IP Misuse as Foreclosure

Christina Bohannan[*]

I. INTRODUCTION 476

II. HISTORICAL DEVELOPMENT OF MISUSE DOCTRINE 479

III. CURRENT APPROACHES TO MISUSE 486
- A. *MISUSE DEFINED BY SUBSTANTIVE ANTITRUST PRINCIPLES* 487
  - 1. Apparent Dominance of the Antitrust Model of Misuse 487
  - 2. Critique of the Antitrust Model 490
- B. *MISUSE AS AN ATTEMPT TO OBTAIN RIGHTS "BEYOND THE SCOPE" OF A STATUTORY IP RIGHT* 495

IV. TOWARD COHERENCE IN MISUSE DOCTRINE: MISUSE AS FORECLOSURE OF COMPETITION, INNOVATION, OR THE PUBLIC DOMAIN 497
- A. *TYING AND QUASI-TYING CLAIMS* 501
  - 1. Tying as an Antitrust Violation and the Leverage Theory of Tying 501
  - 2. Tying as Foreclosure of Competition 503
  - 3. Tying as Foreclosure of Innovation or Access to the Public Domain 505
  - 4. Package or Blanket Licensing of Patents and Copyrights 507
- B. *LICENSES RESTRICTING THE USE OR DEVELOPMENT OF NEW TECHNOLOGIES OR PRODUCTS: RESTRAINTS ON INNOVATION AND NONCOMPETITION AGREEMENTS* 511
- C. *EXTENSION OF PATENT OR COPYRIGHT ROYALTIES BEYOND EXPIRATION OF THE IP TERM* 515
- D. *APPROPRIATING DOWNSTREAM VALUE: REACH-THROUGH ROYALTY AGREEMENTS AND RELATED PRACTICES* 518
- E. *LICENSES RESTRICTING ACCESS TO PUBLIC-DOMAIN INFORMATION* 523

V. CONCLUSION 525

* Professor of Law, The University of Iowa College of Law. Thanks to Tom Cotter, Robin Feldman, Tom Gallanis, and Herb Hovenkamp for providing helpful comments. Thanks also to the Ewing Marion Kauffman Foundation for providing valuable research support.

I. INTRODUCTION

It is both curious and deeply troubling that, in an age of intellectual property ("IP") expansionism,[1] the one doctrine explicitly concerned with limiting IP overreaching has no coherent basis in IP policy. Although courts generally agree that the misuse doctrine relates to the use of IP licenses and other arrangements to obtain rights beyond the scope of a statutory IP right, the doctrine lacks coherence and certitude in determining the types of practices that should be condemned and why. Perhaps as a result, much of the case law has embraced an antitrust standard for misuse, which may be coherent, but is less faithful to the core IP values of promoting innovation and protecting access to the public domain. The result is a schizophrenic doctrine that vacillates between IP and antitrust law.[2]

The misuse doctrine evolved first in patent law. The classic case involved the tying of patented and unpatented goods—that is, the seller's requirement that one could not purchase or lease the patented product without also taking unpatented products or services as well.[3] Several courts held that such tying violated federal patent policy by attempting to expand the statutory monopoly to include a second product not covered by the patent claims.[4] Since then, misuse has expanded into other practices and

---

1. *See, e.g.*, Christina Bohannan & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm*, 51 B.C. L. REV. 905 (2010).

2. On the divide between antitrust and IP approaches to misuse generally, see 1 HERBERT HOVENKAMP ET AL., IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW ch. 3 (2d ed. 2010), and Thomas F. Cotter, *Misuse*, 44 HOUS. L. REV. 901 (2007). For arguments that patent misuse should not be limited to antitrust violations, see Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399 (2003), and Robert J. Hoerner, *The Decline (and Fall?) of the Patent Misuse Doctrine in the Federal Circuit*, 69 ANTITRUST L.J. 669 (2001). For arguments that copyright misuse should not be defined exclusively by antitrust law, see Ilan Charnelle, *The Justification and Scope of the Copyright Misuse Doctrine and Its Independence of the Antitrust Laws*, 9 UCLA ENT. L. REV. 167 (2002), Brett Frischmann & Dan Moylan, *The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and Its Application to Software*, 15 BERKELEY TECH. L.J. 865 (2000), Ramsey Hanna, Note, *Misusing Antitrust: The Search for Functional Copyright Misuse Standards*, 46 STAN. L. REV. 401 (1994), and Kathryn Judge, Note, *Rethinking Copyright Misuse*, 57 STAN. L. REV. 901 (2004).

3. *E.g.*, Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1942) (articulating the modern misuse doctrine for the first time and applying it to a tie of a patented salt-injection machine to unpatented salt), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); Leitch Mfg. Co. v. Barber Co., 302 U.S. 458, 461–63 (1938) (deciding a pre-misuse case involving tying of a patented process for installing asphalt emulsion on roads to the unpatented emulsion); Carbice Corp. v. Am. Patents Dev. Corp., 283 U.S. 27 (1931) (same, involving tying of a patented refrigeration box and dry ice); Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917) (same, involving tying of a patented film projector and unpatented film); Henry v. A.B. Dick Co., 224 U.S. 1 (1912) (same, involving tying of a patented mimeograph machine and unpatented stencils, paper, and ink), *overruled by Motion Picture Patents*, 243 U.S. 502.

4. *See, e.g.*, *Morton Salt*, 314 U.S. 488.

into copyright law.[5] Courts have considered the doctrine's applicability to a variety of practices including tying,[6] package licensing of related patented or copyrighted goods,[7] restraints on a licensee's ability to produce competing technologies,[8] and requiring royalty payments beyond the expiration of the patent or copyright term.[9]

From the beginning, courts have stated that the purpose of the misuse doctrine is to provide a remedy against attempts to expand the IP holder's statutory "monopoly." Although some of these early cases indicated that such an expansion of the IP "monopoly" is a concern of antitrust law,[10] they relied primarily on federal IP policy to justify the doctrine. Over time, however, courts have begun to judge many cases of alleged misuse by antitrust standards, probably because antitrust law provides courts with a well-developed set of rules by which to judge the complexities of effects on competition. This merger of antitrust and misuse has provoked a great deal of confusion and criticism. The relationship between misuse and antitrust is not well understood, and it is unclear why IP misuse should be defined as a breach of antitrust policy rather than as a breach of IP policy. After all, misuse is a creature of IP law. In addition, antitrust law does not reach all of the conduct that has been deemed to constitute misuse.

The incoherence in misuse doctrine is particularly problematic given the nature and severity of the penalty. Misuse is not an affirmative cause of action but, subject to a few exceptions, is raised as a defense in an IP-infringement claim.[11] Thus, the doctrine benefits primarily infringers,

---

5. *See infra* notes 47–54 and accompanying text.

6. *See infra* text accompanying notes 59–73.

7. *See* discussion *infra* Part IV.A.4.

8. Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 973, 979 (4th Cir. 1990) (finding misuse in computer-aided design ("CAD") licensor's restriction forbidding licensee from developing any CAD program); *see* discussion *infra* Part IV.B.

9. Brulotte v. Thys Co., 379 U.S. 29 (1964) (involving the licensor of a hop-picking machine requiring royalties to be paid past the expiration date of patents); *see* discussion *infra* Part IV.C.

10. *See, e.g.*, Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 517 (1917) (noting the relevance of the Clayton Act's anti-tying provision, currently codified at 15 U.S.C. § 14 (2006), which had been passed in 1914 and which "confirmed" its resolution of the case); *see also* Mercoid Corp. v. Minneapolis-Honeywell Regulator Co. (*Mercoid II*), 320 U.S. 680, 684 (1944) ("The legality of any attempt to bring unpatented goods within the protection of the patent is measured by the anti-trust laws not by the patent law.").

11. One exception, which is rarely invoked, applies in breach-of-contract claims for violation of a license agreement, where courts have also recognized an equitable defense of patent misuse when the misuse occurs in the license subject to the breach. The leading case is *Brulotte*, which went up to the Supreme Court from a state-law breach-of-contract claim when the licensee stopped paying royalties on a contract that called for the royalties to be paid after the patent expired. *See* Thys Co. v. Brulotte, 382 P.2d 271 (Wash. 1963), *rev'd*, *Brulotte*, 379 U.S. 29. On *Brulotte* and post-expiration royalties, see discussion *infra* Part IV.C. Another exception is that parties can bring declaratory-judgment actions to determine whether an IP holder has committed misuse. *See, e.g.*, Allan Block Corp. v. Cnty. Materials Corp., 512 F.3d 912 (7th Cir.

including infringers who have not been injured in any way by the misuse but instead argue that the IP holder has misused the IP right against others.[12] Moreover, a finding of misuse can be devastating for a patent or copyright holder. If misuse is found, the patent or copyright is rendered unenforceable until the misuse is "purged."[13] There is a serious question, therefore, as to whether the benefits of remedying misuse outweigh the costs of foregoing patent enforcement. As a result, some scholars believe that assertions of misuse should be, as one has put it, "safe, legal, and rare."[14]

In this Article, I argue that misuse has been shooting at the wrong targets. Currently, many cases apply an antitrust standard for misuse, emphasizing market power in the primary (typically patented) product as the key ingredient. Others emphasize attempts to expand patent or copyright rights beyond their statutory scope or to impose restraints that somehow reach outside the patent or copyright grant. But neither of these approaches asks the question that IP law should really care about: whether an alleged act of misuse violates IP policies of encouraging innovation, promoting competition, or encouraging access to the public domain. Although the misuse defense should continue to be available against conduct that violates antitrust law, it should also be available for practices that undermine these IP policies without violating antitrust law. While IP law is concerned with anticompetitive restraints to some extent, its concerns properly reach further. Thus, I argue that if misuse is really to be used as an instrument to effectuate IP policy and is to be confined to those practices that are serious enough to warrant its severe remedy, misuse should be focused on *foreclosure*. That is, misuse should be found where the IP holder engages in a practice that forecloses competition, future innovation, or access to the public domain.

Part II of this Article traces the history of IP misuse doctrine, showing how it began with a concern over exclusion of rival innovations but quickly abandoned that rationale and began to focus on exaggerated fears of "leveraging," in which an IP holder attempts to reap a greater reward than it deserves, or on vaguely articulated concerns that certain practices might

---

2008) (recognizing declaratory-judgment action claiming that licensor's conduct constituted misuse); MACTEC, Inc. v. Gorelick, 427 F.3d 821 (10th Cir. 2005) (same); B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419 (Fed. Cir. 1997) (same).

12. *See, e.g.*, Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 494 (1942) (finding that infringement defendant was a competing maker of salt injection machines and was not injured by the salt tie), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

13. *See, e.g.*, B.B. Chem. Co. v. Ellis, 314 U.S. 495, 498 (1942) (stating that patentee could resume enforcement of patent once misuse was purged); *see also* U.S. Gypsum v. Nat'l Gypsum Co., 352 U.S. 457 (1957) (holding that patentee may not recover royalties for the period during which misuse continued prior to when it was purged); Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520 n.9 (9th Cir. 1997) ("Copyright misuse does not invalidate a copyright, but precludes its enforcement during the period of misuse.").

14. *See* Cotter, *supra* note 2, at 903.

extend the scope of the IP monopoly. Part III then examines current approaches to misuse doctrine. The dominant approach is that patent misuse (if not copyright misuse) should be defined by antitrust principles. I fault this doctrine for two reasons. First, it undervalues the fact that the roots of misuse doctrine lie in IP policy, not in antitrust policy, and IP policy has its own reasons for limiting overreaching in IP. Second, even on antitrust's own rationale for misuse, namely to prevent anticompetitive conduct, the antitrust definition has focused too much attention on market power in the patented or copyrighted product or technology and too little on the foreclosure of rival products or technologies. Although market power and foreclosure are related, they are not synonymous or coextensive.

The other approach sees misuse as an attempt to expand IP rights beyond the scope of their statutory boundaries. The principal weakness of this approach is that the "boundaries" of an IP right are impossible to locate. Every licensing agreement contains terms that are not express in the patent or copyright grant, and the beyond-the-scope test does not provide a meaningful way to determine which of these terms lies "within the scope" of the grant and which do not. Rather, I argue that misuse law is properly focused on three wrongs that can be summed up in the term "foreclosure." These are anticompetitive market exclusion, restraints on innovation, and preventing access to the public domain. Courts must focus directly on these concerns in delineating the scope of the misuse doctrine, as neither the antitrust law approach nor the beyond-the-scope approach to misuse can properly address them. Finally, Part IV develops these principles further by illustrating how foreclosure does or does not occur in a few selected areas in which courts have applied misuse doctrine. Thus, the Article offers a coherent theory of misuse that is both consistent with the doctrine's historical development and grounded in IP policy.

II. HISTORICAL DEVELOPMENT OF MISUSE DOCTRINE

Misuse doctrine grew out of a series of cases in the early 1900s in which the Supreme Court refused to enforce a patent-infringement claim where the patent holder had attempted to use its patent to require its licensee to purchase its unpatented goods. The *Motion Picture Patents Co.* case ("*MPPC*") is often described as the seminal patent-misuse case.[15] There, the patentee sued the defendant for infringement when the defendant violated the terms of a notice that the plaintiff had affixed to a patented film-projector machine. The notice provided that the user of the machine must use only the patent holder's own unpatented films with the machine.[16] Thus, *MPPC*

15. 243 U.S. 502.

16. *Id.* at 505. The patentee licensed another company to manufacture and sell the projector and required it to post this license on a plate affixed to the machine:

was essentially a "tying" case, in which a firm conditions the sale or lease of one product (the patented projector) on the purchase of another distinct product (the unpatented films). Unlike later misuse cases that involved the tying of ordinary commodities, *MPPC* involved a real attempt by the patentees to control an entire industry, namely the film industry.[17]

The Court refused to enforce the terms of the notice. It held that the first-sale (or patent-exhaustion) doctrine precluded enforcement of the notice, which operated as a post-sale restraint on use of the patented good.[18] In finding that a violation of the license restriction did not infringe the patent, *MPPC* established that, under some circumstances, attempts to extend the scope of a patent beyond the grant will not be enforced because they are contrary to patent policy. As such, the Court rejected the view, expressed by Justice Holmes in his dissent, that because a patent holder could refuse to license the patent completely, it could license the patent on any terms it liked, and violation of those terms would constitute patent infringement.[19]

Strictly speaking, *MPPC* did not create the misuse doctrine as we know it today. It was first and foremost a first-sale case. It also did not fashion some of the more controversial aspects of misuse, such as the rule that unenforceability of the patent was the appropriate remedy for misuse or that patent infringers who have not been harmed by the misuse have standing to

---

> The sale and purchase of this machine gives only the right to use it solely with moving pictures containing the invention of reissued patent No. 12,192, leased by a licensee of the Motion Picture Patents Company. . . . The removal or defacement of this plate terminates the right to use this machine.

Id. at 506–07.

17. On the history of the attempt by the so-called "Edison trust" to monopolize the motion-picture industry, see MICHAEL CONANT, ANTITRUST IN THE MOTION PICTURE INDUSTRY 16–21, 77–80 (1960), BENJAMIN B. HAMPTON, A HISTORY OF THE MOVIES 8–11, 17–24, 34–35, 64–76, 79–81 (1931), MAE D. HUETTIG, ECONOMIC CONTROL OF THE MOTION PICTURE INDUSTRY: A STUDY IN INDUSTRIAL ORGANIZATION 9–12 (1944), LEWIS JACOBS, THE RISE OF THE AMERICAN FILM 8, 81–85, 88, 164–65, 291–92 (1939), and BARAK Y. ORBACH, REEL LAW: A LEGAL HISTORY OF THE AMERICAN MOTION PICTURE INDUSTRY (forthcoming 2010).

18. The first-sale doctrine, sometimes called the doctrine of patent exhaustion, long antedates both misuse and antitrust doctrine. It holds that once a patentee has sold a patented article, he loses the ability to impose further restrictions on post-sale activity. The doctrine originated in *Bloomer v. McQuewan*, 55 U.S. (14 How.) 539, 549 (1852) ("[W]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the [patent] monopoly."). The doctrine applies only to sales, but in *MPPC* the projector had in fact been sold, not leased or licensed. *MPPC* overruled the Court's decision five years earlier in *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912), which had refused to apply the first-sale doctrine to a post-sale restriction requiring the seller of a patented mimeograph machine to use only the patentee's paper, ink, and stencils. Recently the Supreme Court reaffirmed the vitality of the first-sale doctrine and used it to invalidate a form of reach-through royalty agreement. *See* Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008). For further discussion of the first-sale doctrine and reach-through royalty agreements, see *infra* text accompanying notes 153–54.

19. *See* 243 U.S. at 520 (Holmes, J., dissenting).

assert it as a defense.[20] Nevertheless, *MPPC* did provide a standard by which misuse cases could be judged. It explained:

> Such a restriction is invalid because such a film is obviously not any part of the invention of the patent in suit; because it is an attempt, without statutory warrant, to continue the patent monopoly in this particular character of film after it has expired, and because to enforce it would be to create a monopoly in the manufacture and use of moving picture films, wholly outside of the patent in suit and of the patent law as we have interpreted it.
>
> . . . .
>
> A restriction which would give to the plaintiff such a potential power for evil over an industry which must be recognized as an important element in the amusement life of the nation, under the conclusions we have stated in this opinion, is plainly void, because wholly without the scope and purpose of our patent laws, and because, if sustained, it would be gravely injurious to that public interest, which we have seen is more a favorite of the law than is the promotion of private fortunes.[21]

Thus, the Court essentially stated two requirements for misuse. The first requirement is that the patent holder attempted to control subject matter not within the statutory grant. If the patent holder were attempting merely to enforce the four corners of the patent grant, then it would not matter whether such enforcement would give the patent holder a monopoly or would have other consequences for competition or innovation in secondary markets. The Patent Act gives the patentee the right to control the patent itself, even if control of the patented good yields sufficient power in the market to create a monopoly. Current law reflects this requirement, often stating that misuse occurs only if an IP owner attempts to extend the scope of the IP right beyond the statutory grant.[22]

The second requirement is that allowing or enforcing the patent holder's restrictive practice would create a "monopoly" in a secondary product, or in something outside the IP right, which would violate the public interest. Yet, the Court did not base its concern with monopolies on antitrust law or policy. Rather, it relied on the public interest underlying federal patent law to forbid patent holders from obtaining control over additional products not clearly covered by the patent grant. As such, the Court indicated a *patent law* policy in favor of encouraging competition and innovation in the markets for unpatented products.

20. *See* discussion *supra* text accompanying notes 11–14.

21. *MPPC*, 243 U.S. at 518–19.

22. *See* discussion *infra* Part III.B.

Following *MPPC*, the Supreme Court found patent misuse in a number of other cases in which the patentee tied the sale of its patented invention to an unpatented good. In *Carbice Corp. of America v. American Patents Development Corp.*,[23] Dry Ice Corporation was the exclusive licensee (and therefore the patent holder) of a patented transportation package.[24] The package consisted of a "protective casing of insulating material having packed therein a quantity of frozen carbon dioxide in an insulating container" arranged in a particular way.[25] Dry Ice sold these containers along with solid carbon dioxide ("dry ice") to customers for use in the transportation of ice cream and other foodstuffs. The dry ice itself was neither patented nor patentable because "[t]hat article and its properties as a refrigerant [had] been long known to the public."[26] Each invoice for the dry ice included a notice stating that Dry Ice Corporation's dry ice could be used only with its approved containers and that its containers could be used only with its dry ice.[27]

Carbice Corporation was a competing manufacturer of dry ice. When Carbice sold its product to Dry Ice's customers with knowledge of the condition that the customers were supposed to use only Dry Ice's product with its containers, Dry Ice sued Carbice for contributory patent infringement.[28] The Court held that no relief could be granted, because although a patentee may:

> prohibit entirely the manufacture, sale, or use of [infringing] packages . . . . it may not exact as the condition of a license that unpatented materials used in connection with the invention shall be purchased only from the licensor; and if it does so, relief against one who supplies such unpatented materials will be denied.[29]

The Court held that the *MPPC* decision precluded allowing a patent holder "'to derive its profit, not from the invention on which the law gives it a monopoly, but from the unpatented supplies with which it is used' [and which are] 'wholly without the scope of the patent monopoly.'"[30]

Like the *MPPC* Court, the *Carbice* Court did not articulate a "patent misuse" doctrine as such. Nevertheless, it did condemn a patentee's attempt

23. 283 U.S. 27 (1931).

24. *Id.* at 28.

25. *Id.* at 29 (internal quotation marks omitted).

26. *Id.*

27. *Id.* at 30.

28. "Contributory" patent infringement is an action by some third party that causes another to commit direct patent infringement. *See* 35 U.S.C. § 271(c) (2006).

29. *Carbice*, 283 U.S. at 31 (citations omitted).

30. *Id.* at 31–32 (quoting Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 517 (1917)).

to expand the scope of the patent for anticompetitive reasons. It explained as follows:

> The Dry Ice Corporation has no right to be free from competition in the sale of solid carbon dioxide. . . . Relief is denied because the Dry Ice Corporation is attempting, without sanction of law, to employ the patent to secure a limited monopoly of unpatented material used in applying the invention. The present attempt is analogous to the use of a patent as an instrument for restraining commerce which was condemned, under the Sherman Anti-Trust Law . . . ."[31]

The *Carbice* Court relied on the antitrust laws more explicitly than the *MPPC* Court had, explaining that: "In such cases, the attempt to use the patent unreasonably to restrain commerce is not only beyond the scope of the grant, but also a direct violation of the Anti-Trust Acts."[32] Yet, the Court indicated that patent policy also required its result.[33]

The Court continued the trend of condemning ties between patented and unpatented products. In *Leitch Manufacturing Co. v. Barber Co.*, the parties were "competing manufacturers of bituminous emulsion—an unpatented staple article of commerce produced in the United States by many concerns and in common use by their customers for many purposes."[34] The emulsion had long been used as a coating for crushed stone in the building of macadam roads.[35] Later, the Barber Company acquired a process patent for a method of using the emulsion in building concrete roads, wherein the emulsion would provide a "film on the surface of the roadway to retard evaporation during curing."[36] The Barber Company did not seek to make profits directly from licensing the patented process. Rather, it made its money by selling the emulsion to road builders with an implied license that the builders could use the emulsion as part of the process. When Leitch sold the emulsion to road builders who were employing the patented process, however, Barber sued for contributory patent infringement. Accordingly, the Court concluded that Barber had "adopt[ed] a method of doing the business which is the practical equivalent of granting a written license with a condition that the patented method may be practiced only with emulsion purchased from it."[37] Thus, although

31. *Id.* at 33–34.
32. *Id.* at 34 n.4.
33. *See supra* notes 29–30.
34. 302 U.S. 458, 460 (1938).
35. A "macadam" road is made of crushed stone bound together with a binding material such as tar. *See* ROY BEVEREUX, JOHN LOUDON MCADAM: CHAPTERS IN THE HISTORY OF HIGHWAYS (1936).
36. *Leitch*, 302 U.S. at 460.
37. *Id.* at 460–61.

Barber had not used a written license agreement to expand its monopoly or restrain competition, the Court rejected Barber's contributory-infringement suit, stating that, under *Carbice*, "every use of a patent as a means of obtaining a limited monopoly of unpatented material is prohibited."[38]

Ultimately, in *Morton Salt Co. v. G.S. Suppiger Co.*, the Supreme Court offered an equity rationale for refusing to grant relief to patent holders who were engaged in tying unpatented goods. The patentee Suppiger held a patent "on a machine . . . said to be useful in the canning industry for adding predetermined amounts of salt in tablet form to the contents of the cans."[39] Suppiger leased these machines to canning companies upon the condition that only its salt tablets could be used with the leased machines. In fact, the sale of salt tablets was Suppiger's primary business. Suppiger sued Morton Salt Company for making and leasing salt-depositing machines, which Suppiger alleged infringed its own machines. The Court rejected Suppiger's infringement claim, holding that its tie was an attempt to use "its patent monopoly to restrain competition in the marketing of unpatented articles, salt tablets, for use with the patented machines, and [was] aiding in the creation of a limited monopoly in the tablets not within that granted by the patent."[40]

In all of these cases, the Supreme Court expressed a concern, grounded in patent law, against allowing a patent holder to use a patent to exclude competition in the market for unpatented goods. Yet, there was one important difference between *MPPC* and the later cases whose significance went entirely unnoticed. Given *MPPC*'s monopoly over the film-projector market and the fact that the films could not be used without the projector, the projector–film tie threatened to monopolize the movie market by prohibiting anyone other than the patentee from showing its films through the patentee's projector. In other words, *MPPC* threatened to foreclose competition in the market for films.[41] By contrast, in the other cases, the tied product was a common commodity produced by many competitors. As such, the tie was very unlikely to foreclose competition in that market. In *Carbice*, the dry ice was a commodity produced in numerous factories for many brands of ice boxes. In *Leitch*, the Court acknowledged that the emulsion was used for many purposes and produced by many firms. In *Morton Salt*, the salt was a commodity produced by many firms and was therefore incapable of being monopolized.

Moreover, *Morton Salt*, like the other cases, involved the tying of a patented device with related, but unpatented, goods. Yet, the decision

38. *Id.* at 463.

39. Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 489 (1942), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

40. *See id.* at 491.

41. *See supra* note 17 (discussing literature on how the tie was part of an attempt to monopolize the entire commercial film market in the United States).

departs from those earlier precedents in an important way. In the previous cases, the Court refused to aid a patent holder who sued competitors for contributory infringement for selling an unpatented good to the patent holder's licensees. Thus, in those cases, the Court held that the patent rights asserted over a particular invention did not extend to excluding others from selling goods not covered by the scope of the patent. In *Morton Salt*, however, the Court went one step further, holding that a patent holder could not sue even for direct infringement of his patented invention where the patent holder had tied that invention to unpatented goods.[42] Thus, the decision precludes a patent holder from enforcing any of its basic patent rights where that enforcement might contribute to its attempt to control the market for unpatented goods.

For this reason, *Morton Salt* is widely regarded as the first case to apply the modern patent-misuse doctrine. Under that doctrine, patent misuse is typically raised as a defense to a patent-infringement claim.[43] If the court agrees that the patent holder has misused its patent, then the patent cannot be enforced until the patent holder can show that the misuse has been purged, or that "the improper practice has been abandoned and that the consequences of the misuse of the patent have been dissipated."[44]

Morton Salt articulated an equity rationale for the patent-misuse doctrine. Although there is ordinarily nothing wrong in enforcing one's statutory patent rights, the Court reasoned, equity nevertheless precluded granting the patent holder's requested relief in cases of patent misuse. The Court explained:

> Where the patent is used as a means of restraining competition with the patentee's sale of an unpatented product, the successful prosecution of an infringement suit even against one who is not a competitor in such sale is a powerful aid to the maintenance of the attempted monopoly of the unpatented article, and is thus a contributing factor in thwarting the public policy underlying the grant of the patent. Maintenance and enlargement of the attempted monopoly of the unpatented article are dependent to some extent upon persuading the public of the validity of the patent, which the infringement suit is intended to establish. Equity may rightly withhold its assistance from such a use of the patent by declining to entertain a suit for infringement . . . .[45]

42. *Morton Salt*, 314 U.S. at 493.

43. *See supra* note 11 (noting a few exceptions).

44. *Morton Salt*, 314 U.S. at 493; *accord* B.B. Chem. Co. v. Ellis, 314 U.S. 495 (1942) (finding misuse where licensing of process patent was contingent on the use of patentee's materials and prohibiting patentee from enforcing the patent until the misuse was purged).

45. *Morton Salt*, 314 U.S. at 493.

In all of the foregoing cases,[46] the Supreme Court relied on patent policy and equity principles in developing the patent-misuse doctrine. The Court's driving purpose in those cases was to prevent patent holders from using a patent to "monopolize" the market for a second product not included in the patent grant. As we shall see, later cases expanded the misuse doctrine to apply to patent practices other than tying and to copyright practices as well.

III. CURRENT APPROACHES TO MISUSE

Building on those early cases, courts and commentators have developed two approaches to misuse. One approach defines misuse by looking at antitrust principles, on the theory that misuse is concerned with anticompetitive behavior. The other approach defines misuse as an attempt to gain power or advantage over something outside the scope of the IP right.

---

46. Although the Supreme Court's decision in *Mercoid Corp. v. Mid-Continent Investment Co.* (*Mercoid I*), 320 U.S. 661 (1944), closely followed these earlier cases, it will not be discussed in great depth in the text, mainly because Congress explicitly overruled it in the 1952 Patent Act. There, Mid-Continent sued Mercoid for selling a combustion stoker switch whose sole use was as part of a heating system over which Mid-Continent held a combination patent. The Court acknowledged that Mercoid manufactured and sold the switches for use in the patented system and therefore assumed "that Mercoid did not act innocently." *Id.* at 664. Nevertheless, the Court refused to hold Mercoid liable for contributory infringement. Citing its earlier cases, the Court refused to allow Mid-Continent to expand its patent over the combination to include control over the individual unpatented elements of the combination. The Court explained as follows:

> The patent is for a combination only. Since none of the separate elements of the combination is claimed as the invention, none of them when dealt with separately is protected by the patent monopoly. . . . If a limited monopoly over the combustion stoker switch were allowed, it would not be a monopoly accorded inventive genius by the patent laws but a monopoly born of a commercial desire to avoid the rigors of competition fostered by the anti-trust laws. If such an expansion of the patent monopoly could be effected by contract, the integrity of the patent system would be seriously compromised.

Id. at 667–68. Congress subsequently overruled *Mercoid I* with § 271(c) of the 1952 Patent Act, which states that:

> (c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, *knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use*, shall be liable as a contributory infringer.

35 U.S.C. § 271(c) (2006) (emphasis added).

Section 271(d) of the Act also clarified that patent holders would not be guilty of misuse for enforcing their rights against such contributory infringers. *Id.* § 271(d). For a detailed examination of the problems raised by *Mercoid I* and Congress's response, see *Dawson Chemical Co. v. Rohm & Hass Co.*, 448 U.S. 176, 203–13 (1980).

The following Subparts describe and critique each of these approaches, showing why they are inadequate for addressing important IP policies.

A. *Misuse Defined by Substantive Antitrust Principles*

1. Apparent Dominance of the Antitrust Model of Misuse

Arguably, the dominant view over the past few decades has been that patent misuse occurs only when the patentee's conduct—a tying arrangement or license restriction or other practice—violates the antitrust laws. Under the antitrust model of misuse, the defendant must prove that the patent holder has market power in the relevant market for the patented product, and that the patent holder's conduct or restriction tends to exclude rivals from the market or prevent them from entering it.

Congress incorporated this approach, to some extent, in the Patent Misuse Reform Act of 1988, which provides that a patent holder cannot be guilty of misuse for tying an unpatented product to a patented one unless there is market power in the patented product:

> (d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: . . . (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.[47]

Yet, the Act does not seem to adopt an antitrust standard wholesale. The legislative history of the Act shows that as originally proposed, the statute would have refused to condemn a practice as misuse unless it also

47. 35 U.S.C. § 271(d). On this legislation, see Richard Calkins, *Patent Law: The Impact of the 1988 Patent Misuse Reform Act and* Noerr-Pennington *Doctrine on Misuse Defenses and Antitrust Counterclaims*, 38 DRAKE L. REV. 175, 197 (1989), which argues that the same requirement of market power in the tying product required in antitrust law should control misuse law.

Prior to the 1988 Act, the Supreme Court had held that at least in antitrust tying cases involving patented tying products, the patent created a presumption of market power in the tying product sufficient to establish market power for that offense. *See* United States v. Loew's, Inc., 371 U.S. 38 (1962) (extending the presumption to copyright), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); Int'l Salt Co. v. United States, 332 U.S. 392 (1947), *overruled by Ill. Tool Works*, 547 U.S. 28 (holding that the fact that a tying product was patented created a presumption of market power). As noted, however, the 1988 Act required a showing of market power in order to establish patent misuse by tying. In light of the 1988 Act's requirement, the Supreme Court overruled *International Salt* and *Loew's* in *Illinois Tool Works*, 547 U.S. 28. As a result, market power cannot be presumed from the existence of a patent and must be proved for purposes of both antitrust and misuse doctrine.

constituted an antitrust violation.[48] Congress changed the bill prior to passage, however, and in the end, it simply listed several practices that were not misuse without a showing of market power.[49] In sum, Congress considered and rejected legislation that would have explicitly limited misuse to antitrust principles.

The case law is somewhat mixed. In some decisions the Federal Circuit Court of Appeals appears to have adopted an antitrust standard for misuse.[50] Others have suggested that misuse has a somewhat broader reach. For example, in its recent decision in *Monsanto Co. v. Scruggs*, the majority concluded that "[p]atent misuse is . . . a broader wrong than [an] antitrust violation."[51] It stated that the "policy of the patent misuse doctrine is 'to prevent a patentee from using the patent to obtain market benefit beyond that which inures in the statutory patent right.'"[52] Thus, in order for misuse to occur, one must "impermissibly broaden[] the scope of the patent grant with anticompetitive effect."[53] In other cases the Federal Circuit has held

48. S. REP. NO. 100-492, at 17–18 (1988). On this legislative history, see Joel R. Bennett, *Patent Misuse: Must an Alleged Infringer Prove an Antitrust Violation?*, 17 AIPLA Q.J. 1 (1989), Kenneth J. Burchfiel, *Patent Misuse and Antitrust Reform: "Blessed Be the Tie?,"* 4 HARV. J.L. & TECH. 1, 2 n.9 (1991), and Jere M. Webb & Lawrence A. Locke, Recent Development, *Intellectual Property Misuse: Developments in the Misuse Doctrine*, 4 HARV. J.L. & TECH. 257, 264–65 (1991).

49. 35 U.S.C. § 271(d).

50. *See, e.g.*, Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001–02, 1003 n.12 (Fed. Cir. 1986) ("To sustain a misuse defense involving a licensing arrangement not held to have been per se anticompetitive by the Supreme Court, a factual determination must reveal that the overall effect of the license tends to restrain competition unlawfully in an appropriately defined relevant market." (footnote omitted)); *see also* Va. Panel Corp. v. Mac Panel Co., 133 F.3d 860, 868 (Fed. Cir. 1997) (noting that misuse occurs when the patent holder has "impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect" (quoting *Windsurfing Int'l*, 782 F.2d at 1001)); Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 703–04, 708 (Fed. Cir. 1992) (suggesting that misuse largely tracks antitrust, although it might occasionally reach more broadly).

51. 459 F.3d 1328, 1339 (Fed. Cir. 2006) (quoting C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1372 (Fed. Cir. 1998)); *see* Hewlett-Packard Co. v. Bausch & Lomb Inc., 882 F.2d 1556, 1563 (Fed. Cir. 1989) (distinguishing misuse from antitrust violation); Senza-Gel Corp. v. Seiffhart, 803 F.2d 661, 669–71 (Fed. Cir. 1986) (finding misuse but no antitrust violation where the patentee tied its meat-deboning process and its deboning machine because the process and machine did not constitute "separate products," as antitrust tying law requires); *cf.* Transitron Elec. Corp. v. Hughes Aircraft Co., 487 F. Supp. 885, 892–93 (D. Mass. 1980), *aff'd*, 649 F.2d 871 (1st Cir. 1981) (explaining that misuse has a less stringent standing requirement and lighter burden of proof than an antitrust claim).

52. *Scruggs*, 459 F.3d at 1339 (quoting Monsanto Co. v. McFarling, 363 F.3d 1336, 1341 (Fed. Cir. 2004)); *see also* Princo Corp. v. Int'l Trade Comm'n, No. 2007-1386, 2010 WL 3385953, at *8 (Fed. Cir. Aug. 30, 2010) (en banc) (reiterating this policy).

53. *Scruggs*, 459 F.3d at 1339; *see also McFarling*, 363 F.3d at 1341 (finding that it is not misuse for the developer of a patented, genetically modified seed to prevent farmers from planting second-generation seeds); Hearing Components, Inc. v. Shure, Inc., No. 9:07-CV-104, 2009 WL 815526 (E.D. Tex. Mar. 26, 2009) (quoting *C.R. Bard Co.*, 157 F.3d at 1372) (holding that false marking of a patented product is not patent misuse); Delano Farms Co. v. Cal. Table

that misuse might be found where a technical requirement of antitrust law is not satisfied. For example, in *U.S. Philips Corp. v. Princo Corp.*, the court held that package licensing of multiple patented products or technologies might constitute patent misuse even though antitrust's requirement that the tying and tied things be "separate products" had not been met.[54]

Courts seem more willing to deviate from antitrust rules in copyright-misuse cases than in patent-misuse cases. For instance, Judge Posner held in earlier patent-misuse cases that antitrust standards should control because misuse is a doctrine about restraints on competition, and only the antitrust laws provide a body of law that is rich in competition doctrine.[55] More recently, however, Judge Posner has suggested that *copyright* misuse reaches beyond antitrust.[56] The Fourth and Ninth Circuits also have held that it is not necessary for a defendant in a copyright-infringement suit to prove an antitrust violation in order to establish a copyright misuse defense.[57]

Grape Comm'n, 623 F. Supp. 2d 1144, 1178–80 (E.D. Cal. 2009) (holding that it is not misuse to collect royalties prior to patent issuance or to prevent reproduction of patented grape vines); Hear-Wear Techs., LLC v. Phonak, LLC, No. 07-CV-0212-CVU-SAJ, 2008 WL 747086, at *6–7 (N.D. Okla. Mar. 18, 2008) (finding the collective activity of four patentees in hearing-aid market to exclude rivals could constitute misuse as well as antitrust violation).

54. 173 F. App'x 832, 835 (Fed. Cir. 2006) (holding that the lower "court erred in reading the statute to preclude a finding of patent misuse unless the tied patents involved multiple products"), *rev'd on other grounds*, 2010 WL 3385953; *see also Senza-Gel*, 803 F.2d 661 at 669–70 (same). On the "separate products" requirement in tying law, see *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594, 614 (1953) (tying of advertising in morning and evening editions of newspaper not unlawful because the two constituted a single "product"), and 10 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶¶ 1741–51 (2d ed. 2004) (discussing the separate-products requirement of a tying claim, the test courts use to determine the legality of a tying arrangement, and the factors courts consider in that determination).

55. *See* USM Corp. v. SPS Techs., Inc., 694 F.2d 505 (7th Cir. 1982) (stating that misuse is to be tested by antitrust principles); Panther Pumps & Equip. Co. v. Hydrocraft, Inc., 468 F.2d 225 (7th Cir. 1972) (suggesting that antitrust and misuse principles are the same); *see also* Nat'l Presto Indus. v. Black & Decker (U.S.) Inc., 760 F. Supp. 699, 702–03 (N.D. Ill. 1991) (following *USM* and saying that, "generally speaking, claims of patent misuse have been tested by conventional antitrust principles").

56. Assessment Techs., LLC v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003) (describing a challenged practice as akin to misuse even though the market-power requirement under antitrust law had not been established).

57. Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 521 (9th Cir. 1997) ("We agree with the Fourth Circuit that a defendant in a copyright infringement suit need not prove an antitrust violation to prevail on a copyright misuse defense."); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 978–79 (4th Cir. 1990) (holding that in copyright, misuse reaches more broadly than antitrust); *see also* Apple Inc. v. Psystar Corp., No. C 08-03251 WHA, 2009 WL 303046, at *3–4 (N.D. Cal. Feb. 6, 2009) (holding that tying of Apple operating system to Apple computers was sufficient to state a claim of misuse at the pleading stage without inquiring into whether the tie constituted an antitrust violation), *amended by* 93 U.S.P.Q.2d (BNA) 1272, 1272 (N.D. Cal. Dec. 15, 2009) (finding no misuse and granting Apple a permanent injunction against Psystar "following summary judgment in its favor on claims of copyright infringement and violations of the Digital Millennium Copyright Act").

Several of the leading scholars on intellectual property and antitrust have argued generally that misuse, particularly patent misuse, should be judged according to antitrust principles. In the leading antitrust law treatise, Professor Hovenkamp has argued that "no contract or patent [should] be denied enforcement unless the challenged behavior would constitute a substantive antitrust violation."[58] Like Judge Posner, he reasons that antitrust law should provide the standards for patent misuse because "the underlying rationale for the patent misuse concept is that certain patent practices might impair competition" and that "the antitrust laws are society's designated and generally applicable vehicle for deciding what is anticompetitive."[59] Professor Cotter "calls into question the need for *any* patent misuse doctrine" but argues that "[p]atent misuse doctrine may not do much harm if misuse comprises only some set of substantive antitrust violations."[60]

2. Critique of the Antitrust Model

The Supreme Court's discussion of "monopoly" in the *MPPC* case, as well as its dicta indicating that the decision was supported by the competition policy reflected in the antitrust laws,[61] provides superficial support for using antitrust as the yardstick for measuring anticompetitive misuse. Yet, *MPPC* did not rely on antitrust law for its holding; rather, it made clear that its condemnation of an extension of a patent "monopoly" was grounded firmly in IP policy. If the Motion Picture Patents Company had succeeded in using its patent over the film projector to require theaters to use only its films, other potential filmmakers would have had no incentive to produce new films. The result would have been a severely impoverished film market, in which consumers had access to far fewer films than they would have otherwise.

The strict antitrust model of misuse has caused misuse to go wrong in at least three ways. First, under the antitrust model, market power in the patented product must be shown before an exclusionary practice will be deemed misuse. Beginning in the 1940s, however, the Supreme Court

58. 10 PHILLIP E. AREEDA, EINER ELHAUGE & HERBERT HOVENKAMP, ANTITRUST LAW § 1781d4 (2d ed. 2004).

59. *Id.*

60. Cotter, *supra* note 2, at 949–63 (arguing that antitrust law, with minor adjustments, should provide the standard for patent misuse); Thomas F. Cotter, *Four Questionable Rationales for the Patent Misuse Doctrine* 21–22 (Minn. Legal Studies Research Paper No. 10-30, 2010), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1616275 ("[I]n theory there could be a role for some limited applications of misuse beyond the scope of antitrust, though I believe that such instances are likely to be rare."). "If patent misuse doctrine cannot be scrapped altogether," he argues, it could be reformed by imposing a standing doctrine and "clarifying exactly how a patentee goes about purging misuse." *Id.* at 22.

61. Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917); *see supra* text accompanying notes 15–21.

began to hold that market power could be presumed in misuse cases involving tying based on the existence of a patent or copyright, making it too easy to establish misuse for tying arrangements and similar cases.[62] The Supreme Court corrected this problem in 2006 in the *Illinois Tool Works* decision, which overruled earlier cases establishing that presumption.[63]

Second, antitrust law itself seems to have erred in condemning "leveraging" practices such as tying, causing misuse doctrine to go wrong as well. Subsequent to *MPPC*, which involved true foreclosure of competing film producers, the Supreme Court increasingly began condemning ties of ordinary commodities or other highly competitive goods where exclusion of rivals could not possibly occur. The general theory was that the tie was unlawful because it "leveraged" or extended the patentee's monopoly profits from the tying product to the tied product as well.[64]

The leverage theory of tying dominated the law of patent-tying arrangements for decades and shifted the focus toward market power in the patented product and away from competitive injury or exclusion in the market for the tied product. In *Carbice*, for instance, Justice Brandeis found misuse in a tie of ordinary dry ice to the patentee's patented icebox.[65] His opinion declared that the tie was bad because it enabled the patentee to obtain one monopoly profit on its icebox and a second monopoly profit on the ice.[66] This was an application of the "leverage" theory—or the notion

62. United States v. Loew's Inc., 371 U.S. 38 (1962) (adopting presumption of market power for copyrighted tying product), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); Int'l Salt Co. v. United States, 332 U.S. 392 (1947) (adopting presumption of market power for patented tying product), *overruled by Ill. Tool Works*, 547 U.S. 28.

63. 547 U.S. 28. In *Illinois Tool Works*, the holder of a patent on a printhead system for inkjet printers conditioned the sale of its patented system on the purchase of its own unpatented ink. *Id.* at 32. The Court held that the tying claim was not actionable under the antitrust laws absent proof of market power in the printhead system, and that the patent alone did not give rise to a presumption of market power. *Id.* at 42–43. The Court overruled its earlier presumption that a patent automatically confers market power "[a]fter considering the congressional judgment reflected in the 1988 [Patent Misuse Reform Act] amendment," which made market power a requirement for patent misuse, as well as "extensive scholarly commentary and a change in position by the administrative agencies charged with enforcement of the antitrust laws." *Id.* at 33–43. In doing so, it described the presumption of market power as "a vestige of the Court's historical distrust of tying arrangements." *Id.* at 38. "Over the years, however, this Court's strong disapproval of tying arrangements has substantially diminished. Rather than relying on assumptions, in its more recent opinions the Court has required a showing of market power in the tying product." *Id.* at 35.

64. For discussions of the traditional leveraging view, see Donald F. Turner, *The Validity of Tying Arrangements Under the Antitrust Laws*, 72 HARV. L. REV. 50, 59–62 (1958), and William B. Lockhart & Howard R. Sacks, *The Relevance of Economic Factors in Determining Whether Exclusive Arrangements Violate Section 3 of the Clayton Act*, 65 HARV. L. REV. 913, 944 (1952).

65. Carbice Corp. v. Am. Patents Dev. Corp., 283 U.S. 27, 28 (1931); *see supra* text accompanying notes 23–32.

66. *Carbice*, 283 U.S. at 31–32.

that tying enables a firm to turn one monopoly (over the patented product) into two. Brandeis wrote:

> If a monopoly could be so expanded, the owner of a patent for a product might conceivably monopolize the commerce in a large part of unpatented materials used in its manufacture. The owner of a patent for a machine might thereby secure a partial monopoly on the unpatented supplies consumed in its operation. The owner of a patent for a process might secure a partial monopoly on the unpatented material employed in it. The owner of the patent in suit might conceivably secure a limited monopoly for the supplying not only of solid carbon dioxide, but also of the ice cream and other foods, as well as the cartons in which they are shipped.[67]

Justice Brandeis found *MPPC* indistinguishable.[68] Yet, *MPPC* involved a clear attempt by a true patent monopolist to use a tie to create a second monopoly in the market for film. By contrast, the tying arrangement in *Carbice* could never foreclose competition in the tied product. The ice container was patented, but there was no evidence that it had market power in its market. Moreover, because the tied product was dry ice, an ordinary commodity with many uses unrelated to the ice box, there could be no foreclosure in the tied-product market. In sum, there likely was no harm to competition at all.

Following *Carbice*, Supreme Court decisions such as *Morton Salt*,[69] *Leitch*,[70] and *Mercoid Corp. v. Mid-Continent Investment Co.*[71] all evaluated misuse by seeing (or imagining) a monopoly in the tying-product market and then seeing a form of improper leveraging of that monopoly via the tied-product market. A few of them even noted the highly competitive nature of the tied product. For example, in *Leitch* the Supreme Court observed that "[t]he Barber Company and Leitch Manufacturing Company are competing manufacturers of bituminous emulsion—an unpatented staple article of commerce *produced in the United States by many concerns and in common use by their customers for many purposes*."[72] Yet the Court indicated that the patentee's product–process tie constituted improper anticompetitive conduct of the kind we now call misuse.[73]

---

67. *Id.* at 32.
68. *Id.* at 33.
69. *See supra* text accompanying notes 39–40 (discussion of the *Morton Salt* case).
70. *See supra* text accompanying notes 34–38 (discussion of the *Leitch* case).
71. *Mercoid I*, 320 U.S. 661 (1944); *Mercoid II*, 320 U.S. 680 (1944).
72. Leitch Mfg. Co. v. Barber Co., 302 U.S. 458, 460 (1938) (emphasis added).
73. *Id.* at 463.

The leverage theory of tying has largely been discredited in the antitrust literature,[74] although arguments continue to be made for limited versions or applications of the theory.[75] Basically, the critics have observed that a buyer who needs both the tying and tied products is indifferent as to how the price is allocated between the two. Its willingness to pay is determined by the value it places on the combination. For example, if the purchasers of a printer and ink generally value the combination at $100, then a printer monopolist charging $90 for the printer alone cannot profitably tie ink for more than $10, regardless of its market power in the printer. Moreover, so long as the purchasers can get the combination for $100, they will be indifferent as to whether they pay $100 for the printer and $0 for the ink, or $90 for the printer and $10 for the ink, or some other price allocation. Thus, the critique of leveraging theory shows that a seller does not gain any *additional* monopoly over an unpatented product by tying it to the patented product, even if the seller enjoys market power in the market for the patented product.

The Patent Act entitles a patent holder to exclude others from making, using, or selling its patented product and therefore to charge whatever it wants for its patented product. As a result, the patent holder could always attribute the entire amount it is asking for the tied combination to the patented product alone. Because the holder of the patent in the primary product can obtain the full available monopoly overcharge by setting its monopoly price on the tying product alone, tying does not enable the patent holder to earn additional monopoly profits by charging a second monopoly price for the tied product.

When misuse doctrine mirrors substantive antitrust standards, it reinforces the leveraging fallacy. The critique of leveraging renders many findings of patent misuse in tying cases suspect. Mainly, the exaggerated concern about extraction of double monopoly profits in the tying product has led courts, including the Supreme Court, to ignore the issue of

---

74. The original critique came from Ward Bowman in 1957. Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 35 (1957) (discrediting leverage theory). Since then, numerous writers have criticized the theory. *See, e.g.*, Richard S. Markovits, *Tie-ins, Leverage, and the American Antitrust Laws*, 80 YALE L.J. 195 (1970); Richard S. Markovits, *Tie-ins, Reciprocity, and the Leverage Theory*, 76 YALE L.J. 1397 (1967); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925 (1979); Charles J. Smaistrla, Note, *An Analysis of Tying Arrangements: Invalidating the Leveraging Hypothesis*, 61 TEX. L. REV. 893 (1983); Keith K. Wollenberg, Note, *An Economic Analysis of Tie-in Sales: Re-examining the Leverage Theory*, 39 STAN. L. REV. 737 (1987).

75. *See, e.g.*, Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397 (2009) (arguing that the critique of leverage theory is overstated); Robin Cooper Feldman, Essay, *Defensive Leveraging in Antitrust*, 87 GEO. L.J. 2079, 2093–94 (1999) (arguing for a defensive leverage theory which would recognize that a monopolist may maintain and prolong its monopoly through leverage behavior); Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985) (endorsing a limited version of the leveraging theory).

foreclosure in the tied product. The preoccupation with market power in the primary product, especially when coupled with the presumption of market power for patented goods that existed until the Court invalidated it in *Illinois Tool Works*,[76] condemned numerous ties that almost certainly were not anticompetitive.[77]

This is not to say that leveraging is never a problem in antitrust law. As some have argued, there might be situations in which leveraging ties can increase prices or decrease output. The issue of whether some forms of leveraging should continue to be condemned under the antitrust laws is beyond the scope of this Article. The argument here is that concerns over leveraging have been exaggerated and that these concerns have caused misuse doctrine to shoot at the wrong target by focusing almost exclusively on market power in the tying product, rather than on foreclosure of competition in the tied product market. Congress essentially codified this error in the 1988 Patent Misuse Reform Act, providing that tying does not constitute misuse unless "the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned."[78]

Third, and very important for present purposes, misuse is wrong to the extent that it uses a strict antitrust model for assessing whether a practice constitutes misuse. Misuse doctrine is a creature of IP law, not antitrust law. There is simply no reason why misuse doctrine should focus exclusively on antitrust concerns and not on legitimate and deep-rooted IP concerns regarding the effects of overreaching in IP. Thus, while misuse might continue to protect against antitrust violations, misuse should also apply

76. 547 U.S. 28 (2006); *see supra* text accompanying note 63.

77. *See, e.g.*, *Mercoid I*, 320 U.S. 661, 661 (1944) (tied product was an unpatented thermostat switch); *Mercoid II*, 320 U.S. 680, 680 (1944) (same); Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1942) (common table salt), *overruled by Ill. Tool Works*, 547 U.S. 28; *Leitch*, 302 U.S. at 458 (unpatented chemical emulsion produced by numerous firms); Carbice Corp. v. Am. Patents Dev. Corp., 283 U.S. 27 (1931) (unpatented dry-ice commodity); *see also* Hodosh v. Block Drug Co., 833 F.2d 1575 (Fed. Cir. 1987) (stating that it could be misuse for the patentee of a method for desensitizing teeth to incorporate it into toothpaste and refuse to license the method apart from sales of the toothpaste); Senza-Gel Corp. v. Seiffhart, 803 F.2d 661 (Fed. Cir. 1986) (affirming district court's conclusion that inquiry into anticompetitive effects was unnecessary and finding misuse for the owner of a process patent that required an unpatented machine for its implementation to refuse to license the patent except along with sales of the machine); Rex Chainbelt Inc. v. Harco Prods., Inc., 512 F.2d 993, 1001–03 (9th Cir. 1975) (finding, without discussion of power or competitive effect other than the existence of the patent itself, that it was both misuse and an antitrust violation for the defendant to refuse to license its method patent except in conjunction with sales of an unpatented product); Beckman Instruments, Inc. v. Technical Dev. Corp., 433 F.2d 55 (7th Cir. 1970) (holding that tying of unpatented goods could be misuse with no discussion of anticompetitive effects); Rocform Corp. v. Acitelli-Standard Concrete Wall, Inc., 367 F.2d 678, 680 (6th Cir. 1966) (finding misuse in patent holder's tying of patent to other patents and to unpatented materials and services without inquiring into power or anticompetitive effect).

78. 35 U.S.C. § 271(d) (2006).

when an IP holder violates IP policy.[79] As will be discussed in more depth in subsequent Subparts, an IP holder can violate IP policy in several ways—including foreclosure of competition, new innovation, or access to the public domain—even absent an antitrust violation.

B. Misuse as an Attempt To Obtain Rights "Beyond the Scope" of a Statutory IP Right

The less dominant view of misuse is that although misuse applies when the patent or copyright holder violates the antitrust laws, it can also occur when the IP holder violates IP policy by attempting to expand its IP right beyond the scope of the grant[80] or, in some cases, after the grant has expired.[81] Thus, if the restriction is "reasonably within the patent grant," misuse does not apply, but if the restriction attempts to control something outside the grant, then misuse will be found.[82] The beyond-the-scope test is

---

79. *See* Julie E. Cohen, *Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual Property Implications of "Lock-Out" Programs*, 68 S. CAL. L. REV. 1091, 1192–94 (1995) (arguing that the misuse doctrine is more suitable than antitrust doctrine for addressing harms to innovation); Frischmann & Moylan, *supra* note 2, at 927–30 (positing that the misuse doctrine should be used to remedy restraints on innovation that might not constitute antitrust violations).

80. *See, e.g.*, *Morton Salt*, 314 U.S. at 491–92 (stating that it constitutes misuse for patentee to impose a restraint creating a "monopoly not within the grant"); Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986) (maintaining that misuse has occurred if patentee "has impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect" (quoting Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found., 402 U.S. 313, 343 (1971))); Sanofi-Synthelabo v. Apotex, Inc., No. 02 Civ. 2255(SHS), 2006 WL 3103321 (S.D.N.Y. Nov. 2, 2006) (stating that *Morton Salt* addressed an example of misuse in a patentee's attempt to "restrain trade beyond the scope of the patent"); Video Pipeline, Inc. v. Buena Vista Home Entm't, Inc., 275 F. Supp. 2d 543, 557 (D.N.J. 2003) (defining "copyright misuse" as an attempt by a copyright holder "to extend its monopoly beyond the scope of the copyright laws in an anticompetitive manner"); *In re* Napster, Inc. Copyright Litig., 191 F. Supp. 2d 1087, 1106 (N.D. Cal. 2002) (same); Hoffman-La Roche Inc. v. Genpharm Inc., 50 F. Supp. 2d 367, 378 (D.N.J. 1999) (same); Amgen, Inc. v. Chugai Pharm. Co., 706 F. Supp. 94 (D. Mass. 1989) (calling "patent misuse" an attempt to go "beyond the scope of the patent"); USM Corp. v. Standard Pressed Steel Co., 453 F. Supp. 743, 748–49 (N.D. Ill. 1978) ("[P]atent misuse consists of an attempt by the patent holder to gain for himself rights not inherent in the patent itself, or to extend his monopoly beyond that legally granted to him."), *aff'd in part, vacated in part on other grounds sub nom.*, USM Corp. v. SPS Techs., Inc., 694 F.2d 505 (7th Cir. 1982); *see also* Feldman, *supra* note 2, at 449 (arguing that misuse should apply to licensing restrictions that extend either the scope or duration of patent protection).

81. *See* Brulotte v. Thys Co., 379 U.S. 29, 33 (1964) ("A patent empowers the owner to exact royalties as high as he can negotiate with the leverage of that monopoly. But to use that leverage to project those royalty payments beyond the life of the patent is analogous to an effort to enlarge the monopoly of the patent by tieing [sic] the sale or use of the patented article to the purchase or use of unpatented ones."); *see also* Feldman, *supra* note 2, at 413 ("The doctrine of patent misuse rests on the notion that a patent holder may not try to extend the time or scope of the patent grant.").

82. Monsanto Co. v. Scruggs, 342 F. Supp. 2d 568 (N.D. Miss. 2004), *aff'd*, 459 F.3d 1328 (Fed. Cir. 2006).

an understandable attempt to ground the doctrine of IP misuse in IP policy. The general notion is that IP's interests in encouraging innovation and access to the public domain requires limiting IP rights so that others can use and build on existing patented inventions and copyrighted works.

Sometimes a finding of misuse under the beyond-the-scope test also depends on a vague requirement that the overreaching has some adverse effect on competition. For instance, the Federal Circuit has stated that misuse occurs when the patentee has "impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect."[83] Stating the doctrine in this way is an attempt to reconcile, at least to some extent, the beyond-the-scope approach to misuse with the antitrust approach.

Even with the requirement of some "anticompetitive effect," however, the beyond-the-scope test does not really incorporate the language of *MPPC* and other formative Supreme Court cases stating that misuse depends on the threat of a *monopoly* in a secondary product. Moreover, the test provides little guidance on the difficult issue of determining what falls "within" or "outside" the scope of the grant.[84] For instance, the beyond-the-scope test cannot really tell us whether it is wrongful to require payment of royalties after termination of the IP term where the royalties relate to the use of the IP right during the term. Most contract terms cover practices that technically fall outside the scope of the patent grant—otherwise, a contract would be unnecessary—but certainly not all of these practices are harmful to IP policy.

Indeed, the beyond-the-scope test produces both false positives and false negatives. For instance, it might seem clear that tying arrangements

---

83. *Windsurfing Int'l, Inc.*, 782 F.2d at 1001 (quoting *Blonder-Tongue Labs., Inc.*, 402 U.S. at 343); *see also* Princo Corp. v. Int'l Trade Comm'n, No. 2007-1386, 2010 WL 3385953, at *8 (Fed. Cir. Aug. 30, 2010) (en banc) ("While proof of an antitrust violation shows that the patentee has committed wrongful conduct having anticompetitive effects, that does not establish misuse of the patent in suit unless the conduct in question restricts the use of that patent and does so in one of the specific ways that have been held to be outside the otherwise broad scope of the patent grant.").

84. *See* Feldman, *supra* note 2, at 413–14 ("The problem of identifying commercial behavior that extends the time and scope of the grant, however, would be more nuanced and difficult than the early decisions might have suggested. As the doctrine developed further in the 1950s and 1960s, patent holders asked the courts for additional freedom in defining contract terms. Recognizing the need for some flexibility in commercial arrangements, courts would struggle with behaviors that nominally appeared to extend the time or scope of the patent but seemed acceptable under patent principles."); *see also* J.H. Reichman & Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. PA. L. REV. 875, 923 (1999) ("[O]ne cannot easily separate applications of the misuse doctrine from an analysis of the declared scope and limits of such entitlements."); Note, *Clarifying the Copyright Misuse Defense: The Role of Antitrust Standards and First Amendment Values*, 104 HARV. L. REV. 1289, 1295 (1991) ("The Supreme Court in *Morton Salt* and its progeny has defined patent misuse simply as an extension of the patentee's monopoly beyond the lawful 'scope' of the patent grant and applied the doctrine with little elaboration of what marks the boundaries of the patent 'monopoly.'").

involve an attempt to obtain rights beyond the scope of the patent when they tie unpatented goods to patented goods. But the leverage-theory critique tells us that not all of these practices are bad for IP policy. Taken literally, the beyond-the-scope test reaches much too far, forbidding the tying of IP rights with commodities, which is typically harmless to competition and IP policy. On the other hand, the test fails to condemn some practices that can be bad for IP policy. For instance, with regard to the package licensing of patented goods or technologies, it is not clear that selling goods or technologies together constitutes an attempt to go beyond the scope of the patent when each and every one of them is covered by a patent. Yet, as we will see in the next Part, package licensing can have a much more detrimental effect on innovation and competition than the tying of unpatented commodities.[85] In short, the beyond-the-scope test simply does not provide a useful mechanism for distinguishing between harmful and harmless (or even beneficial) licensing restrictions.

IV. TOWARD COHERENCE IN MISUSE DOCTRINE: MISUSE AS FORECLOSURE OF COMPETITION, INNOVATION, OR THE PUBLIC DOMAIN

Misuse doctrine should penalize practices that undermine IP's core policies. This Part attempts to develop such an approach to misuse by examining a few of the most litigated practices that have given rise to misuse claims. Misuse claims are as varied as the contracts on which they are typically based, so it is impossible to cover everything, but the principles applied here will work equally well in other areas.

The early misuse cases evinced a strong concern, *grounded in intellectual property policy*, for limiting "monopoly" rights over intellectual property. Although monopolies are traditionally thought of as the domain of antitrust law, IP has its own reasons for limiting IP monopolies. Antitrust is typically concerned with the price and output effects of monopolistic conduct. By contrast, IP's concerns with monopoly relate primarily to its potential effects on innovation and access to the public domain.[86] Because competition and innovation are related, conduct that is anticompetitive is often also *anti-innovative*. For instance, the Supreme Court's hostility toward MPPC's anticompetitive conduct seemed not to derive from a concern that the conduct would cause higher prices for consumers but rather from a concern

---

85. *See infra* Part IV.A.4.

86. The U.S. Constitution gives Congress the power to enact patent and copyright laws in order "[t]o promote the Progress of Science and useful Arts," U.S. CONST. art. I, § 8, cl. 8, which involves both encouraging innovation and preserving access to the public domain. *See also* Reichman & Franklin, *supra* note 84, at 925 (arguing that "consumer-driven doctrines of misuse" such as the antitrust approach "would not adequately sensitize courts to the kind of public-interest concerns familiar from classical intellectual property laws—including concerns about the ability of the educational, scientific, research, and library communities to access the building blocks of knowledge at affordable prices").

that MPPC would be able to exclude other filmmakers and take over the film industry. The attempt to prevent theaters from using competing films posed substantial barriers or disincentives to the creation or distribution of new motion pictures, which the Court said were "an important element in the amusement life of the nation."[87]

Restraints on innovation in more modern cases are similarly problematic. Thus, in *Lasercomb America v. Reynolds*,[88] the Fourth Circuit found misuse when a licensor of computer-aided design ("CAD") software flatly prohibited the licensee from developing any other design software product.[89] In finding misuse, the court did not require an antitrust violation or assess market power in the tying product.[90]

Anticompetitive conduct can also violate IP policy by cutting off access to the public domain. For instance, when a licensor of computer software conditions use of the software on the licensee's promise not to reverse engineer it (presumably to prevent the licensee from creating competing software), the licensor effectively denies access to the uncopyrightable ideas that underlie the licensor's copyrighted expression.[91] Reverse engineering is

87. Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 519 (1917).

88. 911 F.2d 970, 973, 978–79 (4th Cir. 1990) ("[A] misuse need not be a violation of antitrust law in order to comprise an equitable defense to an infringement action."); *see* Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772 (5th Cir. 1999) (finding copyright misuse after refusing to find an antitrust violation because market power could not be shown). *But see* Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1180–81 (1st Cir. 1994) (stating that copyright misuse requires a showing of market power and other elements of an antitrust claim), *abrogated by* Reed Elsevier, Inc. v. Muchnick, 130 S. Ct. 1237 (2010); Bellsouth Adver. & Publ'g Corp. v. Donnelley Info. Publ'g, Inc., 933 F.2d 952, 961 (11th Cir. 1991) (refusing to find copyright misuse because there was no antitrust violation), *vacated on other grounds*, 977 F.2d 1435 (11th Cir. 1992).

89. *See Lasercomb*, 911 F.2d at 973 (quoting the license as saying that "[l]icensee agrees during the term of this Agreement and for one (1) year after the termination of this Agreement, that it will not write, develop, produce or sell or assist others in the writing, developing, producing or selling computer assisted die making software, directly or indirectly without Lasercomb's prior written consent").

90. The court relied on *Berlenbach v. Anderson & Thompson Ski Co.*, 329 F.2d 782 (9th Cir. 1964), which found patent misuse in a license agreement that prevented the licensee from distributing any equipment of the same type as that involved in the licensing agreement. *See also* Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516 (9th Cir. 1997) (finding copyright misuse where an owner of a medical-reference system that provided encoding for the filing of Medicare and Medicaid claims licensed it on the condition that the licensee not develop a competing coding system).

91. *See, e.g.*, Davidson & Assocs., Inc. v. Internet Gateway, 334 F. Supp. 2d 1164 (E.D. Mo. 2004) (refusing to find that a license restriction forbidding reverse engineering constituted copyright misuse). Absent such a restriction, copying solely for the purpose of reverse engineering is lawful and constitutes fair use under copyright law. *See* Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000) (making a copy of software for purposes of reverse engineering constitutes fair use); Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1520–28 (9th Cir. 1992) (same); *see also* Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575, 1584 n.39 (2002) (noting that most reverse engineering is lawful and arguing that it is socially valuable in many industries). For a severe

usually lawful under the IP laws to the extent that it allows innovators to build on the work of their predecessors. A restriction forbidding it can restrain innovation in an area where the licensee would otherwise be entitled to innovate freely.[92]

IP law's role as the engine of innovation also gives it an independent interest in enhancing competition. Competitive conditions affect a firm's incentives and ability to enter the market with new and innovative products. If IP law prevents competition by granting monopolies that are too broad, it discourages competitors from building on existing ideas, works, and inventions. The same is true if IP law permits IP holders to obtain overly broad rights through the use of licenses or other private arrangements. Indeed, overreaching is of the utmost concern in light of the current state of patent and copyright law. As has been powerfully argued elsewhere, the breadth and vagueness inherent in the scope of IP rights today create serious problems for both competition and innovation,[93] and these

---

critique of restraints on reverse engineering, see Craig Zieminski, *Game Over for Reverse Engineering?: How the DMCA and Contracts Have Affected Innovation*, 13 J. TECH. L. & POL'Y 289 (2008), which argues that copyright licenses forbidding reverse engineering are either preempted or else constitute copyright misuse. For a similar critique, see Daniel Laster, *The Secret Is Out: Patent Law Preempts Mass Market License Terms Barring Reverse Engineering for Interoperability Purposes*, 58 BAYLOR L. REV. 621 (2006).

92. *See* Lawrence D. Graham & Richard O. Zerbe, Jr., *Economically Efficient Treatment of Computer Software: Reverse Engineering, Protection, and Disclosure*, 22 RUTGERS COMPUTER & TECH. L.J. 61 (1996) (noting that reverse engineering is a permissible spillover from the innovations of predecessors). In general, IP law does not give rights holders the power to capture the value of every spillover. *See* Brett M. Frischmann & Mark A. Lemley, Essay, *Spillovers*, 107 COLUM. L. REV. 257 (2007) (arguing that spillovers are pervasive and that uncompensated spillovers tend to enhance rather than diminish innovation).

93. For serious indictments of the patent and copyright systems, see JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 46–72 (2008) (arguing, among other things, that the broad scope and fuzziness of boundaries of patent protection inhibit innovation); MICHELE BOLDRIN & DAVID K. LEVINE, AGAINST INTELLECTUAL MONOPOLY (2008) (arguing for abolition of IP laws on the ground that first-mover advantages are sufficient to facilitate most worthwhile innovation); DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 95–100 (2009) (describing the problem of patent overbreadth and Congressional attempts to fix it); MICHAEL HELLER, THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES (2008) (asserting that too much ownership of intellectual property causes a tragedy of the anticommons, which has the effect of decreasing rather than increasing innovation); WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 110 (2003) ("[I]t is uncertain whether any copyright protection, let alone the amount conferred by current law, is necessary to enable authors and publishers to recover the fixed costs that must be incurred to generate the socially optimal output of expressive works."); Bohannan & Hovenkamp, *supra* note 1 (arguing that overbreadth and vagueness in the scope of IP rights threatens to retard innovation and impede economic growth); Tun-Jen Chiang, *Fixing Patent Boundaries*, 108 MICH. L. REV. 523, 527–31 (2009) (arguing that post-issuance patent amendments that broaden patent claims should be prohibited because they do nothing to increase the patentee's ex ante incentives to innovate while discouraging further improvements on the patented technology); Jay P. Kesan & Andres

problems can be exacerbated by attempts to misuse IP rights to gain additional advantage in the marketplace. Moreover, IP monopolies deviate from antitrust's competitive ideal, and antitrust law defers to IP law because of its need to use IP rights to encourage innovation. Antitrust therefore entrusts to IP the responsibility to police the boundaries of those monopolies to ensure that they are no bigger than necessary to incentivize innovation. For all of these reasons, IP law itself has an interest in promoting competition.[94]

This overlap between the goals of IP and antitrust explains, to a large extent, the ambivalence over whether misuse should be defined by antitrust or IP standards. Both of these areas of law are concerned with preventing the expansion of the IP "monopoly" beyond the scope of the IP right. Yet, because IP and antitrust law have somewhat different reasons for wanting to control monopolies, the resulting doctrine will be different for each. Antitrust law does not always supply an appropriate standard for a misuse doctrine grounded in IP policy. On the other hand, to define misuse as any attempt to obtain rights "outside the scope" of the patent or copyright is also not useful. Rather, misuse should penalize practices that violate IP's goals of promoting competition, innovation, and access to the public domain.

The following Subparts look selectively at several practices that courts have addressed under misuse doctrine. Beginning with tying and tying-like arrangements, which constitute the largest and most paradigmatic category of misuse cases, I argue that over its history, misuse doctrine has incorrectly focused on market power in the tying product while largely ignoring foreclosure or exclusion in the tied product. I also attempt to develop a more coherent theory of misuse based on harm to IP policy due to foreclosure or exclusion. Under this view, IP misuse consists of practices (mainly involving licensing) that foreclose others from (1) competing in a particular market; (2) producing technology that they are otherwise lawfully entitled to develop (i.e., restraints on innovation);[95] or (3) accessing information or technology that rightfully belongs in the public domain.[96] In the course of developing this theory, I will also analyze how particular practices can raise foreclosure concerns.

A. Gallo, *The Political Economy of the Patent System*, 87 N.C. L. REV. 1341 (2009) (describing the influence of special interests on current patent-reform efforts).

94. *See generally* Thomas F. Cotter, *The Procompetitive Interest in Intellectual Property Law*, 48 WM. & MARY L. REV. 483, 487 (2006) (demonstrating and critiquing the proposition that "[o]n occasion, IP law condemns conduct on the part of IP owners—or excuses otherwise infringing activity on the part of IP defendants—for the express purpose of promoting competition . . . [,] even though antitrust law—if it were to apply at all—typically would not condemn similar conduct on the part of the IP owner").

95. *See, e.g.*, Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 973, 979 (4th Cir. 1990).

96. *See, e.g.*, Assessment Techs., LLC v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003).

A. TYING AND QUASI-TYING CLAIMS

As earlier Subparts of this Article have discussed, courts historically have been hostile to most kinds of tying arrangements when there is market power in the tying product or service. This Subpart explains how the focus on tying and market power does not always serve important IP policies. It then explores situations in which tying arrangements can do real harm to IP policies by foreclosing competition, innovation, or access to the public domain.

1. Tying as an Antitrust Violation and the Leverage Theory of Tying

Tying arrangements and similar practices account for more misuse cases than any other group of practices. Tying refers to the practice of selling, leasing, or licensing two or more distinct products or services together rather than separately. In the early cases, as we have seen, courts held that tying was misuse on the ground that the IP holder used its IP right over a dominant product to force buyers to purchase a product or service outside the scope of the patent or copyright. These cases cited the antitrust policy against anticompetitive practices to bolster their reasoning but relied primarily on the IP policy against broadening a statutory monopoly.

In more recent years, however, courts have judged tying misuse mainly by antitrust standards. Antitrust law has long condemned tying on the theory that it is anticompetitive for the actor to use market power in a dominant product to force buyers to purchase a separate product. Thus, under antitrust law, tying is unlawful if (1) there is a forced combination; (2) between different products or services; (3) by one with market power in the tying (dominant) product market; and (4) that combination affects a substantial volume of commerce in the tied-product market.[97] In practice, however, only the first three of these requirements are meaningful elements. The requirement that the tie must affect a substantial volume of commerce in the tied-product market is virtually always met, even where the volume of affected commerce is slight.[98] There is very little inquiry into whether the tying practice has produced any anticompetitive effects. Rather, the focus of antitrust tying cases is typically on determining whether there is market power in the tying product.

The 1988 Patent Misuse Reform Act's rule on tying misuse is very similar to antitrust's law of tying. The statute provides that a tying restriction

97. HOVENKAMP ET AL., *supra* note 2, § 3.3a1.

98. *See* N. Pac. Ry. Co. v. United States, 356 U.S. 1, 6 (1958) (assessing the requirement). The requirement refers to the amount of tied sales in terms of dollars, not to a share of any particular market. AREEDA & HOVENKAMP, *supra* note 54, at ¶ 1721b1; *see also, e.g.*, United States v. Loew's, Inc., 371 U.S. 38, 49–50 (1962) (looking at the dollar volume of tied sales in cases involving block booking of copyrighted motion pictures), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

imposed by a patentee in a license or other transfer will not be misuse "unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned."[99] Neither these amendments nor the traditional case law on misuse requires a meaningful inquiry into whether the tie causes any real effect on the secondary-product market.

This emphasis on market power reinforces the leverage theory of tying, which condemns tying on the notion that a firm with market power in one product can use a tie to leverage one monopoly profit into two. As previously discussed, however, today the leverage theory of tying is largely regarded as wrong, even if cases still occasionally apply it. Critics have observed that a buyer who needs two products is indifferent as to how the price is allocated between the two.[100] The amount the buyer is willing to pay is determined by the value it places on the combination. Thus, a monopolist in the primary product can obtain the full available monopoly overcharge by setting its monopoly price on the tying product alone.

IP law permits IP holders to sell their products at any price they see fit. Thus, in a tie between a patented product and an unpatented one, the patent holder may attribute the entire price to the patented product. The same is true for ties between copyrighted and uncopyrighted products. But the patent or copyright holder will *not* be able to earn more monopoly profits by charging another monopoly price for the tied product. Because the entire price of the combination can be attributed to the dominant product in the tie (the patented or copyrighted product), it makes no sense to say that the tie turns one monopoly into two.[101]

Moreover, courts cannot assume that tying is bad, because tying is sometimes used as a price-discrimination device, which can actually benefit consumers by increasing output and access. It allows IP holders to charge more to heavier users and less to lighter users rather than charging one price to all users, which would foreclose access to lighter users unwilling to pay the unitary (and presumably higher) price. Thus, a firm that uses a tie of a patented printer with unpatented ink as a price-discrimination mechanism would charge all users the same low price for the printer, enabling more people to buy it, and would be able to earn more of its profits on the printer from the heaviest users who end up paying more because they buy more ink.[102]

---

99. 35 U.S.C. § 271(d)(5) (2006).

100. *See supra* notes 67–68 and accompanying text.

101. *See supra* text accompanying notes 69–73.

102. *See, e.g.*, David McGowan, Essay, *What* Tool Works *Tells Us About Tailoring Patent Misuse Remedies*, 102 NW. U. L. REV. 421, 423–24 (2008) (arguing that ties such as in the *Morton Salt* case are used as price-discrimination devices and that "[m]ost analysts today think this sort of metering and price discrimination is either beneficial or, at least, not very worrisome as an economic matter"); *see also* Cotter, *supra* note 94, at 548 (stating that the author "remain[s]

2. Tying as Foreclosure of Competition

Assuming the critique of the leverage theory is correct, the leverage theory of tying—even in antitrust law itself—is not as robust as it once seemed. Thus, it is unlikely that most cases of tying will cause monopoly prices in the tied product. Rather, the most likely competitive harm in tying cases is foreclosure of competition in the market for the secondary or tied product. To illustrate, suppose I own patents on *A* and *B*, which are related products or technologies that licensees may use separately or in combination. You own a patent on *B**, which is an alternative technology to (and therefore would ordinarily compete with) my *B*. A fair number of potential licensees would prefer the combination *A/B** over the combination *A/B*. If I tie *A* and *B*, however, anyone who wants my *A* must also take my *B*. Once they are taking my *B* anyway, they are much less willing to pay an additional license fee to get your *B**. The result, in some circumstances, is foreclosure of competition in the market for *B**-type technology.

Of course, market power in the tying product will often be necessary for foreclosure to occur in the market for the tied product. Potential licensees will ordinarily acquiesce in taking the less-preferred *B* technology only if they really want or need my *A*. Indeed, market power in the tying product will sometimes be sufficient to cause foreclosure in the tied-product market, particularly if the *B/B** technology has a small number of uses outside of its use with *A*. For example, consider again the *MPPC* case.[103] The history shows that the patent holder was attempting to use its market power in film projectors to obtain a monopoly in the secondary film market. The court suggested, and other historical studies have shown, that given the strong market power in the projector, MPPC's exclusive practices might have caused foreclosure of competition for films, enabling the patent holders to take over the film industry.[104] Two important factors contributed to the potential foreclosure. First, because the patentee dominated the film-projector market, users would have felt compelled to use the patent holder's films rather than other competing films. Second, because the films really could not have been used without a projector, there was little or no incentive for others to produce the films. The second condition does not apply when the tied product is a commodity such as dry ice or salt.

For an analogous but more modern example from antitrust law, consider the government's case against Microsoft.[105] Microsoft had a

skeptical of the view that IP law should inhibit price discrimination schemes as a matter of course").

103. 243 U.S. 502 (1917); *see supra* text accompanying notes 15–21.

104. *See* sources cited *supra* note 17.

105. United States v. Microsoft Corp., 87 F. Supp. 2d 30, 51 & n.6 (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam).

dominant position in its Windows computer operating system with a market share exceeding ninety percent. By tying its Internet Explorer Internet browser—first by contract and later by inserting the Internet Explorer code directly into the Windows program—Microsoft effectively required that every person wishing to run Windows on her computer also have Internet Explorer. This made it much more difficult for the rival Internet browser Netscape to maintain its market, and it quickly lost market share. Again, two foreclosing factors were present: first, Windows was the only realistic choice for an operating system for most customers (there was market power in the tying product); and second, browsers have no viable uses except in conjunction with an operating system (there was no other incentive for rival firms to produce new browsers). As a result, the tie had the effect of foreclosing competition in the tied-product market.

Similarly, in *Scruggs*, Monsanto tied its "Roundup Ready" seed with its Roundup herbicide.[106] Although neither the district court nor the Federal Circuit made findings regarding Monsanto's market power in the seed (the tying product), it is possible that Monsanto possessed substantial market power in the tying product, as no other competitors produced seed with the same herbicide-resistant qualities. The Federal Circuit found no misuse, relying in part on Monsanto's claim that although some other producers had made products similar to its Roundup herbicide, its tie did not foreclose competition in the herbicide market because none of the would-be competitors had yet obtained regulatory approval for their products.[107] But as Judge Dyk observed in his dissent, the tie might very well have foreclosed rivals by reducing their incentives to obtain regulatory approval and get their herbicides to market; therefore, the court should have remanded for findings on market power in the seed.[108]

Yet, while market power in the primary-product market will often be relevant to assessing foreclosure effects in the secondary-product market, it will not invariably be sufficient. When the tied product is an ordinary commodity with many uses outside of its use with the tying product, the tie is unlikely to foreclose competition in the tied-product market, even if the patentee has substantial power in the tying-product market. This is where the early misuse cases following *MPPC* went wrong. In *Carbice*, for example, even if the patented ice boxes enjoyed market power in the market for refrigerated containers, a tie between the ice boxes and dry ice was unlikely to foreclose competition in the dry-ice market, because dry ice has many other uses outside of its use with the ice boxes. The same was true in *Morton Salt*. There, market power in the salt-depositing-machine market was unlikely to foreclose competition in the salt-tablet market, because salt was a widely

106. *See* 459 F.3d 1328 (Fed. Cir. 2006).

107. *See id.* at 1341.

108. *See id.* at 1344 (Dyk, J., dissenting).

used commodity independent of its use with Suppiger's salt-injecting machines.

On the other side, even a complete non-monopolist can sometimes foreclose innovation or access to the public domain, if not competition.[109] As the next Subpart shows, IP law's policies against such foreclosure are sufficiently strong that these practices should be condemned as misuse even if they do not constitute an antitrust violation.[110]

3. Tying as Foreclosure of Innovation or Access to the Public Domain

Foreclosure of competition is not the only harm that tying can cause. Tying can also foreclose innovation or access to the public domain, both of which should be major concerns for IP policy even if they are not for antitrust policy. Some practices are anticompetitive as well as anti-innovative. For example, the Windows–Internet Explorer tie discussed in the *Microsoft* case not only diminished economic competition, but also restrained future innovation in web browsing by drying up the market for free-standing browsers like Netscape.[111] By bundling the Windows and Internet Explorer programs into a single package, Microsoft made it virtually impossible for Netscape to gain access to the market for computer desktops and the supported software of Internet service providers. Moreover, Microsoft's goal was not only to exclude Netscape from the browser market, but also to prevent it from developing a new platform that would compete with Microsoft's Windows platform.[112]

In other cases that resemble tying, IP holders misuse their patents or copyrights by using them to block access to public-domain materials. For example, in *Assessment Technologies v. WIREdata, Inc.*, the Seventh Circuit held that it could be misuse for a copyright holder to use its copyright in a database to "sequester" public-domain data stored in the database.[113] There, Assessment Technologies ("AT") sued WIREdata for contributory copyright infringement for asking the municipal tax assessor's office for access to real-estate tax-assessment data that the tax assessor's office had gathered and stored in AT's database.[114] AT argued that to obtain the data would require making a copy of the copyrighted database software.[115] In essence, AT "tied" the public-domain data to its database software by bringing a copyright-infringement lawsuit against someone who needed access to the database *solely* to obtain access to the uncopyrightable factual data contained within it.

109. *See infra* text accompanying notes 114–16.

110. *See supra* text accompanying note 107.

111. *See* United States v. Microsoft Corp., 87 F. Supp. 2d 30, 51 & n.6 (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam) (antitrust case).

112. *See id.* at 65, 67.

113. 350 F.3d 640, 647 (7th Cir. 2003).

114. *Id.* at 642–43.

115. *Id.* at 643.

Judge Posner explained that "for a copyright owner to use an infringement suit to obtain property protection, here in data, that copyright law clearly does not confer, hoping to force a settlement or even achieve an outright victory over an opponent that may lack the resources or the legal sophistication to resist effectively," constitutes an "abuse of process" that might rise to the level of copyright misuse.[116] The court decided that an award of attorneys' fees to the defendant was an appropriate sanction in such cases, because without the "prospect of obtaining attorneys' fees, [a defendant] will be under pressure to throw in the towel."[117]

Judge Posner's decision in *WIREdata* implicitly relies on a foreclosure theory of misuse. He indicated that there was no proof of an antitrust violation, as there was no showing "that AT has market power merely by virtue of its having a copyright on one system for compiling valuation data for real estate tax assessment purposes."[118] In addition, he observed that other cases have "cut misuse free from antitrust" and indicated that there are reasons for treating misuse separately from antitrust.[119] He also emphasized that much of the public-domain tax-assessment data in the case were unavailable anywhere else because the municipal tax assessors had simply entered the data directly into the copyrighted database. Thus, AT's use of its copyright in the database to prevent access to the uncopyrighted data had the effect of foreclosing (or, in Judge Posner's words, "sequestering") public-domain information, in violation of copyright policy.[120]

---

116. *Id.* at 647.

117. Assessment Techs., LLC v. WIREdata, Inc., 361 F.3d 434, 437 (7th Cir. 2004). *Contra* Triad Sys. Corp. v. Se. Express Co., 64 F.3d 1330 (9th Cir. 1995). In *Triad*, the Ninth Circuit permitted the manufacturer of specialized computers to maintain a copyright-infringement action against independent service organizations who copied the plaintiff's diagnostics software. The court also held that there was no misuse based on an attempt to expand coverage of the copyright because copyright protection extended to the servicing of the computers as well as the diagnostics software. Furthermore, the court indicated that misuse would occur only if Triad had attempted to prevent the independent repairers from developing their own diagnostics software independently. *Id.*

118. *WIREdata*, 350 F.3d at 647.

119. *Id.*

120. *Id.* On the difference between antitrust and misuse the court wrote:

> No effort has been made by WIREdata to show that AT has market power merely by virtue of its having a copyright on one system for compiling valuation data for real estate tax assessment purposes. Cases such as *Lasercomb*, however, cut misuse free from antitrust, pointing out that the cognate doctrine of patent misuse is not so limited, though a difference is that patents tend to confer greater market power on their owners than copyrights do, since patents protect ideas and copyrights, as we have noted, do not. The argument for applying copyright misuse beyond the bounds of antitrust, besides the fact that confined to antitrust the doctrine would be redundant, is that for a copyright owner to use an infringement suit to obtain property protection, here in data, that copyright law clearly does not confer, hoping to force a settlement or even achieve an outright victory over an opponent

4. Package or Blanket Licensing of Patents and Copyrights

Package licensing, or what is sometimes called "block booking" in the film industry, raises foreclosure concerns similar to tying. In a package license, the patent or copyright holder refuses to license except in "packages" or "blocks."[121] Typically the licensee wants one or a few items in the package, but not all of them. Under the "leverage" theory, such licensing is bad because it enables the licensor to extract a royalty on unwanted IP rights as well as on those that are wanted.[122] Section 271(d) of the Patent Act appears to apply a leverage theory to package licenses of patents as well as to classic tying arrangements between patented and unpatented products.[123] But the same criticism of the leverage theory applies here as in the case of tying arrangements. If the licensee wants patent *A* but not *B*, then the licensor will be able to extract all that the licensee is willing to pay for this package by placing the entire charge on *A*. The licensor cannot extract an additional monopoly price by adding in something that the licensee does not want and then increasing the price.[124]

> that may lack the resources or the legal sophistication to resist effectively, is an abuse of process.

Id. (citation omitted).

121. *See, e.g.*, Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100 (1969) (holding that package licensing of patents constituted patent misuse); United States v. Loew's, Inc., 371 U.S. 38 (1962) (condemning block booking of copyrighted motion pictures), *overruled by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); Automatic Radio Mfg. Co. v. Hazeltine Research, Inc., 339 U.S. 827 (1950) (refusing to find that patent package licensing constituted misuse when the package license agreement was entered voluntarily), *overruled in part by* Lear, Inc. v. Adkins, 395 U.S. 653 (1969). The Court's distinction between "imposed" and "voluntary" package licenses continues to have some traction. *See, e.g.*, Well Surveys, Inc. v. Perfo-Log, Inc., 396 F.2d 15, 17 (10th Cir. 1968) (noting that noncoercive package licensing is permissible); Bayer AG v. Housey Pharm., Inc., 228 F. Supp. 2d 467, 470 (D. Del. 2002) (stating that package licensing is not misuse where licensees entered the agreement voluntarily); *cf.* Schor v. Abbott Labs., 457 F.3d 608 (7th Cir. 2006) (rejecting an antitrust challenge to package licensing of AIDS drugs ordinarily taken together).

122. *See* Cotter, *supra* note 2, at 921 & n.101 (finding some plausibility in the leverage theory of package licensing).

123. 35 U.S.C. § 271(d) (2006) (providing that absent tying-product power, it shall not be misuse either to require the licensee to purchase a separate product or to acquire "a license to rights in another patent").

124. Neither of the Supreme Court's treatments of package licensing as patent misuse confronted any issue of foreclosure of competition or innovation. In *Automatic Radio*, the Supreme Court found that a package license might be reasonable when numerous and complex technologies create uncertainty about which patents a licensee will need. It approved the lower court's conclusion that the package was "a convenient mode of operation designed by the parties to avoid the necessity of determining whether each type of petitioner's product embodies any of the numerous Hazeltine Patents." *Automatic Radio*, 339 U.S. at 833. This "convenience" rationale led the Court to believe that the agreement to use the package was "voluntary," and therefore valid. *Id.* at 834.

Subsequently, in *Zenith Radio*, the Court found misuse. It distinguished *Automatic Radio* by suggesting that in the earlier case the package license agreement had been entered

A far more compelling theory of misuse for package licenses is foreclosure of competition between *B* and *B*'s alternatives. A package license effectively requires licensees to take both *A* and *B* from the licensor. Once the licensees have *B*, they will be much less willing to purchase competing technology *B**, even if they prefer it. Thus, the package license deprives the licensor of *B** of an opportunity to bid for the licensee's business.[125]

Courts are beginning to address foreclosure in package-licensing cases,[126] but they are not always as sensitive to the problem as they should be. In *Philips*,[127] the Federal Circuit correctly observed that package licensing constitutes misuse on a foreclosure theory only if there is in fact some alternative product or technology that is foreclosed:

> If there are no commercially practicable alternatives to the allegedly nonessential patents, packaging those patents together with so-called essential patents can have no anticompetitive effect in the marketplace, because no competition for a viable alternative product is foreclosed. In such a case, the only effect of finding per se patent misuse is to give licensees a way of avoiding their

---

voluntarily, while in the latter case it was compelled. Further, in the latter case, the patentee required the payment of royalties even on products that did not employ any of the licensed patents. In distinguishing *Automatic Radio* the Court wrote:

> It could easily be, as the Court indicated in *Automatic Radio*, that the licensee as well as the patentee would find it more convenient and efficient from several standpoints to base royalties on total sales than to face the burden of figuring royalties based on actual use. If convenience of the parties rather than patent power dictates the total-sales royalty provision, there are no misuse of the patents and no forbidden conditions attached to the license.
>
> . . . .
>
> But we do not read *Automatic Radio* to authorize the patentee to use the power of his patent to insist on a total-sales royalty and to override protestations of the licensee that some of his products are unsuited to the patent or that for some lines of his merchandise he has no need or desire to purchase the privileges of the patent. In such event, not only would royalties be collected on unpatented merchandise, but the obligation to pay for nonuse would clearly have its source in the leverage of the patent.

Zenith Radio, 395 U.S. at 138–39 (footnote omitted).

125. *Cf.* United States v. Microsoft Corp., 253 F.3d 34, 64–66 (D.C. Cir. 2001) (en banc) (per curiam) (finding that the "commingling" of the code for the Windows operating system and the Internet Explorer web browser—a "technological" package license—was unlawful under the antitrust laws because it tended to foreclose the Netscape web browser from the market).

126. *See, e.g.*, Princo Corp. v. Int'l Trade Comm'n, No. 2007-1386, 2010 WL 3385953 (Fed. Cir. Aug. 30, 2010) (en banc); U.S. Philips Corp. v. Int'l Trade Comm'n, 424 F.3d 1179 (Fed. Cir. 2005).

127. 424 F.3d at 1193–94 (finding that package licensing is not misuse because there is no foreclosure, which in this case required a showing that an existing competitor's technology was excluded).

> obligations under the licensing agreements, with no corresponding benefit to competition in any real-world market.[128]

Yet, in *Philips*, the Federal Circuit did not recognize the ways in which package licensing can cause foreclosure. Although the court might have been correct that there was no foreclosure on the facts of that particular case,[129] it also asserted the view that package licenses in general are not likely to cause foreclosure. It opined that a package license in and of itself "does not bar the licensee from using any alternative technology that may be offered by a competitor of the licensor" but "merely puts the competitor in the same position he would be in if he were competing with unpatented technology."[130]

This observation might be factually correct. When a secondary or nonessential patent is included in a package, the licensee pays for the entire package based on what the licensee is willing to pay for the essential patent(s). Therefore, the marginal cost of the nonessential patent is zero, which, as the court observed, is also the price of public-domain technology.

But this observation is completely irrelevant to the foreclosure issue. A package license has the potential to foreclose competition in the market for the nonessential patented technology because it forces a rival to compete against a price of zero, which of course the rival cannot do.[131] When licensees can use one technology for nothing, they are less likely to purchase a competing technology even if it is an improvement; rather, many licensees will decide to "make do" with the technology they are given. To give a simple illustration, I would be much less likely to spend a couple of hundred dollars for an iPhone after receiving a Blackberry as a birthday gift, even if I prefer some of the features of the iPhone.

Moreover, package licenses have the potential to foreclose *innovation*. As the *Philips* court acknowledged, the licensee's choice, at the zero price point, is between the licensor's existing patented technology and the old

---

128. *Id.* at 1194.

129. The court stated as follows:

> The Commission assumed that there was a foreclosure of competition because compact disc manufacturers would be induced to accept licenses to the technology covered by the Farla and Iwasaki patents and therefore would be unwilling to consider alternatives. As noted, however, there was no evidence before the Commission that any manufacturer had actually refused to consider alternatives to the technology covered by those patents or for that matter that any commercially viable alternative actually existed.

Id. at 1198.

130. *Id.* at 1190.

131. *See* United States v. Microsoft Corp., 253 F.3d 34, 67–69 (D.C. Cir. 2001) (en banc) (per curiam) (finding "commingling" of Windows platform and Internet Explorer browser code anticompetitive because Windows customers received Internet Explorer automatically and had little incentive to install a second web browser).

public-domain technology. The option that is left out is the rival's new technology, which is ordinarily an improvement over both of the other options for at least some licensees. Of course, if there is no one willing to purchase a new technology, the technology will not be developed.

Package licensing will not always cause foreclosure, however. As in some tying situations discussed previously, a rival's alternative technology or product will sometimes be too inchoate for a court to determine that the package license has actually foreclosed the development or sale of anything. Determining the threshold of foreclosure will be one of the most difficult issues in applying the foreclosure theory of misuse. Given IP's strong interest in encouraging innovation, courts should not require evidence that the rival's technology or product was ready to be commercialized before finding that a package license constitutes misuse, particularly where there is little offsetting benefit to licensing in a package. After all, in many situations, it is the IP holder who restrains or derails the rival's progress. On the other hand, there must be more than pure speculation that the rival's efforts would have come to fruition but for the IP holder's conduct. Package licenses also should not constitute misuse when used to license "blocking" patents. A set of patents is "blocking" when none of the patents can be practiced without infringing another one in the set.[132] Obviously, there are good reasons for packaging these patents together, because one cannot be used alone without committing infringement. Significantly, when patents are truly blocking, they can cause foreclosure whether or not they are packaged together. To illustrate, if *A* and *B* are blocking patents, a rival's alternative technology *B** cannot be used with *A* without infringing *B*. This limitation will diminish the demand for *B** to the point of foreclosure unless there are differences between *B* and *B** that make it possible to use *B** in ways that would infringe neither *A* nor *B*. Thus, it seems that this particular type of foreclosure is an unfortunate but unavoidable consequence of obtaining the *A* and *B* technologies in the first place.

There might be other situations in which package licensing is necessary and justified as well. For example, in *Automatic Radio Manufacturing v.*

132. At least since the 1960s, the courts have recognized a "blocking exception" to the package-licensing rules. *See, e.g.*, Int'l Mfg. Co. v. Landon, Inc., 336 F.2d 723, 729 (9th Cir. 1964) (noting that it is not unlawful to package two blocking patents together for licensing purposes because "[n]o commercially feasible device could be manufactured under one of the patents without infringing the other"); *see also* Gilbert Goller, *Competing, Complementary and Blocking Patents: Their Role in Determining Antitrust Violations in the Areas of Cross-Licensing, Patent Pooling and Package Licensing*, 50 J. PAT. & TRADEMARK OFF. SOC'Y 723 (1968) (noting value of package licensing in cases involving blocking patents); Daniel P. Homiller, *Patent Misuse in Patent Pool Licensing: From* National Harrow *to "The Nine No-Nos" to Not Likely*, 2006 DUKE L. & TECH. REV. 7 (tracing out the history of litigation involving licensing practices covering blocking patents); Joseph Scott Miller, *Standard Setting, Patents, and Access Lock-in: RAND Licensing and the Theory of the Firm*, 40 IND. L. REV. 351 (2007) (discussing the benefits of package licensing for blocking patents).

Hazeltine Research, the Supreme Court found that a package license might be a reasonable way to deliver a complex mixture of patent rights when there is uncertainty about which patents a licensee might need.[133] Thus, the Court approved the district court's conclusion that the package was "a convenient mode of operation designed by the parties to avoid the necessity of determining whether each type of petitioner's product embodies any of the numerous Hazeltine patents."[134] In such cases, courts should attempt to weigh any evidence of foreclosure against the offsetting benefits to innovation of allowing the package license.

Thus, there is a legitimate rationale for condemning tying, package licensing, and related practices, but it is best explained by a theory of foreclosure—foreclosure of competition, innovation, or access to the public domain. The following Subparts develop the foreclosure theory further by applying it to some other common practices that raise potential misuse issues.

B. LICENSES RESTRICTING THE USE OR DEVELOPMENT OF NEW TECHNOLOGIES OR PRODUCTS: RESTRAINTS ON INNOVATION AND NONCOMPETITION AGREEMENTS

Some practices clearly restrain innovation without violating the antitrust laws. Some of these restraints on innovation loosely resemble tying arrangements. Among the most common are noncompetition and exclusive-dealing agreements. In these agreements the IP holder does not necessarily condition the license of a patented or copyrighted tying product on some distinguishable tied product. Rather, it licenses the product on the condition that the licensee must refrain from either dealing in a competitor's goods or developing competitive goods itself. Because these practices do not involve distinguishable tying and tied items, they are not typically classified as tying arrangements.

Depending on the circumstances, a licensee's agreement not to license technology from the licensor's rival can be a significant deterrent to innovation.[135] If such an exclusivity provision restrains innovation unnecessarily, then it should constitute misuse. Yet, because noncompetition agreements can have completely legitimate purposes, it would be inappropriate to treat them as misuse "per se."[136] An important factor in

---

133. 339 U.S. 827 (1950), *overruled in part by* Lear, Inc. v. Adkins, 395 U.S. 653 (1969).

134. *Id.* at 833.

135. *See In re* Recombinant DNA Tech. Patent & Contract Litig., 850 F. Supp. 769, 774 (S.D. Ind. 1994) (denying summary judgment against a misuse claim where licensee of recombinant microorganisms for production of insulin had to agree not to use such organisms from any competitor without licensor's permission).

136. *See, e.g.*, Cnty. Materials Corp. v. Allan Block Corp., 502 F.3d 730 (7th Cir. 2007) (holding that a covenant not to compete in a pure manufacturing license that permitted licensee to manufacture two competing concrete blocks was not per se misuse). Older decisions

assessing misuse in such cases is overbreadth. For example, in *Lasercomb,* the Fourth Circuit found misuse in a licensor's requirement that the licensee of its software not develop any competing software.[137] The license restriction in *Lasercomb* prohibited the licensee from developing any competing computer design program whatsoever, whether or not it copied the licensor's product.[138] As the court explained:

> Lasercomb undoubtedly has the right to protect against copying of the Interact code. Its standard licensing agreement, however, goes much further and essentially attempts to suppress any attempt by the licensee to independently implement the idea which Interact expresses. The agreement forbids the licensee to develop or assist in developing *any* kind of computer-assisted die-making software. If the licensee is a business, it is to prevent all its directors, officers and employees from assisting in any manner to develop computer-assisted die-making software. Although one or another licensee might succeed in negotiating out the noncompete provisions, this does not negate the fact that Lasercomb is attempting to use its copyright in a manner adverse to the public policy embodied in copyright law, and that it has succeeded in doing so with at least one licensee.[139]

Other cases involve practices akin to exclusive dealing or anti-innovative restrictions on product development. For example, in *Princo Corp. v. International Trade Commission*,[140] Philips, Sony, and other patentees of "Orange Book" compliant recordable CD technology were willing to grant nonexclusive package licenses for the use of their technology collectively to competitors, but they agreed with each other not to permit separate licensing that would facilitate any licensee's development of a different

tended to find misuse. *See, e.g.*, Nat'l Lockwasher Co. v. George K. Garrett Co., 137 F.2d 255 (3d Cir. 1943) (finding misuse where manufacturing licensee of specialized washers agreed that during the term of the license it would not manufacture any competing washers); Krampe v. Ideal Indus., Inc., 347 F. Supp. 1384 (N.D. Ill. 1972) (similar).

137. 911 F.2d 970, 979 (4th Cir. 1990); *see supra* text accompanying notes 88–90.

138. *Lasercomb*, 911 F.2d at 978.

139. *Id.* (footnote omitted); *see also* Berlenbach v. Anderson & Thompson Ski Co., 329 F.2d 782 (9th Cir. 1964) (finding misuse where manufacturing licensee of patented ski equipment promised not to develop or manufacture any equipment other than that which it made under licensor's license); *cf.* Compton v. Metal Prods., Inc., 453 F.2d 38, 44 (4th Cir. 1971) (finding an unlawful restraint of trade in a licensor's promise to a manufacturing licensee that the *licensor* would not develop any equipment in competition with the licensee).

140. 563 F.3d 1301 (Fed. Cir.), *vacated*, 583 F.3d 1380 (Fed. Cir. 2009). The Federal Circuit recently held en banc that an alleged horizontal agreement between Sony and Philips to suppress Sony's technology in favor of Philips' technology was not patent misuse. 2010 WL 3385953, at *10 (Fed. Cir. Aug. 30, 2010) (en banc). Further, the court found that even if the alleged agreement impermissibly extended the patent's scope, it did not have a demonstrable anticompetitive effect because there was no evidence that Sony or any of the licensees would have made the technology commercially or technically viable. *Id.* at *18.

(non-Orange Book compliant) type of recordable CD technology.[141] The Orange Book compliant discs generally used an analog method, but one of the patents in the package (Sony's "Lagadec" patent) included a digital method.[142] Because the patentees had agreed not to license individually any of the patents, including the Lagadec patent, and "limited the licensees to using the licensed patents to produce discs according to the Orange Book standards,"[143] the infringement defendant Princo argued that the agreement restrained development of a rival digital technology and therefore constituted misuse.[144] The International Trade Commission rejected the misuse defense, but the Federal Circuit reversed and remanded, concluding that misuse was possible on the facts.[145] Upon rehearing en banc, however, the Federal Circuit reversed course and found no misuse in the alleged agreement between Philips and Sony to pool their potentially competing patents and to license them with the restriction that the licensees could practice only the dominant Philips technology.[146]

The Federal Circuit's en banc decision seems to rest largely on the conclusion that Princo failed to prove that Philips and Sony's agreement had any demonstrable effect on competition.[147] It noted that "as the Commission found in the course of this litigation, the Lagadec approach was 'prone to error' and would have been 'very difficult' to implement."[148] Thus, Princo failed to proffer "any evidence that the Lagadec patent was anything more than a theoretical solution, or that the unavailability of a

141. *Princo*, 563 F.3d at 1303 & n.1.

142. *Id.* at 1305–06, 1309–10.

143. *Princo*, 2010 WL 3385953, at *1–2.

144. *Princo*, 563 F.3d at 1313 (stating that Princo's argument was essentially that "Philips committed patent misuse by agreeing with Sony to not license Lagadec in a manner allowing 'the further development of the Lagadec technology and the possibility of competition between that technology and its own . . . .'" (quoting Reply Brief of Appellants at 3, *Princo*, 563 F.3d 1301 (No. 2007-1386))).

145. As the court explained:

> Princo contends that Philips and Sony agreed from the outset to license Lagadec, a potential competitor to [their] pool patents, in a way that would necessarily prevent it from ever becoming a commercially viable alternative technology that might compete with the Orange Book standard. The essential nature of the Lagadec patent to the Orange Book standard cannot justify the refusal to allow it to be licensed for non-Orange Book purposes. . . . In contrast to tying arrangements, there are no benefits to be obtained from an agreement between patent holders to forgo separate licensing of competing technologies . . . .

Id. at 1315.

146. *Princo*, 2010 WL 3385953, at *11 ("Thus, it does not follow from the possible existence of an antitrust violation with respect to Sony's Lagadec patent that Philips is guilty of patent misuse with respect to the Raaymakers patents.").

147. *Id.* at *15–17.

148. *Id.* at *1.

separate license to Lagadec for non-Orange Book purposes resulted in some realistic *foreclosure of competition*."[149]

This conclusion highlights the problem with basing misuse exclusively on foreclosure of competition and failing to consider foreclosure of innovation as a potential basis for IP misuse. If it is true that Philips and Sony's agreement restrained development of a rival technology, then it might be an appropriate case for finding misuse even if it cannot be shown that the restraint ultimately resulted in foreclosure of a competing product.

The easiest case for proving misuse due to a restraint on innovation would be where the licensee already has a competing product or technology and the IP holder is preventing its use or dissemination. Traditional antitrust analysis can often provide a useful vehicle for remedying this type of misuse. In other cases, however, the harm is the prevention of nascent products or technologies. In the case of foreclosure of nascent products or technologies, antitrust's standing requirement often will not be met because the rival producer cannot show that the new product or technology would have come to fruition and would have been commercially successful but for the IP holder's restraint.[150] An antitrust standard might work better in the case of already-developed technology, because causation and the effects on the market for the competing technology are easier to show. Where the technology has not yet gone to market, however, it would be difficult to prove that it would ever obtain a substantial share of the relevant market, as defined by antitrust law, such that foreclosure of it would effectively foreclose competition in the relevant market. Yet, it is often the IP holder's anticompetitive or anti-innovative conduct that precludes further development and marketing of the competing technology.

The IP concern for encouraging innovation is sufficiently strong to find that such conduct constitutes misuse, provided that a court finds that some appreciable harm to innovation is possible and that the conduct is not

---

149. *Id.* at *16 (emphasis added).

150. *See id.* at *16–17 (noting that Princo bore the burden of demonstrating that the suppression of nascent technology had an actual adverse effect on competition by showing that "there was a 'reasonable probability' that the Lagadec technology, if available for licensing, would have matured into a competitive force in the storage technology market"); Kloth v. Microsoft Corp., 444 F.3d 312, 323–24 (4th Cir. 2006) (denying an antitrust claim for Microsoft's interference with Intel's development of a multi-platform chip because plaintiff's theory required excessive speculation about whether the chip ever would have succeeded); Aviation Upgrade Techs., Inc. v. Boeing Co., 78 F. App'x 623 (9th Cir. 2003) (denying standing to nascent firm that had no experience in the market, no plant, no employees other than its principal, no financing, and did not have required FAA certification); Bourns, Inc. v. Raychem Corp., 331 F.3d 704 (9th Cir. 2003) (refusing to grant antitrust standing to an electronics firm that had no experience in, and was unprepared to begin, manufacturing foil-wrapped polymers for use in surge protectors); Ashley Creek Phosphate Co. v. Chevron USA, Inc., 315 F.3d 1245 (10th Cir. 2003) (stating that a firm that owned some mineral leases but had not yet determined whether entry into phosphate production would be profitable, had not obtained financing, and had no experience in production lacked antitrust standing).

justified by offsetting efficiencies. The path of innovation is unpredictable, and often the value of technology is underappreciated until an improver uses it to make something new. Thus, if there is no justification for the challenged license restriction, some realistic possibility of harm to innovation should be sufficient to constitute misuse. To the extent that a patent holder cannot justify the challenged license restriction but the court is unsure whether it would harm innovation, a court should find misuse but not hold the patent unenforceable. Rather, in that case, the court should merely hold the license restriction unenforceable. As an equitable doctrine, misuse should allow courts flexibility to tailor the remedy to the wrongful conduct.

The *Princo* case provides a good example. Sony's digital technology, as disclosed in the Lagadec patent, was inferior to Philips' analog technology, so Philips and Sony understandably decided to use the analog technology for their purposes. By agreeing with each other not to license the Lagadec patent for other purposes, however, they prevented the possibility that anyone else might improve upon it to develop viable digital technology. Moreover, as the dissent pointed out, the majority did not require Philips to provide any justification for the restriction.[151] If Philips could not have provided a legitimate justification for restricting the use of the Lagadec technology, then it seems that a finding of misuse would have been appropriate. The court then would have needed to decide on the appropriate remedy, either holding the patent(s) unenforceable or merely invalidating the license restriction.

C. *EXTENSION OF PATENT OR COPYRIGHT ROYALTIES BEYOND EXPIRATION OF THE IP TERM*

It is sometimes argued that requiring the payment of royalties on patented or copyrighted goods beyond expiration of the IP term is misuse because it is an attempt to expand the duration of the IP right.[152] Indeed,

---

151. The *Princo* dissent criticized the majority for finding no misuse without requiring Philips to justify the restrictive licensing arrangement. *Princo*, 2010 WL 3385953, at *21 (Dyk, J., dissenting) (stating that "antitrust violations may constitute misuse; that a presumption of anticompetitive effect flows from an agreement not to compete; and that the burden rests on the patent holder to justify such an agreement").

152. *See, e.g.*, HOVENKAMP ET AL., *supra* note 2, § 3.3c (concluding that patent-term extensions can sometimes lock in a patentee's market power and serve to perpetuate its monopoly, but arguing against per se condemnation); Feldman, *supra* note 2, at 400, 414 (citing *Brulotte v. Thys Co.*, 379 U.S. 29 (1964), as an example of unwarranted extension of the time of the patent).

A related issue concerns the collection of royalties on unpatented goods, where some courts have also seen an unwarranted extension of the power of the patent holder to force the licensee to pay for things that were not covered by any patent. *See, e.g.*, Cummer-Graham Co. v. Straight Side Basket Corp., 142 F.2d 646 (5th Cir. 1944) (finding misuse where licensor of patented basket-making machine measured the royalty by the number of unpatented baskets produced and fixed the price to be charged for them). Other decisions have found misuse

the Supreme Court has embraced that view. In *Brulotte v. Thys Co.*, the owner of various patents related to hop-picking licensed a machine to several licensees.[153] The licenses required royalties to be paid for use of the machine beyond expiration of the patents. Once the patents had expired, the licensees refused to pay any accrued royalties. The Court held that the license was "unlawful per se," and might have constituted misuse, "insofar as it allow[ed] royalties to be collected which accrued after the last of the patents incorporated into the machines had expired."[154]

In reaching this conclusion, the Court clearly applied a leverage theory of misuse:

> A patent empowers the owner to exact royalties as high as he can negotiate with the leverage of that monopoly. But to use that leverage to project those royalty payments beyond the life of the patent is analogous to an effort to enlarge the monopoly of the patent by tieing [sic] the sale or use of the patented article to the purchase or use of unpatented ones . . . . The exaction of royalties for use of a machine after the patent has expired is an assertion of monopoly power in the post-expiration period when, as we have seen, the patent has entered the public domain.[155]

In essence, the Court treated the license as an attempt to "tie" the period of patent protection to the period after the patent had expired, and it condemned the tie under the leverage theory of monopoly. But the critique of the leverage theory shows that the Court's reasoning is faulty. The Court acknowledged that a patent permits "the owner to exact royalties as high as he can negotiate with the leverage of that monopoly" but then said that "[t]he exaction of royalties for use of a machine after the patent has expired is an assertion of monopoly power in the post-expiration

---

when the patentee compelled the payment of royalties on goods that did not employ the patent. *See, e.g.*, Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 133–40 (1969).

In most cases, it seems that extending royalties over unpatented goods does not exclude anyone, and the royalty provision is very likely no more than a device for measuring the licensee's output for purposes of computing the royalty. As the critique of the leverage theory shows, a patentee generally cannot obtain more royalties than the licensee is willing to pay simply by enlarging the base upon which royalties must be measured. In a few cases, however, royalties on unpatented products may constitute an exclusionary practice. See, for example, *United States v. Microsoft Corp.*, 56 F.3d 1448, 1451 (D.C. Cir. 1995), which condemned Microsoft's use of contract terms requiring computer manufacturers to pay a royalty for each computer they sold, whether or not that computer bore Microsoft's Windows operating system. In that situation, the only way a rival could supply its operating system for such a computer was by offering it free of charge or else requiring the customer to pay for the second operating system. The court denied summary judgment to Microsoft on this practice, which was alleged to "deter [computer manufacturers] from using competing operating systems during the life of their contracts with Microsoft." *Id.*

153. 379 U.S. at 29–30.

154. *Id.* at 30–33.

155. *Id.* at 33.

period."[156] The critique of the leverage theory tells us that such a double monopoly is impossible. The patent holder can charge as much as it wants for the use of the invention during the patent term, and the entire amount that the licensee is willing to pay can be allocated to use of the patent during the term. The licensee is indifferent as to how the total payment will be allocated and will not pay another monopoly price for use of the patented invention after the patent has expired.

Although the Patent Act specifies a twenty-year period of patent protection from the date of filing,[157] there is nothing in the Act that specifies when royalties must actually be paid or received. Of course, the length of the term is still important: the amount a licensee is willing to pay for use of patented technology will be based on the portion of the statutory patent term for which the licensee wishes to use the patented technology. As such, the length of the statutory patent term plays a significant role in determining the total amount of royalties that licensees are willing to pay. Yet, the term will not necessarily dictate the amount of time the patent holder is willing to give the licensee to pay the required royalties. Financial agreements create all kinds of arrangements regarding the timing and manner of payment.[158] High-value transactions frequently allow the purchase price to be amortized over a long period of time. There is nothing anti-innovative here; to the contrary, flexibility in financing facilitates rather than hinders transactions, thereby encouraging investment in innovation.

Nor does an extended royalty plan impede access to patented technology that has fallen into the public domain.[159] Rather, because extended royalties can be treated as part of the price for use of the patent during the term, they should be treated like any other debt payments. While debt payments always limit the funds available for other activities, royalty payments that extend beyond the expiration of a patent do not foreclose access to the public domain any more than do other payments on business debts, such as mortgages on real property, employee salaries, or accrued taxes.[160]

156. *Id.* at 33–34.

157. At the time *Brulotte* was decided, the patent term was seventeen years from the date the patent issued.

158. *See Brulotte*, 379 U.S. at 31 (noting that the Washington Supreme Court, in interpreting the licensing agreement at issue, had held that "the period during which royalties were required was only 'a reasonable amount of time over which to spread the payments for the use of the patent'" (quoting Thys Co. v. Brulotte, 382 P.2d 271, 291 (Wash. 1963)), *overruled by Brulotte*, 379 U.S. 29).

159. To the contrary, requiring royalties on unpatented technology might actually encourage new entrants who are not bound by the license and will be able to undercut the former patentee's price.

160. The *Brulotte* approach to misuse for royalty extensions has been criticized in a number of cases. Although courts have felt obliged to follow it in clearly analogous cases, they have appropriately refused to expand its reach in any way. *See, e.g.*, Zila, Inc. v. Tinnell, 502 F.3d

D. Appropriating Downstream Value: Reach-Through Royalty Agreements and Related Practices

Reach-through royalty agreements are arrangements in which royalties for use of a patent are based not on the use of the patented technology directly but rather on products that result from the use of the technology. These arrangements are commonly used in the biotech industry to license "research tools" such as cloning tools, reagents,[161] processes, laboratory equipment, and the like. In these situations, the patent holder will license her patented tool on the condition that the licensee will pay the patent holder a percentage of the sales of any product that the licensee develops from the use of the patented tool.

Reach-through royalties are often attempts to "meter" usage and charge accordingly. They are used as price-discrimination devices, as they allow the IP holder to collect more royalties from the users who produce the highest-value products. For example, a patentee might license a biological "tool" that is used to generate a pharmaceutical in pill form, and then place a reach-through royalty on the pill. As a result, the more pills that are sold, the greater is the royalty. As previously discussed, tying arrangements are often used in a similar way.

It is important to note that some attempts at downstream licensing that resemble reach-through royalty agreements are automatically invalid under the patent-exhaustion (first-sale) doctrine if the IP holder sells the patented or copyrighted article rather than merely licensing its use.[162] In its recent *Quanta Computer Inc. v. LG Electronics, Inc.* decision, the Supreme Court revived a strict doctrine of patent exhaustion that refuses to enforce post-sale restraints without regard to anticompetitive effects, restraints on innovation, or other policy concerns.[163] In any event, *Quanta* eliminated the concern

---

1014 (9th Cir. 2007) (criticizing *Brulotte* and limiting it to domestic patent licenses); Scheiber v. Dolby Labs., Inc., 293 F.3d 1014 (7th Cir. 2002) (Posner, J.) (severely criticizing *Brulotte* but stating that the court was obliged to follow Supreme Court precedent); Bayer AG v. Housey Pharm., Inc., 228 F. Supp. 2d 467 (D. Del. 2002) (holding that *Brulotte* did not bar an arrangement under which the patent was on a "research tool" and royalties were based on the sale of drugs developed with that tool (reach-through royalties) for a period of ten years, which went beyond the life of the patent).

161. A "reagent" is a chemical that can be added to other chemicals in order to produce a particular reaction or that can be used to assess the changes brought about in a chemical reaction.

162. The doctrine long antedates both misuse law and antitrust law and was applied to reach-through royalty situations already in the middle of the nineteenth century. See, for example, *Bloomer v. Millinger*, 68 U.S. (1 Wall.) 340, 350 (1863), which holds that the first-sale doctrine in patents was justified because patentees "are entitled to but one royalty for a patented machine," and once the patentee sells that machine "he has then to that extent parted with his monopoly, and ceased to have any interest whatever in the machine so sold or so authorized to be constructed and operated."

163. *See* Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 625–27 (2008) (stating that a reach-through royalty is not enforceable where patentee sold the first product subject to a

that downstream purchasers of a patented good or technology could be caught unaware by a requirement to pay royalties. After *Quanta*, patent holders can impose a condition to pay reach-through royalties only where the transaction does not constitute a sale of the patented good or technology, and by contract only where the party subject to the condition is in contractual privity with the patent holder. In such a case, the available remedy is an action for breach of contract, not for patent infringement. Yet, given that the misuse doctrine applies to all licensing agreements, the fact that a downstream royalty requirement passes muster under *Quanta* does not necessarily mean that it will survive a misuse claim.

Whether reach-through royalty agreements constitute misuse is not yet settled. In *Bayer AG v. Housey Pharmaceuticals, Inc.*, the patentee of a process for developing new drugs required a royalty on the sale of any marketable drugs developed with the patented process.[164] Significantly, the agreement required that royalties on discovered drugs had to be paid for ten years, even though in some cases the ten-year period extended beyond expiration of the patent. As a result, the case had the flavor of a *Brulotte*-style royalty extension as well as a reach-through royalty.[165] The court distinguished *Brulotte* and found no misuse.

The *Bayer* decision suggests that there are at least two potential arguments for why reach-through royalty agreements might constitute misuse of a patent. First, if royalties are based on products that result from use of the patented technology rather than on the technology itself, those royalties might extend the duration of the patent term. With regard to licenses (but not outright sales under *Quanta*), the *Bayer* court is almost certainly correct that reach-through royalty agreements do not impermissibly extend the duration of the patent term or restrict access to patented technology that belongs in the public domain. As previously discussed, allowing for the payment of royalties beyond expiration of an IP right's term rarely forecloses rivals or restrains innovation, and in some cases might actually facilitate it.

Second, reach-through royalties might be said to expand the scope of a patent by giving the patent holder a degree of control over another's invention. One concern here is that in doing so, the patent holder restrains innovation by reducing the subsequent inventor's incentive to innovate. A more systemic concern is that the pervasive use of reach-through royalty agreements might increase transaction costs by requiring later inventors to identify and pay royalties to numerous prior inventors. Professor Feldman has argued that these agreements "result[] in the presence of too many

requirement that the royalty be paid on certain subsequent uses, because the doctrine of patent exhaustion ("first sale" doctrine) holds that once a patented good is sold, the patentee gives up all control and cannot impose further downstream restrictions).

164. 228 F. Supp. 2d at 468.

165. *See supra* notes 152–60 and accompanying text.

rights holders which inhibits the efficient exploitation of the invention. The problem not only limits exploitation of the current invention, it also hinders development of the future products that might emerge if full exploitation of the product occurred."[166] Professors Heller and Eisenberg similarly have suggested that reach-through royalties have the potential to create an anticommons problem in the biotech field, as upstream patent holders stack their claims on the products of downstream innovators.[167] The same problem could occur where researchers require reach-through royalties for all subsequent uses of their copyrighted journal articles.

The concern that reach-through royalties could reduce innovation is legitimate,[168] particularly in light of anticommons problems that arise from assigning too many small rights and obligations to too many participants.[169] Yet, it is not clear that all reach-through royalty agreements are, on balance, bad for innovation. There are pro-innovative and possibly procompetitive advantages to reach-through royalty agreements as well. Many firms, especially new firms, cannot afford to pay royalties out-of-pocket for the use of a process technology whose value lies in its potential, but uncertain, role in the development of a new product. Allowing these firms to pay only if they succeed in developing a marketable product encourages investment in innovation. As such, reach-through royalty agreements can be effective risk-sharing devices that encourage innovation. Courts should weigh the detrimental effects of these agreements against their positive effects. Thus, for instance, it might be that simple two-party agreements requiring reach-through royalties are less likely to constitute misuse than agreements in which a patentee requires not only its own licensees, but also all other downstream licensees, to pay royalties on their resulting inventions.[170]

---

166. Feldman, *supra* note 2, at 447 (arguing against reach-through royalties as violating reasonable-scope and -time limitations on the patent grant).

167. *See* Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698 (1998).

168. *See* Feldman, *supra* note 2, at 445–46 (arguing that reach-through royalties shift the reward for an invention toward "those who contribute to the early stages . . . , leaving less for those who contribute later," and concluding that this "discourages later invention and disrupts the balances implicit in the current patent system").

169. *See* Heller & Eisenberg, *supra* note 167.

170. Reach-through royalties should also be distinguished from "royalty stacking," which refers to situations in which the production of a good or use of a process may require a license from many different IP rights holders. *See, e.g.*, Woods v. Universal City Studios, Inc., 920 F. Supp. 62 (S.D.N.Y. 1996) (involving royalty stacking in copyright licensing). Although royalty stacking also creates an anticommons problem, it is a different problem than the one imposed by reach-through royalties. Most importantly for present purposes, to insist on a royalty for use of one's own patent does not become misuse simply because *other* patentees also insist on royalties when the patents are used in the same device. While many of those who write on royalty stacking find that it can lead to patent thickets and excessive royalties, they generally do not suggest that it is a problem that can be repaired by misuse doctrine. *See generally* Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 1993 (2007) ("The term 'royalty stacking' reflects the fact that, from the perspective of the firm making the

Reach-through royalties are only one way that an IP holder can attempt to appropriate the downstream value of licensed IP rights. There are more direct ways, including grantback provisions.[171] Grantback provisions generally require that when a licensee uses the licensed product or technology to innovate, the licensee must grant the IP rights in his or her innovation back to the licensor. Licenses that require the licensee to grant *all* rights back to the licensor are clearly restraints on innovation, as they divest the licensee of all incentives to innovate. On the other hand, nonexclusive grantbacks are often permissible because, while they require the licensee to license improvements back to the licensor, they also permit the licensee to retain some rights of use or ownership as well.[172] In this sense, nonexclusive grantback provisions can have the same risk-sharing benefits as reach-through royalties. As a result, for example, open-source agreements very likely do not constitute misuse because, while they do require the licensee to license any improvements out, the improvements are made available to all subsequent licensees.[173]

---

product in question, all of the different claims for royalties must be added or 'stacked' together to determine the total royalty burden borne by the product if the firm is to sell that product free of patent litigation. As a matter of simple arithmetic, royalty stacking magnifies the problems associated with injunction threats and holdup . . . ."); Einer Elhauge, *Do Patent Holdup and Royalty Stacking Lead to Systematically Excessive Royalties?*, 4 J. COMP. L. & ECON. 535 (2008) (arguing against the Lemley–Shapiro model); Damien Gerardin, Anne Layne-Farrar & A. Jorge Padilla, *The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking*, 14 B.U. J. SCI. & TECH. L. 144 (2008) (noting the problem, particularly in the context of standard setting, and providing examples); J. Gregory Sidak, *Holdup, Royalty Stacking and the Presumption of Injunctive Relief for Patent Infringement: A Reply to Lemley and Shapiro*, 92 MINN. L. REV. 714 (2008) (finding little empirical evidence that royalty stacking is much of a problem in practice).

171. *See, e.g.*, Certain Set Top Boxes and Components Thereof, Inv. No. 337-TA-454, USITC Pub. 3564, at 154 (June 21, 2002) (Final), *available at* http://www.usitc.gov/publications/337/pub3564.pdf (holding that a grantback provision that required patent licensees of a package of numerous patents to grant back to patentee a license of all of their independently developed intellectual property operated as a restraint on innovation); *see also* Lightwave Techs., Inc. v. Corning Glass Works, No. 86 Civ. 759 (KC), 1991 WL 4737 (S.D.N.Y. Jan. 18, 1991) (upholding jury verdict that grantbacks were not per se patent misuse); Duplan Corp. v. Deering Milliken, Inc., 444 F. Supp. 648, 671–73 (D.S.C. 1977) (finding that a license agreement requiring licensee to license all improvements back to licensor constituted misuse), *aff'd in part, rev'd in part*, 594 F.2d 979 (4th Cir. 1979).

172. Int'l Norcent Tech. v. Koninklijke Philips Elecs. N.V., No. CV 07-00043 MMM (SSx), 2007 WL 4976364 (C.D. Cal. Oct. 29, 2007) (dismissing a complaint challenging nonexclusive grantbacks and similar practices), *aff'd*, 323 F. App'x 571 (9th Cir. 2009); Van Dyk Research Corp. v. Xerox Corp., 478 F. Supp. 1268 (D.N.J. 1979) (similar), *aff'd*, 631 F.2d 251 (3d Cir. 1980).

173. *See* Fabrizio Marrella & Christopher S. Yoo, *Is Open Source Software the New Lex Mercatoria?*, 47 VA. J. INT'L L. 807, 810 (2007). Misuse may be apt, however, to the extent that open-source licensing requires the mandatory licensing of preexisting or unrelated IP rights. *See* Robin Feldman, *The Open Source Biotechnology Movement: Is It Patent Misuse?*, 6 MINN. J. L. SCI. & TECH. 117, 167 (2004) (finding a possible, but generally unlikely, case for misuse where open-source restrictions compel licensing in a way that affects inventions "beyond the teachings of

Another way of appropriating downstream value of IP is through direct limitations on reuse. For example, in *Mallinckrodt, Inc. v. Medipart, Inc.*, the Federal Circuit held that it was not patent misuse for a patentee to sell a medical device subject to the condition that it not be reused.[174] Insofar as *Mallinckrodt* involved a sale, it has now been overruled by the Supreme Court's decision in *Quanta*, which reinstated a strict patent "exhaustion" (first-sale) rule against post-sale restraints.[175] Because the first transaction in *Mallinckrodt* was a sale, under *Quanta*, the patentee did not have the right to impose any further restrictions on the device. More recently, a district court held that it could be patent misuse for a printer manufacturer to limit its printer cartridges to a single use.[176]

In licensing situations not involving a sale, single-use restrictions may be justified where reuse affects the safety or the operational effectiveness of a device.[177] In other cases, however, they simply waste productive resources if they prohibit the reuse of a good that is technologically capable of reuse. In such cases, they may be a resource-costly way of metering downstream use by requiring a royalty on each use. That is, because the patentee cannot measure the number of downstream uses, it simply limits that number to one and licenses a new article for each use. Single-use restrictions can be anticompetitive to the extent that they are used to prevent the rise of a market of second-hand goods that compete with the new goods of the primary manufacturer.[178] On the other hand, a restriction on reuse hardly seems exclusionary on its face. Once the first use is exhausted, the user is free to purchase elsewhere, and indeed, the single-use restriction may induce the user to do so. As a result, any general case for condemning single-use restrictions on foreclosure grounds is very weak.

---

the original patent"); Christian H. Nadan, *Open Source Licensing: Virus or Virtue?*, 10 TEX. INTELL. PROP. L.J. 349 (2002) (finding a weak case for misuse in open-source licensing).

174. 976 F.2d 700, 706–08 (Fed. Cir. 1992).

175. 553 U.S. 617 (2008); *see supra* text accompanying note 163.

176. Static Control Components, Inc. v. Lexmark Int'l, Inc., 487 F. Supp. 2d 830, 842–43 (E.D. Ky. 2007) (explaining how a single-use restriction could be misuse, particularly if it involved misbranding of unrestricted cartridges as "single-use only"), *modified*, 615 F. Supp. 2d 575 (E.D. Ky. 2009) (holding, after consideration in light of the Supreme Court's *Quanta* decision, that the single-use restriction was unenforceable under the first-sale doctrine); *see also* Monsanto Co. v. Scruggs, 459 F.3d 1328 (Fed. Cir. 2006) (finding that it was not patent misuse for Monsanto to prevent farmers from replanting the second generation of its genetically engineered seed); *cf.* Ariz. Cartridge Remanufacturers Ass'n v. Lexmark Int'l Inc., 421 F.3d 981 (9th Cir. 2005) (upholding under state law a restriction on reuse of printer cartridges).

177. For instance, in *Mallinckrodt*, 976 F.2d at 706–08, the patentee claimed that its medical device was unsafe if reconditioned and reused.

178. *See, e.g.*, United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 346 (D. Mass. 1953), *aff'd mem.*, 347 U.S. 521, 521 (1954) (finding that the defendant leased rather than sold shoe-making machinery in order to prevent rise of a second-hand market). *See generally* Barak Y. Orbach, *The Durapolist Puzzle: Monopoly Power in Durable-Goods Markets*, 21 YALE J. ON REG. 67, 108–09 (2004) (noting that such restrictions are used to solve a durable-goods problem that monopolists face when they have to compete with a robust second-hand, or used-goods, market).

For these reasons, it is impossible to say categorically whether reuse restrictions should be deemed misuse. One general rule should be that it is not misuse to limit reuse where the product cannot be reconditioned without threatening harm to people or equipment. Otherwise, courts will have to assess these restrictions on a case-by-case basis and might be able to develop other general rules along the way.

E. Licenses Restricting Access to Public-Domain Information

In some cases, most frequently in copyright licenses, a licensor attempts to use an IP right to prevent access to public-domain information. Copyright protection extends only to the copyright holder's original expression and not to the facts or ideas that underlie that expression. Yet, because copyrighted works typically comprise both ideas and expression, copyright holders may attempt to use the copyrights over their expression to prevent access to the uncopyrightable material contained therein in order to prevent others from developing competing works or, arguably, to increase the royalties they receive for use of their works.[179]

Restrictions on access to the public domain can take several forms, and some of the practices already discussed tend to restrict access to the public domain while also restricting competition or innovation. For instance, restrictions on reverse engineering, previously discussed in the Subpart on restraints on innovation,[180] constitute one important category of practices that limit access to public-domain ideas.

Another set of practices involves the use or threat of copyright litigation that restricts access to public-domain materials. For instance, in the *WIREdata* case, previously discussed, the Seventh Circuit suggested that it might be misuse for a copyright holder to use its copyright in a database to prevent access to public-domain data that had been stored in the database by a municipal agency.[181] In that case, because the public-domain data were not available anywhere else, the copyright holder would have been able to foreclose access to that data even though it lacked market power in the antitrust sense.[182] While patent and copyright holders may sue to enforce their IP rights, those rights do not permit them to bring marginal lawsuits in order to "sequester" or foreclose access to material or technology that

179. While the leverage theory precludes an IP holder from obtaining greater royalties from any particular licensee simply by tying, one can still obtain greater royalties by enlarging the class of users from whom royalties can be obtained.

180. *See supra* text accompanying notes 138–42.

181. Assessment Techs., LLC v. WIREdata, Inc., 350 F.3d 640, 643 (7th Cir. 2003) (doubting that the copyright holder had a legitimate infringement claim at all because it was not clear that the database needed to be copied to gain access to the public-domain information contained within, but noting that even assuming such copying was necessary, the copying would probably constitute fair use).

182. *See id.* at 647.

belongs in the public domain.[183] Indeed, the Supreme Court has held that sham litigation brought to commandeer public-domain technology can constitute an antitrust violation.[184] It follows that such litigation can also constitute misuse.[185]

Other cases raise similar concerns, although the foreclosure of access to public-domain material will not always be as complete as it was in *WIREdata*. One example involves misuse of the Digital Millennium Copyright Act ("DMCA"), which prohibits the circumvention of technological controls to gain access to copyrighted works. As Professor Burk has argued, the DMCA can be used to prohibit access to uncopyrightable as well as copyrightable material:

> Because the right of access [under the DMCA] is defined in terms of the technological system, rather than the terms of the content, both copyrightable and uncopyrightable materials will be covered by the anticircumvention right. The controlled content may include uncopyrightable facts, public domain materials, or purely functional works, yet unauthorized access will constitute just as much of a violation as it would if the content were copyrightable original expression.[186]

Given that the DMCA can be used to prevent access to public-domain materials in order to give the copyright holder a competitive advantage against the development of competing products or technologies, Burk argues that rules akin to misuse should be used to prevent or remedy overreaching in the use of anticircumvention provisions in the DMCA.[187]

---

183. *See id.* at 647–48 (stopping short of finding actual misuse but stating that the infringement action was akin to misuse and awarding attorney's fees to discourage such litigation). *But cf.* Prof'l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 64–65 (1993) (stating that it is not improper under antitrust laws for a firm to bring an infringement action on an arguably valid copyright claim even if the claim ultimately fails).

184. *See* Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 178 (1965) (stating that bringing an infringement action on a patent obtained by fraud could constitute an antitrust offense, given that the lawsuit was an effort to commandeer unpatented technology).

185. *See, e.g.*, Netflix, Inc. v. Blockbuster, Inc., No. C06-02361, 2006 WL 2458717, at *9 (N.D. Cal. Aug. 22, 2006) (finding that a claim of sham patent litigation that was sufficient to constitute an antitrust violation necessarily met the "lower standard for pleading patent misuse").

186. Dan L. Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1108, 1109 (2003) (arguing that the DMCA's "anticircumvention provisions are neither constitutionally nor statutorily related to copyright").

187. *See id.* at 1139 ("[P]rotection of copyrighted content, not maintenance of market dominance, was the stated legislative intent behind granting the anticircumvention right."); *see also* Aaron K. Perzanowski, *Rethinking Anticircumvention's Interoperability Policy*, 42 U.C. DAVIS L. REV. 1549, 1620 (2009) (proposing re-interpretation of the DMCA itself so as to prevent overreaching with respect to complementary uses that are otherwise in the public domain).

In a similar vein, in *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*, the Federal Circuit indicated that misuse concerns precluded a broad construction of the DMCA that would allow a copyright holder to sue for circumventing a technological control on a copyrighted work, even when there was no real concern that the circumvention would facilitate copyright infringement.[188] The court explained that such a broad construction of the DMCA would allow a copyright holder "to add a single copyrighted sentence or software fragment to its product, wrap the copyrighted material in a trivial 'encryption' scheme, and thereby gain the right to restrict consumers' rights to use its products in conjunction with competing products."[189]

The same reasoning would apply to a copyright holder who sues under the DMCA to prevent others from circumventing access controls on a digital work solely to gain access to uncopyrightable elements of the work such as basic facts and ideas. For instance, the copyright holder in an e-book could use the DMCA to prevent access to the uncopyrightable ideas underlying the story, which would ordinarily be free to the world to use. Of course, where the uncopyrightable ideas are readily available elsewhere—in a hard copy of a book, for example—there might not be complete foreclosure. Thus, one who places a technological lock on a CD-ROM containing *Moby Dick*, which is in the public domain, is not thereby denying access to the book itself. It can readily be obtained through other sources. The important characteristic of the *WIREdata* and *Chamberlain* cases is that the locked-up information was *not* available from another source.

It is difficult to say how much foreclosure is necessary to support a finding of misuse, however, the most important issue is arguably the remedy. The most severe misuse penalty, which would be to hold the IP right unenforceable, should be reserved for cases in which there is evidence of exclusion from the public domain. If foreclosure is not likely, or if the IP holder can show an offsetting justification for the restriction, then the IP right should not be held unenforceable. In such cases, the court should consider whether the IP policy in favor of preserving access to the public domain is sufficiently strong to warrant rejecting the IP holder's infringement or DMCA claim.

V. CONCLUSION

IP law needs a coherent misuse doctrine, grounded in IP policy, to prevent overreaching by patent and copyright holders. Current approaches

---

188. 381 F.3d 1178, 1204 (Fed. Cir. 2004). *Chamberlain* considered a misuse concern regarding a copyright holder's attempt to deny access to garage-door-opener technology in order to prevent others from developing a competing remote control and noted that "[the copyright holder's] construction of the DMCA would allow virtually any company to attempt to leverage its sales into aftermarket monopolies—a practice that both the antitrust laws, and the doctrine of copyright misuse normally prohibit." *Id.* at 1201.

189. *Id.*

to misuse are unsatisfactory. On the one hand, the antitrust standard for misuse, which focuses almost exclusively on the IP holder's market power, fails to redress violations of IP policy that do not also violate the antitrust laws. On the other hand, the beyond-the-scope test fails to provide a useful mechanism for determining which practices fall within or outside the statutory IP grant and does not always correlate misuse with practices that are antithetical to IP policy.

This Article argues for a coherent approach that links misuse to violations of IP law's core policies. This approach finds misuse when an IP holder's practice causes foreclosure of competition, innovation, or access to the public domain. When foreclosure has occurred or seems likely, a court should impose the traditional remedy of holding the IP right unenforceable for the period of misuse. When the IP holder's conduct is contrary to IP policy but is not likely to cause foreclosure, a court should simply refuse to provide judicial enforcement of the IP holder's attempt to overreach. That is, the court could hold a particular license or infringement action invalid.

Because the proposed approach evaluates allegations of misuse based on foreclosure, findings of "per se" misuse will be rare. Rather, courts will need to engage in something akin to a "rule of reason" analysis for misuse. But the foreclosure approach necessitates a different rule of reason analysis than the antitrust approach would employ. The antitrust approach requires proof of market power, while the approach here requires a showing of foreclosure—of competition, innovation, or the public domain. As a result, a misuse rule of reason must develop a different set of tools to assess IP-holder practices. Under the foreclosure approach to misuse, the infringement defendant establishes a prima facie case of misuse by showing that the IP holder placed unreasonable limitations on competition, incentives to innovate, or access to the public domain. While market power is relevant to the foreclosure inquiry, market power will not always be a necessary or sufficient condition for foreclosure to occur. If the infringement defendant establishes a prima facie case of misuse, then the burden will shift to the infringement plaintiff to show a good reason for the challenged practice and the absence of less exclusive alternatives.

This Article proposes a new way of thinking about misuse based on the harm it causes through foreclosure of competition, innovation, or the public domain. It does not purport to answer all questions related to misuse. Future work should assess foreclosure caused by licensing restrictions not addressed in depth here, including restraints on reverse engineering and restraints on

speech, among others. Remedies also need to be reconsidered in light of the proposed approach.[190]

---

190. One important issue is whether infringement defendants not injured by the alleged misuse should be able to assert it as a defense. *See, e.g.*, McGowan, supra note 102, at 428 (arguing that "public policy favors the tailoring of remedies to the economic effects of acts of misuse," and that courts finding misuse should therefore "limit remedies to actual victims of the misuse and to the extent of the victims' harm caused by the misuse"). It is possible, however, that this article could shed some light on that issue by identifying the nature and severity of the harm caused by misuse of IP rights.