IP Misuse as Foreclosure

Christina Bohannan
IP Misuse as Foreclosure

Christina Bohannan*

I. Introduction

It is both curious and deeply troubling that, in an age of intellectual property expansionism, 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 unpatedented products or services as well.3 Several

---

* Associate Professor of Law, 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.


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. Since then, misuse has expanded into other practices and into copyright law. Courts have considered the doctrine’s applicability to a variety of practices including tying, package licensing of related patented or copyrighted goods, restraints on a licensee’s ability to produce competing technologies, and requiring royalty payments beyond the expiration of the patent or copyright term.

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, 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 intellectual property 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. Thus, the doctrine benefits

---

4 See id.
5 See discussion infra text accompanying notes ___.
6 See discussion infra text accompanying notes ___.
7 See discussion infra text accompanying notes ___.
8 Lasercomb America, Inc. v. Reynolds, 911 F.2d 970, 973, 979 (4th Cir. 1990) (finding misuse in CAD licensor’s restriction forbidding licensee from developing any CAD program). See discussion infra, text at notes ___.
9 Brulotte v. Thys Co., 379 U.S. 29 (1964) (licensor of hop picking machine required royalties to be paid past expiration date of patents). See discussion infra text accompanying notes ___.
10 See, e.g., MPPC, 243 U.S. 502, 517 (noting relevance of Clayton Act’s anti-tying provision, 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. Mid-Continent Inv. Co., 320 U.S. 680, 684 (1944) (Mercoid II) (“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, is that misuse can also be a defense to a breach of contract claim 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 v. Thys, 379 U.S. 29 (1964), 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, 62 Wash.2d 284, 382 P.2d 271 (Wash. 1963). On Brulotte and post-expiration royalties, see discussion infra text accompanying notes __. 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. County Materials Corp., 512 F.3d 912 (7th Cir. 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 Medical, Inc. v. Abbott Labs., 124 F.3d 1419 (Fed.Cir. 1997) (same).
primarily infringers, 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.\textsuperscript{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.”\textsuperscript{13} There is a serious question, therefore, as to whether the benefits of remediating 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.”\textsuperscript{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 for misuse. Others emphasize attempts to expand patent or copyright rights beyond their statutory scope or to impose restraints that somehow reach outside of 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 \textit{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 retraces the history of IP misuse doctrine, showing how it began in 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 deserved, or on vaguely articulated concerns that certain practices might extend the scope of the intellectual property 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 intellectual property 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

\textsuperscript{12} See, e.g., Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1942) (infringement defendant was a competing maker of salt injection machines, and was not injured by the salt tie).
\textsuperscript{13} See, e.g., B.B. Chem. Co. v. Ellis, 314 U.S. 495, 498 (1942) (patentee could resume enforcement of patent once misuse was purged). See also U.S. Gypsum v. National Gypsum Co., 352 U.S. 457 (1957) (patentee may not recover royalties for period during which misuse continued prior to when it was purged); Practice Mgm’t Information Corp. v. American Medical 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.”).
\textsuperscript{14} See Cotter, supra note __, at 903.
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.

II. Historical Development of Misuse Doctrine

Misuse doctrine grew out of a series of cases in the early 1900’s 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 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.\(^{16}\) 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

\(^{15}\) *Motion Picture Patents Co. v. Universal Film Mfr’g Co.*, 243 U.S. 502 (1917).

\(^{16}\) *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:

> 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 506-507.

\(^{17}\) On the history of the attempt by the so-called Edison trust to monopolize the motion picture industry, see BARAK Y. ORBACH, REEL LAW: A LEGAL HISTORY OF THE AMERICAN MOTION PICTURE INDUSTRY (2009); 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, 164-165, 291-292 (1939); BENJAMIN B. HAMPTON, A HISTORY OF THE MOVIES 8-11, 17-24, 34, 64-76, 79-81 (1931). See also MICHAEL CONANT, ANTITRUST IN THE MOTION PICTURE INDUSTRY 16-21, 77-80 (1960).

\(^{18}\) 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
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 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.\(^\text{19}\)

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 invalidation of the patent was the appropriate remedy for misuse or that patent infringers who have not been harmed by the misuse have standing to assert it as a defense.\(^\text{20}\) 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.\(^\text{21}\)

Thus, the Court essentially stated two requirements for misuse. The first requirement was that the patent holder attempted to control subject matter not within the statutory grant. If the patent holder were merely attempting 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

---

\(^{19}\) See *MPPC*, 243 U.S. at 520 (Holmes, J., dissenting).

\(^{20}\) See discussion infra text accompanying notes __.

\(^{21}\) Motion Picture Patents Co. v. Universal Film Mfr’g Co., 243 U.S. 502, 518–19 (1917).
gives the patentee the right to control the patent itself, even if the patented good possesses 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.\textsuperscript{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 \textit{patent law} policy in favor of encouraging competition and innovation in the markets for unpatented products.

Following \textit{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 \textit{Carbice Corporation of America v. American Patents Development Corporation},\textsuperscript{23} Dry Ice Corporation was the exclusive licensee (and therefore the patent holder) of a patented transportation package. 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.\textsuperscript{24} 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.”\textsuperscript{25} Each invoice for the dry ice included a notice stating that Dry Ice Corporation’s dry ice may be used only with its approved containers and that its containers may be used only with its dry ice.\textsuperscript{26}

\textit{Carbice Corporation} was a competing manufacturer of dry ice. When \textit{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 \textit{Carbice} for contributory patent infringement.\textsuperscript{27} 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.”\textsuperscript{28} The Court held that the \textit{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]

\begin{footnotesize}
\begin{footnotes}
\item[22] See discussion infra text at notes \textsuperscript{__}.
\item[24] Id. at 28.
\item[25] Id. at 29.
\item[26] Id. at 30.
\item[27] “Contributory” patent infringement is action by some third party that causes another to commit direct patent infringement. See 35 U.S.C. §271(c) (2006).
\item[28] Carbice, 283 U.S. at 30.
\end{footnotes}
\end{footnotesize}
wholly without the scope of the patent monopoly.”

Like the MPPC Court, the Carbice Court did not articulate a “patent misuse” doctrine as such. Nevertheless, it did condemn a patentee’s attempt 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. . . .”

The Carbice Court relied on the antitrust laws more explicitly than the MPPC Court had, explaining that “[i]n 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.” Yet, the Court said that patent policy also required its result.

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.” The emulsion had long been used as a coating for crushed stone in the building of macadam roads. 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.” 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.” Thus, although 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.”

---

29 Id. at 31-32 (quoting MPPC, 243 U.S. at 517).
30 Id. at 33-34.
31 Id. at 34 n.4.
33 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).
34 Leitch, 302 U.S. at 460.
35 Id. at 460-61.
36 See id. at 463.
Ultimately, in *Morton Salt v. Suppiger*, 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.” 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.”

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. 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 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. 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.

---

38 See id. at 491.
39 See supra note __, discussing literature on how the tie was part of an attempt to monopolize the entire commercial film market in the United States.
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.\(^{40}\) 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 the consequences of the misuse of the patent have been dissipated.”\(^{41}\)

*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.

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....\(^{42}\)

In all of the foregoing cases,\(^{43}\) the Supreme Court relied on patent policy and equity

\(^{40}\) See *supra* note __, which notes a few exceptions.

\(^{41}\) See *Morton Salt*, 314 U.S. at 493. *Accord* B.B. Chem. Co. v. Ellis, 314 U.S. 495 (1942) (licensing of process patent subject to restraint that only the patentee’s materials could be used with the patented process was misuse and patentee could not enforce the patent until the misuse was purged).

\(^{42}\) *Morton Salt*, 314 U.S. at 493.

\(^{43}\) Although the Supreme Court’s decision in Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661 (1944) (*Mercoid I*) followed closely on 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.” *Mercoid I*, 320 U.S. 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 the 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.
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. These approaches will be addressed in turn.

A. Misuse Defined by Substantive Antitrust Principles

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 patented product has market power in the relevant market for the 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

Congress subsequently overruled Mercoid I with §271 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….

(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. For a detailed examination of the problems raised by Mercoid I and Congress’ response, see Dawson Chemical Co. v. Rohm and Hass Co. 448 U.S. 176, 203-213 (1980).
relevant market for the patent or patented product on which the license or sale is conditioned.\textsuperscript{44}

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 constituted an antitrust violation.\textsuperscript{45} 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. 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.\textsuperscript{46} 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."\textsuperscript{47} 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."\textsuperscript{48} Thus, in order for misuse to occur, one must "impermissibly broaden[ ] the scope of the patent grant with


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 Int’l Salt Co. v. United States, 332 U.S. 392 (1947) (fact that tying product was patented created presumption of market power); United States Loew’s, 371 U.S. 131 (1962) (extending the presumption to copyright). 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, Inc. v. Independent Ink, Inc., 547 U.S. 28 (2006). 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.


\textsuperscript{46} See, e.g., Windsurfing Intl. v. AMF, 782 F.2d 995, 1001-1009 & n2 (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.”). See also Virginia Panel Corp. v. Mac Panel Co., 133 F.3d 860, 868 (Fed. Cir. 1997) (misuse occurs when patent holder has “impermissibly broadened the physical or temporal scope of the patent grant with anticompetitive effect”); Mallinckrodt v. Medipart, Inc. 976 F.2d 700, 703-704, 708 (Fed. Cir. 1992) (suggesting that misuse largely tracks antitrust although it might occasionally reach more broadly).


\textsuperscript{48} Monsanto v. Scruggs, 459 F.3d at 1339.
anticompetitive effect.”49 In other cases the Federal Circuit has held that misuse might be found where a technical requirement of antitrust law is not satisfied. For example in U.S. Philips 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.50

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 on competition doctrine.51 More recently, however, Judge Posner has suggested that copyright misuse reaches beyond antitrust.52 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.53

Several of the leading scholars on intellectual property and antitrust generally have argued 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 be denied enforcement unless the challenged behavior would constitute a substantive antitrust


51 See USM Corp. v. SPS Tech., 694 F.2d 505 (7th Cir. 1982) (misuse to be tested by antitrust principles); Panther Pumps & Equip. Co. v. Hydrocraft, 468 F.2d 225 (7th Cir. 1972) (suggesting that antitrust and misuse principles are the same). See also National Presto Indus. v. Black & Decker, 760 F.Supp. 699, 702-703 (N.D.III.1991) (following USM and saying that “[g]enerally speaking, claims of patent misuse have been tested by conventional antitrust principles”).

52 Assessment Tech. of WI, LLC v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003) (describing challenged practice as “akin” to misuse even though market power requirement under antitrust law had not been established).

53 Lasercorn Am., Inc. v. Reynolds, 911 F.2d 970, 978-89 (4th Cir. 1990) (in copyright, misuse reaches more broadly than antitrust); Practice Mgmt. Information Corp. v. American Medical 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.”). See also Apple, Inc. v. Psystar Corp., 2009 WL 303046 (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 pleading stage without inquiring into whether the tie constituted antitrust violation), amended by, 93 U.S.P.Q.2d 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”).
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.”

Professor Cotter has similarly argued that antitrust law, with minor adjustments, should provide the rationale for misuse.

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, 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 Corporation 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 1940’s, however, the Supreme Court 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. The Supreme Court corrected this problem in 2006 in the Independent Ink decision, which overruled earlier cases establishing that presumption.

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 “leveraged” or extended the patentee’s monopoly profits from the tying product to the tied product as well.

---

54 X PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶1781d4 (2d ed. 2004).
55 Id.
56 Cotter, supra note __, at 949–63 (arguing that courts should extend misuse doctrine beyond antitrust law only when the risks of underenforcement of intellectual property rights are “negligible”).
57 MPPC, 243 U.S. 502 (1917). See discussion supra text accompanying notes __.
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. 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. This was an application of the "leverage" theory – or the notion 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.

Justice Brandeis found *MPPC* indistinguishable. 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 no harm to competition at all.

Following *Carbice*, Supreme Court decisions such as *Morton Salt*, *Leitch*, and *Mercoid Corp. v. Mid-Continent Inv. Co.* 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 “the 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.” Yet the court indicated that the patentee’s product/process tie constituted improper anticompetitive conduct of the kind

---

61 *Carbice*, 283 U.S. at 28. See discussion supra text accompanying notes __.
62 *Id.* at 31-32.
63 *Id.* at 32.
64 *Id.*
65 See discussion of the *Morton Salt* case at supra text accompanying notes __.
66 See discussion of the *Leitch* case at supra text accompanying notes __.
68 *Leitch*, 302 U.S. at 462 (emphasis added).
we now call misuse.

The leverage theory of tying has largely been discredited in the antitrust literature, although arguments continue to be made for limited versions or applications of the theory. 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 patented product has market power.

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. Therefore, 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.

This insight about 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 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 Independent Ink, condemned numerous ties that almost certainly were not

---


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.”

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 when an IP holder violates IP policy. As will be discussed in more depth in subsequent sections, 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 second view of misuse is that, although misuse applies when the patent or copyright

72 See, e.g., Morton Salt, 314 U.S. 488 (tied product was common table salt); Leitch, 302 U.S. 458 (tied product was an unpatented chemical emulsion produced by numerous firms); Mercoid I, 320 U.S. 661 and Mercoid II, 320 U.S. 680 (tied product was an unpatented switch attached to a thermostat); Carbice, 283 U.S. 27 (tied product was unpatented dry ice commodity). See also Hodosh v. Block Drug Co., Inc., 833 F.2d 1575 (Fed. Cir. 1987) (could be misuse for patentee of 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 owner of process patent requiring unpatented machine for its implementation to refuse to license the patent except along with sales of the machine); Rex Chainbelt v. Harco Products, 512 F.2d 993, 1001-1003 (9th Cir. 1975) (without discussion of power or competitive effect other than the existence of the patent itself, court found both misuse and antitrust violation for defendant to refuse to license its method patent except in conjunction with sales of 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).


74 Frischmann & Moylan, supra note __, at 927-30 (misuse doctrine should be used to remedy restraints on innovation that might not constitute antitrust violations); 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) (misuse doctrine is more suitable than antitrust doctrine for addressing harms to innovation).
holder violates the antitrust laws, it can also occur when the intellectual property holder violates
IP policy by attempting to expand its IP right beyond the scope of the grant\textsuperscript{75} or, in some cases, after the grant has expired.\textsuperscript{76} 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 the misuse will be found.\textsuperscript{77} The “beyond the scope” test is 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.”\textsuperscript{78} 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.\textsuperscript{79} For instance, the beyond the scope test cannot really tell us

\textsuperscript{75} See, e.g., Morton Salt, 314 U.S. at 491-492 (misuse for patentee to impose a restraint creating a “monopoly not within the grant”); Windsurfing Intern., Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986) (misuse if patentee “has impermissibly broadened the physical or temporal scope of the patent grant with anticompetitive effect.”); USM Corp. v. Standard Pressed Steel Co., 453 F.Supp. 743, 748-49 (N.D. Ill. 1978) (“patent 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 Tech., Inc., 694 F.2d 505; Sanofi-Synthelabo v. Apotex, Inc., 2006 WL 3103321 (S.D.N.Y. Nov. 2, 2006) (misuse is attempt to “restrain trade beyond the scope of the patent…”); Hoffman-La Roche, Inc. v. Genpharm, Inc., 50 F.Supp.2d 367, 378 (D.N.J. 1999) (similar); Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd., 706 F.Supp. 94 (D.Mass. 1989) (misuse is attempt to go “beyond the scope of the patent”); Video Pipeline, Inc. v. Buena Vista Home Ent’t, 275 F.Supp.2d 543, 557 (D.N.J. 2003) (copyright misuse is attempt by copyright holder “to extend its monopoly beyond the scope of the copyright laws in an anticompetitive manner”); In re Napster, Inc. Copyright Litigation, 191 F.Supp.2d 1087, 1106 (N.D.Cal. 2002) (same). See also Feldman, The Insufficiency of Antitrust Analysis, supra note ____, at 449 (arguing that misuse should apply to licensing restrictions that extend either the scope or duration of patent protection).

\textsuperscript{76} 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 tying the sale or use of the patented article to the purchase or use of unpatented ones.

See also Feldman, The Insufficiency of Antitrust Analysis, supra note ____, at 414 (“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….”).

\textsuperscript{77} Monsanto Co. v. Scruggs, 342 F.Supp.2d 568 (N.D. Miss. 2004), aff’d, 459 F.3d 1328 (Fed. Cir. 2006).

\textsuperscript{78} Windsurfing Intern., Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986).

\textsuperscript{79} See Feldman, Insufficiency of Antitrust Analysis, supra note ____, at 414:

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
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 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 way 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 section, package licensing can have a much more detrimental effect on innovation and competition than the tying of unpatented commodities. 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

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, U. PENN. L. REV. 875, 923 (1999) (“one cannot easily separate applications of the misuse doctrine from an analysis of the 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.’”).

80 See infra text accompanying notes __.
conduct. By contrast, IP’s concerns with monopoly relate primarily to its potential effects on innovation and access to the public domain. Because competition and innovation are related, conduct that is anti-competitive is often also anti-innovative. For instance, the Supreme Court’s hostility toward MPPC’s anti-competitive conduct seemed not to derive from a concern that the conduct would cause higher prices for consumers but rather from a concern 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 to the amusement life of the nation.”

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

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.

---

81 The U.S. Constitution gives Congress the power to enact patent and copyright laws in order “[t]o promote the Progress of Science and the 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 79, 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”).

82 MPPC, 243 U.S. at 519.

83 *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 973, 979 (4th Cir. 1990) (“a misuse need not be a violation of antitrust law in order to comprise an equitable defense to an infringement action”); *Alcatel USA, Inc. v. DGI Tech., 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 General Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1180-1181 (1st Cir. 1994) (copyright misuse requires showing of market power and other elements of antitrust claim); *Bellsouth Advertising & Publishing Corp. v. Donnelly Info. Publishing, 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).

84 *See Lasercomb*, 911 F.2d at 973 (quoting the license as saying that “Licensee 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.”).

85 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 Mgm’t Information Corp. v. Am. Medical Ass’n, 121 F.3d 516 (9th Cir. 1997) (copyright misuse for owner of medical reference system that provided encoding for the filing of Medicare and Medicaid claims to license it on the condition that licensee not develop a competing coding system).
that underlie the licensor’s copyrighted expression. Reverse engineering is usually lawful under the IP laws to the extent that it allows innovators 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.

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, and these problems can be exacerbated by

---

86 See, e.g., Davidson & Assocs., Inc. v. Internet Gateway, Inc., 334 F.Supp.2d 1164 (E.D. Mo. 2004) (refusing to find that license restriction forbidding reverse engineering constituted copyright misuse). Absent such a restriction, reverse engineering is lawful and constitutes fair use under copyright law, provided that it does not cross the line and become copying. See Sony Computer Ent’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 Enterprises Ltd. v. Accolade, Inc., 977 F.2d 1510, 1520-1528 (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 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) (arguing that copyright licenses forbidding reverse engineering are either preempted or else constitute copyright misuse); 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) (similar).

87 See Lawrence D. Graham and 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 right holders the power to capture the value of every spillover. See Brett M. Frischmann and Mark A. Lemley, Spillovers, 107 COLUM. L. REV. 257 (2007) (arguing that spillovers are pervasive and that uncompensated spillovers tend to enhance rather than diminish innovation).

88 For serious indictments of the patent and copyright systems, see DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 95–100 (2009) (describing problem of patent overbreadth and Congressional attempts to fix it); JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 46–72 (2008) (arguing, among other things, that 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); MICHAEL HELLER, THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES (2008) (too much ownership of intellectual property causes a tragedy of the anti-commons, 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) (arguing that “it 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”); Tun-Jen Chiang, Fixing Patent Boundaries, ___ MICH.L.REV. ___ (2009) (forthcoming) (discussing numerous reasons why patent claims are excessively broad); Jay P. Kesan and Andres A. Gallo, The Political Economy of the Patent System, 87 N.C.L.REV. 101 (2009) (describing influence of special interests on current patent reform efforts); Christina Bohannan & Herbert
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.\footnote{Hovenkamp, \textit{IP and Antitrust: Reformation and Harm, supra} note \_ \_ (arguing that overbreadth and vagueness in scope of IP rights threatens to retard innovation and impede economic growth).}

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 subsections 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 (1) from competition in a particular market; (2) from producing technology that they are otherwise lawfully entitled to develop (\textit{i.e.}, restraints on innovation),\footnote{See generally Thomas F. Cotter, \textit{The Pro-Competitive Interest in Intellectual Property Law}, 48 W.M. \\& MARY L. REV. 483 (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. . . .”).} or (3) from accessing information or technology that rightfully belongs in the public domain.\footnote{See, e.g., Lasercomb, 911 F.2d at 973, 979.} In the course of developing this theory, I will also analyze how particular practices can raise foreclosure concerns.

\section*{A. Tying and Quasi-Tying Claims}

\subsection*{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 (4) that affects a substantial volume of commerce in the tied product market. 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. There is very little inquiry into whether the tying practice has produced any anti-competitive 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 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.” 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. 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

---

92 See HOVENKAMP, JANIS & LEMLEY, IP & ANTITRUST, supra note __, § 3.3a1.
93 See Northern Pacific Ry. Co. v. United States, 356 U.S. 1, 6 (1958) (assessing the requirement). See also AREEDA & HOVENKAMP, supra note __, ¶1721. The requirement refers to the amount of tied sales in terms of dollars, not to a share of any particular market. Id., at ¶1721b1. See, e.g., United States v. Loew’s, 371 U.S. 38, 49 (1962) (in case involving block booking of copyrighted motion pictures, court looked at dollar volume of tied sales).
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.\textsuperscript{95}

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.\textsuperscript{96}

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.\textsuperscript{97} 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

\textsuperscript{95} See supra text accompanying notes __.

\textsuperscript{96} See, e.g., David McGowan, 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, The Pro-Competitive Interest, supra note __, at 547 (author states that he “remain[s] skeptical of the view that IP law should inhibit price discrimination schemes as a matter of course”).

\textsuperscript{97} MPPC, 243 U.S. 502. See supra text accompanying notes __.
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. 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 obtain 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. Microsoft had a dominant position in its Windows computer operating system, with a market share exceeding 90 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 its 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 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 Monsanto Co. v. Scruggs, Monsanto tied its “Roundup-Ready” seed with its Round-up herbicide. 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 Round-up 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. But as Judge Dyk observed in 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.

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

98 See literature cited in supra note __.
100 See Monsanto Co. v. Scruggs, 459 F.3d 1328 (Fed. Cir. 2006).
101 See id. at 1341.
102 See id. at 1344 (Dyk, J., dissenting).
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 and also many producers. 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 is a widely-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. As the next section 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.

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 anti-competitive 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. 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.

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*, 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. 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. AT argued that to obtain the data would require making a copy of the copyrighted database software. 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. Judge Posner explained that held 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. The court decided that an award of attorney’s 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. . .”

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.” 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. 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.

4. Package or Blanket Licensing of Patents and Copyrights

---

110 Id. at 647.
111 Assessment Tech. of WI, LLC v. WIREdata, Inc., 361 F.3d 434, 437 (7th Cir. 2004). Contrast Triad Sys. Corp. v. Southeastern Exp. Co., 64 F.3d 1330 (9th Cir. 1995) (permitting manufacturer of specialized computers to maintain copyright infringement action against independent service organizations who copied infringement plaintiff’s diagnostics software and holding that there was no misuse based on attempt to expand coverage of the copyright because copyright protection extended to the servicing of the computers as well as the diagnostics software; court indicates that misuse would occur only if Triad had attempted to prevent the independent repairers from developing their own diagnostics software independently).
112 WIREdata, 350 F.3d at 647.
113 Id.
114 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 that may lack the resources or the legal sophistication to resist effectively, is an abuse of process.

Id.
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.” 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. 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. 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.


116 See Cotter, Misuse, supra note __, at 921 & n. 101 (finding some plausibility in leverage theory of package licensing).

117 35 U.S.C. §271(d) (providing that absent tying product power, it shall not be misuse either to require the license to purchase a separate product or to acquire “a license to rights in another patent”).

118 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.” Id. 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 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 139.
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 B* of an opportunity to bid for the licensee’s business.\(^{119}\)

Courts are beginning to address foreclosure in package licensing cases,\(^{120}\) but they are not always as sensitive to the problem as they should be. In *U.S. Philips Corp. v. ITC*,\(^{121}\) 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 obligations under the licensing agreements, with no corresponding benefit to competition in any real-world market.\(^{122}\)

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,\(^{123}\) 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.”\(^{124}\)

---

\(^{119}\) *Cf.* United States v. Microsoft Corp., 253 F.3d 34, 67-69 (D.C. Cir. 2001) (“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).

\(^{120}\) See, e.g., Princo Corp. v. Int’l Trade Comm’n, 563 F.3d 1301, 1315 (Fed. Cir. 2009), reh’g en banc granted, 583 F.3d 1380 (Fed. Cir. 2009); U.S. Philips Corp. v. ITC, 424 F.3d 1179 (Fed.Cir. 2005).

\(^{121}\) *Philips*, 424 F.3d at 1193–94 (package license is not misuse because there is no foreclosure, which in this case required a showing that an existing competitor’s technology was excluded).

\(^{122}\) *Id.* at 1194.

\(^{123}\) 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.

\(^{124}\) *Id.* at 1189–90.
This observation might be factually correct. When a secondary or non-essential 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 non-essential 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 non-essential patented technology because it forces a rival to compete against a price of zero, which of course the rival cannot do.\(^\text{125}\) 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 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. The most sensible approach would be for courts to find misuse when there is evidence of foreclosure, and to reject misuse but still invalidate the license agreement when there is no evidence of foreclosure but also no reasonable justification for the use of the package license.

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

\(^{125}\) See Microsoft, 253 F.3d at 67–69 (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).
infringing another one in the set.\textsuperscript{126} 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 \textit{Automatic Radio Mfg. v. 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.\textsuperscript{127} 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.”\textsuperscript{128} 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 sections develop the foreclosure theory further by applying it to some other common practices that raise potential misuse issues.

\textbf{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


\textsuperscript{127} \textit{Automatic Radio}, 339 U.S. 827 (1950).

\textsuperscript{128} \textit{Id.} at 833.
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.129 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 in appropriate to treat them as misuse “per se.”130 For instance, some noncompetition agreements are used as price discrimination mechanisms, allowing the licensor to charge more for uses of its technology that result in new products.

An important factor in assessing misuse in such cases is overbreadth. For example, in Lasercomb America v. Reynolds, the Fourth Circuit found misuse in a licensor’s requirement that the licensee of its software not develop any competing software.131 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. 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.132

129 See In re Recombinant DNA Tech. Patent & Contract Litig., 850 F. Supp. 769, 774 (S.D. Ind. 1994) (denying summary judgment against 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).
130 See, e.g., County Materials v. Allan Block Corp. 502 F.3d 730 (7th Cir. 2007) (covenant not to compete in pure manufacturing license that permitted licensee to manufacture two competing concrete blocks not per se misuse). Older decisions tended to find misuse. See, e.g., National Lockwasher Co. v. George K. Garrett Co., 137 F.2d 255 (3d Cir.1943) (misuse where manufacturing licensee of specialized washers agreed that during term of license it would not manufacture any competing washers); Krampe v. Ideal Indus., Inc., 347 F. Supp. 1384 (N.D. Ill. 1972) (similar).
131 Lasercomb Am. v. Reynolds, 911 F.2d 970, 979 (4th Cir. 1990). See discussion supra text at notes 129. 132 See id. at 978. See also Berlenbach v. Anderson & Thompson Ski Co., 329 F.2d 782 (9th Cir. 1964) (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., 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).
Other cases might involve practices akin to exclusive dealing, or anti-innovative restrictions on product development. For example, in *Princo Corp. v. Int’l Trade Comm’n*, a package license agreement included a provision prohibiting the licensee from using any alternative technology to “develop… a competing product,” which in this case was recordable CD discs. That is, while the patentees were willing to license the use of their basic technology collectively to competitors, they agreed with each other not to permit separate licensing that would facilitate any licensee’s development of products that competed with the licensor’s recordable CD technology. The International Trade Commission rejected the misuse defense, but the Federal Circuit reversed and remanded, concluding that misuse was possible on the facts.

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. In other cases, however, the harm is the prevention of nascent products or technologies. Traditional antitrust analysis would not provide a useful vehicle for remedying this type of misuse. In the case of foreclosure of nascent products or technologies, antitrust’s standing requirement often would not be met because the rival producer cannot show that the new product or technology would have come to fruition and would have been successful but for the IP holder’s restraint. 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. Because 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 anti-competitive and anti-innovative conduct that precludes further development and marketing of the competing technology. The IP concern for encouraging innovation is sufficiently strong to find misuse in these cases, provided that a court finds that some appreciable harm to innovation is likely.

---

133 Princo Corp. v. Int’l Trade Comm’n, 563 F.3d 1301 (Fed. Cir. 2009). The case is currently awaiting rehearing *en banc* to address, among other things, Princo’s claim that the patentees’ package-license restrictions constitute patent misuse. Princo Corp. v. Int’l Trade Comm’n, 583 F.3d 1380 (Fed. Cir. 2009).
134 Princo, 563 F.3d at 1313.
135 As the court explained:

> It is one thing to offer a pooled license to competing technologies; it is quite another to refuse to license the competing technologies on any other basis. 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.*

136 See *Kloth v. Microsoft Corp.*, 444 F.3d 312, 323 (4th Cir. 2006) (denying antitrust claim for Microsoft’s interference with Intel’s development of 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 Fed. 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); *Ashley Creek Phosphate Co. v. Chevron USA*, 315 F.3d 1245 (10th Cir. 2003) (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); *Bourns, Inc. v. Raychem Corp.*, 331 F.3d 704 (9th Cir. 2003) (similar).
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. Indeed, the Supreme Court has embraced that view. In Brulotte v. Thys, the owner of various patents related to hop-picking licensed a machine to several licensees. 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.”

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 tying 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.

---

137 See, e.g., Feldman, supra note __, at 400, 414 (citing Brulotte v. Thys as example of unwarranted extension of the time of the patent); Hovenkamp, Janis, Lemley, IP/Antitrust, supra note __, §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). 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 when the patentee compelled the payment of royalties on goods that did not employ the patent. See, e.g., Zenith Radio, 395 U.S. at 133–40. 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 cannot generally 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, e.g., United States v. Microsoft Corp., 56 F.3d 1448, 1453 (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. 138 Brulotte, 379 U.S. 29, 29–30 (1964).

139 Id. at 30–33.

140 Id. at 33.
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 period...” 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 20-year period of patent protection from the date of filing, 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. 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. 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.

---

141 Id. at 33-34.
142 At the time Brulotte was decided, the patent term was 17 years from the date the patent issued.
143 See id. at 31 (noting that the Supreme Court of Washington, in interpreting the licensing agreement in Brulotte, 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.’”).
144 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.
145 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 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) (decision by Judge Posner severely
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,\(^{146}\) 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.\(^{147}\) In its recent *Quanta Computer* 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.\(^{148}\) In any event, *Quanta* eliminated the concern 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 only by contract 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

---

\(^{146}\) 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.

\(^{147}\) 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*, e.g., Bloomer v. Millinger, 68 U.S. 340, 350 (1863), holding 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.”

\(^{148}\) *See* Quanta Computer, Inc. v. LG Electronics, Inc., 128 S.Ct. 2109 (2008) (reach-through royalty not enforceable where patentee sold the first product subject to requirement that royalty be paid on certain subsequent uses because doctrine of patent exhaustion (“first sale” doctrine) holds that once patented good is sold patentee gives up all control and cannot impose further downstream restrictions).
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*, the patentee of a process for developing new drugs required a royalty on the sale of any marketable drugs developed with the patented process.\(^{149}\) 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.\(^{150}\) 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 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.”\(^{151}\) 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.\(^{152}\) 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,\(^{153}\)

\(^{149}\) *Bayer*, 228 F.Supp.2d 467 (D. Del. 2002).

\(^{150}\) See discussion supra notes ___ and accompanying text.

\(^{151}\) See Feldman, *supra* note ___, at 447 (arguing against reach-through royalties as violating reasonable scope and time limitations on the patent grant).


\(^{153}\) See Feldman, *supra* note ___, at 445 (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
particularly in light of anti-commons problems that arise from assigning too many small rights and obligations to too many participants. Yet, it is not clear that all reach-through royalty agreements are, on balance, bad for innovation. There are pro-innovative and possibly pro-competitive 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.

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. Grantback provisions generally require that when a licensee uses the licensed product or technology to create something new, the licensee must grant the IP rights in the new product or technology to create something new, the licensee must grant the IP rights in the new

“discourages later invention and disrupts the balances implicit in the current patent system”).

154 See Heller & Eisenberg, supra note __.
155 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 Studios, 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, it is not misuse to insist on a royalty for one’s own patent simply because other patentees are also insisting 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 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 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.COMPL. & ECON. 535 (2008) (arguing against the Lemley/Shapiro model); 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); Damien Gerardin, Anne Layne-Farrar, & A. Jorge Padilla, The Complements Problem within Standard Setting: Assessing the Evidence on Royalty Stacking, 14 BOSTON UNIV. J. SCI. & TECH. L. 144 (2008) (noting the problem, particularly in the context of standard setting, and providing examples).

thing 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. 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.

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 re-used. Insofar as Mallinckrodt involved a sale, it has now been overruled by the Supreme Court’s decision in Quanta Computer, Inc. v. LG Electronics, Inc., which reinstated a strict patent “exhaustion,” or first sale, rule against post-sale restraints. 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.

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. In other cases, however, they simply waste productive resources if they prohibit the re-use of a good that is

---

162 For instance, in Mallinckrodt, supra, the patentee claimed that its medical device was unsafe if reconditioned and reused.
technologically capable of re-use. 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 anti-competitive 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. On the other hand, a restriction on re-use 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.

For these reasons, it is impossible to say categorically whether re-use 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 work.

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 section on restraints on innovation, 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

---


164 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.

165 See supra text accompanying notes ___.

39
database to prevent access to public domain data that had been stored in the database by a municipal agency.\textsuperscript{166} 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 antitrust sense.\textsuperscript{167} 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 belongs in the public domain.\textsuperscript{168} Indeed, the Supreme Court has held that “sham” litigation brought to commandeer public domain technology can constitute an antitrust violation.\textsuperscript{169} It follows that such litigation can also constitute misuse.\textsuperscript{170}

Other cases raise similar concerns, although the foreclosure of access to public domain material will not always be as complete as it was in \textit{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.\textsuperscript{171}

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.\textsuperscript{172}

\textsuperscript{166} \textit{WIREdata}, 350 F.3d 640 (7th Cir. 2003) (doubling 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).

\textsuperscript{167} \textit{See id.} at 647.

\textsuperscript{168} \textit{See id.} (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). \textit{But cf.} Professional Real Estate Investors v. Columbia Pictures, 508 U.S. 49 (1993) (not improper under antitrust laws for firm to bring infringement action on arguably valid copyright claim even if the claim ultimately fails).

\textsuperscript{169} \textit{See} Walker Process Equip., Inc. v. Food Machinery Corp., 382 U.S. 172 (1965) (bringing an infringement action on a patent obtained by fraud could constitute an antitrust offense given that lawsuit was effort to commandeer unpatented technology).

\textsuperscript{170} \textit{See}, e.g., Netflix, Inc. v. Blockbuster, Inc., 2006 WL 2458717 (N.D. Cal. Aug. 22, 2006) (claim of sham patent litigation that is sufficient to constitute an antitrust violation necessarily met the “lower standard for pleading patent misuse.”).

\textsuperscript{171} Dan L. Burk, \textit{Anticircumvention Misuse}, 50 UCLA L. REV. 1095, 1108 (2003) (arguing that the DMCA’s “anticircumvention provisions are neither constitutionally nor statutorily related to copyright”).

\textsuperscript{172} \textit{See id.} at 1139 (“protection of copyrighted content, not maintenance of market dominance, was the stated legislative intent behind granting the anticircumvention right”). \textit{See also} Aaron K. Perzanowski, \textit{Rethinking Anticircumvention’s Interoperability Policy}, 42 U.C. DAVIS L. REV. 1549 (2009) (proposing re-interpretation of DMCA itself so as to prevent overreaching with respect to complementary uses that are otherwise in the public
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. 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.”

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, but given the severity of the misuse penalty, courts should certainly require evidence of substantial exclusion from the public domain. If foreclosure is not likely, or if the copyright holder can show an offsetting justification for the restriction, then a finding of misuse will not be warranted. In such cases, the copyright policy in preserving access to the public domain might still be sufficiently strong to warrant rejecting the copyright holder’s copyright 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 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

---

173. Chamberlain Group, Inc. v. Skylink Tech., Inc., 381 F.3d 1178 (Fed. Cir. 2004) (raising misuse concern regarding copyright holder’s attempt to deny access to garage door opener technology in order to prevent others from developing a competing remote control and noting 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”).

174. Id. at 1201.
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. Neither of these approaches asks the question that misuse doctrine should really be concerned about, namely, whether a practice violates IP’s core policies of promoting competition, innovation, and access to the public domain.

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. As such, it limits misuse to practices that are harmful enough to warrant misuse’s severe remedy of holding the IP right unenforceable for the period of misuse. When the IP holder’s conduct is contrary to IP policy but does not cause foreclosure, a court should simply refuse to provide judicial enforcement of the IP holder’s attempt to overreach. That is, the court could simply hold a particular license or infringement action invalid.

Because the proposed approach finds misuse only when there is 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, it will not always be necessary or sufficient. 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.\(^\text{175}\)

\(^{175}\) 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., David McGowan, What Tool Works Tells Us About Tailoring Patent Misuse Remedies, 102 Nw. U. L. Rev. 421, 428 (2008) (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.