial_nominees.html (last visited Aug. 30, 2012). The obstacles discussed in this Review are not, in my view, related to intellectual or temperamental shortcomings of the individual judges on the court. Rather, they seem to stem from institutional pathologies unique to specialized courts. *See* Nard & Duffy, *supra* note 18, at 1622 ("[P]ersistent problems in institutions . . . are unlikely to be the fault of the individuals who serve the institution. . . . The fault is much more likely to be structural . . . ."). For a more detailed exploration of judicial incentives on specialized courts, see Paul R. Gugliuzza, *The Federal Circuit as a Federal Court*, 54 WM. & MARY L. REV. (forthcoming 2013).

105. The enforcement practices of the antitrust agencies have also changed during this period. *See, e.g.*, Vivek Ghosal, *Regime Shift in Antitrust Laws, Economics, and Enforcement*, 7 J. COMPETITION L. & ECON. 733, 767–71 (2011) (documenting the shift in enforcement practices by the Department of Justice away from civil actions and toward criminal cases).

106. *See* Tran, *supra* note 18, at 833–34.

107. According to statistics maintained by the Federal Circuit, the reversal rate for appeals from U.S. district courts over the past three years has been 14.7%. *See Statistics*, U.S. CT. APPEALS FOR FED. CIRCUIT, http://cafc.uscourts.gov/the-court/statistics.html (last visited Aug. 30, 2012)

PTO is unlikely to successfully advance the proposals recommended by Bohannan and Hovenkamp.

As discussed, the antitrust revolution began in academic literature and later migrated into the antitrust agencies and the courts. *Creation Without Restraint* is emblematic of the call for patent reform in the academic literature. Although the PTO may be unable to implement the authors' proposals, and the Federal Circuit may be unwilling to do so, there are other potential institutional audiences. For example, recent Supreme Court patent cases have overruled bright-line Federal Circuit rules in favor of standards that, in theory, could flexibly account for competition and innovation concerns in different industries.[108] And some of the Justices' patent opinions cite important academic work, such as Bohannan and Hovenkamp's.[109] But as Lee Petherbridge and David Schwartz have recently shown, the percentage of Supreme Court patent opinions citing legal scholarship (28.3%) is slightly lower than the overall percentage of cases citing legal scholarship (32.2%).[110] Interestingly, however, the Court cites scholarship in an astounding 66.7% of its copyright cases, again illustrating potential openness to ideas posed in IP literature.[111]

Of course, the Court's failure to consistently cite patent scholarship does not mean the Court is unaware of that literature. In all events, the best way to keep the Court abreast of the problems and potential solutions discussed by this literature is through the briefs in its IP cases. The best audience for the thoughtful proposals in *Creation Without Restraint* might therefore be the Office of the Solicitor General. As John Duffy has shown, the Solicitor General has had enormous influence over the Supreme Court's patent decisions throughout the last decade, with the Supreme Court adopting the Solicitor General's views on the merits in all nine cases from the 1996 Term through the 2007 Term in which the Solicitor General challenged the Federal Circuit's reasoning.[112]

As shown in the Appendix, however, the Solicitor General has not enjoyed the same success in the past three Terms, losing two of the three cases in which the Solicitor General and the Federal Circuit clearly

---

(click on annual data for "Appeals Filed, Terminated, and Pending"). For appeals from the PTO, the reversal rate has been 16.3%. *Id.*

108. *See* Kelly Casey Mullally, *Legal (Un)certainty, Legal Process, and Patent Law*, 43 LOY. L.A. L. REV. 1109, 1126–34 (2010).

109. *See, e.g.*, Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1302, 1305 (2012); Bilski v. Kappos, 130 S. Ct. 3218, 3253–54 (2010) (Stevens, J., concurring); Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc., 548 U.S. 124, 139 (2006) (Breyer, J., dissenting).

110. Lee Petherbridge & David L. Schwartz, *The End of an Epithet?*, 49 HOUS. L. REV. (forthcoming 2012) (manuscript at 18–19) (on file with author).

111. *Id.*

112. John F. Duffy, *The Federal Circuit in the Shadow of the Solicitor General*, 78 GEO. WASH. L. REV. 518, 540–44 (2010).

disagreed. And in *Prometheus*, the Solicitor General unsuccessfully defended the Federal Circuit's holding that the patent recited patentable subject matter.[113] Still, it is fair to say that, in cases involving core issues of patent law, the Supreme Court has usually adopted the positions advanced by the Solicitor General. In the past decade, the Court has adopted the Solicitor General's position on issues of patentability,[114] infringement,[115] remedies,[116] and standards of proof,[117] among others.

Of course, as Arti Rai notes, the Solicitor General has no special expertise in patent law; it "is a generalist actor that refines and arbitrates among the views of underlying agencies that have more specialized expertise in the legal questions at issue."[118] It is this position as a mediator that makes the Solicitor General particularly well-positioned to incorporate the insights of *Creation Without Restraint*. As the Solicitor General is formulating the position of the United States on patent law matters, it will consult not just with the PTO, but also antitrust lawyers and economists from the Department of Justice, as well as Civil Division lawyers, who defend the United States itself in infringement litigation. These discussions might also involve officials from the Federal Trade Commission and other interested agencies.[119] These specialists are well-versed in the competition- and innovation-oriented perspectives that Bohannan and Hovenkamp emphasize and are in a position to incorporate those views into the position of the United States, as articulated by the Solicitor General.

Moreover, in patent cases, the Solicitor General's influence is important not only on the merits, but also in shaping the Court's agenda. As Professor Duffy explains, from the 1994 Term through the 2007 Term, the Supreme Court followed the Solicitor General's recommendation to either grant or deny certiorari in seventeen of the nineteen patent cases (89.5%) in which

113. *See* Brief for the United States as Amicus Curiae Supporting Neither Party at 8–11, Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012) (No. 10-1150), 2011 WL 4040414 (arguing that the patent claims recited patentable subject matter but were likely invalid for obviousness or lack of novelty).

114. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007).

115. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722 (2002).

116. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

117. Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238 (2011).

118. Arti K. Rai, Essay, *Patent Validity Across the Executive Branch: Ex Ante Foundations for Policy Development*, 61 DUKE L.J. 1237, 1240 (2012).

119. *See generally* Elliott Karr, *Independent Litigation Authority and Calls for the Views of the Solicitor General*, 77 GEO. WASH. L. REV. 1080, 1087–88 (2009) (noting that "the Solicitor General must resolve competing claims made by different agencies of the government when deciding what position to take before the Supreme Court" and that "the Solicitor General is usually capable of being a neutral arbiter of opposing agencies' views," but questioning whether the Solicitor General prefers the views of the Department of Justice over the Federal Trade Commission); Seth P. Waxman, *Defending Congress*, 79 N.C. L. REV. 1073, 1077 (2001) (describing the process by which the Solicitor General obtains and evaluates the perspectives of various government bodies).

the Court called for the Solicitor General's views.[120] As shown in the Appendix, this trend has continued in the past five Terms, with the Court following the Solicitor General's recommendation in four out of five patent cases in which it has sought the Solicitor General's views.

The Solicitor General's particularly heavy influence in patent cases is clear not just from these numbers, but also from the substance of the issues the Court has considered, often at the Solicitor General's urging. As noted, the Court in recent years has been willing to engage fundamental issues of patent law, such as patentable subject matter, nonobviousness, and infringement under the doctrine of equivalents,[121] as well as crucial procedural issues in patent litigation, such as declaratory-judgment standing,[122] the standard of proof for infringement,[123] and remedies for patent holders.[124] Similar future cases might permit the Solicitor General to argue, in line with the authors' proposed IP injury requirement, that harm to innovation incentives is a definitional aspect of an infringement claim. For example, in an appropriate case, the Solicitor General might urge the Court to adopt Bohannan and Hovenkamp's proposal to limit damages for infringement when the patent holder is unlikely to enter a market (p. 56). Such a holding would dramatically change the patent litigation system by limiting the damages recoverable by non-practicing entities. The Office of the Solicitor General may be the only entity with sufficient credibility to advance such a pathbreaking approach.

CONCLUSION

To be clear, the potential institutional barriers to reimagining patent law do not undermine the basic thesis of *Creation Without Restraint*: that there needs to be a closer nexus between IP law and its constitutional purpose. Although IP owners have had a louder voice in Congress than consumers of innovation (pp. 133–60), the consensus around stronger IP rights seems to

120. *See* Duffy, *supra* note 112, at 531. By comparison, from the 1998 Term through the 2004 Term, the Court followed the Solicitor General's recommendation in roughly 78.5% of all cases in which the Court called for the Solicitor General's views. *See* David C. Thompson & Melanie F. Wachtell, *An Empirical Analysis of Supreme Court Certiorari Petition Procedures: The Call for Response and the Call for the Views of the Solicitor General*, 16 GEO. MASON L. REV. 237, 276 (2009) (noting that the Court followed the Solicitor General's recommendation to grant in eighteen of twenty-four cases (75.0%) and followed the recommendation to deny in forty-four of fifty-five cases (80.0%)); *see also* Margaret Meriwether Cordray & Richard Cordray, *The Solicitor General's Changing Role in Supreme Court Litigation*, 51 B.C. L. REV. 1323, 1334 & n.51 (2010) (citing additional sources calculating the rate at which the Court follows the Solicitor General's recommendation on certiorari and noting that "the Court follows the Solicitor General's recommendation to grant or deny in well over 75% of the cases").

121. *See supra* notes 113–17 and accompanying text.

122. MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007).

123. Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238 (2011).

124. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

be weakening. For example, while the recently passed America Invents Act[125] will likely not solve all of patent law's problems,[126] it increases the rights of third parties to challenge patents at the PTO,[127] an important aspect of Bohannan and Hovenkamp's roadmap for reform (p. 397). Also, the widespread opposition to the Stop Online Piracy Act[128] and the PROTECT IP Act,[129] better known by the acronyms SOPA and PIPA, resulted in a surprising legislative defeat for IP owners.[130]

This Review has highlighted possible institutional obstacles to IP law reform, hoping to advance a conversation about how the authors' thoughtful agenda might be further operationalized. Identifying institutions, like the Office of the Solicitor General, that are well-positioned to shape IP law in the way that Bohannan and Hovenkamp imagine may both resolve the IP crisis and return IP law to its constitutional roots of protecting and promoting innovation.

125. Leahy–Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (to be codified in scattered sections of 28 and 35 U.S.C.).

126. *See* Sarah Tran, *Patent Powers*, 25 HARV. J.L. & TECH. 595, 596 (2012) (noting that "leaders in the patent community have divided in their opinions about the Act").

127. *See* Leahy–Smith America Invents Act § 6(d) (to be codified at 35 U.S.C. §§ 321–329).

128. Stop Online Piracy Act, H.R. 3261, 112th Cong. (2011).

129. Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011, S. 968, 112th Cong. (2011).

130. Jonathan Weisman, *After an Online Firestorm, Congress Shelves Antipiracy Bills*, N.Y. TIMES (Jan 20, 2012), http://www.nytimes.com/2012/01/21/technology/senate-postpones-piracy-vote.html.

APPENDIX

SUPREME COURT PATENT CASES, OCTOBER TERMS 2008 THROUGH 2011[131]

Case Name	Term	SG Participates on Merits	SG – CAFC Split	Position Adopted	CVSG
Bilski v. Kappos[132]	2009	Party	No	S. Ct. agrees with both	N/A (Respondent)
Global-Tech Appliances, Inc. v. SEB S.A.[133]	2010	No			No
Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.[134]	2010	Yes	Yes	CAFC	Yes
Microsoft Corp. v. i4i Ltd. P'ship[135]	2010	Yes	No	S. Ct. agrees with both	No
Mayo Collaborative Servs. v. Prometheus Labs., Inc.[136]	2011	Yes	No	Neither	No
Caraco Pharm. Labs., Ltd. v. Novo Nordisk A/S[137]	2011	Yes	Yes	SG	Yes
Kappos v. Hyatt[138]	2011	Party	Yes	CAFC	N/A (Petitioner)

SG: Solicitor General
CAFC: Court of Appeals for the Federal Circuit
CVSG: Call for the Views of the Solicitor General

131. This chart is a continuation of Figure 8 from Duffy, *supra* note 112, at 539.
132. Bilski v. Kappos, 130 S. Ct. 3218 (2010).
133. Global-Tech Appliances, Inc. v. SEB S.A., 131 S. Ct. 2060 (2011).
134. Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc., 131 S. Ct. 2188 (2011).
135. Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238 (2011).
136. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012).
137. Caraco Pharm. Labs., Ltd. v. Novo Nordisk A/S, 132 S. Ct. 1670 (2012).
138. Kappos v. Hyatt, 132 S. Ct. 1690 (2012).

PATENT CASES INVOLVING SUPREME COURT CVSG ORDERS,
OCTOBER TERMS 2008 THROUGH 2011[139]

Case Name	Term Order Issued	Lower Court	SG Cert. Rec.	Cert.?	SG Merits Rec.	Merits Disposition
Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.[140]	2009	CAFC	Grant	Granted	Reverse	Affirmed
Applera Corp. v. Enzo Biochem, Inc.[141]	2010	CAFC	Deny	Denied		
Caraco Pharm. Labs., Ltd. v. Novo Nordisk A/S[142]	2010	CAFC	Grant	Granted	Vacate and remand	Reversed and remanded
Saint-Gobain Ceramics & Plastics, Inc. v. Siemens Med. Solutions USA, Inc.[143]	2011	CAFC	Deny	Denied		
Bowman v. Monsanto Co.[144]	2011	CAFC	Deny	Granted		

SG: Solicitor General
Rec.: Recommendation
CAFC: Court of Appeals for the Federal Circuit

139. This chart is a continuation of Figure 5 from Duffy, *id.* at 531. While Professor Duffy's original chart included patent-related antitrust cases, the Court did not call for the views of the Solicitor General in any patent-related antitrust cases from 2008 through 2011. *See Briefs*, U.S. DEP'T OF JUST., http://www.justice.gov/osg/briefs/index.html (last visited Oct. 24, 2012).

140. Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc., 131 S. Ct. 2188 (2011).

141. Applera Corp. v. Enzo Biochem, Inc., 131 S. Ct. 3020 (2011).

142. *Caraco*, 132 S. Ct. 1670.

143. Saint-Gobain Ceramics & Plastics, Inc. v. Siemens Med. Solutions USA, Inc., 132 S. Ct. 2679 (2012).

144. Bowman v. Monsanto Co., No. 11-796, 2012 WL 4748082 (U.S. Oct. 5, 2012).