Patent Infringement, Private Law, and Liability Standards

ROBERT P. MERGES[†]

Private law governs interactions among private parties. A large body of private law theory holds that private law is aimed at corrective justice: doing justice as between the two parties to a private interaction (the private law dyad). This in contrast to public law, the law of state-citizen interactions, whose purpose is usually said to be the pursuit of society-wide fairness, often understood as distributive justice. Torts, contracts and property are the three classic areas of private law in common law jurisdictions. A sizeable literature now concerns itself with classic private law topics as they apply to intellectual property (IP). Articles, and now a fine monograph,[1] argue that patent law's strict liability standard is out of touch with modern tort theory, which emphasizes that private law liability must be grounded in fault.

In this Article I enter that discussion with a defense of the current liability regime in patent law, which is a distinct form of "strict liability." But before wading into those waters, it is first necessary to understand which aspects of patent law belong in the domain of private law in the first place. It is not as simple as saying patents are property and therefore private law applies. This is so because patents, when brought to bear against another private party in an infringement suit, are subject to intensive and rigorous validity review. The business of patent validity—quintessentially in place to protect society, and thus within the public law domain—precedes the true private law part of patent enforcement. The "shallow vesting" of the initial patent grant must be solidified and brought to fruition with the deep, but strictly in personam, vesting of a patent that survives validity review. Between the parties to the private law dyad, plaintiff and defendant, all cloud on the patent owner's title is removed and the patent enforcement action enters its "private law moment." The patent at this point forms a solid entitlement capable of serving as a baseline for applying corrective justice as between the parties.

After delineating the private law moment in patent law, I turn to the question of strict liability. After explaining some details about the adequacy of patent notice—in response to a well-known critique of "notice failure" in patent law—I defend strict liability on private law grounds, using two (or two and a half) variants of private law theory, Strict Corrective Justice ("SCJ") and

---

[†] Wilson, Sonsini Goodrich & Rosati Prof. of Law, Berkeley Law School. Thanks to participants in the 2023 Workshop on IP and Private Law, Cambridge, England, July, 2023, and to funding from Prof. Henry Smith and the New Private Law program at Harvard Law School.

1. *See generally* PATRICK R. GOOLD, IP ACCIDENTS (2022) (arguing that IP law should be based on negligence liability).

"Relational Justice," with points drawn from a third approach to private law called Civil Recourse Theory. The first defense emphasizes parallels between patent infringement and cases on "per se negligence." It highlights the expansiveness of "fault" in cases where weak warnings are given to highly trained experts held to a very high duty of care (e.g., technology-intensive product sellers who adopt possibly patented technologies). The second defense of strict liability applies the more expansive Relational Justice theory of private law. I explain how the strong norm against misappropriation evident in communities of technological innovators, coupled with an understanding of how difficult it can be to prove direct copying of new technical ideas, points to strict liability in this setting. In keeping with the more holistic emphasis of Relational Justice, I also argue that a negligence rule in patent law would harm the vitality of technical communities. It would cut down on the volume of community-wide technical communication and interaction, as a strategy to avoid infringement liability.

TABLE OF CONTENTS

INTRODUCTION

Based on some fresh thinking about private law, the private side of IP rights has drawn renewed interest recently.[2] Private party interactions relating to a patent usually fall into two categories: patent-related contracting and the tort of patent infringement. This Article concerns that second category.[3] It considers patent infringement from the point of view of private law tort theory, the body of research that seeks to explain, justify, and sometimes modify the legal rules for assigning liability when one private party commits an actionable harm against another.

Patents are the creatures of statutes whose provisions are adopted to benefit the public. This makes patent law public law. Once issued, a patent is held by an owner—often a private, non-governmental party—bent on private aims.[4] Though issued patents can form the basis of numerous and productive private orderings,[5] they are, until successfully defended, not quite fully vested.[6] Over half of litigated patents will be invalidated before, or during, an enforcement action, making them more like probabilistic entitlements.[7] Patents never vest securely and permanently because they can be invalidated by many parties at almost any time, by administrative challenge or by defense to an infringement suit.[8] Regardless of how many times a patent survives validity challenges, a finding of "not invalid" applies between litigants but not to third parties.[9]

The closest analogy to the validity phase of a patent case is the real property quiet title action.[10] Doubts over who has clear title must be resolved before property rights can be enforced, alienated, pledged as collateral, and so on.[11] However, quiet title claims aim to put a definitive end to questions about who owns property, and thus who may enforce the rights bestowed by proper title. The purpose of this preliminary action is to "remove a cloud on the title" to

2. *See infra* Subpart I.C.1.

3. For a private law-informed review of patent-related contracts, see generally Robert P. Merges, *Updating the Private Law of Patent Contracting*, 64 IDEA 295 (2024).

4. *See* ROBERT P. MERGES, AMERICAN PATENT LAW: A BUSINESS AND ECONOMIC HISTORY 2 (2023).

5. For a discussion of changes over time in how businesspeople use patents to attract investment and organize innovative enterprises, see *id.*

6. *See infra* Subpart I.C.2.

7. *See infra* Subpart I.C.2.a.

8. *See infra* Subpart I.C.2.

9. *See infra* Subpart I.B.

10. *See* 3 JOYCE D. PALOMAR, PATTON AND PALOMAR ON LAND TITLES § 538 (3d ed. 2023) ("Decrees in [quiet title] actions serve to clear the records from clouds on the title, and to furnish record evidence of titles.").

11. *See, e.g.*, Christman v. Hilliard, 82 S.E. 949, 951 (N.C. 1914) ("The beneficial purpose of the [state quiet title] statute is to free the land of the cloud resting upon it, and make its title clear and indisputable, so that it may enter the channels of commerce and trade unfettered and without the handicap of suspicion, instead of remaining idle and unremunerative.").

property, as cases have recited since the heyday of castles and moats.[12] Once settled, the issue of proper title normally never arises again.[13]

This is not so with patents. Not so at all. There is never a time when a patent faces a cloudless sky. Until the day it expires, every patent is subject to validity challenges from all quarters.[14] A patent must repeatedly navigate each statutory challenge to validity: patentable subject matter, utility, novelty, obviousness, lack of enablement, improper description, and so on.[15] The state imposes each requirement as a condition to patent enforcement, each guaranteeing that society gets its proper benefit from bestowing this private right.

If patent owner A asserts the patent in an infringement suit against party B, and if that patent survives the obligatory invalidity phase of the trial (and other, sometimes related attacks),[16] the patent at issue does truly vest—but only as

---

12. H.R. REP. NO. 92-1559 (1972), *as reprinted in* 1972 U.S.C.C.A.N. 4547, 4551 (providing the legislative history of Congressional Act authorizing quiet title actions involving the U.S. government as a party). The report states:

> The history of this type of action goes back to the Courts of England. Suits to quiet title or to remove a cloud on title originated in the equity court of England. They were in the nature of bills quia timet, which allowed the plaintiff to institute suits when an action would not lie in a court of law. For instance, a plaintiff whose title to land was continually being subjected to litigation in the law courts could bring a suit to quiet title in a court of equity in order to obtain an adjudication on title and relief against further suits. Similarly, one who feared that an outstanding deed or other interest might cause a claim to be presented in the future could maintain a suit to remove a cloud on title. Under old English practice, the plaintiff in such suits was required to be in possession, and the usual grounds of equitable jurisdiction (an imminent threat and an inadequate remedy at law) had to be present.

Id.; *see generally* P.M. Dwyer, *Joinder of Claims to Separate Parcels in Suit to Quiet or to Remove Cloud on Title, or to Determine Adverse Claims to Land*, 118 A.L.R. 1400 (1939) (discussing issues arising in quiet title actions, particularly in the context of joinder of various claims). On the history of procedural devices such as interpleader to clear a cloud on title, see Zechariah Chafee, Jr., *Modernizing Interpleader*, 30 YALE L.J. 814, 844 (1921).

13. In traditional taxonomies, it is labeled as a "statute of repose," one designed to definitively clarify rights and cut off future claims. *See, e.g.*, Bradstreet v. Clarke, 12 Wend. 602, 656 (N.Y. Sup. Ct. 1834) (speaking of "statutes of repose to quiet titles to land, which have for their object the protection of purchasers and settlers against dormant claims").

14. *See* Daniel Kazhdan, *Too Much Estoppel: Let's Return to* Blonder-Tongue, 103 J. PAT. & TRADEMARK OFF. SOC'Y 1, 2 (2023) ("[A] finding of invalidity has preclusive effect against everyone . . . ."). If a court finds a patent "not invalid," it is valid between the two parties, but anyone else can attack validity. If a patent is found *invalid*, it is dead to all. Invalidity is in rem; "not invalid" is in personam, applying only to the parties.

15. *See generally* ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS (8th ed. 2021) (individual validity requirements covered chapter by chapter in Chapters 2 through 7).

16. Only 45% of patents litigated in district court infringement actions survive the various validity attacks. *See* Jonathan H. Ashtor, *Does Patented Information Promote the Progress of Technology?*, 113 NW. U. L. REV. 943, 965 (2019) (Of the 918 patents in the study's final count, 416 (45.3%) were found valid, 502 (54.7%) invalid). The data in the cited study were drawn from district court litigation between 2004 and 2011, in which the patents at issue were granted before 2007. *Id.* at 963–64. Patent invalidity may also be pursued in a special administrative action filed by any patent challenger against the owner of a patent. For example, since 2012, an Inter Partes Review (IPR) proceeding under the Patent Act conducts invalidity

between A and B. To be thorough, this vesting only occurs if the invalidation in the A-B suit is not overturned on appeal, and only if no third party invalidates the same patent in a collateral action that concludes before the A-B suit (plus appeals) is completely over.[17] This limited "dyadic" vesting is as deep as patent vesting ever goes. It brings a patent to what we might call its "private law moment."[18] It becomes a true, deeply vested entitlement within the private party dyad and, as such, a natural subject of private law.[19] Having passed all the validity tests required by the public-facing statute, the patent forms a solid

actions. 35 U.S.C. § 311. A full 83% of IPRs are filed by parties who are defendants in district court infringement actions, meaning that these defendants are challenging validity in both fora. *See* Ge You, *A Closer Look at the PTAB Operation*, 95 S. CAL. L. REV. 693, 696 (2022). Filing an IPR estops a patent challenger from arguing the same invalidity theories in a parallel district court case, but IPRs are limited to two grounds of invalidity (novelty and nonobviousness), leaving all other grounds (lack of enablement, claim indefiniteness, and so on) for the district court trial. *See* 35 U.S.C. § 315(e).

17. *See* Blonder-Tongue Lab'ys, Inc. v. Univ. of Ill. Found., 402 U.S. 313, 350 (1971) (holding that collateral estoppel bars all co-pending and future actions once a court invalidates a patent); *see also* Pharmacia & Upjohn Co. v. Mylan Pharm., Inc., 170 F.3d 1373, 1379 (Fed. Cir. 1999) (holding that issue preclusion, or collateral estoppel, applies even though the precluding judgment comes into existence after the initiation of the case as to which preclusion is sought). As to finality, see XY, LLC v. Trans Ova Genetics, L.C., 890 F.3d 1282, 1294 (Fed. Cir. 2018) (holding that affirmance of an invalidity finding "renders final a judgment on the invalidity of the [patent], and has an immediate issue-preclusive effect on any pending or co-pending actions involving the patent"). *See also* Prism Techs. LLC v. Sprint Spectrum L.P., 757 F. App'x 980, 987 (Fed. Cir. 2019) ("[T]his court's [later] decision in [a separate infringement case involving the same patents] held invalid all four claims on which Sprint was held liable to Prism in this case, [so] we . . . conclude that the district court [in the present case] properly set aside the judgment against Sprint [under a "relief from judgment" motion, Fed. R. Civ. P. 60(b)]. The courts have long recognized a strong federal patent policy against enforcing an unexecuted judgment of patent liability at least where all of the following circumstances are present: the patent claims underlying that judgment have been held invalid by another decision having sufficient finality for this purpose; proceedings on direct review of the judgment [from which relief is sought] have not yet been completed; and no agreement exists making portions of the judgment final."). Some district courts do not wait for an appellate affirmance to apply collateral estoppel to an invalidity ruling as to the same patent by a sister district court. *See* NetSoc, LLC v. Chegg Inc., No. 18-CV-10262, 2020 WL 174305, at *1–3 (S.D.N.Y. 2020) (immediate preclusive effect given to invalidity ruling by another district court); *cf.* Koss Corp. v. Bose Corp., 107 F.4th 1363, 1367 (Fed. Cir. 2024) (district court invalidity ruling in a separate case became final judgement "when [plaintiff] Koss stipulated to the dismissal of [that] suit," giving that district court ruling preclusive effect against all future actions; this killed the patent permanently, and thus rendered moot the patent owner's appeal from an adverse decision in an administrative Inter Partes Review (IPR)).

18. For more on IP rights as private law entitlements and the application of private law "corrective justice" in patent-related private party interactions, see generally Robert P. Merges, *Intellectual Property Rights and Private Law Entitlements, in* RESEARCH HANDBOOK ON PROPERTY LAW & THEORY 422 (Chris Bevan ed., 2024).

19. I refer to this as "dyadic validity." Merges, *supra* note 3, at 308 ("Dyadic validity is the status of an IP right that has passed through the validity stage at the outset of a private law dispute. As between the parties, the right can be taken as fully vested for the remainder of a particular dispute, and for the duration of any remedy awarded in resolving the dispute. It can be treated as a legitimate private law entitlement from that point forward."). Another form of dyadic validity occurs when a patent licensee agrees with the patent owner not to challenge patent validity during the course of a licensing agreement or other patent-based contract. *See* Robert P. Merges, *Patents, Validity Challenges, and Private Ordering: A New Dispensation for the Easy-Challenge Era*, 23 NEV. L.J 263, 308 (2023) (arguing that no-challenge clauses in patent licensing agreements ought to be enforceable, contrary to current U.S. doctrine); *see generally* Merges, *supra* note 3 ("[P]rivate parties should be able to bargain over whether a licensee has the right to challenge licensed patents . . . .").

baseline against which to assess deviations from interparty fairness. Thus, scholars and judges can rightly consider patents at the enforcement stage to be a fit subject for application of corrective justice. This is the classic paradigm for analyzing private party interactions.

After validity, patent enforcement actions turn to liability. Did the defendant cause actionable harm to the plaintiff's vested property interest, the patent? Patents at this stage can play the part of the classic private law entitlement: a moral, legal, and financial baseline against which to assess harm and proper compensation.

One who infringes a patent is subject to strict liability.[20] A product seller whose product includes the patent owner's claimed invention is liable regardless of the seller's actual knowledge of the patent or level of intent to infringe.[21] In keeping with a longstanding private law trend to put fault at the center of tort liability, patent law's strict liability standard has come in for repeated criticism in recent years.[22] As with a number of other torts, critics say the tort of patent infringement must conform to a consensus principle in modern tort law and theory. The principle is that the law should only impose liability when a party has acted with some degree of wrongness, only when a party is at fault. In this Article, I put together a concerted reply to arguments that patent law ought to abandon strict liability in favor of negligence: a fault-based standard. I make the best defense I can construct for patent law's longstanding standard of strict liability.

My defense starts with a simple point that others have overlooked, but sets the context in which the strict liability debate plays out: patents at the enforcement stage, when liability is assessed, embody true inventions. Having passed through the wickets of validity,[23] patents at the enforcement stage earn the status of real contributions. This consideration does, and ought to, matter

20. Commil USA, LLC v. Cisco Sys., Inc., 575 U.S. 632, 639 (2015) ("[A] defendant's mental state is irrelevant. Direct [patent] infringement is a strict-liability offense.").

21. *Id.*

22. *See* GOOLD, *supra* note 1, at 41.

23. The numbers: (1) 44% of patent applications never issue, many because the claims were rejected under various validity requirements and the patentee gave up; (2) 22% of issued patents challenged by third parties in a Patent Office administrative validity review (e.g., Inter Partes Review) have some or all of their claims invalidated, and for the subset of challenges that are deemed worth pursuing ("instituted") the figure is 80%; (3) 55% of patents asserted in litigation are invalidated by the defendant. *See* Michael Carley, Deepak Hegde & Alan Marco, *What is the Probability of Receiving a U.S. Patent?,* 17 YALE J.L. & TECH. 203, 209 (2015) (finding an overall 56% success rate on patent applications; reviewing prior studies that reached different estimates); *accord* You, *supra* note 16; Ashtor, *supra* note 16.

when courts move on from the validity to the infringement-liability stage of patent cases.[24]

The expensive and difficult validity defense establishes that a patented invention at the enforcement stage has at least some degree of merit. Consequently, the patent validity process provides a reason to resolve doubtful issues in favor of the inventor-patentee. Such doubts would bedevil any patentee asked to prove the infringer was at fault as a predicate to liability. Take the important issue of notice to infringers. Patents are public and searchable. Yet searchability, by itself, does not always insure clear notice of a specific patent claim to all potential infringers.[25] The adequacy of notice depends on the total volume of patents in the field, the identity and nature of the owner of the relevant patent, obscure or unconventional nomenclature in the patent claims, and so on.[26] A patent owner would need to traverse these and related issues in proving that notice was adequate and thus the accused infringer was at fault for the infringement. This would undoubtedly add to the cost of infringement cases. Dueling expert witnesses would be required to address the adequacy of an infringer's actual patent search,[27] or to defend the decision to forego a search. And infringer culpability would be added to the very long list of issues a patent owner must traverse to gain any compensation from an infringer.[28] This is itself a point in favor of retaining strict liability.

---

24. It is worth noting that even with the benefit of the current strict liability rule, most patent infringement suits are decided against the patent owner. *See* Mark A. Lemley, "*The Fractioning of Patent Law*," *in* INTELLECTUAL PROPERTY AND THE COMMON LAW 504, 505–06 (Shyamkrishna Balganesh ed., 2012) (footnotes omitted) ("Overall, patentees win barely more than a quarter of their cases. This figure is remarkable, given that civil plaintiffs overall win 58 percent of their cases in the federal courts. . . . And the very patents that economic evidence predicts as the most valuable—the ones that are litigated in multiple cases—overwhelmingly lose in court; less than 10 percent of those patentees in fact win when a case goes to judgment. . . . Systematically, patent owners lose more often than they win."); *see also* John R. Allison, Mark A. Lemley & David L. Schwartz, *Our Divided Patent System*, 82 U. CHI. L. REV. 1073, 1102 (2015) ("[A]cross all technologies, the chance of a patent being held not infringed was significantly higher than the chance of it being held invalid. That was true in every technology area, but the result was particularly striking in the optics and software industries, in which more than two-thirds of all the cases we observed included a finding of noninfringement. Overall, there were almost twice as many noninfringement rulings (348) as invalidity rulings (188).").
See Paul M. Janicke & LiLan Ren, *Who Wins Patent Infringement Cases?*, 34 AM. INTELL. PROP. L. ASS'N Q.J. 1, 5 (2006) (finding a 25% overall win rate for patent owners in cases studied).

25. Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 22 (2013).

26. *Id.* at 8.

27. This is evident from patent malpractice cases involving allegations of a patent lawyer's inadequate patent search. *See infra* Subpart II.A.1 (especially Subpart II.A.1.b.2).

28. *Cf.* John R. Allison, Mark A. Lemley & David L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1769, 1789 (2014) ("[T]he nature of patent litigation requires patentees to win every issue before the court. A patentee who defeats five of six invalidity challenges, only to lose the sixth, loses the case. So does a patentee who wins on validity and inequitable conduct but loses on infringement. . . . In patent law, a split decision is almost always a decision for the accused infringer, not the patentee.").

Most importantly, strict liability, as theorists have long understood, works best when errors in assessing fault lead potential tortfeasors (patent infringers) to take excessive precautions.[29] Under strict liability, an actor deciding on a course of action weighs potential liability for any harms they may cause against the cost of preventing those harms. Spending on prevention is influenced only by expected harms and the chance they will occur. Negligence, by contrast, hinges on a legal decisionmaker's ex post assessment of what precautions were reasonable in light of all circumstances. An actor thus faces an additional risk above and beyond the risk of actual harm: the chance that a court will mistakenly find the defendant's precautions insufficient. Law and economics scholars call this error risk.[30]

Where error risk is high, strict liability makes sense. There is no need to worry about mistaken risk assessment; no need for excessive precautions, taken only to hedge against the risk of legal error. Determining fault in patent infringement would very likely be subject to significant error costs. Evidence of potential errors in applying the negligence standard comes from studies of the way technical information flows into and around technical communities.[31] The line between innocent—or untraceable—"diffusion" of the patentee's idea and outright intentional copying of that idea may be a difficult one to trace. In such a situation, remembering that the subject of the inquiry is a nontrivial—and perhaps valuable—invention, it is understandable that the law might dispense with the need to prove fault prior to assigning liability. To avoid mistakes, and the heavy burden mistake prevention might place on inventors and patentees, patent law has long looked to a simple two-part proof of infringement: (1) the presence of a true, valid invention as claimed by the patent holder, (2) within a product sold (or act performed) by the defendant. Liability attaches regardless of how the claimed invention found its way into the defendant's product or

29. STEVEN SHAVELL, ECONOMIC ANALYSIS OF ACCIDENT LAW 56 (1987). On excessive precautions and patent liability, *see infra* Subpart III.D.2.

30. SHAVELL, *supra* note 29.

31. *See generally* THOMAS J. ALLEN, MANAGING THE FLOW OF TECHNOLOGY (1977); Robert P. Merges, *A Few Kind Words for Absolute Infringement Liability in Patent Law*, 31 BERKELEY TECH. L.J. 1, 14 (2016) (describing "gatekeepers" in R&D organizations: "[t]hese [gatekeepers] acquire information from other departments or projects within an organization (i.e., a lab or company), but also from other 'external' organizations, such as universities, professional societies, and related companies (vendors, customers, suppliers). Moreover, some [gatekeeping] boundary spanners are consulted at an above-average rate for information by colleagues; these 'communication stars' have been found to be 'more externally oriented' than non-stars, meaning that they acquire more 'general technical/scientific information,' including [by] attendance at many more professional meetings than non-stars." (footnotes omitted)). When gatekeepers and communication stars hear about new ideas, those ideas might well not yet be patented. (Patent applications are confidential for eighteen months after filing, R&D researchers probably read all relevant recently published patent applications, and it can take three years or more for a patent application to issue as a patent. All of this makes it highly plausible that at least some information acquired by researchers will later be patented, and that information diffuses through a technical field long before anyone knows whether it will be proprietary someday or not.

activity, and regardless of the infringer's state of knowledge and intent with regard to that invention. This is strict liability,[32] patent law style.

A. STRICT LIABILITY AND ITS DISCONTENTS

These days, strict liability sails against some mighty seas indeed. Contemporary tort law pushes hard toward liability based only on fault. Liability without fault seems like an anachronism—an artifact from days gone by. From a purely historical point of view, there is something to this. Because patents were categorized as property, and spoken of in terms of titles and estates, infringement liability first emerged as a branch of the law of trespass.[33] Therefore, it was natural that patent infringement would be governed by strict liability.[34] It helps to remember how large the terrain of property law was, and how narrow the range of tort law was, in the larger legal landscape during patent law's gestational period in the sixteenth through eighteenth centuries.[35] As one scholar

32. It is without doubt strict if this liability is assigned to a defendant with no knowledge of an outstanding patent, and hence no knowledge that their product infringes one or more claims of the patent. But an alternative formulation is to define fairly generally the wrong that the defendant is charged with avoiding, and to work backward to a duty whose violation might be said to involve some degree of wrongfulness—enough to call it a species of fault. So, from the operation of the Patent Act, the duty might be characterized as: Avoid misappropriating another's invention by embodying a claimed invention in a product one sells on the market without permission of the relevant patent owner. This view depends, however, on an understanding of fault as merely "wrongful," so as to define the violation of any duty as a wrong and, due to this wrongfulness, conclude that its violation involves a degree of fault. This reasoning comes close to begging the question: assuming that all wrongs involve fault, in an argument whose end is supposed to be proving that the wrong of infringement requires proof of fault ("We know that patent infringement involves fault, because the statute defines infringement as a wrong."). *See infra* Subpart I.C.1.b. Fortunately, one strand of private law theory avoids the path that skirts the border with fallacious reasoning. Relational justice theory permits rules assigning liability under flexible notions of wrong. Violations of an expected norm, one arising in densely particularized social practices (such as technology research communities), constitute a more generalized species of culpability than the narrow, technical notion of fault at the core of SCJ theory. *Id.*

33. *See, e.g.*, David A. Dana & Nadav Shoked, *Property's Edges*, 60 B.C. L. REV. 753, 815 (2019) ("The equation of intellectual property infringement with trespass to land 'remains pervasive,' with intellectual property law's grant of exclusive rights paralleling 'a landowner's legal right to exclude others from his land.'") (footnote omitted). On expansion of trespass in general, see Dan L. Burk, *The Trouble With Trespass*, 4 J. SMALL & EMERGING BUS. L. 27, 33 (2000) (noting shrinking requirement of physical intrusion for trespass to land). On strict liability for trespass, see Shyamkrishna Balganesh, *Common Law Property Metaphors on the Internet: The Real Problem with the Doctrine of Cybertrespass*, 12 MICH. TELECOMM. & TECH. L. REV. 265, 275 (2006) ("Why is trespass to land actionable *injuria sine damnum* [without proof of actual injury]? The answer to this seems to lie in the value that the law places on the inviolability of real property—an interest that transcends monetary quantification[] . . . . This interest in inviolability thus lies in protecting the owner's possession from unwanted intrusions . . . . The underlying rationale would appear to be the belief that each intrusion operates as an indirect challenge to the plaintiff's control over the resource in question, an element critical to establishing an ownership claim." (footnote omitted)).

34. *See, e.g.*, Parker v. Hulme, 18 F. Cas. 1138, 1143 (C.C.E.D. Pa. 1849) ("The defendant may have infringed without intending, or even knowing it; but he is not, on that account, the less an infringer.").

35. *See* Lynda J. Oswald, *The "Strict Liability" of Direct Patent Infringement*, 19 VAND. J. ENT. & TECH. L. 993, 1013 (2017) ("[Strict liability for patent infringement] can be best viewed as

put it, patent law, at its origins, could not have reflected notions of fault and responsibility as expressed through tort law.[36] Patent law predates the modern law of torts by hundreds of years.[37]

All well and good, of course. But if other private law wrongs can be re-ordered around fault and culpability,[38] why not patent infringement?[39] Is there a case today, with legal currents running so strongly against strict lability, for continuing patent law's historical practice? Or should we collectively drag patent law into the modern world of torts, forcing it to give up its atavistic attachment to a form of liability cut off from the defendant's fault, and divorced from the touchstone of modern tort theory?

For me, there is a good case to be made in favor of strict liability. Two cases, in fact. The first employs the most stringent and stylized version of private law, which I label Strict Corrective Justice ("SCJ"). Even under SCJ, the current patent liability doctrine can be justified because it amounts to a form of per se negligence rather than true strict liability. The important and prominent theory of "patent notice failure" holds that the volume and complexity of patents make

---

a natural consequence of the classification of patents as property and the statutory exclusivity granted to the patent itself, and influenced by the liability-without-fault standard that historically applied to actions arising under the writ of trespass. Throughout the tort revolution of the late nineteenth and early twentieth centuries, direct patent infringement remained a statutory liability-without-fault standard." (footnote omitted)). Many IP scholars resist the classification of IP as property rights, often arguing that the property label pushes judges and others toward a "maximalist" or "strong IP" position on doctrinal issues. For an overview and counterarguments, see Michael A. Carrier, *Cabining Intellectual Property Through A Property Paradigm*, 54 DUKE L.J. 1, 4 (2004); Robert P. Merges, *What Kind of Rights Are Intellectual Property Rights?*, *in* THE OXFORD HANDBOOK OF INTELLECTUAL PROPERTY LAW 57, 58 (Rochelle C. Dreyfuss & Justine Pila eds., 2017). To me, the critique of "property talk" in IP law has things backward. Property is a label bestowed in recognition of the social importance of some type of asset: in the case of IP, the assets are new, valuable ideas. The label does not subconsciously or unobtrusively pull legal actors to expand the scope of IP rights, as some argue. *See, e.g.*, Mark A. Lemley, *The Regulatory Turn in IP*, 36 HARV. J.L. & PUB. POL'Y 109, 110 (2012). Instead, it is given specifically to recognize control rights over a particularly valuable type of thing. The label *reminds* legal actors that the asset in question has special value. It demands respect for the subject matter of IP, but at the same time—for all the reasons property in general is so far less than absolute—it in no way demands a maximalist or ever-expanding approach to individual doctrines and cases. *See* Merges, *supra*.

36. Oswald, *supra* note 35.

37. *See* JOHN C.P. GOLDBERG & BENJAMIN C. ZIPURSKY, RECOGNIZING WRONGS 52–53 (2020) (field of tort law, as a distinct field, dates only from nineteenth century). Oswald argues that while patent liability was influenced by the property label historically (particularly the law of trespass), in actuality it was and is governed by the infringement-related provisions of the Patent Act. *See* Oswald, *supra* note 35. Patents have a special type of statutory liability, in other words, a distinctive liability apart from the species of what contemporary tort law calls strict liability. *Id.*

38. *See* ANTHONY GRAY, THE EVOLUTION FROM STRICT LIABILITY TO FAULT IN THE LAW OF TORTS 1 (2021) (stating the purpose of this book is to explain the "broad evolution" in tort law from strict to fault-based liability).

39. *Id.* at 3 (arguing that, rather than the various indirect ways current strict liability torts (such as nuisance and trespass) incorporate fault, these causes of action should be brought into alignment with contemporary tort theory which "place[s] fault at the heart of each" cause of action).

it hard to adequately search the patent registry.[40] Though this is undoubtedly true in some cases, there is good reason to believe that it is not *always* true. It is particularly untrue when well-established industry competitors get tangled in patent infringement. Long-established industry players, as well as sophisticated younger companies in at least some industries, can be expected to know about the existence and coverage of patents held by key competitors. This means that, for these future defendants, at least, patent notice is usually adequate. When so, it makes sense to pin liability on the infringer: it may look like strict liability, but the real premise is that the infringer did not exercise due care in searching for other firms' patents.

In this respect patent infringement cases resemble certain other real-world examples where "notice to experts" is a factor that affects the assessment of liability. In fields such as marine navigation, a general warning (such as a buoy with a bell or light) given in a setting that every expert knows to be inherently risky (such as a harbor entrance or rock-strewn coastline) is deemed adequate to put an expert on high alert. Given the presumed adequacy of notice, any accidents that occur are legally the fault of the captain or navigator. The general notice to a skilled expert is enough to make any resulting accidents the fault of the expert. Thus, as with marine navigation, so with firms that adopt a new technology. The patent rolls are deemed adequate notice, so any infringement that does occur—given this presumption of effective notice—is attributed to the infringing firm.

The argument for a negligence standard in IP law has been made forcefully in a book entitled *IP Accidents* by Professor Patrick R. Goold.[41] In accord with other private law-oriented studies of IP infringement, *IP Accidents* takes the radical step of looking at the infringement situation from the point of view of the accused infringer's knowledge and actions.[42] This is typical of tort law, which, at least under the conventional private law account, hinges liability on the reasonableness of the tortfeasor's actions.[43] Goold and other scholars ask a simple question, which IP infringement scholars had not asked for many years: "How ought the defendant in this risky situation to have acted? What is the appropriate way to behave in the presence of risk? And what is the law's role in encouraging good, or in redressing bad, behaviour?"[44]

---

40. Menell & Meurer, *supra* note 25, at 1, 2.

41. *See generally*, GOOLD, *supra* note 1 (discussing accidental infringement and arguing that accidental infringement should be treated differently from other kinds of infringement).

42. *Id.* at 4–5.

43. RESTATEMENT (SECOND) OF TORTS § 282 (AM. L. INST. 1965) ("[N]egligence is conduct which falls below the standard established by law for the protection of others against unreasonable risk of harm.").

44. GOOLD, *supra* note 1, at 10.

Goold notes that strict liability invites patent owners to suppress notice of its patent and of potential infringement.[45] Why expend resources giving notice when these expenditures are not necessary and may in fact reduce future damage awards by alerting infringers of potential liability? Goold writes that

> [T]here is little sense in automatically holding users liable for such [accidental] infringements. Imposing liability strictly upon the user results in owners taking insufficient care to prevent accidents, distributes creative risk inequitably between owners and users, and enables owners to evade responsibility for causing accidents. A more efficient, equitable, and fairer liability rule would hold users liable for accidental infringement only when they have behaved negligently.[46]

If classic negligence policy were applied to patent infringement, it would consider not only the costs and benefits of the infringer's precautions, but also those of the patent owner. The law would require patent owners to take low-cost precautions against infringement if the expected payoff from taking such precautions was a significant reduction in the number and severity of infringements.[47] In classic torts terms, this could be described as an example of the contributory or comparative negligence doctrine at work: If a patent owner, by action or inaction, helps cause a case of infringement, this may eliminate or reduce liability for the accused infringer.

When one private party harms another in some way, justice between the parties is strongly associated with an inquiry into fault in the private law tradition.[48] Looking only at the dyad here—the injurer and victim—the consensus among scholars and the trend in the law is to condition liability on the fault of the injurer.[49] The Introduction to a recent volume on *The Evolution from Strict Liability to Fault in the Law of Torts* provides a nice summary:

> This book seeks to explain and understand the broad evolution in the law of torts from a focus on the fact that the defendant caused the plaintiff injury, to a deeper focus on the extent to which the defendant ought to be regarded as culpable, blameworthy or at fault for the injury to the plaintiff. That such an evolution has occurred is undoubted.[50]

---

45. *Id.* at 22.

46. *Id.* at 122.

47. SHAVELL, *supra* note 29, at 18 (arguing that generally the law should induce both potential injurers and potential victims to take care because both parties, ex ante, can affect accident costs); *see* Kenneth W. Simons, *The Puzzling Doctrine of Contributory Negligence*, 16 CARDOZO L. REV. 1693, 1727 (1995).

48. GRAY, *supra* note 38, at 2.

49. *Id.*

50. *Id.* at 1.

Goold builds on earlier work[51] and asks, in effect, when copyright law is going to get the news regarding fault:

> [T]he strict liability standard is not fair because it results in copyright users being held liable for accidents for which they are not morally responsible. Using the moral philosophy literature on responsibility, [I explore] our intuitions surrounding copyright's liability standard in order to better understand why strict liability in this context seems "harsh" and "inequitable." In turn, this provides an argument for reforming copyright's liability rule and adopting a negligence standard. [I argue] that, within the United States, the proposed reform to copyright's liability rule should be accomplished by modifications to the existing fair use doctrine.[52]

The most distinctive feature of IP law is the predominance of strict liability. Culpability is irrelevant in establishing a case of basic infringement. Proof of infringer culpability may lead to enhanced damages and is relevant to the grant of an injunction, but it is not a prerequisite to obtaining compensation. The strict liability tradition in IP law may well have originated because early British courts treated IP rights as property.[53] Violations of property rights under traditional common law principles eschewed considerations of culpability.[54] Causes of action to remedy property-based harms long preceded the modern law of torts, with its ever-increasing emphasis on the centrality of fault and culpability.[55] There are reasons to defend the simple structure of property law. Whatever the reason—history, efficiency, or both—IP law has traditionally followed the rule of strict liability.

---

51. *See* Steven Hetcher, *The Immorality of Strict Liability in Copyright*, 17 MARQ. INTELL. PROP. L. REV. 1, 4 (2013); Dane S. Ciolino & Erin A. Donelon, *Questioning Strict Liability in Copyright*, 54 RUTGERS L. REV. 351, 351 (2002) ("[S]trict liability is neither justified nor necessary in copyright law, but rather is rooted in deeply flawed historical, conceptual, and economic misconceptions about intellectual property in general and copyright in particular. Worse, strict liability is affirmatively harmful to copyright's utilitarian goals of providing incentives to authors to create, and providing greater public access to works of authorship. For these reasons, [we] call for Congress to abolish copyright's harsh strict liability regime and to substitute in its stead a liability regime that fairly accounts for the culpability of infringers.").

52. Patrick R. Goold, *Moral Reflections on Strict Liability in Copyright*, 44 COLUM. J.L. & ARTS 123, 123 (2021).

53. Oswald, *supra* note 35, at 999 ("[D]rafters of the first US patent acts and early courts, working largely within the framework they inherited from British systems, clearly viewed patent law as a form of property law and protected patents accordingly." (footnotes omitted)).

54. *See* Goodyear Dental Vulcanite Co. v. Van Antwerp, 10 F. Cas. 749, 750 (C.C.D.N.J. 1876) (No. 5,600) (analogizing patent infringement to a "trespass" of horse stables and unauthorized use of horses in determining a rule for damages owed to a patentee); Burleigh Rock-Drill Co. v. Lobdell, 4 F. Cas. 750, 751 (C.C.D. Mass. 1875) (No. 2,166) (noting that the defendants "honestly believ[ed] that they were not trespassing upon any rights of the complainant").

55. *See* GRAY, *supra* note 38, at 3 (arguing that, rather than the various indirect ways current strict liability torts (such as nuisance and trespass) incorporate fault, these causes of action should be brought into alignment with contemporary tort theory which "place[s] fault at the heart of each" cause of action).

But one must quickly add that the liability *rule* is not the same thing as the overall liability *regime*. Defenses—including but by no means limited to invalidity—as well as exceptions and remedial limitations, are scattered throughout each field of IP law. In the aggregate, they work to attenuate the effects of strict liability. And, as a separate matter, non-enforcement via "tolerated infringement" and outright waiver are ubiquitous features of the IP landscape. So, adding the defense-filled formal law to the many forms of non-enforcement, strict liability looks less like a brute force iron hammer and more like one of the many gears that make the system turn.

Patent litigation became so common between the 1980s and 1995 or so that it turned into a serious hazard for many businesses.[56] A small insurance industry even sprang up, offering policies to mitigate the risk of patent litigation.[57] It was not long before the spike in cases drew patent scholars for a fresh look at patent infringement.[58] This led them to some sound questions: Why does patent law employ strict liability for infringement?[59] Why was there no concern for precautions a patent owner might have taken to warn infringers (irrelevant under strict liability)? Were there other ways, besides establishing liability, that patent doctrine adjusts for the relative degree of fault as between patent owners and infringers? These are, of course, standard issues in tort law and theory. At the center of these questions are the two parties involved in an incident. These questions are all about the legal dyad, the interaction between the parties, doing what is right according to their respective actions and states of mind, and, in so doing, modeling right actions for future actors as well. When scholars began assimilating patent law into this age-old dyadic frame, it was at once natural and

56. ROBERT P. MERGES, PATENT LAW: A BUSINESS AND ECONOMIC HISTORY 42 (2022).

57. *See* J. Rodrigo Fuentes, *Patent Insurance: Towards A More Affordable, Mandatory Scheme?*, 10 COLUM. SCI. & TECH. L. REV. 267, 267 (2009) ("Companies understand that patent litigation is an expensive ordeal, and some opt for specialized patent insurance.").

58. *See, e.g.*, GOOLD, *supra* note 1, at 10 ("In both the IP and the driving example [described in this Article], the risk [of harm] has materialised and someone else has suffered harm as a result. In both situations, society is faced with a normative question [of where and how to assign liability].").

59. For a bracing argument that patent law should not impose strict liability, and should stop using that term, see Oswald, *supra* note 35, at 993–94 ("'Strict liability,' particularly in its modern formulation, is not a neutral, descriptive term. Rather, the term evokes social policy choices and balancing considerations that may be appropriate within the case law context of products liability or abnormally dangerous activities, but which are incongruous and inapposite in the statutory context of patent law. Deeming direct patent infringement to be 'strict liability' leads to two unanticipated and unwelcome effects. First, the adoption of the 'strict liability' label for direct patent infringement liability improperly inflates the courts' role in setting direct patent infringement liability standards and suggests—incorrectly—that patent liability is a case law construct, when in fact it is a statutory construct. Second, the 'strict liability' label improperly shifts the focus of the patent infringement inquiry from the Patent Act's protection of the plaintiff's exclusive property interest in its patent right toward a value-laden examination of the social utility of the defendant's conduct vis-à-vis the injury to the patent holder. Jettisoning the 'strict liability' label for direct patent infringement would reframe the analysis and debate, moving direct patent infringement liability out of a policy framework and back toward its proper statutory setting.").

radical. Natural because, of course, infringement has parallels with physical accidents—unwanted, expensive, and, in many cases, wasteful. Radical because, once placed inside this frame, some conventional and largely unexplored features of patent litigation began to look odd, if not downright wrong.

B. PRIVATE LAW: TRADITIONAL AND "NEW"

Public law, in the form of statutes, regulations, and case law applying them, governs relations between individuals and the government, or state. Private law governs interactions between individual people in a society. Public law is often said to have a "vertical" structure: the government makes demands on all of its citizens to follow a speed limit, refrain from damaging the environment, sell investment securities with full disclosure, and so on.[60] Likewise, the state guarantees certain basic civil rights for freedom of speech and religion, equal access to government benefits such as social security, and so on. The state also provides redress for their enforcement. Indeed, public law's organizing principles are societal welfare, distributive justice, and "the public good."[61] Overall, public law is the source of obligations and individual rights that form the backbone of a fair and productive society.

Private law is often said to be "horizontal": it governs interactions and relations between individuals in the state.[62] For example, A may not carelessly harm B; if he or she does, B must be compensated for the harm. Alternatively, A and B may make an agreement between themselves, and if one fails to perform, the other may go to court to seek redress. Classically labeled "corrective justice," the relevant legal rules are concerned primarily[63] with doing justice between the individual parties to a private law interaction.[64] The calculus

60. *See* HANOCH DAGAN & AVIHAY DORFMAN, RELATIONAL JUSTICE: A THEORY OF PRIVATE LAW 21 (2024).

61. *Id.* at 22.

62. *Id.* at 12.

63. Traditionalists in private law would say "only." *See, e.g.*, Ernest J. Weinrib, *Private Law and Public Right*, 61 U. TORONTO L. REV. 191, 193 (2011). For a more expansive understanding of private law—less oriented strictly around formal litigation, more open to the integration of 'public law' considerations (especially distributive justice concerns), etc.—see generally HANOCH DAGAN, A LIBERAL THEORY OF PROPERTY (2021).

64. Weinrib, *supra* note 63, at 192 ("This correlativity reflects the defining structural feature of [private law] liability itself: that liability of a particular defendant is always a liability to a particular plaintiff. Correlatively structured reasons focus not on either party separately from the other but on the relationship between them as doer and sufferer of the same injustice."). The reciprocal, pairwise orientation of private law forms the backdrop to Civil Recourse Theory, which emphasizes the centrality of private rights of action by a victim of harm against an alleged wrongdoer. Under this theory, private law fulfills a basic requirement of a fair and just society: the right for a victim to seek redress from the person who harmed them. *See generally* GOLDBERG & ZIPURSKY, *supra* note 37 (defining "the principle of civil recourse" and emphasizing its centrality in tort law). Although certainly compatible in a general way with corrective justice, the advocates of this theory say that the overall goal of fair compensation in corrective justice theory is motivated by a societal-level

within the A-B private law dyad is different from the calculus governing the proper content of public law, which leads some private law theorists to argue that the two spheres ought to be kept strictly separate.[65]

Whatever its relationship to the general welfare of society, corrective justice is essentially restorative.[66] Knowing what and how to "restore" a harmed party requires understanding their status before the harm. One conventional way to structure the inquiry is to start with a party's starting point, or baseline entitlement. A garden variety tort suit, for example, protects a simple entitlement: the right to bodily integrity.[67] This right allows people to walk down the street with the expectation that others cannot harm them without good reason. Enforcement of a simple contract, for instance, sale of a cord of wood for $300, involves a different baseline—the contracting parties' expectation interest. The buyer has redress if the wood is never delivered, and the seller has redress if the $300 is not paid. This is also a simple entitlement in the sense that it is created by an agreement between the parties and often, though not always, has little effect on third parties.

Corrective justice applies intuitively when these simple entitlements are violated. The extent of harm to a private party marks the violation of the entitlement and serves as a measuring stick for the appropriate restorative remedy.[68] Entitlements create baselines, and deviations from baselines must be corrected. Thus, baselines are central to the whole enterprise of private law. In the words of one private law scholar:

> [Private] law deals with situations in which commutative, not distributive, justice is appropriate. For instance, when one person complains that another

---

preference for just compensation (in the same way that, say, a utilitarian or instrumentalist approach champions the societal goal of overall efficiency). *Id.* at 154–55. For Goldberg and Zipursky, both corrective justice and utilitarian/social welfare-based views of private law elevate social goals over the right for an *individual* victim to pursue justice against the *particular* defendant who caused them harm. *Id.* at 162–68. In Civil Recourse Theory, plaintiffs are not agents of the state, pursuing societal goals through the mechanism of litigation. Plaintiffs are autonomous individuals using the mechanism of litigation to pursue personal justice against the specific source (person) of the injustice. *Id.* at 289. People choose to be plaintiffs to pursue their own ends. If society somehow benefits, so much the better, but that is not the point of private law.

65. *See* Weinrib, *supra* note 63, at 192 ("[A]rguments that seek to have the law achieve goals external to the parties' relationship—whether instrumental, distributive, or economic—are all structurally inconsistent with fair and coherent determinations of [private law] liability. In contrast . . . [in private law thinking] the parties are viewed as participants in a legal relationship organized by the principle of its own internal fairness and coherence. . . . Every private-law right implies that others are under a duty not to infringe it; similarly, in private law, no duty stands free of its corresponding right. Right and duty are correlated when the plaintiff's right is the basis of the defendant's duty and, conversely, when the scope of that duty includes the kind of right-infringement that the plaintiff suffered.").

66. Material in this section is drawn from Merges, *supra* note 18.

67. Mark A. Geistfeld, *The Tort Entitlement to Physical Security as the Distributive Basis for Environmental, Health, and Safety Regulations*, 15 THEORETICAL INQ. L. 387, 387 (2014) (describing "underlying entitlement to physical security" as the basis of tort law).

68. *See* Ernest J. Weinreb, *The Gains and Losses of Corrective Justice*, 44 DUKE L.J. 277, 280 (1994).

> violated her bodily integrity or failed to perform a contract, that is a complaint about commutation—about "those things that belong to our intercourse with other [people]," about the failure to "Render to each one his right." The complaint is not about distribution . . . . For this reason, the fundamental structure of the private law remains based on commutative justice.[69]

The recognition of this "distinct form of justice"[70] is at the heart of much private law theory. The label "private" might be replaced by "relational" because much of private law and corrective justice is about repairing a rift between individual legal actors.[71] When relational breach leads to actual litigation, the law orients itself toward restoration.[72] Its aim is to assess and ameliorate a harm inflicted by one half of a legal dyad upon the other half.[73] For this reason, the concept of a starting position or *baseline* is crucial. The goal of private law's corrective impulse is to return an injured party to their baseline: to restore them to the position they deserve to occupy by virtue of the same basic entitlement that the wrongdoer interfered with.[74]

---

69. ALLAN BEEVER, FORGOTTEN JUSTICE: THE FORMS OF JUSTICE IN THE HISTORY OF LEGAL AND POLITICAL THEORY 273 (2013).

70. Dan Priel, *Private Law: Commutative or Distributive?* 77 MOD. L. REV. 308, 309 (2014) (reviewing ALLAN BEEVER, FORGOTTEN JUSTICE: THE FORMS OF JUSTICE IN THE HISTORY OF LEGAL AND POLITICAL THEORY (2013) ("We have come to think of the world exclusively through the lens of distributive justice, so that we no longer see that private law embodies a distinct form of justice, commutative justice. (Beever prefers "commutative" to "corrective" justice to highlight the fact that it is concerned not just with responses to wrongs, but with all interpersonal relations.)").

71. *See* HANOCH DAGAN & AVIHAY DORFMAN, RELATIONAL JUSTICE: A THEORY OF PRIVATE LAW 53 (2024).

72. Ernest J. Weinrib, *Punishment and Disgorgement as Contract Remedies*, 78 CHI.-KENT L. REV. 55, 102 (2003); Curtis Bridgeman, *Reconciling Strict Liability with Corrective Justice in Contract Law*, 75 FORDHAM L. REV. 3013, 3018 (2007); *see generally* Andrew S. Gold, *A Property Theory of Contract*, 103 NW. U. L. REV. 1 (2009) (offering a theory of contractual obligation based on understanding contracts as transfers of property in a promisor's future actions).

73. *See* Peter Benson, *Misfeasance As an Organizing Normative Idea in Private Law*, 60 U. TORONTO L.J. 731, 750 (2010) ("The interests pertain to bodily integrity, property, and contract, and each of these, . . . has a definite object or content that can be held or possessed by one party to the exclusion of the other. The only kind of loss that matters is that which results from conduct that interferes with such interests.").

74. Private law theorist Ernest J. Weinrib roots his discussion of these matters in Aristotelian notions of equality and compensation:

> [In a private law interaction,] the two parties are equals, and [corrective] justice consists in vindicating their equality. The doer's unjust treatment of the sufferer disturbs this equality, leaving the doer with a gain and the sufferer with an equivalent loss. To reestablish the initial equality, corrective justice requires the doer to repair the loss by returning the gain to the sufferer.
>
> [W]e must determine more precisely what Aristotle means by gain and loss [in his analysis of corrective justice]. These words signify excess and shortfall relative to some baseline. What is the baseline? . . . Under this conception, gains and losses refer to discrepancies between what the parties have and what they should have according to the norm governing their interaction. The baseline for normative gains and losses is one's due under the relevant norm. A gain is an excess over, and a loss a shortfall from, one's due.

Weinrib, *supra* note 68, at 280, 282–83. In the cases we are interested in, "the norm governing [the parties' interaction]" is the substantive content of patent law.

Though private law defines a baseline as a general and abstract concept, it is easy to see that, in many cases, the practical questions center on the cash value of an entitlement. The justice-based "correction" often takes the form of money damages.

1. Private Law is Not Necessarily Libertarian

The notion that private law is closely tied to belief in a largely passive state, or that the field itself advertises the benefits of libertarian politics, is no longer universal in the contemporary era. Much of New Private Law Theory ("NPLT") applies a more fluid understanding of public and private law. In particular, NPLT has a heightened appreciation of the role of the state in dealings between private parties.[75] NPLT recognizes the modern reality that public policy considerations often enter into court resolution of disputed private law entitlements.[76] This recognition does not erase the line between public and private. NPLT also acknowledges the distinctive features in what is termed private law—the law governing private party-to-party interactions.[77] Further, NPLT retains the important idea that there is something different about justice within such a private law dyad[78] that sets it apart from general considerations of social welfare and distributive (societal) justice. While NPLT diverges from the past in conceiving of a more permeable public-private membrane, and in drawing more freely from extra-legal ideas, such as economics, it retains the basic understanding that justice between private parties is fundamentally restorative or corrective.[79] Distributive concerns matter in private law but come second to

75. For a good overview, with a continental twist, see generally STEFAN GRUNDMANN, HANS-W MICKLITZ & MORITZ RENNER, NEW PRIVATE LAW THEORY: A PLURALIST APPROACH (2021). For a good early statement of what NPLT is about, see John C.P. Goldberg, *Introduction: Pragmatism and Private Law*, 125 HARV. L. REV. 1640, 1658 (2012) ("The New Private Law readily acknowledges the central role of the state. Private law is inherently political, not in the sense of being partisan, but in the sense of being overseen by and realized through the state. Although private law is concerned to address the interactions of individuals and entities, it does so as part of a political system in which government is the bearer of powers over, and duties owed to, those individuals and entities." (footnote omitted)). New Private Law, in other words, still takes the private party dyad as the central focus of the field while understanding that each dyad is embedded in social and political contexts governed in part by public policies and public law values.

76. Goldberg, *supra* note 75.

77. *Id.*

78. I use the term dyad to refer to party-party relations as relevant to private law. The classic dyads are (1) tortfeasor and victim, private parties brought into legal relationship by the occasion of harm to the victim, and (2) contracting parties, who place themselves within a private law dyad by virtue of their agreement. Lawyers will recognize that "dyad" here is a shorthand: it is meant to include all manner of party-to-party interactions, including those (such as joint tortfeasors, third part indemnifiers, third party contractual beneficiaries and guarantors, etc.) whose addition to the mix makes the overall private interaction something more than a simple dyad.

79. The originality and importance of NPLT have been noted by others. *See, e.g.*, David Blankfein-Tabachnick & Kevin A. Kordana, Essay, *On Rawlsian Contractualism and the Private Law*,

considerations of inter-party efficiency and fairness. NPLT retains the traditional strain of private law analysis, which focuses on rights, duties, culpability, and the like.[80] However, NPLT enriches that analysis with other perspectives and other bodies of thought.[81]

C. PATENTS AS HYBRIDS: PUBLIC RIGHT, PRIVATE ENTITLEMENT

Whatever variant of private law one subscribes to, the heart of the matter is that law of private party interactions is fundamentally distinct from public law considerations. This distinction informs understanding of how issues central to

---

108 VA. L. REV. 1657, 1662–63 (2022) ("The importance of this work [NPLT] could hardly be overstated if compared to most of the Continental-European private-law handbooks, both in terms of substantive contents and original take[] . . . ."). For a skeptical view, questioning the possibility of a seamless melding of economics and private law duty/right analysis, see Eric R. Claeys, *Exclusion and Private Law Theory: A Comment on Property As the Law of Things*, 125 HARV. L. REV. F. 133, 133–34 (2012) ("I confess that I am not entirely sure what the term 'New Private Law Theory' means.").

80. *See* Peter Cane, *The Anatomy of Private Law Theory: A 25th Anniversary Essay*, 25 OXFORD J. LEGAL STUD. 203, 205 (2005) ("Despite various internecine disagreements, justice theorists seem united in the idea that private law is best understood 'non-instrumentally,' as a relatively autonomous universe of normative discourse based on concepts such as 'rights,' 'wrongs,' 'responsibility' and, of course, 'justice.'" (footnote omitted)). Concepts such as "rights" and "wrongs" emerge as unifying principles from a long line of individual disputes and interactions. Cane describes the traditional "internalist" view of private law, in which these induced principles are the deepest level of relevant analysis. They constitute the basic principles that serve as the foundation of private law. Other perspectives would see private law "instrumentally" in Cane's term, for example, in service of some external logic or explanatory theory that is in some way "deeper" than private law concepts and categories. In my exploration of foundational theories in IP law, I leave room for multiple foundations, drawing on Jules Coleman's idea of "mid-level principles" as a conceptual plane shared by theorists of all foundational stripes (such as utilitarians and deontological theorists). ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 140 (2011) ("Midlevel principles . . . enable normative debate—debate above the detailed doctrinal level— without requiring deep agreement about ultimate normative commitments."); *see also* JULES L. COLEMAN, THE PRACTICE OF PRINCIPLE 54 (2001) (explaining the role of mid-level principles, which sit between detailed doctrine and comprehensive foundational theory, forming part of Coleman's 'holistic' understanding of normative debate in fields such as tort law). An internalist might be described in terms of this foundational/mid-level theory as someone who "starts (and ends) in the middle," or someone for whom the middle is the foundation, or perhaps vice versa. You get the idea.

81. *See* GRUNDMANN ET AL., *supra* note 75, at 2 (footnote omitted) (describing extra-legal literature as "social theory") ("Social theory complements traditional private law theory most vigorously, breathes new life into the discussion, but does not substitute [within] it. As the novelty of our [NPLT] approach lies, however, more on the side of the social sciences than on the side of traditional private law theory, the former is more thoroughly considered here than the latter (although traditional private law theory itself is particularly lively recently). Thus, our new private law theory is pluralist in method and values; at the same time, it proposes a structured methodology of assessing how and with which significance to integrate the heterogeneous and rich input."). The older tradition generally treated law and economics as a peculiarly American digression from the meat and potatoes of private law. *See, e.g.*, Cane, *supra* note 80, at 204 ("Law-and-economics has always attracted many more practitioners in the US than elsewhere, arguably because it appeals to 'a distinctively American style of individualist ideology,' and to a strongly 'instrumental' strand in American legal scholarship: economic analysis is one of a group of approaches-of which regulatory theory is another currently vibrant member that view law as means to desired social goals established independently of the law. Conversely, it is fair to say that outside the US, lawyers have found the 'justice tradition' of theorizing about private law more appealing than economic analysis." (footnote omitted)).

the grant and validity of patent rights are distinct from issues arising out of a patent owner's interactions with other private parties in the post-issuance life of a patent. Put simply, the law governing patent infringement and patent licensing is better understood, and its development better guided, when the life of a patent is divided between public and private law "moments."

This type of litigation centers on a state-granted property right.[82] By reviewing the propriety of the original grant under numerous public-guarding validity requirements, assaying for infringement with an eye to clear notice of patent boundaries for the benefit of third parties, weighing the impact on the public before granting equitable relief, and more, public policies suffuse lawsuits involving patents.

Once granted, and particularly after surviving validity challenges brought as part of a dispute, a patent also becomes a full-fledged private entitlement. As with all property, third parties owe duties of avoidance or permission to a patent owner.[83] The violation of these—in the form of patent infringement—constitutes an actionable private wrong. It takes on the structure of prototypical dyadic private law interactions: private party B harmed private party A. The legal calculus applied to the public-facing issues just mentioned, (validity, notice, and the public interest) embodies and expresses aspects of distributive justice. This calculus concerns the overall social welfare: Classically, an ideal patent system is one that balances incentives to invent with the pricing power and other harmful effects of legal exclusivity.[84]

After being granted into private hands, IP rights, including patents, have a life of their own. They become legal entitlements—formally vested, but not yet tested—held by private parties.[85] As such, they form the centerpiece of several interactions between private parties. Patent owner A can sue alleged infringer B, bringing A and B into a "tort law dyad." Alternatively, A can license or assign the patent to B, forming a contractual dyad. In these quintessentially private law dyads, the policies governing patent grant, such as patent validity, play a role: Attacks on validity are an expected stage of any patent enforcement action.

---

82. 35 U.S.C. § 261.

83. *See* Jeremy Waldron, *From Authors to Copiers: Individual Rights and Social Values in Intellectual Property*, 68 CHI.-KENT L. REV. 841, 842 (1993).

84. *See* MERGES, *supra* note 80, at 2 (discussing utilitarian rationales for IP rights). A major critique of utilitarianism in the IP context is the difficulty of calculating costs and benefits:

> Estimating costs and benefits, modeling them over time, projecting what would happen under counterfactuals (such as how many novels or pop songs really would be written in the absence of copyright protection, and who would benefit from such a situation)—these are all overwhelmingly complicated tasks.

Id.

85. *See* MERGES, *supra* note 4.

Now consider IP rights. They are powerful entitlements. They are often granted under governmental statutes designed to reward certain creative efforts, but only when the IP right in question clears various tests designed to show the value and legitimacy of the right.[86] As creatures of complex statutory grants, IP rights are a different sort of entitlement. They do form the baseline for various private party interactions (infringement and contracting), but they are more tightly regulated than the entitlements usually at stake in a tort or breach of contract suit.

1. Two Theories of Private Law

An emphasis on corrective justice is just one aspect of the revival[87] of private law in U.S. legal scholarship. Three trends converged in recent years to drive this revival: (1) the rise of an updated form of "internalist" theorizing, which, as in the past, sees law as a coherent and self-contained system of thought, and which is characteristic of classic continental private law theory;[88] (2) the emergence of a new strain of property theory that emphasizes the functional advantages and limits of individual ownership, centering on themes such as lowering information costs (for example, find the owner or a resource, and bargain for whatever use you wish to make of it), "modularity" (fitting together resources owned by separate owners), and private ordering, generally;[89] and (3) trends in continental private law theory which, in the past, was resistant to "external" theories of law, such as law and economics, but which in recent years has moved toward a methodological pluralism more amenable to American-trained scholars.[90]

a. Corrective Versus "Relational" Justice

One prominent branch of private law theory features a stylized and formalized approach to dyadic relations. SCJ is built on the combination of Immanuel Kant's vision of society composed of mutually autonomous individuals,[91] and Aristotle's identification of a distinct form of justice—

86. Patents: 35 U.S.C. §§ 101–103, 112; Copyrights: 17 U.S.C. §§ 102–103; Trademarks: 15 U.S.C. §§ 1051–1054.

87. Private law interest in American legal scholarship has resurged in recent years. But on the European continent, and in the Asian legal systems influenced by Europeans, there was no resurgence because interest never waned in the first place.

88. *See generally* Michael L. Rustad, *Twenty-First-Century Tort Theories: The Internalist/Externalist Debate*, 88 IND. L.J. 419 (2013) (discussing the divide between internalist tort jurisprudence—with a focus on private-law—and externalist tort jurisprudence—with a focus on public policies of tort law).

89. *See, e.g.*, Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1707 (2012).

90. GRUNDMANN ET AL., *supra* note 75, at 2 (footnote omitted).

91. *See* Guanghua Yu, *The Idea of Private Law: A Communitarian Version of Kantian Rights*, 46 W. NEW ENG. L. REV. 171, 175 (2024) (discussing Weinrib's Kantian roots).

corrective justice—that applies when one person harms another.[92] SCJ puts the dyadic relationship at the center of things. In this, it rejects the idea that rules governing private interactions ought to benefit society in general. Social welfare considerations are outside the purview of SCJ because social welfare is a matter of distributive justice. Within the private law dyad, SCJ applies a stylized, simplified form of restorative justice. It begins by identifying private party starting points, or "baselines": each party holds the initial entitlement prior to their dyadic interaction. These are the baselines against which harm is measured; they set the value that must be restored after harm has been suffered—the proper measure of corrective compensation.[93]

SCJ, then, has many features. It ropes off the corner of the legal world devoted exclusively to private party interactions. Within its domain, SCJ applies the principles of corrective justice and mostly ignores overall social welfare, that is, society-wide distributional justice. A classic example, much discussed later, concerns tort law. Although economic analysis might suggest that strict liability for various torts makes society better off, justice between individuals requires that compensation should only be required when one party was at fault. Without fault or culpability in a specific dyadic interaction, it is wrong to impose liability. For SCJ theorists, it is an error to inject societal goals into the analysis of fairness as between two individual parties. Second, SCJ takes the content of legal rules, standing alone, as a self-contained and coherent guide to what each party is due in any specific situation. Doctrine arises out of repeated dyadic interactions and is always sufficient to provide normative guidance. There is therefore no need to consult bodies of thought "external" to legal rules (economics, social justice, and so on) to explain the rules, or to guide their development. Law and economics, for example, might provide some interesting perspectives on the shape of private law. But, for SCJ theorists, it is not a proper source of normative legal guidance. For concrete guidance, only the content of the law itself is necessary and sufficient.

SCJ, then, is compact and coherent, but highly stylized. It has a formal, tightly cabined understanding of private law. Under this understanding, "fault" is welded to individual culpability. Harming someone means doing something that drags them down from their starting point; their baseline entitlement. But liability—compensable harm—requires evidence of fault. A defendant who was faultless in a given interaction cannot be held liable because to do so would require compensation in the absence of wrongdoing. When one's fault causes

92. Weinrib, *supra* note 63, at 192 ("This correlativity reflects the defining structural feature of [private law] liability itself: that liability of a particular defendant is always a liability to a particular plaintiff. Correlatively structured reasons focus not on either party separately from the other but on the relationship between them as doer and sufferer of the same injustice.").

93. For more in this vein, see generally Merges, *supra* note 18.

harm, it becomes fair to impose liability to make the victim who suffered the harm whole again. Baselines, harm, fault, liability, and compensation commensurate with harm: this is the classic formulation.

SCJ holds a place of honor in private law theory, but that theory includes other branches that, in various ways, loosen the constraints and broaden the horizons of private law analysis. One such broader approach to private law is seen in the "relational justice" ("RJ") school of thought, often associated with private law theorist Hanoch Dagan.[94] One of the many contributions of Dagan and associates is to stress that private law actors should be seen as "embedded" in their social and economic settings.[95] It follows that individual characteristics and overall social context matter when it comes to assessing legal liability.[96] For Dagan and Avihay Dorfman, the distinctive features of the injurer (the infringer) and the patent owner (the victim) should be reflected in liability standards.[97] This emphasis on private parties in context distinguishes their approach from the atomistic and autarkic individual at the heart of SCJ theory.[98]

It is easy to see that if a community finds value in rules that sometimes impose liability without fault, those rules might prevail despite the absence of a high degree of personal culpability in a situation. An example comes from the very topic under discussion: strict liability. One classic doctrine in tort law is "ultrahazardous activities." Traditionally, keeping a dangerous wild animal as a pet or storing active dynamite in a home in a residential neighborhood exposes one to strict liability.[99]

The ancient rule applying strict liability to these "ultrahazardous activities" is very difficult to square with SCJ because individual fault is paramount in SCJ theory yet absent in the law of ultrahazardous activities.[100] On the other hand, RJ easily allocates liability for activities that create unusual, unexpected, and occasionally extreme risks.[101] For example, society frowns on storing explosives in residential areas. Relational justice theorists would say that expressing this restriction through strict liability is appropriate: each "embedded" private party has an expectation that all the others should adhere to social norms about safety,

94. DAGAN & DORFMAN, *supra* note 71, at 4.

95. *Id.* at 80; *see* GRUNDMANN ET AL., *supra* note 75, at 13.

96. DAGAN & DORFMAN, *supra* note 71, at 76.

97. *Id.* at 78.

98. *Id.* at 82.

99. *See also* Avihay Dorfman, *Negligence and Accommodation*, 22 LEGAL THEORY 77, 117–19 (2016) (explaining the application of strict liability to ultrahazardous activities through the example of "handling fireworks").

100. *Id.* The foremost SCJ theorist, Ernest Weinrib, argues that strict liability is inconsistent with the core private law tenet of correlativity. *See* ERNEST WEINRIB, THE IDEA OF PRIVATE LAW 171 (1995).

101. DAGAN & DORFMAN, *supra* note 71, at 77 n.17.

concern for neighbors, and so on.[102] Though the norm may be based in community values, and might in some instances be embodied in a public statute or regulation, it is also embedded in rules of private party interactions.

Party A, when dealing with Party B, rightfully expects that B will comply with the community norm. So, a violation of that norm in the context of a dyadic interaction will factor strongly into an evaluation of B's fairness in dealing with A. Tort liability might be imposed on the keeper of a dangerous animal, or one who stores explosives in a residential neighborhood, when another private party is injured by a dangerous animal or suffers damage from an explosion. The nature of strict liability is that liability will be imposed whether the defendant in question took all reasonable or even possible precautions. In SCJ theory, this is not permitted. SCJ requires that the law respect the autonomy of each person. Strict liability, in this understanding, wrongly turns a private party—the defendant in a tort suit who stored dynamite in a residential neighborhood, for example—into an agent of the state.[103] In this view, the private actor is commandeered into serving the ends of the larger polity. One who takes every conceivable precaution in storing dynamite in a residential area should not be liable for an accident because they did not act wrongfully. Imposing liability to deter future actors, or to ensure compensation for a harmful but fault-free explosion, may serve the ends of society. But if an actor does nothing blameworthy in his or her interaction with a hapless victim, SCJ dictates that it would be wrong to impose liability.[104] Thus, the needs of society are properly addressed through the mechanisms of public law. If there is no blame on any individual, then there is nothing to "correct" in the dyadic relationship. It follows from the dictates of SCJ then that there should be no liability for any private law defendant where there is no one to blame for harm to a plaintiff.

As mentioned earlier, however, once the constraints of formal SCJ are loosened, strict liability might very well be in order. The key to a different result is to introduce the element of community norms. In reality, many private law dyads are embedded in various communities, opening the door to a broader understanding of wrong, harm, and fairness than the one we see in SCJ.

---

102. *See generally* GRUNDMANN ET AL., *supra* note 75 (providing an overview of NPLT). Dagan and Dorfman do not in their book directly address ultrahazardous activities. I am arguing that a straightforward application of their notion of embeddedness and their call for attention to the parties' social context would be a rule of strict liability for, to take one example, storing dynamite in a residential area.

103. Being used as an "agent of the state" to pursue societal goals (such as distributive justice) in one's private activities is a violation of Kantian autonomy, in the view of Ernest Weinrib. *See* WEINRIB, *supra* note 100, at 182.

104. *Id.*

b. Community Norms and the "Relational Justice" School of Private Law Theory

Outside strict SCJ theory, private law is theorized to prioritize overall fairness in dyadic, private party-to-private party interactions. Private law encompasses the more expansive principle of Relational Justice (RJ). RJ certainly subsumes many basic elements of SCJ, including the importance of starting-point entitlements and the importance of compensation for private actor violations of private entitlements. But RJ goes further.

RJ explicitly embraces a wider view of fairness than that of SCJ.[105] Return to the example of strict liability for "ultrahazardous activities." RJ can be easily applied to fix liability for activities that create unusual, unexpected, and occasionally extreme risks.[106] Society frowns on storing explosives in residential areas because of the devastating nature of the harm that could occur. There is also a general expectation that explosives are so anathema to the tranquility of residential neighborhoods that, even if accidents are exceedingly rare, they are so violent and out of place in a setting where people make their homes that there should be no escape from censure for someone who causes one.

RJ theorists say that expressing this sentiment through strict liability is appropriate:[107] each private party has an expectation that all the others should adhere to social norms about safety, concern for neighbors, and so on. Though the norm may be based in community values, it finds expression beyond public statutes and regulations: it is also embedded in rules of private party interactions. Party A, when dealing with B, rightfully expects that B will comply with the community norm. A person who is injured because a neighbor stored explosives has every right to expect not only a criminal citation from the relevant authorities, but also direct compensation from the neighbor. The criminal violation marks a deviation from the neighbor's obligations to all others in her society. Tort liability, on the other hand, fixes its gaze on the dyad and assesses fairness at this granular level. Here too, community standards are relevant. A person injured by the scant but not impossible risk from an ultrahazardous activity is of course a member of the community protected by a regulation or statute. But if they live close to an explosives stockpile and are injured in a freak explosion, they have suffered harm at the hands of a particular neighbor. They have suffered unfair treatment at the hands of a specific neighbor, a specific person. Therefore, the dyadic balance between neighbors has been violated. The neighbor storing explosives has acted unfairly, in violation of community norms.

---

105. DAGAN & DORFMAN, *supra* note 71, at 242.

106. *See generally* DAGAN & DORFMAN, *supra* note 71 (discussing foundational questions and doctrines of private law). The argument I am making is based on but not found directly in DAGAN & DORFMAN, *supra* note 71.

107. DAGAN & DORFMAN, *supra* note 71, at 258 n.17.

To redress this wrong—to correct a clear harm in the eyes of the community—is the goal and purpose of tort law.[108]

When it comes to dyadic fairness or morality, both Dagan and Goldberg and Zipursky look beyond the tight circle of formal corrective justice for guidance.[109] Instead, Goldberg and Zipursky believe "[t]he concept of a wrong is . . . capacious and nuanced."[110] Dagan describes private actors as "embedded" in a web of socially-defined moral norms.[111] Thus, his plea is to shift attention from (a stilted) corrective justice to a broader, more open textured tableau of moral norms: what he calls "relational justice."[112] Inter-party relations, Dagan understands, take place not on an atomized plane of abstract Hohfeldian actors (the A's and B's of private law narratives), but instead within densely particularized social practices (market, workplace, neighborhood, road, and so on) subject to situation-dependent interactional norms.[113] Expansion of the grounds of morality to include this community-level dimension pokes a serious hole in the standard corrective justice-based definition of morality or fairness. The maxim "no liability without blameworthy conduct" takes on a different meaning outside the strict corrective justice frame. In strict corrective justice terms, liability requires individual blame in each interaction with other private individuals.[114] Things are different when particular types of interactions are subject not just to atomized individual fairness conditions, but also to the norms of the relevant community. In such cases, the zone of blameworthiness might well expand, and tort liability along with it.

As with neighbors and explosives, so too with inventors and their inventions. The norms of the relevant community might permit compensation when A's invention winds up being embodied in B's product or production process, even when A has difficulty proving fault.

2. Dyadic Vesting and the "Private Law Moment" in Patent Enforcement Actions

Once again, the ubiquity of validity challenges makes IP rights—and patents in particular—a distinct and unique type of private law entitlement. Patents never fully vest in an *in-rem* sense, yet they do form the platform for numerous highly valuable contractual relationships. Patents are a legal

108. *Cf.* DAGAN & DORFMAN, *supra* note 71, at 83 (describing how RJ theory, in contrast to both welfarist (law and economics) approaches and traditional, formalist private law theory, requires private actors to account for the idiosyncracies of potential victims with whom they are likely to interact).

109. *Id.* at 83; *see supra* notes 96–100 and accompanying text.

110. GOLDBERG & ZIPURSKY, *supra* note 37, at 183.

111. DAGAN & DORFMAN, *supra* note 71, at 80.

112. *Id.* at 83.

113. *Id.*

114. ERNEST J. WEINRIB, RECIPROCOL FREEDOM: PRIVATE LAW AND PUBLIC RIGHT 2 (2002).

entitlement whose violation can be understood, and remedied, as any other tort, using the full force and logic of corrective justice. It is just that we must understand that *patents only truly vest in an* in personam *sense*. They are valid—and thus form a solid baseline for corrective justice—only between two private parties, and only after validity has been established between those two parties.[115] Patents "vest" for purposes of bilateral contracts and disputes, but only within the private law dyad. These are rights "good against the world," true; but they are also "vulnerable to the world."[116] They can form private baselines, but only in specific private law interactions (for example, a contract dispute between patent owner and licensee; or a garden variety infringement suit, patent owner v. third party infringer). To put it another way, in any IP enforcement action, particularly again with patents, private enforcement begins with a "public law moment," when the validity of the IP right must be re-established.

To summarize my point about patents in their private law moment: I agree with the thrust of the new private law thinking, applying corrective justice to disputes over patent entitlements. However, I want to specify with some care what I see as the conditions precedent to application of this logic. Corrective justice requires solid baselines, and my central point is that patents (and other IP rights) begin any private dispute as *contested baselines*.[117] So, I do want to fit patent-based disputes into contemporary private law theory. Corrective justice and other private law tools can help resolve disputes over IP-based contracts as well as over IP infringement. But I want to assimilate patents into the current private law discussion only after a proper understanding that patent entitlements are, at their core, public-private hybrids.

a. Contested Baselines: Granting Versus Vesting

IP rights are property grants, backed by the federal government.[118] The owner of an IP right can invoke the power of the state to enforce the right against any other person in the jurisdiction;[119] that is what it means to say IP rights are

115. *See* Merges, *supra* note 3, at 308.

116. *See* Merges, *supra* note 18 ("[IP] rights are typically tested for validity at multiple stages of the IP granting and enforcement process, including when an IP right is asserted against an infringer in a district court action. As a consequence, IP rights cannot be considered settled entitlements for purposes of a private IP enforcement action until validity issues are put to rest."). IP rights serve as private law "baselines", but they are contested baselines.

117. *Id.* In another article, I argue that as between contracting parties, such as a patent owner and licensee, the law should permit "no challenge" clauses that prohibit a licensee from challenging validity of the licensed patent. To the extent these clauses are enforced, the result is a stipulation to validity as between the parties, which is one form of "dyadic vesting." *See* Rob Merges, *Patents, Validity Challenges, and Private Ordering: A New Dispensation for the Easy-Challenge Era*, 23 NEV. L.J. 263, 268–98 (2022) (arguing that no-challenge clauses in patent licensing agreements ought to be enforceable in most cases, contrary to current United States doctrine).

118. 35 U.S.C. §§ 1–2.

119. *Id.* § 282.

"good against the world." If one of these state-backed exclusive rights covers something of value—brand, character, story, or in-demand new technology—it may become a formidable business asset.

But society does not sell these rights cheap. An IP owner must establish that the right in question passes a series of tests, all designed to weed out those rights that would cost society more than they were worth. The right must be proven *valid*. To be patentable, an invention must meet a scrupulous test for "newness," must be non-trivial, must be linguistically demarcated, in the form of one or more carefully drafted "claims," and must be taught, in the narrative portion of the patent document, in a way sufficient to inform others of the details of the invention as claimed.[120]

Equally important, validity is not an event. It is a process—a long, rolling process in the case of patents. In the life of a patent covering anything of value, validity will be challenged at least three times, often more: Once when the patent is filed; validity is the coarse-meshed screen that all inventions are subject to while prosecuting an application at the Patent Office. A second challenge comes when a competitor files an invalidity proceeding in the Patent Office's administrative court, the Patent Trial and Appeal Board ("PTAB"). The PTAB's sole purpose is to weed out invalid patents that are not new or trivial (in other words, obvious). And yet a third challenge will take the form of an invalidity defense, raised by a defendant who has been sued for patent infringement.

These challenges have *teeth*. Over half of all patent applications die in the Patent Office.[121] Granted patents that are challenged in the PTAB are trimmed or completely invalidated in 22 percent of all IPR petitions;[122] and once an IPR is "instituted,"—passes an initial threshold test of viability—the trim or invalidity rate is over 80 percent.[123] Finally, patents enforced in district courts are invalidated at a 55 percent rate.[124] The overall pattern of is one of staged invalidity.

II. STRICT LIABILITY FOR PATENT INFRINGEMENT: CONVENTIONAL ACCOUNTS, CURRENT CRITIQUES

A major thrust of tort theory in recent years is the rise and ultimate dominance of notions of fault. Older rules assigning strict liability have been called into question, and tort law has been re-conceived around the central pole of culpability. This poses a direct challenge to IP infringement, which typically

120. ROBERT PATRICK MERGES AND JOHN FITZGERALD DUFFY, PATENT LAW AND POLICY chs. 2–8 (8th ed. 2021).

121. Ashtor, *supra* note 16.

122. You, *supra* note 16, at 696.

123. *Id.*

124. *See supra* note 16.

imposes some type of strict liability. With reference to patents, insightful scholars have asked lately why patent law should be left out of the "fault revolution."[125] Put simply, they say, in effect, that the strict liability rule for patent infringement is another example of "patent exceptionalism"—the unjustified development of special rules for patent cases that deviate from conventional legal norms. In this Part, I take up the challenge posed by tort theory to the structure of patent infringement liability. I restate a limited defense of traditional strict liability, while also showing how beyond the simple case for baseline liability, fault already permeates various aspects of patent liability, especially remedies.

A. TRESPASS AND THE LOGIC OF PROPERTY

Trespass as a common law action for invasion of real property—the classic *quare clausum fregit*, or "breaking the close" offense—was established by the year 1200.[126] It has been applied to patent infringement since the mid-nineteenth century.[127] Trespass was from the earliest times a strict liability offense; intent, negligence, even measurable harm, none of it mattered once someone stepped into or otherwise impacted a private land parcel.[128] Because patents were property rights from the beginning of the United States patent system in 1790, the simplest explanation for strict liability in patent law is that that the liability standard (strict) followed the label (property).[129] There are, of course, other accounts of the strict rights accorded to property owners, including especially

125. *See* Patrick R. Goold, *Patent Accidents: Questioning Strict Liability in Patent Law*, 95 IND. L.J. 1075, 1081 (2020); GOOLD, *supra* note 1, at i.

126. George E. Woodbine, *The Origins of the Action of Trespass*, 34 YALE L.J. 343, 351–52 (1925).

127. On early real property trespass, see generally *id.* (discussing the early history of trespass), GRAY, *supra* note 38, at 1–3 (identifying trespass as a historically strict liability tort). As applied to patent cases, see, for example, Goodyear Dental Vulcanite Co. v. Van Antwerp, 10 F. Cas. 749, 750 (C.C.D.N.J. 1876) (analogizing, in damages case, patent infringement to a "trespass" into a horse stable and unauthorized use of horses); *see also* Livingston v. Jones, 15 F. Cas. 669, 674 (C.C.W.D. Pa. 1861) (accusing defendants of having "made large gains by trespassing on the rights of the complainants"); *cf.* Eastman v. Bodfish, 8 F. Cas. 269, 270 (C.C.D. Me. 1841) (comparing evidentiary rules in a patent infringement case to relevant evidentiary rules in a trespass action, cited in Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent 'Privilege' in Historical Context*, 92 CORNELL L. REV. 953, 993 (2007)). This explains the early and seemingly automatic resort to strict liability, which was the characteristic liability regime in traditional (pre-twentieth-century) property law. *See* GRAY, *supra* note 38, at 2. For a skeptical look at the relevance of this history in the modern debate, see Oswald, *supra* note 35, at 1002–03.

128. Not everyone agrees. For a view of trespass to real property that resembles the view of patent infringement I take here, see Avihay Dorfman & Assaf Jacob, *The Fault of Trespass*, 65 U. TORONTO L.J. 48, 48 (2015) ("A more precise account of trespass to land will reveal that the tort gives rise to a hybrid regime of tort liability, one which combines considerations of fault along with those of strict liability. On the proposed account, therefore, an owner does assume some responsibility for guiding others in fulfilling the duty they owe the [owner].").

129. Oswald, *supra* note 35, at 1013.

the functional theory of modularity and information costs developed by Henry Smith.[130]

Trespass evolved before the official recording and public availability of land boundaries. However, once title and boundary records did become common, they supported and reinforced the strict liability standard.[131] If land boundaries are identifiable, then all who cross them are in some sense at fault.[132] Trespass is avoidable by consulting boundary records, so crossing a boundary takes on the flavor of *res ipsa loquitor*, or at least per se negligence.[133]

1. The Notice Failure Critique

At first glance, patents seem to fit snugly in the logic of trespass. In theory, all infringers are on notice about patent rights because patents are public documents that can be easily found and searched on the United States Patent Trademark Office website and a host of other public domain search engines and websites.[134] In practice, particularly for complex multi-component products

130. If a potential asset user knows the asset is covered by a property right, then it is easy to determine if a proposed use of the asset is permissible, and to set terms of use (for example, if information costs are low). Given the nature of ownership, if anyone can authorize asset use, and set conditions for use, it is the owner. There is no need, for example, to look up an administrative schedule of permitted uses; there is no need to traverse a complex landscape to match a proposed use with a procedure for obtaining approval (these procedures have their uses, as Smith has argued; they amount to what he calls a "governance strategy"). Property makes this all quite easy with a simple uniform rule: if you want to use an owned thing, find the owner. That is where the power of disposition lies, and that is all you need to know to get the permission process started. Strict liability obviously forms part of the simplicity: no need to inquire into fault or other consideration, to know when or whether exclusion applies; it always applies. *See* Thomas W. Merrill and Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L.J. 1, 3 (2000); Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1704 (2012) ("When O_1 owns Blackacre, the exclusion strategy for delineating her rights, implemented through devices like the tort of trespass, protects a range of actions A_1, A_2, A_3, . . . , without the law's needing to specify these actions.").

131. *See* Troy A. Rule, *Airspace in an Age of Drones*, 95 B.U. L. REV. 155, 176–77 (2015) ("Existing laws governing surface land not only allow parties to divide up and delineate interests in it with great accuracy; they also aggressively protect landowners' rights to keep others out. . . . [S]trict liability surface trespass laws allow courts to settle many land conflicts simply by determining whether the defendant crossed over the property line.").

132. Buyers of real property routinely delegate the identification and certification of boundaries to private "title insurance" companies. Purchaser "title reports" are based on up-to-the-minute public information regarding ownership claims, construction liens, tax liens, contested wills, and the like. Title insurance companies are hired because of their expertise accessing and interpreting public recordation documents. *See* Lee Anne Fennell, *Lumpy Property*, 160 U. PA. L. REV. 1955, 1988 n.133 (2012) ("[T]he system of land recordation in the United States largely privatizes the costs of tracking interests in land, as through the work of title insurance companies. . . . [M]uch of the public good of keeping titles straight is privately produced . . . ." (citation omitted)).

133. *See infra* Part II.B below for further elaboration of this point.

134. Boyden v. Burke, 55 U.S. 575, 582 (1852) ("Patents are public records. All persons are bound to take notice of their contents . . . ."); Wine Ry. Appliance Co. v. Enter. Ry. Equip. Co., 297 U.S. 387, 393 (1936) ("The parties agree that issuance of a patent and recordation in the Patent Office constitute notice to the world of its existence."); Sontag Chain Stores Co. v. Nat'l Nut Co. of Cal., 310 U.S. 281, 295 (1940) ("All patents

such as mobile phones and large software systems, it can be very difficult to find all relevant patents before introducing a new product or adopting a new production technology.[135] In addition, the variability and plasticity of patent claim language makes it problematic to determine with confidence whether a particular patent claim will be read by a court to encompass a particular new product. Professors Menell and Meurer notably deemed this combination of factors to constitute a "notice failure" problem in patent law.[136] These practical difficulties make it improper, some argue, to impose strict liability for patent infringement.[137] Certainly, the conventional defense of strict liability for trespass to real property, based on constructive notice and the duty to search for boundaries so as to avoid trespass, runs into serious problems in the patent context.[138]

Notice failure poses problems for any defense of strict liability. If strict liability is premised on the public availability of patents, and on the assumption that these public documents are can easily be found and analyzed, notice failure seems to eviscerate the case for strict liability. Any attempt to defend strict liability thus requires full engagement with notice failure.

a. More on Patent "Searchability"

Some, and maybe quite a few, patent searches yield up effective warnings. This matters because, in tort law, the standard of care required to avoid negligence is set with respect to average competencies in assessing harm and,

must 'be recorded, together with the specifications, in the Patent Office in books to be kept for that purpose.' Constructive notice of their existences goes thus to all the world." (citation omitted)).

135. Meurer & Menell, *supra* note 25, at 48 ("Google's chief legal officer commented that 'a modern smartphone might be susceptible to as many as 250,000 potential patent claims' (Lohr 2011; see also Phelps & Kline 2009). The notice problem is so severe that competitors in many high tech fields do not even bother trying to learn about potential encumbrances (Lemley 2008)." (citing Steve Lohr, *A Bull Market in Tech Patents*, N.Y. TIMES, Aug. 17, 2011, at B1; MARSHALL PHELPS & DAVID KLINE, BURNING THE SHIPS: INTELLECTUAL PROPERTY AND THE TRANSFORMATION OF MICROSOFT (2009); Mark Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19 (2008))).

136. *Id.* at 2–3.

137. *See* Goold, *supra* note 125, at 1080–81; GOOLD, *supra* note 1, at i.

138. *See* Katherine J. Strandburg, *Patent Fair Use 2.0*, 1 UC IRVINE L. REV. 265, 285 (2011) ("Much has been written lately about the breakdown of the patent notice function in certain technological areas. As discussed in detail by Bessen and Meurer, this breakdown is due in part to inherent difficulties in describing software and business method inventions, in part to low standards for enablement and description in these areas, which permit broad and vaguely bounded claims, and in part to the unpredictability of claim construction, which can lead to patent coverage of inventions that were completely unforeseeable at the time of patenting. The import of these problems is to increase the cost of patent search and decrease its effectiveness (to the point where, in software for instance, even sophisticated commercial players reportedly often opt out of patent clearance and hope for the best)." (footnotes omitted)).

ultimately, with respect to average estimates of the likelihood of harm.[139] Notice failure asserts, in effect, that under typical and usual conditions industry participants cannot rely on the accuracy of patent searches. So a company that adopts a new production technology or introduces a new product is never at fault for failing to detect patents they might infringe because the tools required to detect infringement are too dull and too inaccurate. These tools are insufficient to render the average searcher competent to find relevant patents.

We do know that some patent searches reliably turn up all relevant patents, but this is no more determinative than the evidence that in other cases a search is not effective, so there is notice failure. The question becomes empirical: What proportion of searches are indeterminate? How frequent is notice failure in patent law? Given the totality of data that are available, is notice failure a feature of the average or typical patent infringement case? Or is it a relatively rare problem, afflicting—and promoting litigation in—only a few technology sectors? And finally, if notice failure is a problem, are there doctrines currently in place that modify or soften the impact of strict liability to compensate for notice deficiencies? These are the issues I take up next.

b. Evidence From Freedom To Operate (FTO) Opinions and Malpractice Cases

When it comes to this topic, I think scholars have been perhaps too quick to generalize. Searches are not always wildly unpredictable; in some cases, at least, sophisticated players assume that searches for relevant patents are reliable. Clients spend serious money on freedom to operate ("FTO") studies: opinion letters advising about relevant patents owned by industry incumbents. If notice failure was ubiquitous, FTOs would be rare; who spends money on useless legal research? In addition, expert witness testimony in patent malpractice cases proves persuasively that, in some cases, a competent search would have revealed all relevant prior art. (Proving, to the court's satisfaction in some cases, that a patent lawyer's actual search was conducted negligently.)

139. *See* Gregory C. Keating, *Tort, Rawlsian Fairness and Regime Choice in the Law of Accidents*, 72 FORDHAM L. REV. 1857, 1894 (2004) ("Failures to act as a reasonable person would act in similar circumstances are enough to support liability[] . . . ."); see also Christopher Brett Jaeger, *The Empirical Reasonable Person*, 72 ALA. L. REV. 887, 889 (2021) (describing experimental evidence regarding how groups of lay people assess the reasonableness of actions, such as precautions).

(1). Evidence from the Market for Freedom to Operate (FTO) Opinions

FTO opinions are common in patent law. They describe the landscape of existing patents faced by a company in the planning stages for a new product.[140] A typical FTO is conducted by someone very experienced in searching for patents.[141] They search for technical terms, citations to important research articles in the relevant field, the names of particular inventors known to be active in a field, and patents recently filed or issued to known key competitors.[142] Competitor patents are considered most important,[143] because active competitors have strong reasons to enforce their patents. Thus companies planning to introduce new products will be especially diligent about key competitor patents in the same product space. Likewise, companies with patents can be expected to closely examine every new product put on the market by direct competitors.[144] While everyone understands that no FTO can absolutely guarantee non-infringement, and that at some point extra investment in patent search begins to yield diminishing returns,[145] the fact remains that the market for FTOs[146] reveals that notice failure is not universal in patent-intensive industries.

Locating a relevant patent is only the first step. Once found, its claims must be analyzed. Claim interpretation is fraught with uncertainty—the second major point made in the "notice failure" literature.[147] Though the Federal Circuit

---

140. *IP and Business: Launching a New Product: Freedom to Operate*, WIPO MAG. (Sept. 2005), https://www.wipo.int/wipo_magazine/en/2005/05/article_0006.html ("Whenever a company is planning to develop and launch a new product, a major risk, particularly in technology sectors where there is extensive patenting, is that commercialization may be blocked by a competitor who holds a patent for a technology incorporated within that product. This is why many companies, at an early stage, seek to secure their 'freedom to operate,' i.e. to ensure that the commercial production, marketing and use of their new product, process or service does not infringe the IP rights of others.").

141. Tom Baker, *What is Freedom to Operate (FTO) in Relation to Patents and IP?*, LEXOLOGY (Oct. 21, 2019), https://www.lexology.com/library/detail.aspx?g=38c0d68a-6a95-4769-bcf1-adc805e19c58 [hereinafter, Baker, *What is FTO*] ("I recommend using a professional for this task to minimise the risk of missing key third-party IP and avoid the analysis of any irrelevant IP.").

142. *Id.* ("[T]hings to remember about FTO [include] . . . : [1] consider searching and analysis for a new product at an early stage of development[; 2] think about the level of FTO certainty you require based on the effort and associated cost needed to take your product to market[; and 3] *take the low-hanging fruit first when it comes to searching—think about your key competitors and/or competitors' technical field and restrict your search accordingly*." (emphasis added)).

143. *Id.*

144. *Id.*

145. *Cf.* Jennifer F. Nelson & Scott D. Locke, *Freedom to Operate Opinions: Worth the Cost?*, ACC DOCKET (Oct. 1, 2015), https://docket.acc.com/freedom-operate-opinions-worth-cost.

146. References to FTOs crop up in enough patent cases to suggest they are quite common. *See, e.g.*, SSI Techs., LLC v. Dongguan Zhengyang Elec. Mech. Ltd., No. 20-CV-19-JDP, 2021 WL 2861617, at *2 (W.D. Wis. July 8, 2021) (discovery dispute: "[W]hen [a party] responded to an inquiry about the instant lawsuit . . . , he [stated that he had] hired two American law firms to investigate and they 'found . . . that our sensor had "Freedom to Operate" meaning that the patent attorneys did not find any evidence of patent infringement.'").

147. *See* Meurer & Menell, *supra* note 25, at 24.

appears to strive mightily to improve predictability, the nature of the exercise seems to involve an unavoidable degree of interpretive variance. The craft of claim drafting is to extrapolate as much as permissible from an inventor's physical prototype or basic concept; to choose language that generalizes from every feature or component. The result is a set of verbal formulations that cover as many variants, extensions, applications, and modifications as the original invention allows—subject to the prior art. Because there are almost always specific pieces of relevant prior art that are not known at the time a patent application is filed, claim drafters operate in the shadow of significant invalidity risk, particularly with respect to the broader claims. The experienced practitioner will therefore draft multiple claims, of varying breadth along various dimensions. The goal is to draft at least one claim that both survives comparison to the prior art and covers valuable embodiments.[148]

The ins and outs of claim drafting make it difficult to say with precision whether a specific product does or does not infringe a specific patent claim. Yet as we have seen, in some fields at least, clients pay lawyers to draft FTO reports.[149] These require an understanding of claims in existing patents, and a prediction whether a planned product would infringe any of them. FTO practice indicates that there is enough accuracy, and thus enough predictability, to make the resulting reports worth their costs—a point against the ubiquity of notice failure.

(2). Evidence From Defective Patent Search Malpractice Cases

Patent malpractice cases also push against ubiquitous notice failure.[150] In some cases, a plaintiff law firm client argues that the defendant patent lawyer negligently conducted a patent search. In these cases, a relevant patent was missed; the plaintiff client was deemed an infringer and damages were paid.

148. On invalidity risk, see ROBERT P. MERGES & FANG (HELEN) LIU, INTELLECTUAL PROPERTY STRATEGY FOR BUSINESS 96–98 (2020). Because certain types of potentially invalidating prior art are very hard or even impossible to locate at the time a patent is applied for, and at the time a patent is licensed or assigned, there is always some "invalidity risk" for any patent. This gives rise to strategies such as drafting multiple patent claims covering different embodiments of an invention, and it is one of the main reasons it is difficult to estimate patent value with precision.

149. *See supra* notes 140–147 and accompanying text.

150. On these cases in general:

> Legal malpractice exposure arising from the preparation or advice about a patent, copyright or trademark application can involve an exposition on the special skills and knowledge required of such attorneys. Nevertheless, as in any area of law, many of the decisions concern errors of inadvertence, consisting of missed time limitations, or administrative errors in the handling of the client's application. Most legal malpractice actions have concerned the failure to obtain patents, to protect or maintain patents, or *for erroneous advice about the validity of patents, and for alleged errors in handling patent litigation*.

4 RONALD E. MALLEN, LEGAL MALPRACTICE § 31:17 (2024 ed.) (emphasis added).

Under these circumstances, if reasonable care would have predictably discovered a certain patent, the law firm is liable for malpractice.[151] Digging into the facts, convincing expert testimony sometimes shows that the reasonable patent searcher would have discovered the patent in question. Thus, the defendant's failure to find the patent was indeed malpractice. The measure of damages equates to the amount the infringement award the client/victim had to pay to the owner of the should-have-been-but-was-not-discovered patent.

Consider the case of *Jackson Jordan v. Leydig Voigt*.[152] The law firm in this malpractice case was an old Chicago patent firm, Leydig Voigt.[153] The patent lawyer assigned to Jordan Jackson's product clearance, or FTO, opinion, failed to identify a highly relevant patent held by a large and well-known competitor, Plasser American Corporation.[154] Placer American Corporation was a subsidiary of the large international rail equipment manufacturer Plasser-Austria.[155] Plasser's founder was Franz Plasser, who seems to have been to railway maintenance equipment what Picasso was to art: a huge presence and a constant innovator.[156] Plasser is named on no fewer than 264 American patents filed between 1954 and 1968.[157] Worldwide, the patent portfolio held by the Plasser company (which was based in Vienna, Plasser's home) ran into thousands of patents by 1973[158]—the year Jackson Jordan hired Leydig Voigt to do the patent clearance.[159] Prior to the request for the clearance, Leydig Voigt even sent a copy of a Plasser patent (the one they were later found to infringe)

151. Malpractice thus involves a "case-within-a-case": the court determines what level of legal assistance would have been reasonable under the circumstances. The court analyzes whether that level of help, in contrast to the actual (allegedly deficient) level, would have turned up different facts or led to different arguments, defenses, and so on, and whether those facts, arguments, etc. would have produced a different legal result. *See, e.g.*, Union Planters Bank, N.A. v. Thompson Coburn LLP, 935 N.E.2d 998, 1022 (Ill. App. Ct. 2010) ("[I]n malpractice cases based upon the attorney's conduct during litigation, i.e., the prosecution or defense of a prior claim, a plaintiff must generally prove a case-within-a-case to establish proximate cause.").

152. Jackson Jordan v. Leydig, 633 N.E.2d 627 (Ill. 1994) (insinuating malpractice for negligent search that failed to overturn a patent the plaintiff/client (Jackson Jordan) was later adjudged to have infringed); *see* Jackson Jordan, Inc. v. Plasser Am. Corp., No. 86-1118, 1987 WL 37460, at *1 (Fed. Cir. Apr. 23, 1987) (affirming trial court finding that Jackson Jordan infringed).

153. *Jackson Jordan*, 633 N.E.2d at 628.

154. *Id.*

155. Plasser Am. Corp. v. Canron, Inc., 546 F. Supp. 589, 592 (D.S.C. 1980).

156. *Railway Patents Invented by Franz Plasser, Assigned to Plasser Bahnbaumasch Franz*, GOOGLE PATENTS, https://patents.google.com/?q=railway&inventor=Franz+Plasser&assignee=Plasser+Bahnbaumasch+Franz (last visited Nov. 22, 2024).

157. *Railway Patents Invented by Franz Plasser, 1954–1968*, GOOGLE PATENTS, https://patents.google.com/?q=(railway)&inventor=Franz+Plasser&before=priority:19680101&after=priority:19540101&oq=(railway)+inventor:(Franz+Plasser)+before:priority:19680101+after:priority:19540101 (last visited Nov. 22, 2024).

158. *Patents Assigned to Plasser Bahnbaumasch Franz, Before 1973*, GOOGLE PATENTS, https://patents.google.com/?assignee=Plasser+Bahnbaumasch+Franz&before=priority:19730101 (last visited Nov. 22, 2024).

159. *Jackson Jordan*, 633 N.E.2d at 628.

to Jackson Jordan as part of a routine keeping-up-with-the-industry service the Leydig Voigt firm provided.[160] Yet this key patent was excluded from the 1973 search,[161] which led to the introduction of an infringing machine that was quickly targeted for infringement by Plasser.[162] Jackson Jordan was indeed found to have infringed the key Plasser patent.[163] As a result, Leydig Voit found itself on the receiving end of a malpractice suit by Jackson Jordan[164]—a suit that led to compensation for the patent infringement damages Jackson Jordan had paid to Plasser on account of the Leydig firm's negligent search.[165]

Another case involving a long-established patent firm reinforces the point that reasonable patent searching often yields reliable notice. In April of 1998, a small biotechnology company called Kairos Scientific filed a United States patent application covering a promising technology for rapid screening of chemical enzymes.[166] Enzymes speed up chemical reactions, and are used in a wide swath of industries, from food and plastics to life sciences and petroleum refining.[167] Kairos used a unique tagging technique to test many minor variants of enzymes with a common structure, achieving a giant increase in testing speed.[168] Unfortunately, though Kairos used an old and experienced patent firm, Fish and Richardson, for the work, the partner working for Kairos missed the filing deadline for Kairos' international patent rights;[169] all overseas patent rights were lost.[170] At trial, multiple experts testified on whether, if Kairos had filed on time, any prior patents or technical literature would have barred Kairos

160. *Id.*

161. *Id.*

162. *Id.* at 629.

163. *Id.*

164. *Id.*

165. As sometimes happens in these cases, Jackson Jordan responded by building up its own patent portfolio for future battles. *See, e.g.*, U.S. Patent No. 4,452,146 (filed Jan. 26, 1982) (issued June 5, 1984). Nine more patents were issued to Jackson Jordan between 1984 and 1994. *Patents Assigned to Jordan Jackson, Inc., 1984–1994*, GOOGLE PATENTS, https://patents.google.com/?assignee=Jordan+Jackson&before=priority:19940101&after=priority:19840101 (last visited Nov. 22, 2024). Jordan Jackson's successor Harsco Rail appears to have an active R&D program as well, having received 94 rail and track-related patents between 1994 and 2023. *See Rail and Track Patents Assigned to Harsco Corporation, 1994–2023*, GOOGLE PATENTS, https://patents.google.com/?q=(rail+and+track)&assignee=Harsco+Corporation&before=priority:20230101&after=priority:19940101 (last visited Nov. 22, 2024).

166. Kairos Sci. Inc. v. Fish & Richardson P.C., Nos. A107085, A107486, 2006 WL 171921, at *1–2 (Cal. Ct. App. Jan. 24, 2006).

167. *Id.* at *1.

168. *See* U.S. Patent No. 5,914,245 (filed Apr. 20, 1998) (issued June 22, 1999). For background on the science, see generally Douglas C. Youvan, Ellen Goldman, Simon Delagrave & Mary M. Yang, *Digital Imaging Spectroscopy for Massively Parallel Screening of Mutants*, 246 METHODS IN ENZYMOLOGY 732 (1995).

169. *Kairos Sci. Inc.*, 2006 WL 171921, at *2.

170. *Id.*

from obtaining foreign patents.[171] The jury appeared to believe an expert witness who testified conclusively that a competent search just prior to filing would have revealed no relevant patents.[172] So with timely filing, the Kairos patent would have been valid—and valuable. The jury found that overseas licensing income from foreign patents that Fish and Richardson should have obtained (but failed to) would have been $30 million—which was the measure of Fish and Richardson's liability after appeal of the case.[173]

I am not suggesting that a few cases prove that notice failure is never a problem in patent law. I point out only that notice failure is not omnipresent and, at times, patent searches can be reliable and predictable. The actual difficulty of a particular search depends on the specific field, in part because some fields like software are rife with patents claiming various elements using open-ended language. Vague and semi-abstract claim language can be read to cover many software features. Combine this with the sheer number of software-related patents in circulation and one gets a recipe for notice failure. Patents in the chemical and pharmaceutical field, on the other hand, can be reliably searched. Sophisticated software allows patent searching by chemical structure, which eliminates the risk that patents are missed because they use different nomenclatures. Many fields fall in between. In the malpractice cases reviewed here, courts found, with expert help, that searches in the railroad equipment and biotechnology industries would yield predictably effective results.

---

171. IP-related malpractice cases almost always require extensive expert testimony to help the judge and the jury understand what professional "due care" was in the defendant's situation. *See id.* at *7; Carabotta v. Mitchell, No. 79165, 2002 WL 42948, at *5 (Ohio Ct. App. Jan. 10, 2002) ("The trial court concedes that the parties' expert witnesses, Raymond Weber and Christopher Fagan, are both exceptionally well qualified in the field of intellectual property[:] 'This case, therefore, became a battle between two qualified experts in the field of patent law. Raymond Weber testified that Mitchell fell below the standard of care because he failed to find and identify the 366 patent as one that posed a risk to manufacture, although it was easy to find. Christopher Fagan, testifying for Mitchell, did not deal with Mitchell's failure to carry out a reasonable search, but took the position that finding the 366 patent would not have mattered since [the] umbrella . . . [manufactured by the client who commissioned the patent search] did not infringe it, even though that is the patent under which the [the competitor, owner of the 366 patent, says its own] umbrella is still being produced.'"). If patent infringement was based on fault instead of strict liability, this type of testimony would be required in many, if not most, cases given the inherent searchability of patents and the difficulty of assessing whether an adequate search would have identified a specific patent that was later infringed.

172. *Kairos Sci. Inc.*, 2006 WL 171921, at *7 ("Several witnesses testified that the [international Patent Cooperation Treaty (PCT)] application would have been granted because there was no disqualifying prior art. F&R's [Fish and Richardson's] expert patent attorney testified at his deposition that the PCT examiner's examples of possible prior art were not invalidating prior art. Doctor Alexander M. Klibanov, a professor at M.I.T. who teaches courses in chemistry, biochemistry, and enzyme technology, testified there was no disqualifying prior art and the PCT application would have been granted. Accordingly, substantial evidence supported the finding that, but for F&R's failure to file a timely PCT application, Kairos would have received foreign patent rights.").

173. *See id.* at *1 ("The trial court rejected F&R's contention, and found its negligence resulted in approximately $30 million in damages and costs to Kairo."). The California Court of Appeal affirmed, with a slight offset. *Id.* at *17.

What about cases where a reasonable searcher honestly overlooked a patent and was later found to have infringed it? SCJ seems to cry out against automatic liability in such a case. According to SCJ, where there is no fault, there is no liability. But just as in the case of defendants with below-average risk assessment and avoidance skills, liability may still attach for infringers who did their due diligence. If the patent searcher falls below community-set standards, the reason might be that it is difficult to search the field in question with accuracy. This means infringers may be, from their perspective, without blame.

Yet tort law might still assign liability the same reason it assigns liability in the case of the defendant with below-average risk assessment skills. It would be quite unfair for the plaintiff's recovery to turn on specific features of the defendant when the plaintiff cannot know the identity and characteristics of all people who might harm them in the course of some activity. There is no alternative: reasonable care refers to the level of care that prevents harm when interacting with the average person.[174] Just because that care fails to prevent harm in a specific case does not mean it was not reasonable. The same is true for patent searches. The fact that a patent search is especially tricky, and thus more prone to error, is surely rarely the fault of the patent owner. One might try, in vain, to find all relevant patents, and in so doing escape real moral blame for any subsequent infringement. Even so, if infringement does occur, liability will follow. Inadequate search instrumentalities might relieve one of moral blame (at the deep individual level) yet still result in legal liability.

My point: if patent boundaries are very often simply not discernable, if there is true "notice failure," then it would be quite common for a patent practitioner to overlook a relevant patent. At the limit, one would expect that a firm entering a new market would skip the patent search as a waste of money. This is said to be common for firms selling very complex products with thousands of components, such as mobile phones and ecommerce software platforms.[175] Despite this, in some fields at least FTO studies are common. For startups in biotechnology, medical instruments, and other life science-related industries, early stage investors (venture capital firms, "angel" investors, and so on) often require some type of FTO analysis.[176] But these FTOs show the

174. DAGAN & DORFMAN, *supra* note 71, at 92 (explaining why an "objective" standard that ignores a defendant's particularities is required by SCJ under its formal equality principle; objective of course means average in this context).

175. Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 21 (2008) ("[C]ompanies in component industries [semiconductors, telecommunications, and software] simply ignore patents. Virtually everyone does it.").

176. Alice Armitage, Evan Frondort, Christopher Williams & Robin Feldman, *Startups and Unmet Legal Needs*, 2016 UTAH L. REV. 575, 578 (2016) ("[F]reedom-to-operate analyses. . . . [I]nvolve[] the extensive review of existing patents to identify a safe pathway for product development and to narrow the possibility of patent infringement liability. These analyses are expensive and time-consuming, but they are also critical for biotech companies looking to attract investment.").

opposite: patents that can, with reasonable diligence, be located and analyzed. There is no reason to think that malpractice cases are somehow skewed to certain cases (uniquely easy-to-identify patents, for example). So we can conclude that these cases support the notion that some, perhaps many, patents are discoverable with a reasonable search. This supports the case for strict liability. Or, at any rate, it undercuts the idea that there is no way to prevent infringement.

c. Notice Appears Effective for Direct Competitors

When an accused infringer and patent owner are direct competitors, patent notice is on average, effective.[177] In many industries, monitoring the patents of well-known competitors is routine.[178] As well as company engineers know the details of competitor products, so do the company's patent lawyers know the details of the competitor's patent portfolios. This only makes sense. Patents often protect novel product features—the type of unique features that add to a company's profit margins. Rival patents can also thwart a company's research and development ("R&D") investments, or even result in costly product redesigns. For common sense reasons, competitors can expect to monitor each other's patents, making patent searches predictable. And if searching is this reliable, any company that infringes another's patent is presumably at fault. Infringement is something akin to *res ipsa loquitor*, a form of per se proof of fault.[179] Since anyone can avoid infringement with due care, by searching patents, infringement can only result from failure to perform a reasonable search—for example, negligence.

B. ELEMENTS OF PER SE NEGLIGENCE IN PATENT CASES

The public searchability of patents means that infringers have constructive notice (or, sometimes, theoretical notice) of all extant patents. Searchability—again, perhaps sometimes just in theory—does more than invite analogies to real property trespass. Searchability also changes the fault calculus. If patents are on average reasonably discoverable with a diligent expert search, infringement could fairly be taken as proof of per se negligence.[180] Under this approach, the

177. *See, e.g.*, Goodyear Dental Vulcanite Co. v. White, 10 F. Cas. 752, 752 (C.C.S.D.N.Y. 1879) (referring to plaintiff's "exclusive possession" of the patented invention and defendant's "well knowing the premises" in his breach of the boundaries of the patent right).

178. *See supra* notes 140–146 and accompanying text.

179. One astute commentator has observed that neither the patent statute nor case law spoke of patent infringement and "strict liability" prior to the 1990s, and that this label is poorly suited to actual patent infringement doctrine. *See* Oswald, *supra* note 35, at 993–94.

180. In the real property context, title and boundary records are highly accurate, largely through the efforts of title insurance companies which obviously benefit from accurate records. *See supra* note 132 and accompanying text. Negligence does occur, but it is fairly apparent when it does so. *See, e.g.*, Arizona Title Ins.

statutory definition of infringement, which omits and mention of fault or culpability, must be read in conjunction with the statutory requirement that patents be available to the public. Patents must be publicly available both eighteen months after filing published patent applications and, of course, upon issuance.

The patent infringement example, along with the cases described just below, expose the blurry and indeterminate line between strict liability and negligence, particularly where circumstances constitute negligence per se. Like *res ipsa loquitor*, certain facts speak for themselves, and what they speak of is fault. It is worth a detour through some tort cases with these features. The purpose is to look for similarities between these cases and actions for patent infringement. Are their conditions analogous to the public searchability of patents which tend to establish negligence per se? Let us see.

1. Notice and Warnings to Experts

a. The Maritime Captain Analogy

Title records and the like can be thought of as warnings to the public: this parcel is owned by person X, avoid or treat with X to proceed upon it. Viewed as warnings, title records are directed at expert title searchers, and those experts are held to a very high standard in locating and interpreting the records. If we generalize a bit from the particulars, we might say the title notice cases combine (1) a warning aimed at experts, and (2) a presumption that the one receiving the warning has a high level of expertise. One set of tort cases that share these features with patent infringement is maritime collision cases.

In reading collision cases, one gets the impression that the legal presumptions amount at times to something very close to strict liability.[181] Cases imposing liability where a ship lacked a human lookout and collided with another ship exemplify the point. Even in a ship equipped with radar, the captain is expected to post a look-out. Failure to do so, or even failure to see another ship ahead of a collision, will constitute something close to per se negligence.[182]

& Tr. Co. v. Smith, 519 P.2d 860, 861 (Ariz. Ct. App. 1974) (awarding plaintiff property buyer Smith the cost of a ten year old government assessment placed on a property Smith purchased: "The title insurance policy [issued to plaintiff property buyer by defendant company] failed to list [the assessment] as excluded from coverage under the policy. The employee of the company who conducted the title search admitted that the assessment was properly recorded [on the public registry] and that the failure to list it was his error").

181. *Cf.* Robert P. McCleskey, Jr. & Jeremy A. Herschaft, *Unique Features of Maritime Collision Law*, 79 TUL. L. REV. 1403, 1414–15 (2005) ("There are numerous causative and fault-based presumptions that may apply in maritime collision cases, and these proof-shifting presumptions may affect the outcome of such litigation." (citing THOMAS J. SCHOENBAUM, ADMIRALTY AND MARITIME LAW 773 (3d ed. 2001)).

182. The Anna Salen (1954) 1 Lloyd's List LR 475, 488 ("[S]cientific installations, and particularly radar, are potentially most valuable instruments for increasing safety at sea; but they only remain valuable if they are

Avoiding a smaller vessel, especially under difficult conditions (at night; in a fog), may in fact require enormous skill. But this very high level of competence is simply assumed to go with the job. Intense *vigilance* is required too. So, a captain whose supply/troop transport ship had radar, and who allowed the crewmember serving as lookout in the ship's bow to go below for some coffee, was held liable for striking and sinking a fishing trawler.[183]

Consider cases on ships that pass closely. Courts recognize that the strong hydrodynamic forces of two very large vessels passing close cannot practically be eliminated.[184] Yet the vessel pulled off course by sheer forces is presumed to be at fault in any resulting collision.[185] The Supreme Court applied the sheering ship presumption in *The Steamer New Philadelphia* (1861).[186] It is worth noting the Court's language and rationale:

> [T]he collision was caused by a sheer of the steamer. Sheer, in nautical meaning, is a deviation from the line of the course in which a vessel should be steered, and though it may occur from causes unpreventable by the most skillful seamanship, *it more frequently happens from an unsteady helmsman*; and the latter was the fact in this instance, probably produced by the person then at the helm not being watchful enough of the state of the tide . . . .[187]

The point of the rule is that large oceangoing vessels must at all times be operated by a "steady helmsman."[188] The circumstances at sea demand the highest level of care. Ship captains are expected to use extreme caution, so much so that even where plausible alternative causes are involved, when a ship collides with another or with a fixed object, courts stretch to affix liability on the colliding ship. The collision of course only raises a presumption against the colliding ship, and rebuttal is possible. But, in practice, as one court said, "the burden of rebutting the presumption of negligence by showing an unavoidable accident is a heavy one to bear."[189]

---

intelligently used, and if officers responsible for working them work them and interpret them with intelligence. That is only another way, I think, of saying a good lookout must be maintained. A good lookout involves not only a visual lookout, and not only the use of the ears, but also involves the intelligent interpretations of the data received by way of these scientific instruments.").

183. Wood v. United States, 125 F. Supp. 42, 52 (S.D.N.Y. 1954) (discussing when the Wilson Victory, a combination cargo and troop ship, collided with and sank the fishing trawler Bucanteur in a heavy fog in the North Atlantic; the radar on the Wilson Victory was in operation at the time but had not detected the trawler; captain found negligent in collision).

184. *See* McCleskey & Herschaft, *supra* note 181, at 1416 ("Given the environment in which vessels ply their trade, they are often subjected to hydrodynamically induced forces that occur 'from causes unpreventable by the most skillful seamanship.'" (quoting Atkins v. Lorentzen, 328 F.2d 66, 68 (5th Cir. 1964)).

185. *Atkins*, 328 F.2d at 68–69 ("A sheer by one vessel into another resulting in collision raises a presumption of negligence on the part of the sheering vessel.").

186. 66 U.S. 62, 74 (1861).

187. *Id.* (emphasis added).

188. *Id.*

189. *Atkins*, 328 F.2d at 70.

The same general spirit seems to inform Judge Learned Hand's much-studied opinion in *The T.J. Hooper*,[190] which strikingly rejects the normal rule that one must only abide by the average level of care in a given field to avoid liability.[191] For Hand, in the maritime context, that standard was insufficient.[192] In this case, two boats should have been taken to deeper water, but were not because of the missed storm warning.[193] The boats collided during the storm, and the owners were sued.[194] Hand rejected the defense made by a ship captain that a wide majority of the local shipping community had not yet installed ship-to-shore radios, which would have prevented the collision at issue.[195] In doctrinal terms, Hand held that two tugboats were unseaworthy, and so their owner was liable.[196] He reasoned that the owner was liable due to the fact that neither boat was equipped with radio, which caused them to miss the storm warning transmitted from shore to ships.[197] Hand noted the importance of evidence of "custom" in assessing due care, but rejected its use in this case.[198] In the words of the court, "a whole calling may have unduly lagged in the adoption of new and available devices. It never may set its own tests, however persuasive be its usages. Courts must in the end say what is required; there are precautions so imperative that even their universal disregard will not excuse their omission."[199]

190. 60 F.2d 737, 740 (2d Cir. 1932).

191. *Id.*; Christopher Brett Jaeger, *The Empirical Reasonable Person*, 72 ALA. L. REV. 887, 931–32 (2021) ("[Controlled experimental studies show that] laypeople understand the reasonable person standard in more empirical terms than economic terms (if they understand the standard in economic terms at all). Across all four experiments, empirical considerations (i.e., information about how others would act under the relevant circumstances) affected participants' negligence ratings and verdicts. The effects were not small; they were most strikingly reflected in participants' binary negligence verdicts. Across all studies, participants who were told that 90% of people in the defendants' position would have avoided injuring the plaintiff found the defendant negligent 77.3% of the time. Participants who were told that 10% of people would have avoided injuring the plaintiff, on the other hand, found the defendant negligent only 50.5% of the time. Thus, shifting only the one piece of empirical information made a 27 percentage-point difference in the likelihood that the participant would find the defendant negligent." (footnotes omitted)); *see also* Kevin P. Tobia, *How People Judge What Is Reasonable*, 70 ALA. L. REV. 293, 300, 333 (2018) (reviewing multiple controlled experiments showing that people judge "reasonableness" in terms of both statistical averages and prescriptive (right/wrong) judgements: "Rather than defining reasonableness as a purely statistical or purely prescriptive standard, they each define reasonableness with respect to *both* statistical and prescriptive considerations").

192. *The T.J. Hooper*, 60 F.2d at 740.

193. *Id.* at 737.

194. *Id.*

195. *Id.* at 739.

196. *Id.* at 740.

197. *Id.*

198. *Id.*

199. *Id.*; *see also* Jaeger, *supra* note 191, at 901 ("There may be many situations in which average conduct falls short of what we, as a society, wish to incentivize through tort law." (footnote omitted)).

C. CRITIQUES FROM PRIVATE LAW: CATCHING UP TO THE FAULT REVOLUTION

The strict liability regime for IP rights has received its share of criticism. The most common complaint is that it is extremely unfair for an infringer who has independently, with no assistance from or even knowledge of the patent owner, developed some technology which happens to fall within the wording of one or more of the patent owner's claims.[200] But while arguments over the "independent invention" defense are couched most typically in efficiency terms,[201] a newer generation of scholars has taken aim at what they say is the basic unfairness of strict liability. For them, an accused infringer has no less a claim to fair treatment than anyone accused of committing tortious wrong does. And just as private law theory has prevailed almost everywhere in convincing legislatures and courts that tort liability should be grounded in fault, these scholars argue that the same principles should be applied in patent law. If they have their way, goodbye strict liability.

III. TWO (AND A HALF) PRIVATE LAW-BASED DEFENSES OF STRICT LIABILITY

I mentioned earlier two varieties of private law, strict corrective justice (SCJ) and its broader, more inclusive cousin, Relational Justice. After a brief introduction to each, I defend strict liability under both.

The recent literature on IP rights and strict liability is just one part of the revival of private law in U.S. legal scholarship. [202] Three trends converged in

---

200. *See* Stephen M. Maurer & Suzanne Scotchmer, *The Independent Invention Defence in Intellectual Property*, 69 ECONOMICA 535, 535 (2002); Carl Shapiro, *Prior User Rights*, 96 AM. ECON. REV. 92, 92 (2006); Oskar Liivak, *Rethinking the Concept of Exclusion in Patent Law*, 98 GEO. L.J. 1643, 1646 (2010); Samson Vermont, *Independent Invention as a Defense to Patent Infringement*, 105 MICH. L. REV. 475, 478–79 (2006).

201. Before 2010 or so the most common argument against independent invention, and thus in favor of traditional strict liability, sounded in efficiency: independent invention might undermine incentives to invent. *See* Mark A. Lemley, *Should Patent Infringement Require Proof of Copying?*, 105 MICH. L. REV. 1525, 1532 (2007) (identifying the primary concern with the independent invention defense as a potential reduction in incentives to invent; proposing alternatives, including prior user rights; making independent invention a defense to willful infringement; and making third party independent invention a secondary consideration weighing against nonobviousness); John F. Duffy, *Inventing Invention: A Case Study of Legal Innovation*, 86 TEX. L. REV. 1, 9 (2007) ("A narrow right that allows for independent creation and protects only the precise details of a particular embodiment of the invention is unlikely to give sufficient protection, as a practical matter, to encourage the type of investments and work that society wants to encourage."); Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465, 528–29 (2004) ("[A]n independent creation privilege in patent law would too drastically reduce incentives to create."). From the practitioner viewpoint, the wrongness of an independent invention is self-evident. *See also* Roger Milgrim, *An Independent Invention Defense to Patent Infringement: The Academy Talking to Itself: Should Anyone Listen?*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 296, 296–97 (2008) (suggesting that academic proposals for an independent invention defense are in need of "adult supervision").

202. Private law interest in American legal scholarship has resurged in recent years, but on the European continent, and in the Asian legal systems influenced by Europeans, there was no resurgence because interest

recent years to drive this revival: (1) the rise of an updated form of "internalist" theorizing, which, as in the past, sees law as a coherent and self-contained system of thought, and which is characteristic of classic continental private law theory;[203] (2) the emergence of a new strain of property theory that emphasizes the functional advantages and limits of individual ownership, centering on themes such as lowering information costs (for example, find the owner or a resource, and bargain for whatever use you wish to make of it), "modularity" (fitting together resources owned by separate owners), and private ordering generally;[204] and (3) trends in continental private law theory, which in the past was resistant to "external" theories of law (such as law and economics), but which in recent years has moved toward a methodological pluralism more amenable to American-trained scholars.[205]

My contribution to this trend is to apply several well-known branches of private law theory to the problem of strict liability in patent law. I start with Strict Corrective Justice, or SCJ.

A. STRICT CORRECTIVE JUSTICE AND PATENT INFRINGEMENT LIABILITY

Strict liability is generally anathema to SCJ theorists. For them, liability without fault violates basic moral principles, as explained by Patrick Goold in the copyright context:

> [T]he strict liability standard is not fair because it results in copyright users being held liable for accidents [i.e., infringements] for which they are not morally responsible. Using the moral philosophy literature on responsibility, this Article explores our intuitions surrounding copyright's liability standard in order to better understand why strict liability in this context seems "harsh" and "inequitable." In turn, this provides an argument for reforming copyright's liability rule and adopting a negligence standard.[206]

Powerful point. To counter it, I look to other areas of tort law that have some similarities to the patent context. Patents are public documents, open to

never waned in the first place. On U.S. resurgence, *see* Goldberg, *supra* note 75, at 1658. For continuity in the continental tradition, see GRUNDMANN ET AL., *supra* note 75, at 60.

203. *See* WEINRIB, *supra* note 100, at 11–12 (internalist view of private law emphasizes "features salient in legal experience," such as doctrines, rules, etc., and that "understands those . . . features as they are understood from within the law," as opposed to understanding them as manifestations of some "extrinsic" or "functionalist" goal, such as social efficiency); *see generally* JOHN H. MERRYMAN, THE CIVIL LAW TRADITION (1969) (articulating the history and analysis of civil law tradition in continental Europe).

204. *See* Merrill & Smith, *supra* note 130, at 9; Smith, *supra* note 130 ("When O_1 owns Blackacre, the exclusion strategy for delineating her rights, implemented through devices like the tort of trespass, protects a range of actions $A_1, A_2, A_3, \ldots$, without the law's needing to specify these actions."). *See also supra* note 130 and accompanying text. On private ordering, see MERGES, *supra* note 4, at 13–14, 38.

205. GRUNDMANN ET AL., *supra* note 75, at ix.

206. Goold, *supra* note 52, at 123.

anyone to search out, read, and analyze.[207] Because the most important audience for any patent is the small group of expert competitors working in the same scientific or technical field,[208] we can compare them to other "notice to experts" cases such as the maritime collision cases described earlier.

As we saw[209] many of the collision cases are premised on negligence per se: even weak notice, where experts are involved, raises a strong presumption of negligence. In collision cases, experts are held to a high standard of care in both perceiving and responding to weak warning signals. I concede that in the case of patents, sometimes the "warning signals" are quite weak indeed—so notice failure is distinctly possible. Possible, but not ubiquitous. And where notice is effective, what looks like strict liability might better be described as a strong form of per se negligence. Liability attaches because the public availability and searchability of all patents gives constructive notice to all potential infringers. If infringement there is, then liability can attach because notice establishes that the infringer is per se negligent. Fault being required, in this form, means that patent infringement liability complies with the strict moral calculus required by SCJ theory.

B. CIVIL RECOURSE THEORY: TORT LAW AS EXPRESSION OF COMMUNITY NORMS

"Civil Recourse Theory," the brainchild of John C.P. Goldberg and Benjamin C. Zipursky ("G & Z"),[210] holds to the SCJ precept that the two-party dyad is at the heart of private law. But, partly because it is so centered on the content of legal rules and doctrines, Goldberg and Zipursky's recourse theory embraces a broader conception of what constitutes a civil "wrong." SCJ demands moral blameworthiness as a condition of liability. G & Z require for liability only that the defendant have committed a legally-defined wrong—a category that goes well beyond moral blameworthiness.[211] For G & Z, the

207. *Search for Patents*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/patents/search (last visited Nov. 22, 2024) (containing searchable databases for all patents ever issued).

208. The adequacy of an inventor's explanation of her invention is judged legally, but the "enablement standard" requires disclosure sufficient to inform one "skilled in the art" how to make and use the claimed invention. 35 U.S.C. § 112. On who reads patents and uses the information disclosed in them, see Lisa Larrimore Ouellette, *Do Patents Disclose Useful Information?*, 25 HARV. J.L. & TECH. 531, 533 (2012) ("[M]any researchers do use patents as a source of technical information . . . .").

209. *See supra* Subpart II.B.1.

210. For a full discussion, see GOLDBERG & ZIPURSKY, *supra* note 37, at 3. For an assessment and critique, see generally Catherine M. Sharkey, *Modern Tort Law: Preventing Harms, Not Recognizing Wrongs*, 134 HARV. L. REV. 1423 (2021) (reviewing GOLDBERG & ZIPURSKY *supra* note 37) (arguing that tort law's true and proper orientation is toward overall social welfare, not resolution of private party disputes a la Goldberg and Zipursky).

211. This brushes up against the age-old natural law vs. positive law debate. *See, e.g.*, Maureen E. Markey, *Natural Law, Positive Law, and Conflicting Social Norms in Harper Lee's to Kill A Mockingbird*,

naming of a wrong *as* a wrong, a harm subject to legal sanction, is all the culpability needed to justify legal recovery.[212] As G & Z say:

> Blame . . . and punishment are not essential to notions of wrongdoing. As tort law demonstrates, there are blameless, bloodless . . . wrongs. And there is accountability for wrongs that does not involve punishment or vengeance. Part of what makes tort law distinctive is that in many instances (though not all) it is concerned with humdrum failures or "misfires."[213]

As a result, according to G and Z, "[t]he concept of a wrong is . . . capacious and nuanced."[214] Ultimately a wrong is an offense or violation that calls out for an act of restoration, like an application of corrective justice. G and Z add: "Tort law is not about sanctioning individuals for their misconduct, but about empowering a person who has been wrongfully injured to demand redress from the wrongful injurer."[215]

G and Z note three major arguments against their central idea that tort law is about remedying wrongs: moral luck, strict liability, and the plaintiff-must-be-harmed-by-this-defendant principle. I address the first two.[216]

First, moral luck.[217] Consider two identical acts, equally wrong, one of which causes serious harm and the other of which—by pure luck—does not (the "moral luck" spoken of by philosophers). For example: There are two equally drunk drivers on the same road, one of which seriously damages a parked car, the other of which miraculously makes it home without doing so. G and Z disaggregate this hypothetical situation. They agree that both drivers violate the general duty, owed by all drivers, to drive sober and reasonably safely. So both might receive a fine, be required to take mandatory safety training, and so on. But G and Z note that the driver who strikes a parked car does in fact violate a separate and distinct duty: the duty not to strike parked cars while driving. There is no offense in tort law (as there is in criminal law) for "attempted violation of

---

32 N.C. Cent. L. Rev. 162 (2010). Although some SCJ theorists do espouse natural law as the foundation of their thinking, one need not engage that debate to accept Goldberg and Zipursky's broader definition of a "wrong." Community-defined norms can as easily emerge from natural law as from plain common law reasoning or statutory codifications. The community element is merely a societally-based measure of whether one has suffered a harm that needs correcting.

212. GOLDBERG & ZIPURSKY, *supra* note 37, at 206.

213. *Id.*

214. *Id.* at 183.

215. *Id.* at 189.

216. Goldberg and Zipursky call this the "improper plaintiff" problem in tort law. *Id.* at 198. It is illustrated they say by the canonical case of *Palsgraff v. Long Island Railroad*, 248 N.Y. 339 (1928). *Id.* Though the case is usually cited for the proposition that an unforeseeable defendant, harmed by a negligent act directed against someone else (a non-party to the case), cannot recover for the plaintiff's negligence, Goldberg and Zipursky describe it instead as a case about the "substantive standing" of the defendant who suffered harm. *Id.* at 201. This defendant is not the kind of victim tort law is meant to compensate, so the wrong here falls outside the conceptual jurisdiction or boundaries of tort law. *See id.* at 200. Try as I might I do not quite catch the difference.

217. *Id*. at 183–88.

a duty" in part because the structure of tort law requires an actual victim to form the reciprocal justice-promoting dyad of tortfeasor-victim. All car owners on the first driver's route home may have been at risk, with the integrity of their parked cars under threat. Until the threat is actualized, however, there is no actionable harm in tort. But once a parked car is hit and damaged, an actual harm, in violation of an actionable duty, has taken place.[218] The person that caused the harm has committed an actionable wrong. And the person who suffers this harm – the owner of the damaged parked car—can invoke tort law to restore them to their condition prior to the wrong. The actualized harm becomes an actionable wrong.

For G and Z, it's the violation of a distinct duty that separates the two cases. This observation allows them to counter arguments based on "moral luck." The second attack on G and Z's "torts as wrongs" principle centers on strict liability, which makes it most germane for present purposes. The strict liability objection tracks arguments such as Patrick Goold's that strict liability deviates fatally from tort law's modern conceptual core: the requirement that liability be rooted in fault.[219] Liability without fault—strict liability—breaks the tight conceptual chain connecting fault, wrongdoing, liability, and compensation.

G and Z respond—in a way most helpful for my purposes—that modern tort law is actually shot through with unnoticed instances of strict liability, including in the supposed bastion of fault-based liability, the law of negligence.[220] The key to the G and Z argument is to notice that tort law in practice often assigns liability without taking into account the particular defendant's capacities, perceptive abilities, and physical characteristics.[221] Tort standards are objective, rooted in community norms of reasonable risks and

---

218. *See id*. at 186 (using an example originally imagined by another scholar—involving two drunk drivers, one of whom hits a motorcyclist—illustrates the same point).

219. *Id*. at 189.

220. *Id.* at 190 ("[M]ost torts allow for a fair bit of strict liability.").

221. As Goldberg and Zipursky explain:

> A relatively inexperienced driver who rounds a corner clumsily, slides off the road, and causes an accident might be doing his best to drive carefully. That he was is beside the point so far as negligence law is concerned because the jury is asked to compare the defendant's conduct to that of a reasonably prudent person under the circumstances.

Id. at 189. If our inexperienced driver was doing the best they could, Goldberg and Zipursky say, a critic of wrong-based conceptions of tort might say the driver had not acted "wrongfully." *See id*. at 186. That the driver is nevertheless liable, the critic might say, only proves that not all torts are wrongs. Thus, the critic would conclude by saying that strict liability—liability without fault—is no less legitimate than a finding that the experienced driver was negligent. *Id*. Goldberg and Zipursky disagree. *Id*. at 187. They argue that the high standard applied to the inexperienced driver is a tough one to meet, and so is "strict" in that sense; but that this standard does require wrongfulness to some degree. *Id*. at 191. So Goldberg and Zipursky defend the proposition that torts are wrongs, though conceding that the law at times embraces a broad conception of wrong. *Id*. at 194. The inexperienced driver is liable for having acted wrongfully, even though with their experience that was a difficult standard for them to meet. *Id.* at 189–91.

average carefulness.[222] Under this standard, at times, an individual defendant whose only "wrong" is that they have poor hearing or eyesight, or who have lower than average response times when facing danger, will be liable for failing to exercise reasonable care. This is true even though, taking into account their idiosyncratic shortcomings, they acted as carefully as they were capable of in the relevant situation.

Aside from "ultrahazardous conditions", which they handle separately,[223] G & Z recite tort law's standard list of strict liability wrongs: property-based torts (trespass and nuisance), products liability, and battery. In each case, they say, strict liability can be seen as harsh or demanding (so, strict in the sense of tough), but always rooted in an identifiable duty. As G & Z put it, "[t]he form of strict liability that actually is pervasive in tort law—the one at work in . . . negligence, battery, and trespass to land" is one where "liability *does* hinge on the breach of a standard of conduct."[224] For example:

> When courts allow for the imposition of liability on an innocent or reasonable trespasser, they do not deem the quality of the defendant's conduct irrelevant to liability. Instead, they hold the defendant to a standard of conduct that is very demanding. In these cases, liability is strict in the sense of being imposed on *unforgiving terms*, not in the sense of being *unrelated to wrongdoing*. . . . [S]tandard torts are, in certain common applications, "strict liability wrongs."[225]

The wrongdoing that animates patent law, and that justifies the sometimes-burdensome weight of strict liability, is grounded in an extreme distaste for misappropriation. Technological communities that foster invention and innovation value original contributions.[226] Strict liability means anyone

---

222. Master torts scholar William Prosser defined "fault" as "no more than a departure from the conduct required of a [person] by society for the protection of others, and *it is the public and social interest which determines what is required*." Oswald, *supra* note 35, at 1006 (emphasis added) (quoting WILLIAM L. PROSSER, HANDBOOK OF THE LAW OF TORTS § 4, at 21 (1941)).

223. Goldberg and Zipursky treat ultrahazardous condition cases as a sort of implied-contract or zoning approval issue. *See* GOLDBERG & ZIPURSKY, *supra* note 37, at 190. In exchange for (implicitly) being allowed to use their land for activity widely known to be dangerous, land owners implicitly agree to indemnify anyone who is injured by the dangerous activity. *Id.* Goldberg and Zipursky only hint at a widely shared social norm, of protecting neighbors from foreseeable harm, in the background. *Id.* at 190–91. But without such a norm the quid pro quo Goldberg and Zipursky describe is a non sequitur.

224. *Id.* at 191.

225. *Id.* at 191–92. *See also id.* at 190 ("[M]ost torts allow for a fair bit of strict liability.").

226. *Cf.* Stephanie Plamondon Bair & Laura Pedraza-Fariña, *The Sociology and Psychology of Innovation: A Synthesis and Research Agenda for Intellectual Property Scholars*, 60 HOUS. L. REV. 261, 274 (2022) (speaking generally of "pro-innovation" norms in some technological communities). Bair and Padraza-Fariña state:

> From a sociological perspective . . . pro-innovation norms can be understood as a result of group cohesion. Cohesive communities, whose members share strong ties with each other and where

introducing a new product, or adding a new technology to an old one, owes a duty to avoid using any original technology developed and claimed by someone else. The duty is stringent ("strict" in the G & Z sense), because misappropriation is heavily disfavored in this community, even more than it is generally.[227] Incorporating another party's previously claimed technology, in the presence of constructive notice of all patents, violates the duty to scrupulously avoid any form of misappropriation.[228] When a defendant violates this stringent duty toward an inventor/patent owner, interparty justice demands that liability should follow.[229]

C. RELATIONAL JUSTICE AND STRICT LIABILITY

As I said earlier, the terrain of private law extends far beyond the tight ring of SCJ. Private law theorists such as Hanoch Dagan envision both a broader

---

"everyone is connected such that no one can escape the notice of others," facilitate the emergence of both strong sanctions for norm-breaking and high rewards for norm-following.

Id. (footnote omitted). On the composition of these communities, see Laura G. Pedraza-Fariña, *Patent Law and the Sociology of Innovation*, 2013 WIS. L. REV. 813, 839 (summarizing findings from the sociology of scientific expertise, in which individual experts inhabit social worlds that are "defined by a core set of activities: accepted practices, techniques, legitimate research goals, training procedures, and relationships among a cluster of practitioners").

227. *See* Bair & Pedraza-Fariña, *supra* note 226, at 281 (citing Gregory N. Mandel, *The Public Perception of Intellectual Property*, 66 FLA. L. REV. 261, 281 (2014)) ("[T]here are deep psychological underpinnings to human instincts about copying of others' ideas. As [Professor Gregory Mandel] has pointed out, psychology studies have shown that children as young as six level moral approbation at those who plagiarize others' work—a perception that persists in many cultures into adulthood."). *See also* Robert P. Merges, *Philosophical Foundations of IP Law: The Law and Economics Paradigm*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW 72, 90 (Ben Depoorter, Peter Menell & David Schwartz eds., 2019) ("[C]hildren also have a distinct reaction to plagiarism. In one article [from experimental psychology], the authors show that adults, older children (9–11 years old), and children from age 5 and up, all respond with negative moral judgments about plagiarism. Original creativity is more highly valued, and one who copies and claims credit is assessed negatively even by these very young children. The study authors found that only 3- and 4-year-old children fail to distinguish between original creators and plagiarists. As the authors conclude, 'by age 5 years old, children understand that others have ideas and dislike the copying of these ideas.'" (citing, as does Mandel, *supra*, Kristina R. Olson & Alex Shaw, *"No Fair, Copycat!": What Children's Response to Plagiarism Tells Us About Their Understanding of Ideas*, 14 DEVELOPMENTAL SCI. 431, 431 (2011))).

228. See *supra* Subpart II.A.1.a.

229. In the terms used by Goldberg and Zipursky, strict liability involves violation of a legally actionable duty. *See* GOLDBERG & ZIPURSKY, *supra* note 37, at 189–92. Just because the duty is broad and stringent does not mean it is not a duty. Therefore, they say, strict liability requires no special justification. *See id.* at 190. This is a helpful point, though there may be limits to it. Declaring Act X an actionable tort does create a duty to avoid Act X. But unless Act X involves at least some element of fault, merely declaring Act X to be actionable might not be a fair basis of liability. If a municipality declares an overcrowding fine on all cars entering the city center after 100,000 cars have entered, those driving the 100,001st car (and subsequent cars) might fairly be said to be at fault if a running total of cars in city center is posted on all routes into the city, or if there is a rough but well-understood correlation between the time one arrives in city center and the total number of cars already there (e.g., the 100,000th car tends to arrive around 9:30 AM, so a fine becomes likely starting then). But if no running total is posted and the arrival of the 100,000th car is wildly unpredictable, it becomes more difficult to argue that the duty to avoid being the 100,001st car has to do with fault.

scope for private law and a much wider understanding of interparty fairness. As we have seen, Dagan and Dorfman, in their book on private law theory, call their approach Relational Justice (RJ).[230] Applying this more expansive branch of private law theory, it is easy to justify strict liability for patent infringement. To see why, start with the relational justice understanding of property.

Relational Justice views property as an important legal instrument for advancing individual self-determination, and hence autonomy. In their book *Relational Justice*, Hanoch Dagan and Avihay Dorfman speak of the important part property plays in encouraging what they call self-authorship:

> At their best, property and contract function as empowering devices for self-authorship. To see why, we need to briefly highlight private law's contribution to people's ability to plan and their ability to choose and thus act upon their own values and life plans. By allowing people to secure a temporally extended control of things, property facilitates people's ability to carry out meaningful projects—on their own or with the cooperation of others—and to pursue goals and objectives that typically require a temporal horizon of action. Similarly, by ensuring the reliability of contractual promises for future performance rather than merely protecting against promisees' detrimental reliance, contract enables people to extend their reach by legitimately enlisting others in their purposes and projects—both material and social.[231]

Seen this way, property is a protean tool capable of enabling a wide range of interpersonal arrangements.[232] Dagan and Dorfman again: "Property and contract law further multiply the alternatives from which people can choose by constituting a variety of stable frameworks of interpersonal cooperation when different property and contract types support divergent forms of interpersonal relationships."[233]

Dagan, writing with Samet, names autonomy-enhancement as the ultimate goal or aim (telos) of property as an institution:

> In a liberal order, property law is justified in vesting private authority in owners insofar as this is critical to people's self-determination, which the state is obligated to facilitate, and everyone must respect. Non-owners are justifiably subjected to the powers of property because people's foundational right of reciprocal respect for self-determination implies that these instruments

230. DAGAN & DORFMAN, *supra* note 71, at 37 (footnote omitted) ("A legitimate private law—let alone an appealing one—must not abdicate its responsibility for shaping the terms of [private party] interactions in compliance with the most fundamental humanist commitments. Private law should seek proactively to empower people's self determination. It should also construct these settings in compliance with the maxim that befits its embedded person, namely: reciprocal respect for self-determination and substantive equality, which we dub relational justice.").

231. *Id.* at 46.

232. *See generally* DAGAN, *supra* note 63 (discussing the justifications for property law and the core values it should advance).

233. DAGAN & DORFMAN, *supra* note 71, at 46.

> of self-determination deserve respect from others. This means, however, that the legitimacy of any given property system hangs on its performance as to property's autonomy-enhancing telos. A genuinely liberal property law proactively augments people's opportunities for both individual and collective self-determination, while carefully restricting their opportunities for interpersonal domination.[234]

These points align perfectly with many accounts of how patents work in the contemporary economy. Though patents have facilitated a wide range of private orderings over their centuries-long history,[235] and though they continue to serve big companies in various ways,[236] contemporary scholars emphasize that their greatest contribution is to facilitate new firm entry. A recent history of the field puts it this way:

> One consistent finding throughout history is that patents are associated with new firm entry and small firm survival. Indirectly, then, patents promote specialization and help small innovators protect margins and market share in markets with large firms. The enigmatic polymer that held such fascination for [chemist] W.L. Gore (PTFE, or Gore-Tex) was protected by a portfolio of patents, carving out a niche for Gore's small and specialized company after it spun out from behemoth Dupont Chemical. This in turn allowed the Gore family to experiment with a radically "flat" management structure designed to promote intra-company autonomy and equality. Their patent protected their ideas, and this protection made it possible for them to run their own company according to their own initiative, their own values. At their best, patents continue to encourage not just novel ideas, but novel companies and novel business models.[237]

Of all the functions patents serve, this one—protecting and promoting a novel technology by permitting a small firm to focus on it—comes closest to

---

234. Hanoch Dagan & Irit Samet, *Express Trust: The Dark Horse of the Liberal Property Regim*e, *in* PHILOSOPHICAL FOUNDATIONS OF THE LAW OF EXPRESS TRUSTS 139, 143 (Simone Degeling, Jessica Hudson & Irit Samet eds., 2023).

235. *See generally* MERGES, *supra* note 4 (describing patents and private rights as instruments of economic policy).

236. Large companies acquire sizeable patent portfolios, which protect profit margins and market share in product markets, supply bargaining chips for inter-firm arrangements based on patent holdings (e.g., patent pools and cross-licensing), and so on. *See* Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 31–32 (2005) (outlining a theory of patent value in which the worth of a patent portfolio is greater than the sum of its individual parts). Portions of large portfolios can also be sold off on the "secondary patent market", permitting a firm to earn some revenue when it decides to abandon a research project. *See* Robert P. Merges, *Patent Markets and Innovation in the Era of Big Platform Companies*, 35 BERKELEY TECH. L.J. 53, 67 (2020) ("[S]econdary markets for patents play an important role in firm flexibility and liquidity. This in turn enables quicker abandonment of failed innovation strategies and a quicker pivot to other, more fruitful projects. For outside investors, it represents a way to get hold of specific firm assets without penetrating and breaking up the firm; the 'going concern' value of the overall firm is preserved while particular assets are extracted and sold off.").

237. MERGES, *supra* note 4, at 495.

patent law's *telos*. Innovation is the essence of the field, and small firms could be described as innovation's darling. It is not that big-firm research is a barren enterprise; it is in fact a steady source of innovations.[238] It is instead that small firms and independent researchers (including university scientists) contribute a disproportionate share of "big leaps" – radical innovations that cause notable shifts in the technological horizon.[239] Nurturing a challenging new approach seems to be easier in a small team of dedicated researchers. Without patents, or a similar instrument to guard against opportunism and thus focus investment, a small firm with a good new idea would end up either acquired by a big firm (snuffing out its independence; reducing its founders' autonomy), or worse, an unpaid, involuntary contributor to the stock of industry knowledge.[240]

Many ideas require integration with larger systems (think e-commerce or mobile phone components). Others travel a long tortuous path from concept to marketable product—pharmaceuticals, to take one example. While ideas may best be born independent, it often takes cooperation and teamwork to fulfill their potential. Patents play a crucial role here as well; a sizeable recent literature shows how.[241] The crux is that patents protect not only the creation of new ideas, but also their *transfer*. After research, there comes development. Patents are essential if a small, specialist firm is to entrust its crown jewels to development by a bigger outside firm. When things work well, the transactional role of patents permits small, specialist firms to remain independent and do what they do best.[242] And so indirectly patents enable a diverse innovative ecosystem, populated by firms of different sizes and different core capabilities. Which makes patents, in my mind, an exemplar of the kind of flexible, option-multiplying legal instrument at the core of private law. As Dagan and Dorfman put it, "[p]roperty and contract law further multiply the alternatives from which

238. *See* Merges, *supra* note 236, at 81–84 (describing and citing studies finding that large firms that acquire other firms continue to perform research and some measures show improvement in research outputs for the acquired business unit).

239. *See id.* at 87 (citing empirical studies showing that "large firm acquisitions [of smaller, specialized firms] . . . reduce the chance for radical innovation").

240. On the economics of small, specialty firms, and particularly the role of patents in their profitability, see generally Ashish Arora & Robert P. Merges, *Specialized Supply Firms, Property Rights and Firm Boundaries*, 13 INDUS. & CORP. CHANGE 451 (2004).

241. Robert P. Merges, *A Transactional View of Property Rights*, 20 BERKELEY TECH. L.J. 1477 (2005); JONATHAN BARNETT, INNOVATORS, FIRMS, AND MARKETS: THE ORGANIZATIONAL LOGIC OF INTELLECTUAL PROPERTY (2021).

242. In some cases, the secondary market for patents might facilitate independence. Selling off the rights to a patented technology might enable a small firm to remain viable while it works on new variations or pivots to a new opportunity. *Cf.* Merges, *supra* note 236, at 59 ("To preserve a diverse ecosystem in the era of the Big Platform, technology markets are imperative. Only through an arm's-length transaction can a distinct, separate innovative company find an outlet for its new ideas. Only with many such small companies operating on their own can we avoid the inevitable problems of 'groupthink,' not invented here, and the other ills of bigness. Only through a market for technology can a small team of experts constitute themselves as a specialty supplier that remains independent of a large company—in other words, an autonomous economic unit.").

people can choose by constituting a variety of stable frameworks of interpersonal cooperation when different property and contract types support divergent forms of interpersonal relationships."[243]

It's worth noticing this emphasis on property as a basis of cooperation. So often, property carries the scent of exclusion, isolation, a cold and absolute dominion. But especially when it comes to new technologies, enforceable entitlements actually open up communication and invite cooperation.[244] It is easier and more rational to share one's crown jewel idea with others if one is protected from the risk of outright opportunism. Property does this. And, as economists and legal scholars have shown, the scope of disclosure is broader than the technical boundary of the property right. Patent licenses very often encourage disclosure and exchange of unpatented information—all the trade secrets, know-how, hacks, and idiosyncrasies associated with complex new technologies.[245]

In this fashion the property right—a patent—actually helps an innovator break through isolation and enter confidently into partnerships. The exclusive right forms the scaffolding for an inclusive, cooperative partnership. Far from fostering a cold, atomistic ethic, property helps people build trust:

> Healthy, successful technology transfer takes place when the parties learn to trust each other. There is good reason to believe that trust develops over time and that the more the principals get to know each other, the richer the technology exchange between them. There is a hard-edged realism about this, to be sure; where opportunism is possible, it only makes sense to develop trust in small increments. So it takes time. Copious scholarship backs this up: increased familiarity—repeated interactions, dealing with former colleagues, etc.—is uniformly associated with a greater likelihood of alliance formation, licensing deals, and successful outcomes.[246]

Patents fit right into Dagan and Dorfman's conception of private entitlements and interparty fairness. "[O]ne of the key animating concerns of relational justice," they say, "is the fact of interdependence."[247] Patents support self-determination, independence, and autonomy; and, in so doing, they paradoxically promote cooperation and interdependence.

---

243. DAGAN & DORFMAN, *supra* note 71, at 46.

244. On this, see Robert P. Merges, *A Transactional View of Property Rights*, 20 BERKELEY TECH. L.J. 1477, 1483 (2005).

245. *See* Ashish Arora, *Contracting for Tacit Knowledge: The Provision of Technical Services in Technology Licensing Contracts*, 50 J. DEV. ECON. 233, 246 (1996); ASHISH ARORA, ANDREA FOSFURI & ALFONSO GAMBARDELLA, MARKETS FOR TECHNOLOGY: THE ECONOMICS OF INNOVATION AND CORPORATE STRATEGY 117 (2001); Merges, *supra* note 3, at 341–356.

246. Merges, *supra* note 246, at 348–350 (footnotes omitted).

247. DAGAN & DORFMAN, *supra* note 71, at 75.

1. Patent Infringement and Relational Justice

In this, an Article about patent infringement, we need to understand not only the nature of the patent entitlement, but also the nature of liability for harm to the entitlement. So, back to the question of infringement. When a patent is put into play in an infringement suit, does the liability regime reflect respect for mutual self-determination and embody substantive equality?[248] Is it, in a word, consistent with the principles of relational justice?

There are two conventional accounts of the individual person in legal thinking about private law.[249] Strict Corrective Justice sees the individual as a moral and economic monad – an atomistic actor whose autonomy takes the form of a minimum of restrictions on their actions. Law and economics by contrast sees the individual actor—such as a party to a lawsuit—as a means to an end, with the end being pursuit of economic efficiency.

Proper outcomes under the first conception are found in the clean schematic logic of SCJ-type analysis. An efficient outcome under the second conception is whichever one best serves social welfare, making parties to a private suit mere "agents of the state."[250]

SCJ never permits an individual who did only a small wrong to bear an extreme penalty; individual fault and blameworthiness are what matter most. Corrective justice demands that individuals are dealt with always on the basis of individual culpability, individual responsibility. Far from being the agents of the state, the state is in fact their agent: the institutional means through which individual entitlements are protected in the course of interacting with other individuals. SCJ returns relentlessly to the question what did this defendant know, intend, see, and do; what harm did it cause this plaintiff; and how can the law restore the plaintiff (when wronged) to their pre-interaction baseline status.

For law and economics scholars, things are quite the other way around. A heavy punishment for the one out of a hundred violators of a law who is caught, is not just defensible; it is mandated. The only way to set proper incentives for future behavior is to offset future violators who would naturally discount the penalty by the chance they won't be caught. The one perpetrator unfortunate

248. These being the two foundational principles of relational justice. *See id.* at 4 ("[P]rivate law should, and to a significant degree already does, abide by the fundamental maxim of reciprocal respect for self-determination and substantive equality we refer to as relational justice."); *see also id.* at 45 (providing a detailed discussion of the two principles).

249. *Id.* at 27–30. See also their section entitled "Neither Executive Agents; Nor Dissociated Persons." *Id.* at 80–83.

250. DAGAN & DORFMAN, *supra* note 71, at 26 (describing the "executive agent" view of individual persons in private law, under which private parties serve only as individual opportunities to achieve the overall social welfare goal of the law, e.g., achieve economic efficiency); see also *id.* at 214 (critiquing the view that policies such as minimum wage laws turn employers into "agents of the state" in pursuing a "collective goal" of poverty alleviation).

enough to be caught must be turned into a cautionary tale if society is to achieve the optimal level of compliance built into the relevant legal penalty. This makes that single unfortunate into an agent of the state: an exemplar whose *individual* culpability is irrelevant but who can be turned into a paragon of *social utility* by paying the very high penalty required to promote optimal deterrence.

Relational Justice sets up camp midway between these two traditional alternatives. For Dagan and Dorfman, it is unrealistic to see people as isolated monads, and it is unfair to use the parties to a dyadic dispute merely as means to effectuate public policy ends.[251] The middle ground, which Dagan and Dorfman deem the "embedded person," avoids the extremism of the two traditional positions. An embedded person is part of a society, and law can justly require that some of the duties of citizenship be carried out in the context of a private dispute. The requires, self-evidently, an equality-enforcing norm of non-discrimination in economic matters on the basis of race, ethnicity, religion, etc. Beyond this, the law may ask for private parties to consider society as a whole in various ways even in private interactions, such as requiring a car dealer to check that a buyer has insurance coverage. Private law may even, consistent with Relational Justice, be required to serve distributional goals in some cases.

The concept of embedded actors, like much of Relational Justice theory, aptly captures important features of patent law. For present purposes it provides support for a defense of the rules governing liability in patent law. Relational Justice sees the embedded person as situated in a social practice or pattern of interactions. This context means that certain features of the injurer (the infringer) and the patent owner (the victim) are salient – in a way, again, distinct from the atomistic and autarkic individual at the heart of SCJ theory. For Dagan and Dorfman, individual characteristics and social context matter when it comes to assessing legal liability.

"Tort law's primary duties," Dagan and Dorfman write, "are the main building blocks that law uses to construct terms of involuntary interactions. The existence of these duties, their content, and their scope of application determine what is the right way for people to engage in these types of encounters."[252] Liability for patent infringement sets the terms for an encounter between patent owner and infringer. Current doctrine recognizes two important features of the owner-infringer dyad. First, the patent owner is an innovator: by the time a court turns to liability, it has determined that the patent in question is a worthy one. It has passed through the dozen or so requirements for a valid patent, at least twice and sometimes more.[253] The patent represents, as far as legal judgement can determine, a new and meritorious (or at least nontrivial) invention. And second,

251. *Id.* at 33–37 (defining and describing the "embedded person").

252. *Id.* at 73.

253. *See supra* notes 120–124 and accompanying text.

the infringer has at least general notice of the patent.[254] Not perfect notice; and sometimes not even actual notice. But constructive notice, "inquiry notice," is part of the patent system because patents are available and searchable. A party introducing a new technological product or feature is charged with a higher duty of inquiry notice than the average person because they are active in a market and it seems not unfair to charge them with awareness of technological developments in their product lines.

The "core mission" of negligence law, Dagan and Dorfman say, is "establishing the terms of interaction between potential injurers and victims," which "requires determining what qualities and circumstances of each party the other should accommodate."[255] To apply this formulation to the patent context, the most important "quality" of the plaintiff in an infringement suit is that they have produced a valuable invention. And the most important "circumstance" is that the plaintiff's proprietary idea wound up appearing in a product introduced on the market by the defendant.

At the core of the harm occasioned by patent infringement, then, is misappropriation of a valuable idea. A defendant that competes with an inventive plaintiff causes harm when it adopts an invention that by rights should be exclusive to the plaintiff. In this interaction, active competitors are, to use Dagan and Dorfman's terminology, "overskilled" defendants.[256] As those authors state: "In . . . [the] case [of] . . . an over-skilled defendant . . . [relational justice] requires that all else being equal, we should take the defendant's high competence into account."[257] In the context of accident law, this distinguishes Relational Justice from the traditional SCJ position, which is that formal equality of individuals requires that the law ignore idiosyncratic qualities such as the high competence of an overskilled defendant.[258]

---

254. *Cf.* Dagan & Samet, *supra* note 234, at 163 ("[T]he affirmative duties and burdens . . . impose[d] [by liberal property's requirement of relational justice] on owners and other property rights-holders are quite modest. One such category involves rules that require owners to take some responsibility for guiding non-owners in the fulfilment of their duty to respect the owners' property rights. The obligation to accommodate non-owners' self-determination justifies along these lines the doctrines of consent, mistake, and proprietary estoppel, as well as burdens arising from registration or recordation law. All these doctrines and rules prescribe modest responsibilities to give notice to non-owners in order to mitigate their possible mistakes while interacting—by way of physical entrance or through legal transactions—with owners' property rights.").

255. DAGAN & DORFMAN, *supra* note 71, at 77–78.

256. *Id.* at 79.

257. *Id.*

258. Dagan and Dorfman summarize the SCJ view thus: "The corrective justice commitment to formal equality is inconsistent with allowing these defendants' qualities (and infirmities) to have a bearing on determining the standard of reasonable care." *Id.* at 83. The reference to specific "infirmities" suggests that consistency would require SCJ advocates to abandon the law's traditional solicitude for the especially vulnerable defendant—the classic case of the "eggshell skull." *See, e.g.*, Steve P. Calandrillo & Dustin E. Buehler, *Eggshell Economics: A Revolutionary Approach to the Eggshell Plaintiff Rule*, 74 OHIO ST. L.J. 375, 375 (2013) ("[T]he

2. Ameliorating the Stringency of Strict Liability Elsewhere in Patent Doctrine

In the preceding pages I have tried to assemble the elements of a Relational Justice defense of strict liability in patent law. I have tried to build a case that the "terms of interaction" in the patent context include the presence of a significant, i.e., proven valid, invention. Beyond this, the parties have these "qualities and characteristics": on the part of the plaintiff and infringement victim, some form of notice regarding the patented invention, in the form of the public availability and searchability of the patent document; and, on the part of the defendant, knowledge that far exceeds the average person's as to the technical details of the defendant's products, details and features of other competitors' products, and the state of technological development in fields related to the defendant's business. This makes for defendants that are, in Dagan and Dorfman's term, "highly skilled." And it points directly to a legal requirement that industry competitors—potential patent infringement defendants—exercise a high duty of care toward the owners of meritorious patented inventions in their field.[259]

To summarize, patent infringement as seen from a relational justice perspective highlights these features of the parties and the context in which they are embedded:

- Recognition that a worthwhile (that is, proven not to be invalid) patented invention is at stake;
- Notice (even though often imperfect) of the patented invention in a public, searchable document; and
- Highly skilled defendants: companies whose products incorporate the patented technology, and who presumably keep tabs on the products and technologies sold by competitors.

a. Ameliorating Doctrines

Patent law includes other doctrines that effectively ameliorate the seeming unfairness of strict liability. These are: (1) rejection of strict liability, in favor of fault-based standards, when infringement is indirect rather than direct (see below); and (2) inclusion of fault-based factors in a variety of patent remedies, viz: (a) whether to grant an injunction, (b) whether to include a punitive (supra-

---

eggshell plaintiff rule, . . . holds tortfeasors liable for the full extent of the harm inflicted on vulnerable 'eggshell' victims. Liability attaches even when the victim's condition and the scope of her injuries were completely unforeseeable ex ante."). In fact, SCJ theorists have generally defended the "eggshell plaintiff" principle.

259. DAGAN & DORFMAN, *supra* note 71, at 79 ("Over-skilled defendants . . . are sometimes expected to make their precaution-taking commensurate with their own special skills and knowledge. Essentially, they are required to adjust their care level upward because of their unusual traits, their special knowledge, or their ability to reduce the risk to the plaintiff more effectively than most other defendants . . . .").

compensatory) component in patent damages (that is, whether infringement was "willful"), and (c) whether to force a losing plaintiff, whose legal position was simply insupportable or whose litigation tactics were reprehensible, to pay the defendant's attorney fees.[260]

Before I canvass these doctrines, I want to point out that this idea of one doctrine "ameliorating" the effects of others is active in private law and relational justice in particular. A good example comes from an article on the legal instrument of the trust, by Dagan and Samet ("D & S").[261] D&S defend the broad purpose of the trust, while suggesting ways to limit its use to stockpile multigenerational wealth, avoid taxes, etc. The trust serves a sort of residual role, according to D & S: it provides a home for unconventional ownership arrangements that do not fit comfortably in the other, more rigid, categories of property rights such as fee simple absolute, easement, and so on.[262]

D & S describe one disadvantage of a trust: a trust beneficiary can lose title to third parties more easily than the owners of other property interests.[263] Under the longstanding Good Faith Purchaser for Value (GFPV) rule, an innocent third party who pays for an asset held in trust will retain valid title even when it comes out that the sale violated the trust terms. This innocent transferee is known as "equity's darling";[264] they receive and hold better title than the trustee had actual power to grant.[265] The beneficiary's only recourse is against the trustee personally; title to the property, and any right to "trace" the proceeds of a re-sale of the asset, are both gone.

D & S give two reasons why the GFPV rule complies fully with the tenets of Relational Justice.[266] The primary reason tracks my argument, just above, regarding liability for patent infringement. Third parties are in no position to discover whether an asset is held in trust. So the GFPV rule in effect places the burden on the trust beneficiary to give notice regarding the entrusted status of an asset.[267] Patent infringement doctrine includes a similar element—the public

260. *See infra* notes 275–302 and accompanying text.

261. Dagan & Samet, *supra* note 234, at 155.

262. *Id.* at 140 (speaking of the "open-endedness" of the trust).

263. *Id.* at 161.

264. *Id.* at 161.

265. The GFPV rule is thus a rare exception to the fundamental tenet of "nemo dat", short for "nemo dat quod non habet", or "no one can give what they do not have." *Cf.* MUDDY WATERS, *You Can't Lose What You Ain't Never Had*, *on* MUDDY WATERS: FOLK SINGER (Chess Records 1964) ("You can't spend what you ain't got . . . .").

266. They say the trust enhances individual autonomy, a key goal of private law. See Dagan & Samet, *supra* note 234, at 140–41. In addition, they point out ways that trust law protects third parties by preventing abusive uses of the trust instrument. *See id.* at 141.

267. See Dagan & Samet, *supra* note 234, at 163. The passage quoted there continues:

notice provided when a patent applicant consents to the issuance of a patent. Having given this notice, the infringer, unlike the good faith purchaser who has no way to discover the existence of the trust, is rightfully charged with knowledge of the patent under the "strict" liability regime.

The secondary reason D&S defend the GFPV rule is that it is "offset" through the operation of related doctrines. The buyer of trust property who knows or should know that it is held in trust, or a buyer who gives nothing of value for the property, will be charged with a constructive trust over the property or the proceeds from its sale ("tracing"). This gives the beneficiary a superior claim as compared to the outright owner of an asset that is stolen ("converted"). If a thief sells the stolen asset the rightful owner has only a conversion cause of action against the thief. This is inferior to the beneficiary's remedy, which is based on the beneficiary's legal title to (that is, outright ownership of) the proceeds from the asset sale.[268]

b. Elements of Fault in Current Patent Liability Doctrine

As noted, strict liability has been challenged over the years; many have advocated for a defense protecting independent inventors.[269] The challenges by private law scholars such as Patrick Goold have only become sharper in recent years. Certainly the appeal of a negligence alternative is self-evident when an infringer is able to show convincingly that it learned nothing from the patent, the patented invention, nor the inventor: infringement for such a defendant carries the bitter gall of paying royalties for something it developed completely on its own. When independent invention is combined with infringement that is concocted or "engineered" through clever patent tactics, the unfairness reaches its apex[270] (which is why I argue for severe reduction or elimination of a remedy

---

> The equity's darling rule squarely falls within this category of [notice-related, third party-protecting] doctrines. If beneficiaries do not make known to third parties of their private arrangement with the legal owner (their trustee), they cannot externalise the costs of this arrangement on such third parties. Since they do not incur the burden of publicisation [i.e., giving notice re: trust encumbrance on the property], they justifiably bear both the risk and the potential cost of the possible 'conflict between innocents' that may come about [between an innocent third party purchaser and the innocent trust beneficiary bamboozled by the feckless trustee].

Id.

268. *See id.* at 162.

269. Independent invention would seem to be consistent with the "self-determination" principle of Relational Justice. *See* DAGAN & DORFMAN, *supra* note 71, at 46. Nevertheless, for all the reasons set out in this Article, I think strict liability is still the superior policy for achieving interparty fairness in patent lawsuits.

270. *See* Robert P. Merges, Two Patent-Related Harms, Two Remedies: Injury to Market and Uncompensated Input Use 16–19 (May 6, 2024) (unpublished manuscript) (on file at https://ssrn.com/abstract=4817822) (describing concept of patent encroachment); *id.* at 27–32 (describing "engineered encroachment" where patent owner intentionally manipulates claim boundary so as to include a competitors products within the zone of infringement).

for the worst cases of "engineered encroachment").[271] Although the harshness of strict liability is alleviated in cases where an infringer can prove "prior commercial use,"[272] the technical requirements of the prior commercial use defense limit how much it softens the blow.[273]

Yet strict liability is just one part of a complex web of rules that work together to create the patent liability regime. The core doctrine in patent law, as with the GFPV rule, puts a sometimes-harsh burden on one party—trust beneficiary and patent infringer—but softens the blow with adjacent rules. In trust law a beneficiary can lose their property without doing anything wrong; and in patent law, infringement requires only that the defendant did one of the prohibited acts (make, use, sell) on a thing that meets all elements of a patent claim, within the United States.[274] The defendant's knowledge, intent, and fault generally, matter not at all.[275] But this test only applies to this core type of infringement. A defendant whose harmful acts do not fit into this core—such as one who sells an almost-complete invention, for the end user to easily complete,[276] or one who exports all components of a claimed machine,[277] so the overseas buyer "makes" the machine extraterritorially—is not subject to strict liability. The patent owner must prove culpability.[278] Intentional, willful, or at

271. *Id.* at 16–44.

272. *See* 35 U.S.C. § 273. The text and purpose of § 273's prior commercial use defense are explained briefly in Merges, *supra* note 31, at 38–41.

273. *Id.* at 38–39 (The "'prior commercial use' . . . defense is quite limited . . . .").

274. 35 U.S.C. § 271(a).

275. Commil USA, LLC v. Cisco Sys., Inc., 575 U.S. 632, 639 (2015) ("[A] defendant's mental state is irrelevant. Direct [patent] infringement is a strict-liability offense.").

276. That is, a contributory infringer. Contributory infringement allows a patent owner to prevent others from selling products that almost-completely-but-not-quite infringe the owner's patent, knowing consumers will fill in the "missing piece" to complete an infringing embodiment. First in case law, and later under § 271(c) of the 1952 Patent Act, the sale of an almost-complete product, with the intent that the buyer complete the infringement, was defined as a patent-related wrong. For background, see Hewlett-Packard Co. v. Bausch & Lomb, Inc., 909 F.2d 1464, 1468–69 (Fed. Cir. 1990). To similar effect is § 271(b), which imposes liability for those who "actively induce" infringement – i.e., instruct, direct, or guide another to perform acts the inducer knows or should know will infringe a patent. *See* Global-Tech Appliances, Inc. v. SEB S.A., 563 U.S. 754, 760 (2011) (describing inducement). For an article that disentangles the harm from direct infringement, which is tied closely to the claimed invention, and related harms such as contributory infringement, which is based on harmful acts that foreseeably lead to direct infringement, see Robert P. Merges, Cousins Not Twins: Patent Claim Scope vs. The Breadth of Patent Enforcement 5 (May 2, 2024) (unpublished manuscript) (on file at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4817762).

277. 35 U.S.C. § 271(f).

278. Section 271(f)(1) uses the phrase "active inducement" from § 271(b), which has consistently been interpreted to include a culpability requirement. *See Global-Tech Appliances*, 563 U.S. at 766 ("[W]e now hold that induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement."). Likewise, "§ 271(f)(2) imports the knowledge element from the contributory infringement statute, § 271(c), requiring that the infringer know it supplied a component specially made for a patented invention." Katharine H. Cummings, *Just Out of Reach: Congress, Courts, and Industry Struggle to Define the Scope of U.S. Patent Law Overseas*, 33 BERKELEY TECH. L.J. 861, 869 (2018).

least reckless behavior is required if the patent owner is to pin liability on an indirect infringer.[279]

Beyond liability, patent remedies include many features that can offset the rigidity of strict liability. The "patent marking" statute, 35 U.S.C. § 287, for example, denies damages to a plaintiff who might have given notice regarding relevant patents, but chose not to. When a patent owner sells a product that lacks all patent information, damages will accrue only from the time the patent owner gives actual notice to an infringer. Section 287 in effect creates a contributory negligence rule for patent owners: a patent owner is at fault for failure to provide notice when notice is possible, so there is no infringement liability.[280] The statute does not cut off all patentee remedies: it applies only to the damages period, so injunctions are still possible.[281] It also applies only when a patent owner markets a product—for any "patented article" patent notice must be "fixed thereon."[282] If a patent owner does not sell any products embodying the patented invention, there is no duty to give notice beyond the default notice of an issued and searchable patent.[283]

Patent law also awards enhanced damages for willful (reckless or intentional) infringement,[284] and attorney fees for over-aggressive patent

279. *Id.*

280. Goold, *supra* note 125, at 1122 ("[I]n [35 U.S.C.] section 287, the contributory negligence standard is not drafted using a vague and flexible standard, but instead using a bright line rule: the patentee will be contributorily negligent if she failed to appropriately mark the product or provide the user with actual notice.").

281. MERGES & DUFFY, *supra* note 120, at 916.

282. When it was introduced in 2011, "virtual patent marking" attempted a step in the direction of more effective notice. In place of physical stamping and stenciling of patent numbers on products or packaging, which requires frequent updating because patents are constantly being granted, expiring, and so on, the idea was to stamp products with a single, durable website: for example, "Pat.www/BigTech.com/patents." *See* Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284, 328 (2011) (codified at 35 U.S.C. § 287(a)). Uptake has been slow, however. Many companies stick to the older practice of stamping or stenciling. For proposals to clarify virtual marking, and make it more widely adopted, see Dane D. Sowers, *Ensuring Proper Notice: Clearing the Fog Surrounding Virtual Patent Marking*, 54 CREIGHTON L. REV. 107, 111 (2020) ("[This article] proposes that [online] 'posting' [of patent information] should be limited to a single webpage, that 'associate' [a patent with a product, as called for in the virtual marking statute] should mean to directly connect each patented product with each relevant patent number, and that the title of each patent be included along with the patent number."); *see also* Tim Hsieh, *The Adequacy of the Mark: Raising the Standard Under 35 U.S.C. § 287(a) for Patented Online Software Methods*, 48 IDEA 69, 74 (2007) (describing the history of the marking requirement).

283. *Id.* at 81–82.

284. 35 U.S.C. § 284 ("[T]he court may increase the damages up to three times the amount found or assessed."). In Halo Elecs., Inc. v. Pulse Elecs., Inc., the Supreme Court rejected various rigid approaches to a finding of willfulness, and instructed district courts to apply their discretion on a case by case basis: "The sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate. . . . District courts enjoy discretion in deciding whether to award enhanced damages, and in what amount." 579 U.S. 93, 103–04 (2016). One scholar argues that because "willful infringement" centers on the infringer's degree of culpability, patent law cannot accurately be labeled a strict liability regime. I would argue, though, that *enhanced* damages

enforcement.[285] And, since the 2006 *eBay* case,[286] courts apply equitable principles flexibly in the grant of patent injunctions—leaving plenty of room to weigh the actions of the parties to the infringement suit.[287] Thus, while fault is not relevant to an initial finding of liability, fault, negligence, and culpability are highly relevant to patent *remedies*. It is in remedies most of all that patent law lightens up on some of the "strictness" of strict liability.[288]

This is easiest to see in the rules pertaining to permanent injunctions.[289] Under the *eBay* case, permanent injunctions at the conclusion of an infringement case are denied in 25 percent of all cases.[290] This because—partly for strategic

---

are a separate matter from the normal, baseline level of compensation. The need to show something more if you want extra damages simply highlights that willful infringement is different from the normal, baseline regime of strict liability. *See* Adam J. MacLeod, *Patent Infringement As Trespass*, 69 ALA. L. REV. 723, 738 (2018) ("[Court] discretion bends toward enhancement in cases of culpable conduct . . . . Just as culpable intention justifies an award of multiple damages, innocent intention can immunize an infringer from it. The Federal Circuit advises lower courts to take account of mitigating factors, such as independent invention, in rendering a finding of willfulness. Indeed, evidence of independent invention or 'good-faith attempts to design around patented technologies' can rebut evidence of willful infringement. In this and in other respects, the divide between merely compensatory and punitive damages runs along the '[t]he boundary between unintentional and culpable acts,' for damages are trebled where the infringer flouted the 'requirement of law-abiding respect for the property of others.' But if intention and culpability are irrelevant to infringement liability—if the conventional account is true—then it is not clear why they should be outcome determinative to the question [of enhanced damages for willful infringement, i.e.,] whether one can be held liable to compensate the patentee once or thrice." (footnotes omitted)).

285. 35 U.S.C. § 285 ("The court in exceptional cases may award reasonable attorney fees to the prevailing party."); *see* Octane Fitness, LLC v. ICON Health & Fitness, Inc., 572 U.S. 545, 548 (2014) (setting the standard under § 285).

286. eBay, Inc. v. MercExchange, LLC, 547 U.S. 388, 394 (2006) ("We hold . . . that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.").

287. *Id.*; *cf.* Yonatan Even, *Appropriability and Property*, 58 AM. U. L. REV. 1417, 1471 n.169 (2009) (describing non-patent cases: "[I]n cases where the balance of hardships [under an injunctive grant standard] tilts in the defendant's direction because of the plaintiff's own fault in confronting the nuisance," courts might deny the grant of an injunction.).

288. Some branches of private law have benefitted from a "remedy-centric" view of the relevant field. *See* James J. White and David A. Peters, *A Footnote for Jack Dawson*, 100 MICH. L. REV. 1954, 1954 (2002) (discussing well-known Contracts casebook, "Dawson and Harvey," John P. Dawson and William Burnett Harvey, Contracts: Cases and Comment (1st ed., 1959): "[This] casebook first brought remedies to the front of contracts books and to the early weeks in contract courses. It so asserted that remedies were at least as important as any other part of contract doctrine and more important than most.").

289. 35 U.S.C § 283.

290. Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After* eBay*: An Empirical Study*, 101 IOWA L. REV. 1949, 1976–77, 1983 (2020) (discussing a study of 218 permanent injunction decisions between 2006 (post-*eBay*) and 2013; injunction grant rate of 72.5%); Ryan T. Holte & Christopher B. Seaman, *Patent Injunctions on Appeal: An Empirical Study of the Federal Circuit's Application of* eBay, 92 WASH. L. REV. 145, 187 (2017) ("[T]he Federal Circuit affirmed the district court's decision to grant a permanent injunction 88% of the time (22 of 25 cases), while it affirmed the district court's decision to deny injunctive relief only slightly over half of the time (53%, 9 of 17 cases). This difference was statistically significant[and indicative of a more pro-injunction attitude at the Federal Circuit]." (footnotes omitted) (reviewing 42 decisions on appeal from permanent injunction issue)).

reasons—a good number of infringement cases fit the pattern of equitable "undue hardship" or "abuse of right" (to use the civil term) cases.[291] For complex products that include many components (think mobile phones, large software systems such as Microsoft Windows, and so on) it is common enough for a small infringing component to cause large headaches after a finding of infringement. The newfound infringer must usually redesign the infringing part, or find a non-infringing source. This leads to adjustments in other parts of the larger system. And all the while the infringing company is losing money, producing and selling nothing.

An injunction forbidding continued infringement of a small component patent often gives the owner of that patent a great deal of leverage. This is, as the cases say, "undue leverage": the power to drive a licensing transaction far more lucrative to the patent owner than the intrinsic value of the patented technology.[292] (Intrinsic value here means the incremental value of the patented invention, determined by comparison to the next-best alternative technology, and measured at a pre-contractual stage, that is, free of any post-contract leverage[293] or technological switching costs.)

---

291. *See* Merges, *supra* note 270, at 24–25.

292. *See, e.g.*, z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 441 (E.D. Tex. 2006) ("In his concurrence [in *eBay*], Justice Kennedy instructed courts to be cognizant of the nature of the patent being enforced and the economic function of the patent holder when applying the equitable factors. . . . Justice Kennedy specifically mentioned the situation where a 'patented invention is but a small component of the product the companies seek to produce' and states that in such a situation, 'legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.' (Kennedy, J., concurring). Here, product activation [covered in the patent at issue] is a very small component of the Microsoft Windows and Office software products that the jury found to infringe z4's patents. The infringing product activation component of the software is in no way related to the core functionality for which the software is purchased by consumers. Accordingly, Justice Kennedy's comments support the conclusion that monetary damages would be sufficient to compensate z4 for any future infringement by Microsoft."); *see also* Paice LLC v. Toyota Motor Corp., No. 2:04-CV-211-DF, 2006 WL 2385139, at *5 (E.D. Tex. Aug. 16, 2006) (denying permanent injunction where the patented feature of hybrid auto drive trains, which managed torque supplied by either an engine or an electric motor, "constitute[d] a very small part of the value of the overall [infringing] vehicles"; ultimately, a running royalty of $25 per vehicle was awarded as a permanent remedy), *aff'd in part, vacated in part*, 504 F.3d 1293 (Fed. Cir. 2007); *see generally* William R. Everding, *"Heads-I-Win, Tails-You-Lose": The Predicament Legitimate Small Entities Face Post* eBay *and the Essential Role of Willful Infringement in the Four-Factor Permanent Injunction Analysis*, 41 J. MARSHALL L. REV. 189, 218 (2007) (pointing out that since all post-trial infringement is by definition willful, ongoing royalties should be higher than backward-looking, compensatory royalties under 35 U.S.C. § 284); Steven Ullmer, Paice *Yourselves: A Basic Framework for Ongoing Royalty Determinations in Patent Law*, 24 BERKELEY TECH. L.J. 75, 84 (2009).

293. Leverage in the post-contracting period is also called "opportunism," most notably in the Transaction Cost Economics (TCE) of Oliver Williamson. *See* OLIVER E. WILLIAMSON, THE MECHANISMS OF GOVERNANCE 6 (1996) (defining opportunism as "self-interest seeking with guile"); OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM 47 (1985) (giving examples of opportunism). Williamson described the signing of a contract as "the Fundamental Transformation", which locks the parties into contract-specific investments that can provide leverage. *See* Oliver E. Williamson, *The Logic of Economic Organization*, *in* THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT 90, 98–100 (Oliver E. Williamson & Sidney G. Winter eds., 1991).

Post-*eBay*, this puts patent law somewhere outside of a classic strict liability regime. As Patrick Goold says, under "a straightforward strict liability rule . . . damages and injunctions are awarded regardless of the level of care either party has taken to prevent the accidents occurring."[294] But the Supreme Court in *eBay* did pay attention to the level of care. The Court even said that in a crowded field full of fuzzy-and-perhaps-broad claims, it may be harder for a patent owner to obtain injunctive relief—due, it appears, to the lower degree of fault on the part of those accused of infringing patents in such a field.[295]

Overall, the application of equity principles in post-*eBay* injunction cases significantly ameliorates the baseline rule of strict liability. Infringers of small-component patents are given relief from the undue hardship of a permanent injunction.[296] The questionable notice given by patents with potentially vague claims reduces the relative fault of an infringer. Firms who make money by acquiring patents and litigating them—patent "trolls"[297]—end to hold and assert these patent types, so *eBay* translates into a simple regularity: trolls receive far fewer injunctions than they did in pre-*eBay* cases.[298] This is based on an overall equitable judgement, a balancing of relative interests, but it incorporates elements of relative fault into the overall mix.[299]

---

294. Goold, *supra* note 125, at 1122.

295. eBay Inc. v. MercExchange, LLC., 547 U.S. 388, 396–97 (2006) (Kennedy, J., concurring) ("When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest. In addition injunctive relief may have different consequences for the burgeoning number of patents over business methods, which were not of much economic and legal significance in earlier times. *The potential vagueness and suspect validity of some of these patents may affect the calculus under the four-factor [injunction] test*." (emphasis added)).

296. Seaman, *supra* note 290, at 1988 (discussing Patent Assertion Entities, which often assert such minor component patents, obtain injunctions in only 16% of cases they litigated to completion); *see also id.* at 1991 ("In several other cases involving competitors, the district court declined to grant an injunction because the patented technology was only a 'small component' of the infringing product, thus following the reasoning of Justice Kennedy's concurrence that injunctions in such cases might result in holdup.").

297. *See* Robert P. Merges*, The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583, 1587–88 (2010) (defining and classifying patent trolls).

298. *See* Seaman, *supra* note 290, at 1988 ("PAEs rarely obtained a permanent injunction after prevailing on liability (16%; 4 of 25 cases [studied]), while other patentees are successful in obtaining injunctions in the vast majority of cases (80%; 154 of 193 cases [in the study])."). The Seaman article study draws from an earlier article giving a comprehensive taxonomy of PAEs. *See id.* at 1977–78 n.184 (citing Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, *Unpacking Patent Assertion Entities (PAEs)*, 99 MINN. L. REV. 649, 667–70 (2014) (listing entity categories: "(1) University; (2) Individual Inventor; (3) Large Patent Aggregator; (4) Failed Operating or Start-up Company; (5) Patent Holding Company; (6) Operating Company; (7) IP Holding Company Owned by Operating Company; and (8) Technology Development Company.")).

299. The story is quite different where a patent owner is an operating company, making and selling products, and the accused infringer is also in the market competing with the patent owner. According to the Seaman study, "Patent holders who competed with an infringer were granted a permanent injunction in the overwhelming majority of cases (84%; 150 of 179 cases), while patentees who were not market competitors rarely succeeded in obtaining injunctive relief (21%; 8 of 39 cases). This difference was statistically significant as well." Seaman,

D. ERROR AND ADMINISTRATIVE COSTS AS ISSUES OF DYADIC FAIRNESS

Even within the modern fault-based torts framework, there is a good case to be made in favor of strict liability. The centerpiece of the argument, widely accepted by tort theorists, is that the strong normative case for fault-based rules is limited by the dual practical constraints of error costs and administrative costs.[300] When a liability regime distorts incentives in a way that works against socially useful activity, it is said to create "error costs."[301] When the costs of applying the negligence standard ("administrative costs") exceed the expected benefits, strict liability once again makes sense.[302]

At the outset, I want to distinguish my position from the conventional law and economics account. Scholars rooted in economic efficiency analyze error and administrative costs as part of a welfarist emphasis on getting the societal cost-benefit calculus correct—a calculus that sometimes points to strict liability as the more efficient rule.[303] My argument also centers on the issues of mistakes and high administrative costs. But in my account, the concern is not with social welfare per se, but with specific unfair outcomes under a negligence rule for patent infringement. From the private law perspective, the issue is not the systematic, society-wide effects of mistaken decisions. It is with *particular* mistakes: the unfairness of wrongfully concluding that an accused patent infringer was not at fault; the unfairness of imposing yet another steep cost on a patent owner seeking compensation for use of proprietary technology. In private law, the concern is with depriving *this* inventor of compensation for beneficial use of an invention by *this* defendant. As to mistakes, the problem is not really with error costs, but *errors*. When errors have the potential to harm one of a community's favorites, an inventor, the community can decide to reduce those

---

supra note 290, at 1990–91; *see* Amgen, Inc. v. F. Hoffman-La Roche Ltd., 581 F. Supp. 2d 160, 210 (D. Mass. 2008), *aff'd in part, vacated in part, and remanded*, 580 F.3d 1340 (Fed. Cir. 2009) ("*eBay* has changed little where a prevailing plaintiff seeks an injunction to keep an infringing competitor out of the market.").

300. *See, e.g.*, SHAVELL, *supra* note 29, at 293; Assaf Jacob & Roy Shapira, *An Information-Production Theory of Liability Rules*, 89 U. CHI. L. REV. 1113, 1141 (2022) ("Strict liability comes with lower administrative and error costs because there are fewer parameters for the decisionmakers to evaluate."); Keith N. Hylton, *Costly Litigation and Legal Error under Negligence*, 6 J.L. ECON. & ORG. 433, 435 (1990).

301. *See* Oren Bracha & Patrick R. Goold, *Copyright Accidents*, 96 B.U. L. REV. 1025, 1043 (2016) (Discussing strict liability: "Error cost is the cost produced by suboptimal incentives created by a legal standard whose content and application inaccurately track the underlying policy."). The underlying policy of the Patent Act is to promote technical progress. Merges, *supra* note 297, at 1610. The grant of property rights is central to this objective, but if the structure of those rights causes researchers to retreat into "clean rooms" to avoid liability, that would reduce the free flow of technical information and so work against the overall goal of technological development. *See infra* pp. 172–74.

302. *See, e.g.*, Matthew Wansley, *The End of Accidents*, 55 U.C. DAVIS L. REV. 269, 315 (2021) ("Strict liability also has another advantage over the negligence rule: lower administrative costs."); Bracha & Goold, *supra* note 301, at 1061 ("Strict liability generates the least administrative costs because it requires no application of a costly negligence standard.").

303. *See* SHAVELL, *supra* note 29, at 264.

errors. Dispensing with proof of an otherwise required element of liability—such as actual fault—is one way to achieve this. And with respect to administrative costs, these are of concern particularly when costs are asymmetric, falling on and impacting specific inventors more heavily than on accused infringers. Together, error and administrative costs can be aggregated from individual data points to support law and economics arguments aimed at overall social welfare. But each data point represents a particularized harm, experienced by an individual private party. And this permits private law and corrective justice to attend to them as well—as a matter of interparty fairness, wholly apart from aggregate efficiency.

And so, we start with error costs.[304]

1. Error Costs

What if some relevant community feels strongly about decisional errors regarding an important matter?[305] What if, in our context, there is a strong commitment to respecting patent rights, and a concern that mistaken judgements about negligence will fall heavily on patent owners? Certainly the variability and complexity of patent "searchability," and the difficulties of interpreting claims in relevant patents (making it hard to know which claims might be infringed by

304. Negligence requires an inquiry into what happened to cause the infringement, as well as what each party did and could have done to avoid the infringement. Aside from the precautions a patent owner might take to give notice to potential infringers, the most important issue under a negligence rule for patent infringement is whether the infringer knew about the patented information and if not whether the infringer could have easily discovered the patented status of the relevant information. It can be difficult to establish, as a factual matter, how an accused infringer came to incorporate the patented information into the infringer's product. *See, e.g.*, Merges, *supra* note 31, at 28–29 ("[T]he transfer of technological information from one researcher to another occurs along a spectrum of related acts. There is deliberate copying of a complete invention. Then there is 'copying plus,' that is, deliberate copying plus new contributions from the copyist. But then there are also less conscious, less blatant ways that a prior inventor can communicate valuable information to other researchers. The field of diffusion studies names them well: they are mechanisms by which an original idea is spread around a group of interested people. . . . Diffusion studies bear this out. They analyze the flow of information through a technical community, rather than discrete acts of learning, duplication, or copying. Implicitly, the field understands that ideas percolate and spread through a wide variety of mechanisms."). In short, it would be difficult and expensive to reconstruct the infringer's research and development path to determine how the patented information came to be incorporated into the infringer's product. And it might also be difficult to determine whether the infringer knew or could have discovered that the relevant information was covered by a patent. Proving all this would undoubtedly add to the cost of already-expensive patent litigation. Of course, it can also be argued that because the cost of patent litigation is already high, the *marginal* cost of introducing fault is not so high as to significantly raise overall administrative costs. *Cf.* Samson Vermont, *AIPLA Survey of Costs of Patent Litigation and Inter Partes Review*, PATENTATTORNEY.COM (Jan. 30, 2017), https://www.patentattorney.com/aipla-survey-of-costs-of-patent-litigation-and-inter-partes-review (finding the median cost of full patent litigation (through trial) is $2 million for disputes of value between $1 and $10 million, and $3 million for disputes of value between $10 million and $25 million).

305. Other legal standards bear the imprint of this sort of social norm. "Better that 10 guilty people go free than that one innocent person is wrongfully punished," is one example. *See* Jeffrey Reiman & Ernst van den Haag, *On the Common Saying that It Is Better that Ten Guilty Persons Escape than that One Innocent Suffer: Pro and Con*, 7 SOC. PHIL. & POL'Y 226, 226 (2009).

a defendant's new product) might contribute to concerns about the impact of mistakes. In such a community, this respect and concern might well manifest in a basic liability rule that eschews the mistake-prone negligence inquiry in favor of presuming culpability from the mere facts of constructive notice by the plaintiff and beneficial use of the claimed invention by the defendant. In other words, judgements about fairness within the patent owner-infringer dyad might be inflected with community assessments about legal errors and the harm they can cause.

Law and economics scholars have identified two sources of error, both of which are relevant to patent infringement. To inquire into negligence, courts must assess both what level of care was required in a given circumstance, and what level of care was actually taken by a defendant in a particular case (that is, the defendant's "true level of care").[306] Both determinations, being complex and fact-intensive, can lead to mistaken assessments. Many factors go into a determination of the proper level of care; patent "searchability," described earlier, would be crucial in setting the proper level of care. But, owing to difficulties of proof, private actors have special reason to fear that some future court will not properly assess the level of care that actor actually used in a given circumstance. The consequence of mistakes of this sort, and fear of them, is well described by Steven Shavell:

> [A] general consequence of uncertainty over the assessment of true levels of care is that parties will tend to be led to take more than due care—and thus to take socially excessive levels of care (presuming that due care is set at socially optimal levels). . . . [I]f raising the level of care reduces the chance of being found negligent by mistake, parties may decide to take more than due care . . . .[307]

This is quite important in the patent context. A potential infringer who is overly cautious during the development of a new product may cut his or herself off from otherwise useful flows of information within a technical community. And if every potential infringer follows this course, it could lead to a significant reduction in the exchange of information throughout the breadth of the relevant group. I have more to say on this just below.[308] But before discussing strategies

306. SHAVELL, *supra* note 29, at 80–81 (footnotes omitted).

307. *Id.* The definition of strict liability as that standard which induces the socially optimal level of care might seem to be in conflict with strict liability as we have been discussing it. My interpretation of "optimal", however, comports with the Goldburg and Zipursky point that strict liability does involve violating some specified duty. The proper specification of the duty defines it as that set of obligations which, to be fulfilled, calls for the exercise of the optimal level of care in avoiding the harmful incident.

308. *See infra* note 311 and accompanying text.

to deal with liability, let us explore for a moment what is known about information flows in technical communities.[309]

a. The Diffusion of Technical Information and Problems of Proof

Especially if the burden of proof of copying was placed on the patentee, "this would eliminate infringement liability in many situations where an accused infringer learned something valuable from an inventor, but it is hard to prove."[310] It can be exceedingly difficult to prove precisely how knowledge of a particular invention spreads or diffuses around a particular research community.[311] The research field of "diffusion studies" devotes attention to the many ways technical information moves and flows through a technical research community, through formal, informal, and sometimes subtle ways. [312] Although technical

309. For an overview, see Bair & Pedraza-Fariña, *supra* note 226, at 263–64 ("A rich literature in sociology also explores how inventors' social networks can both contribute to and hinder the development and diffusion of new ideas, identifying particular network structures that tend to undergird breakthrough innovation. The insights and methodologies emerging from this literature, however, have received little attention in IP scholarship."). On group norms that sometimes impede information flow, see Laura G. Pedraza-Fariña, *The Social Origins of Innovation Failures*, 70 SMU L. REV. 377, 378 (2017) ("Breakthrough ideas are rare precisely because of social network failures.").

310. Merges, *supra* note 31, at 11.

311. *See id.* at 10 ("[P]roof of copying is more difficult than one might suppose, and indeed . . . 'copying' describes a spectrum of activities that includes but is not limited to explicit, intentional duplication."). The article might better have used "strict liability", instead of absolute liability, in its title ("Vive et disce" as they say in Latin: live and learn). This because absolute liability technically applies only when a strict liability offense is not subject to *any* legal defenses. There are many defenses available to a defendant even after patent infringement is found, including equitable doctrines such as waiver, estoppel, laches, etc., but also defenses such as anticompetitive patent enforcement or patent licensing (i.e., antitrust-related defenses). So liability for patent infringement is strict, not absolute. *See* Gregory C. Keating, *Personal Inviolability and "Private Law*,*"* 1 J. TORT L. 4, 8–9 n.22 (2008) ("[N]ot all []escapes of water from artificial accumulations thereof can be attributed to the agency of the person responsible for creating the accumulation. Liability can be defeated by []showing that the escape of the water was owing to vis major, or, as it is termed in the law books, the "act of God."' This is a version of the familiar but important point that strict liability is not *absolute* liability." (quotation marks omitted)); *see also* Yehonatan Givati & Yotam Kaplan, *Harm Displacement and Tort Doctrine*, 49 J. LEGAL STUD. 73, 75 (2020) ("[S]trict liability, unlike absolute liability, allows for a contributory-negligence defense.").

312. Negligence requires an inquiry into what happened to cause the infringement, as well as what each party did and could have done to avoid the infringement. Aside from the precautions a patent owner might take to give notice to potential infringers, the most important issue under a negligence rule for patent infringement is whether the infringer knew about the patented information and if not whether the infringer could have easily discovered the patented status of the relevant information. It can be difficult to establish, as a factual matter, how an accused infringer came to incorporate the patented information into the infringer's product. *See, e.g.*, Merges, *supra* note 31, at 28–29 ("[T]he transfer of technological information from one researcher to another occurs along a spectrum of related acts. There is deliberate copying of a complete invention. Then there is 'copying plus,' i.e., deliberate copying plus new contributions from the copyist. But then there are also less conscious, less blatant ways that a prior inventor can communicate valuable information to other researchers. The field of diffusion studies names them well: they are mechanisms by which an original idea is spread around a group of interested people. . . . Diffusion studies bear this out. They analyze the flow of information through a technical community, rather than discrete acts of learning, duplication, or copying. Implicitly, the field understands that

communities greatly value proper attribution and disapprove of misappropriation, results, techniques and challenges are shared in working papers, publication drafts, conferences, professional meetings, and commercial settings (looking for funding, exploring licensing with potential partners, and so on.).[313] In such informal settings it is easy to lose track of who said what, at what time, to whom, and so on. Add to this the well-established phenomenon of "cryptomnesia" in psychology: people repeating something learned recently, while sincerely believing they had created it on the spot.[314] And, finally, it is

---

ideas percolate and spread through a wide variety of mechanisms."). In short, it would be difficult and expensive to reconstruct the infringer's research and development path to determine how the patented information came to be incorporated into the infringer's product. And it might also be difficult to determine whether the infringer knew or could have discovered that the relevant information was covered by a patent.

313. Diffusion occurs by way of "information spillovers:" aggregate, hard-to-measure transfers of information within a research community. *See, e.g.*, Aurora Liu Genin & Moren Lévesque, *Interorganizational Knowledge Flows in Academia–Industry Collaboration: The Economic Impacts of Science-Based Firm Innovation*, 70 IEEE TRANSACTIONS ON ENG'G MGMT. 1823, 1823 (2023) (explaining how two competing firms, each working independently with a common academic research institution, can end up revealing information to each other through the common research connection). Genin and Lévesque state:

> [I]ndirect connections to other firms via the academic partners can reduce innovation value. The knowledge that indirectly flows from an academic partner's scientists to a focal firm is based on these scientists' observation and interpretation of innovation activities in other firms (or in other industrial contexts from previous collaborations) and thus it inadvertently creates knowledge spillover from other firms to a focal firm via their common academic partner.

Id.; *see generally* Gianluca Fabiano, Andrea Marcellusi & Gianpiero Favato, *Channels and Processes of Knowledge Transfer: How Does Knowledge Move Between University and Industry?*, 47 SCI. & PUB. POL'Y 256, 264–65 (2020) (discussing knowledge transfers between univiersites and industry); Stefano Breschi & Christian Catalini, *Tracing the Links between Science and Technology: An Exploratory Analysis of Scientists' and Inventors' Networks*, 39 RES. POL'Y 14, 16 (2010) (summarizing studies of co-authorship and co-inventorship, which show that scientific communication forms a well-studied type of network called a "small world" network). Breschi and Catalini go on:

> Broadly speaking, a small world network is represented by a graph where the nodes are grouped around tightly linked local cliques, but a relatively small number of steps will connect every node in the network to every other node. This type of structure is thought to be particularly important for both the generation and the diffusion of knowledge. The high degree of density and redundancy of the links within local cliques ensures the formation of a common language and communication codes that enhance reciprocal trust and support the sharing of complex and tacit knowledge among actors; the short cuts linking local cliques to different and weakly connected parts of the network ensure rapid diffusion and recombination of new ideas throughout the network and allow a degree of openness to new sources of knowledge[] . . . .

Id.

314. Relevant studies are summarized at Merges, *supra* note 31, at 18–20 (describing experiments illustrating cryptomnesia, or "inadvertent plagiarism"). *See, e.g.*, Richard L. Marsh, Thomas B. Ward & Joshua D. Landau, *The Inadvertent Use of Prior Knowledge in a Generative Cognitive Task*, 27 MEMOR & COGNITION 94, 95 (1999); *see also* C.G. JUNG, *Cryptomnesia, in* COLLECTED WORKS OF C.G. JUNG, VOLUME 1: PSYCHIATRIC STUDIES 95, 95 (Herbert Read, Michael Fordham, Gerhard Adler & R.F.C. Hull eds., Princeton Univ. Press 1970). Jung speaks of a thought having "slipped into the dark background of consciousness," entering our minds when we are not fully aware of it, then emerging later in what we believe is an original thought: "What poet or composer has not been so beguiled by certain of his ideas as to believe in

important to recall that information sharing often occurs before the property-related status of the information is known. Researchers from different labs, companies, and so on share know-how without knowing which labs, companies, and others have filed patent applications; each application is secret until published eighteen months after filing, and even then not all published applications are later issued as actual patents. The patent system sorts out ownership claims often years after the initial scramble to develop a new technology—a beneficial feature, in my view.[315] The "develop first, sort out ownership later" ethos is arguably efficient. Strict liability supports this ethos. This standard makes it unnecessary to (try to) keep track of who learned what from whom during the development phase. All that matters is whose later-patented ideas end up in which products.

2. Excessive Precautions as Error Costs

Shavell, again from a law and economics perspective, spelled out the relationship between mistaken determinations of fault and excessive (hence inefficient) levels precautions:

> [W]here firms are unable to predict levels of due care, or where there are other uncertainties surrounding the determination of negligence, firms may be led to take excessive levels of care so as to avoid being found liable by mistake (a manufacturer may use an undesirably costly safety feature, or a physician may practice "defensive medicine"[] . . .).[316]

If patent law were to require proof of fault, R&D communities might see a particularly harmful form of excessive precaution: a reduction in the free flow of technical information. Evidence for this comes from two related areas of IP law: (1) the use of "clean rooms," which isolate a creative team from all potentially infringing sources, to prevent copyright infringement;[317] and

---

their novelty?" *Id.* at 95, 99. Jung gives the example of a long passage from a book by literary figure Justinus Kerner that reappeared in one of Freidrich Nietzshe's books—even though Nietzshe believed the passage was original to him. "The remarkable thing is the verbal fidelity of the reproduction," Jung wrote. "The striking agreement between the two texts strongly suggests that the reproduction did not come from the sphere of conscious memory." *Id.* at 103.

315. *See* Robert Merges, *After the Trolls: Patent Litigation as Ex Post Market-Making*, 54 AKRON L. REV. 555, 574 (2020).

316. SHAVELL, *supra* note 29, at 56.

317. *See* Peter S. Menell, *Envisioning Copyright Law's Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 89 n.78 (2003) ("A clean room procedure involves using two sets of computer engineers – one to decompile the target program to determine the interface specification and a second team that does not have access to the target program which develops the interoperable program solely on the basis of the interface specifications – to ensure that the final product does not contain any infringing code (and that the development team can prove that they independently developed their code). Copyright lawyers have developed detailed procedures for ensuring the integrity of this process."); *see also* Merges, *supra* note 31, at 12 ("If [an independent invention] defense were available, . . . it would push researchers toward a more isolationist approach to R&D. The best way to prove

(2) "theft of idea" cases illustrate the point. One way to insure against liability for copyright infringement or idea misappropriation is to sequester yourself from any possible exposure to IP-protected information. The threat of liability pushes potential infringers to establish "clean room" procedures: creative projects are deliberately conducted in isolation so there is no possibility of access to IP-protected information. The legal strategy of isolation works because it establishes the impossibility that the team working in isolation was at fault for, or had access to, IP-protected inputs.

Isolation strategies that forecloses the risk of liability in copyright and idea submissions would become viable for preventing patent infringement. As I explained at probably too much length in an earlier outing,[318] the result might be a significant reduction in the flow of information between researchers, R&D personnel, and the like.[319] The same isolation that lowers the risk of legal liability might cut researchers off from useful information. The quality of research might suffer, and needless duplication of effort and learning might well follow. An old shorthand in tort law describes the ideal legal actor as one who has "a pure heart and an empty head," meaning no bad intentions and no special knowledge about the risks and consequences of taking an action.[320] The pure heart part is unobjectionable. But when it comes to technical communities of researchers, the "empty head" part sounds far from optimal. A researcher who knows that another company or lab is working on a particular technology, and especially a researcher who knows of a specific patent, possesses knowledge that makes it much easier to prove that researcher was at fault when they develop an infringing technology. R&D managers, with input from their lawyers, might well respond by cutting researchers off from outside knowledge to reduce the risk of infringement. The resulting reduction in efficiency would count as a serious error cost of a fault-based infringement regime. Because strict liability conserves on these costs— no reason to cut researchers off from information if it doesn't reduce liability risk—it looks good in comparison.

---

independent invention is to show there was little input from the outside world into the R&D project. Experience with 'clean room' procedures, developed to avoid allegations of copying in copyright law (particularly in the computer software industry) bear this out. But this move toward 'R&D isolationism' would come at a great loss. Diffusion of information is so commonplace in technological communities that it is easy to underestimate its significance. The extensive literature on technological diffusion brings home the importance of open and liberal information flows among research specialists.").

318. Merges, *supra* note 31, at 38–41.

319. *See* Bracha & Goold, *supra* note 301, at 1042. Bracha and Goold discuss possible preventive measures an infringer might take to avoid infringement, as part of their analysis of fault-based liability in copyright: "To the extent there is a claim that a possible preventive measure was forgoing the [infringer's] activity altogether, the cost of that measure would be the opportunity cost of such forbearance." *Id.* In the case of patent infringement, the foregone activity would be reading and consulting outside literature and ideas during R&D projects. I think the opportunity costs of this isolation are very high.

320. *See, e.g.*, Denise R. Boklach, Comment, *Commercial Transactions: U.C.C. Section 1-201(19) Good Faith—Is Now the Time to Abandon the Pure Heart/Empty Head Test?*, 45 OKLA. L. REV. 647, 656–63 (1992).

By making irrelevant the issue of access to outside information, the traditional strict liability regime promotes free information flow within technical communities. Research groups can consult outside resources—technical articles, conference presentations, even issued patents—if they think it might help a project. Widespread information gathering does not leave a trail of access that may later raise the risk of patent infringement. Under strict liability, if your project research incorporates an inventive idea that later turns out to be covered by a patent, what you read, consulted or heard about in your research will be irrelevant to any patent infringement liability. If your new product infringes someone's patent, you would be liable even if you avoided all external research. The law says in effect: Reading widely might help in the research effort, and it is irrelevant to liability if a patented idea ends up in your product. So read away.

3. Strict Liability and Community Building: The Role of Exoneration

From the point of view of a community or information network, strict liability presents a paradox. It assigns liability whenever A's claimed invention winds up in B's product, regardless of how it got there and if anyone did anything wrong along the way. But by its very automaticity, strict liability also in a strange way exonerates. There is no assessment of who did what, or who knew what. Because fault does not enter into the legal standard, fault does not enter the patent dispute; accusations, defenses, degrees of right and wrong are all irrelevant.

In tight-knit communities organized around original, impactful scientific and technological research, this would seem to be a virtue. Researchers on the leading edge of developing fields are oriented around original, and potentially valuable, technical contributions. They compete with other each other while also cooperating: a complex balancing act. With these dynamics, it is already difficult to maintain stable community relations. Introducing fault into the patent infringement analysis might disrupt the equilibrium. Differing recollections and disputes over past interactions could poison the well from which the community draws to move forward. Worse, patent lawyers would likely advise that researchers keep better records about what ideas and techniques come from where during a research project. And worst of all, these same lawyers might advise researchers to use "clean room" techniques, with all the ills of "isolation" that follow.

What I am getting at is a kind of "acoustic separation" between research communities and legal issues of ownership, borrowing, and potential infringement.[321] To the extent possible, communication and interaction within a

321. The idea of "acoustic separation" in legal theory originated with my Berkeley colleague Meir Dan-Cohen. *See* Meir Dan-Cohen, *Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law*, 97 HARV. L. REV. 625, 625 (1984).

research community ought to be kept free from legal and strategic considerations.[322] Perfect separation is not possible, nor is a technical community completely free of disputes over priority, credit, and other (non-legal) community norms. But there is wisdom in a setup where the development of a new technology de-emphasizes record keeping and encourages as much information exchange as possible. Strict liability supports such a setup. So too, in an under-appreciated way, does the lag between technology development and the sorting out of patent ownership and coverage.[323]

a. Error Costs: Summary

To summarize about error costs: The proposition (1) "I didn't do anything wrong" is not quite—and in an important way not quite—the same as (2) "you didn't prove I did anything wrong." If proof is difficult, and the matter in doubt important, the moral valence of statement (2) may not be as strong as (1). With this it is possible to justify strict liability for patent infringement. The trick to this is to descend from the heights of aggregate, welfare-oriented thinking, and attend instead to the humble private law dyad. Where you will see not "error costs" as an abstraction, but the impact of a mistaken fault determination on a specific, individual patent owner. In cases where there is in fact fault, as described earlier, but the key facts in proof are evanescent, murky, or obscure, the hammer falls on the owner of a worthwhile patent. This outcome—not in general, but in a specific dyadic infringement action—cannot be called fair as between the parties.

322. Evidence from another setting supports the point. Standard-setting organizations (SSOs) establish committees of technical experts charged with reaching the best technical solution to an engineering problem, typically interface specifications and protocols permitting modularization in the computer, mobile, and electronics industries. Most SSOs adopt operating rules that make patent and other IP holdings largely irrelevant to the standard-setting process, typically by requiring "fair and reasonable" royalty limits on all patents held by SSO participants that may end up being infringed by a declared standard. Information flows fairly freely in SSOs as a consequence. *See, e.g.*, Talia Bar & Aija Leiponen, *Committee Composition and Networking in Standard Setting: The Case of Wireless Telecommunications*, 23 J. ECON. MGMT. STRATEGY 1, 13 (2014). Even so, there is some concern that non-technical representatives from some SSO member firms are increasingly present, which in my view could impede the "purity" of technical exchange within the SSO process. *See* Neil Gandal, Nataly Gantman & David Genesove, *Intellectual Property and Standardization Committee Participation in the US Modem Industry*, *in* STANDARDS AND PUBLIC POLICY 208, 210 (Shane Greenstein & Victor Sango eds., 2007) ("In the case of industries where standardization and compatibility are important, firms meet in standardization organizations in addition to competing in both research and development and the product market. Indeed, firms have come to recognize the strategic importance of participating in standard setting organizations and hence increasingly send senior decision makers in addition to technical staff to these meetings.").

323. *See* Merges, *supra* note 315, at 559 ("Patent negotiations can be complex and time-consuming. Resources devoted to negotiating in the ex ante [i.e., before product introduction] period must be taken from other projects and activities. Complete and detailed ex ante negotiations come with opportunity costs. When these are high enough—when devoting resources to negotiating ex ante would starve or drain a crucial activity such as product development—it makes sense to wait.").

4. Administrative Costs

The administrative costs of acquiring and enforcing patents are notoriously high. Compared to trademarks, and certainly to copyrights, trade secrets, rights of publicity, and so on (where "acquisition" costs are essentially zero), it is expensive to file and prosecute a patent application. And, depending on how you measure, it is no sure thing that a patent application will ever issue from the Patent Office.[324]

As described in detail earlier, a patent whose owner chooses to enforce it (that is, sue another party for infringing it) must typically be defended again. Virtually every statutory requirement for patent validity can be raised in defense, just as during patent prosecution.[325] The patent owner must defeat every validity challenge to pursue the enforcement action, whereas the infringer who challenges a patent wins if any invalidity argument succeeds. The result is that roughly 50 percent of the time, when a patent owner tries to enforce a patent, it is invalidated.[326] As explained by Mark Lemley,

> [P]atent owners overwhelmingly lose their cases. Nearly half of all patents litigated to judgment are held invalid. Overall, patentees win barely more than a quarter of their cases. This figure is remarkable, given that civil plaintiffs overall win 58 percent of their cases in the federal courts, and even more of their copyright cases. And the very patents that economic evidence predicts as the most valuable—the ones that are litigated in multiple cases—overwhelmingly lose in court; less than 10 percent of those patentees in fact win when a case goes to judgment. Forum shopping helps, but not much; even the most plaintiff-friendly district rules for the plaintiff only about half the time. Systematically, patent owners lose more often than they win.[327]

---

324. *See, e.g.*, Carley et al., *supra* note 23, at 209 (finding an overall 56% success rate on patent applications; reviewing prior studies that reached different estimates). For some empirical evidence on what happens during patent prosecution, see W. Michael Schuster & Kristen Green Valentine, *An Empirical Analysis of Patent Citation Relevance and Applicant Strategy*, 59 AM. BUS. L.J. 231, 246 (2022) (footnotes omitted) ("After being assigned to an application, [patent] examiners conduct a prior art search to identify references that may render the application unpatentable—for example, obvious or not novel. Relevant references will be documented in the application's file. Assuming a rejection is proper, the examiner will cite the prior art most relevant to their anticipation (i.e., lack of novelty) or obviousness positions. Identification of strong prior art by the examiner—in both quantity and relevance—thus significantly undermines the likelihood that a patent will be issued.").

325. 35 U.S.C. § 282(b) ("The following shall be defenses [to an infringement suit]: . . . (2) Invalidity of the patent or any claim in suit on any ground specified in part II [of the Patent Act] as a condition for patentability."). Part II includes utility, novelty, nonobviousness, enablement, and other requirements for patentability. 35 U.S.C. §§ 101–103, 112(a).

326. *See, e.g.*, Ashtor, *supra* note 16, at 965 (recognizing only 416 (45.3%) of the 918 patents in the study were found valid, while 502 (54.7%) were invalid). The data in the cited study were drawn from district court litigation between 2004 and 2011, in which the patents at issue were granted before 2007. *Id.* at 963–64.

327. LEMLEY, *supra* note 24 (footnotes omitted); *see also* Allison et al., *supra* note 28, at 1789 ("[T]he nature of patent litigation requires patentees to win every issue before the court. A patentee who defeats five of six invalidity challenges, only to lose the sixth, loses the case. So does a patentee who wins on validity and

As bad as invalidity is for the patentee, infringement—even with the help of the prevailing strict liability standard—is even worse. Overall, patent owners win barely 25 percent of the enforcement cases that go to a full trial.[328]

Patent litigation is among the most complex and expensive litigation known to the federal courts.[329] Proving fault, in all its complexity in the patent context, would undoubtedly add to the cost of already-expensive patent litigation. Negligence is the classic "all things considered" legal issue; it is the poster child for legal tests that are "fact intensive." Sometimes, as law and economics scholars have argued, the cost of resolving a legal question is so high compared to what is at stake in a lawsuit, a simple-to-apply rule is more efficient.[330] As we have seen in the preceding sections, patent "searchability" depends on a host of details that vary with each type of invention. The malpractice cases we reviewed routinely required expert witnesses to testify on the nature of the field and the overall conditions for patent search within it. Proving fault would thus very likely require an expert witness. This must be added to the separate, additional experts often used to testify on the invention and prior art, as well as (in many cases) appropriate damages. A third expert, in virtually every case.[331]

---

inequitable conduct but loses on infringement. . . . In patent law, a split decision is almost always a decision for the accused infringer, not the patentee.").

328. Janicke & Ren, *supra* note 24, at 5; *see also* Allison et al., *supra* note 24, at 1102–03 ("[A]cross all technologies, the chance of a patent being held not infringed was significantly higher than the chance of it being held invalid. That was true in every technology area, but the result was particularly striking in the optics and software industries, in which more than two-thirds of all the cases we observed included a finding of noninfringement. Overall, there were almost twice as many noninfringement rulings (348) as invalidity rulings (188).").

329. *See* Vermont, *supra* note 304 (showing that the median cost of full patent litigation (through trial) is $2 million for disputes of value between $1 and $10 million, and $3 million for disputes of value between $10 million and $25 million).

330. *See* Bracha & Goold, *supra* note 301, at 1056 (footnotes omitted) ("Different liability rules are more or less costly for courts to apply. Strict liability generates the least administrative cost. To decide a dispute under this standard a court needs to determine only that the user engaged in a proscribed conduct. By contrast, each of the alternative rules involves additional inquiries into the negligence of one or both of the parties. A negligence analysis—including both setting the standard and assessing a party's conduct under it—demands much information and is costly to execute.").

331. *Cf.* SHAVELL, *supra* note 29, at 56–57 (commenting on the complexity of another technology-intensive inquiry, viz, whether additional safety research would have been cost-effective). Shavell states:

> An important illustration of the problems with the negligence rule concerns research and development with regard to product safety and design. To make a determination of negligence in this area, courts are faced with a complex task: they must decide whether, at the time that a firm had an opportunity to engage in an investigation, the then relevant determining the probability or value of success or the costs of investigation, firms may be led to make socially undesirable decisions. For instance, a firm that is highly uncertain whether a given degree of research or design effort will later be seen by courts as adequate may decide to engage in research to a socially excessive extent.

Id.

In addition, even assuming that a reasonable search would not have turned up a patent, complex facts would need to be reviewed when assessing the fault level of an accused infringer. Cases from other corners of patent law illustrate the point. Allegations that someone appropriated (or "derived", to use the patent law term) an invention from its true inventor are difficult to prove.[332] Especially challenging are cases of "partial derivation:" where the appropriator, or deriveor, adds something on top of the material derived from the true inventor/deriveee.[333] Cases on the misappropriation of trade secrets are similar.[334] They demonstrate the slipperiness of "who disclosed what to whom" testimony in cases that turn on disclosure of technical information.[335]

Finally, recall that only when a patent has been run through the validity gauntlet can it be enforced—but only against the single defendant in a specific case. A finding of "no invalidity" in Case A means the patent owner can proceed to prove liability in that case, but this is not binding on future cases.[336] Whether at the PTAB or as a defense to infringement liability in a district court, future defendants can continue to attack the patent's validity as long as the patent's enforcement power lasts.[337] As I said earlier, validity is in this sense *in personam*. Put differently, validity is a quality that attaches to a patent only when it is asserted in an infringement action, and only when it has survived the final validity challenge required to move on to the next stage, the assessment of infringement, and, if infringement is found, the awarding of remedies. I referred to this earlier as "dyadic validity."[338] Here I merely emphasize that the need to defend validity over and over adds to the enforcement burden—the administrative costs, that is—faced by every patent owner.

Under these circumstances, a research community might well decide—probably in fairness *ought* to decide—not to add to this enormous enforcement burden any further. Especially in light of all the mitigating doctrines in patent law that can go a long way toward guarding the interests of defendants even after they have been adjudged to infringe. I would be loath to add to the evidentiary, procedural, and substantive burden of a patent case by requiring proof of an infringer's fault. The larger community might well decide the same. Given the

---

332. Merges, *supra* note 31, at 23 ("Once the 'derivee' proves [the difficult issue of] prior conception, he then faces the daunting task of showing full communication of the invention to the deriver. Many derivation cases end right here. The standard is strict: the *full* invention must be communicated to prove derivation." (footnote omitted)).

333. *Id.*

334. *See, e.g.*, Marshall S. Honeyman, *When Not to Patent*, 78 J. KAN. B. ASS'N 16, 18 (2009) ("[T]rade secret cases are difficult to prove. Especially where the secret information has traveled from person to person before the leak is discovered. The issue becomes who blabbed and when—a difficult thing to investigate.").

335. *Id.*

336. *See* Kazhdan, *supra* note 14, at 2.

337. *Id.*

338. *See* Merges, *supra* note 3, at 308.

sometimes enormous complexity of issues such as nonobviousness and enablement, not to mention damages and various defenses, the additional complexity of a negligence rule might not just be inefficient. It might be unfair to *specific* patent owners in *specific cases* of infringement. As much as the administrative costs of a given legal rule are a matter of general social policy, they also fall on specific parties. As much as these costs might figure into social welfare, they are also borne by actual parties to actual patent disputes. There may be a social consensus, expressed perhaps in jury verdicts as well as long-tenured common law doctrines, that it is unfair to impose these costs when an inventor seeks to vindicate her rights.

E. SUMMARY OF STRICT LIABILITY UNDER PRIVATE LAW

In the context of patent infringement it is perfectly plausible that strict liability might be considered more fair than the usual, default scheme of negligence. Consider the following cases:

- Infringement liability is not encountered in a patent case until the defendant fails to invalidate the patent. At this stage, then, we are dealing not with an "average" issued patent, but one which has been quality-vetted at least once (and often more). As the Patent Act defines it, the invention has been found to have merit.[339]
- Patents are publicly available and freely searchable in a variety of public and proprietary databases. There are well-known practical problems with the adequacy of patent searches, part of the "notice failure" arguments made prominently by Peter Menell and Mike Meurer.[340] But the fact always remains: infringers have at least some level of constructive notice of the existence and scope of any issued patent.
- In many fields, a firm that wants to launch a new product will commission a search of third-party patents, to gain awareness of potential infringement liability. These FTO opinions are much more difficult with complex, multi-component products (for instance, mobile phones), I agree. The fact that they are common in other fields indicates that patent searching can be effective. This should at least partly mitigate the concern with "notice failure."

339. See Robert P. Merges, *supra* note 18, at 446:

Once clear of the validity stage, however, at least as between the parties the legitimacy of the IP baseline is firmly set. At this stage, the IP entitlement does serve as a reliable baseline in private interactions. If validity challenges can be construed as a cloud on title, the resolution of title challenges removes that cloud. When a court resolves a private IP dispute, it can therefore reliably take as given the package of powers and rights embodied in the IP owner's entitlement. Once that private law moment arrives in an IP enforcement action, the full logic of corrective justice can be applied.

340. *See* Menell & Meurer, *supra* note 25, at 1.

- Unlike other examples of risk-creating activities such as driving, the activity that creates the risk of harm in the case of patents is inventing. The community might well judge that this is a particularly meritorious activity. Withholding compensation—even by mistake—to one who has successfully developed a valuable invention might be an especially noteworthy harm. Strict liability helps to avoid this.

CONCLUSION

The overall message here is that private law, and private law theory, have distinctly contributed to making an understanding of patent law, especially an understanding in patent enforcement. Interparty and corrective justice are highly useful analytic tools to apply once the patent validity (or public law) "moment" in patent enforcement is over. Intensive and successive validity attacks are what make it incorrect, in my view, to just unthinkingly place IP rights in a private law frame. The analytic structure of private law does apply to patents, it is true, but only to the 45 percent or so of patents that survive validity challenges. After validity, patents are legitimate baseline entitlements. If patents are infringed, then a restorative remedy is in order in keeping with the tenets of private law.

In this Article, I have shown that strict liability in patent law can be well explained with reference to principles of private law. I ran this argument through two strains of private law: Strict Corrective Justice ("SCJ") and "relational justice." This not only introduced some of the variety in private law theory, but it also demonstrated that the case in favor of strict liability is a robust one. I emphasized the complex issue of patent notice and compared infringement risk to the risk of maritime collisions. These cases create a high duty of care for ship captains at sea. Warnings regarding submerged objects can be quite weak and hard to read—just as it can be very difficult to avoid infringing issued patents that are not easily searchable or findable. Patent law's strict liability regime sometimes places a heavy burden on those who sell products which might incorporate patented technology claimed and owned by others. The same is true of the ship captain where, despite the deficiencies of "weak notice," tort law imposes liability on ship captains in expectation that their expertise will compensate for the lack of clear notice. Likewise, society has a strong interest in recognizing the value of legitimate inventions. Patents at the enforcement stage—post-validity—can be taken to cover inventions of some value. Society has a strong interest in preventing misappropriation of inventions like this. Given the long and complex road a patent must travel on the way to enforcement, it is not that difficult to defend a rule that, at this stage, gives the benefit of the doubt to the inventor—the patent owner. This includes a rule like strict liability.

In making this case, I leaned heavily on various branches of private law theory. Formal litigation is definitely not the only aspect of the patent system that can be usefully understood with the aid of private law concepts. Patents'

passive influence reveal the sort of pervasive role-structuring function of private law advocated by Hanoch Dagan.[341] Dagan and Dorfman reject the traditional view that private law is coextensive with litigation—that litigation represents the proper analytic scope of private law. Under RJ theory, private law structures and constrains all sorts of private interactions apart from litigation.[342]

Patents work this way. Though the statutory rights and duties of patent owner and infringer form the framework for litigation, patents also structure other, non-litigation, interactions. Begin with licensing. Despite being only partially vested when granted, patents form useful instruments in all manner of private orderings. For example, in some industries, a new competitor will survey the "patent landscape" before market entry. In doing so, the new competitor looks to avoid infringing patents owned by market incumbents, by either designing around or in-licensing incumbent patents. Competitors often monitor other firms' published patent applications and issued patents. This gives them insight into rivals' technological capabilities and strategies. Competitor patents can also, at times, signal the need to build out or bulk up your own firm's patent portfolio.

Patents also play a crucial role in private ordering based around new technologies. Aside from their intrinsic value to protect a market niche, they also serve to "anchor" broader technology transfer and development deals. The legal strength of patents makes their owners more willing to share detailed information with licensees, leading to greater efficiency in the form of tighter integration between contracting parties.

The presence of patents similarly influences other private parties that interact in the domain of technical research and new technologies. They affect supplier-buyer relationships, employee mobility (when employed researchers consider spinning off into a startup, their prior patents must then be avoided), interactions with financial backers such as venture capitalists, and so on. Patents, in other words, form part of the social-economic-legal background in which researchers are embedded.

---

341. *See* DAGAN & DORFMAN, *supra* note 71, at 36–37. Dagan sees private law as a field not concerned solely with the formal rights of parties to litigation. The influence of private law, Dagan says, extends to anyone who is "embedded" into "horizontal" relationships that are partly structured by private law and related norms:

> Private law, even in its most conventional rendition, is in the business of structuring our interpersonal interactions in the various settings where we encounter one another as private individuals. It sets the rules of the various games of our social and economic lives. The market, the workplace, the neighbourhood, the road—like many other interactional loci—are all partly constituted by the law governing our horizontal interactions, namely: private law. Because private law's function is both constructive and prospective, the persons of private law act in a legally structured universe, which in many ways transforms them into embedded persons.

Id.

342. Dagan advocates expanding the core of private law to embrace "relational justice," and not simply Weinrib's stringent but tightly constrained version of corrective justice: SCJ. *See id.* at 82.

Even so, this Article emphasizes the private law "tort dyad" involved in cases of patent infringement. The standard physical injury torts case starts with the basic and unassailable entitlement to bodily integrity. A patent is a different entitlement altogether. To fully assimilate patents into the frame of traditional tort law and analysis, we must recognize that patent infringement involves a more "contested baseline." Patents can be, and are expected to be, attacked for invalidity before they are in a condition to be enforced. Only after a patent owner has traversed all attacks on validity does a patent "deeply vest." When a patent is deeply vested, it forms an entitlement solid enough to be integrated into the scheme of classic tort analysis: baseline entitlements, harms to entitlements, and corrective remedies to address those harms.

Patent law applies a form of strict liability to those accused of patent infringement. With the nature of patent entitlements squared away, I defended this traditional liability standard and argued that, under two prominent branches of private law theory, the patent liability regime reflects a reasonable standard of care. Because patent law makes all patents publicly searchable, the "strict" liability of patent law appears similar to some cases of negligence per se: the infringer who fails to locate a relevant patent and infringes it is negligent in not finding it. I also argued that, even conceding that patent law applies a true strict liability test, it might serve technical communities best to apply this form of liability. The alternative, pure negligence, often promotes over-investment in precautions when there is high risk of mistakes in assessing fault. One predictable precaution, practicing isolation techniques such as "clean rooms," would be especially harmful to the myriad forms of communication and coordination that characterize effective technical research communities.

Here, strict liability is meant to be exemplary. Many are the gains, it seems to me, of applying the grand body of private law theory to issues in patent law. While the public law aspects of patents will always be paramount, patents are also instruments for structuring private party interactions. In the aggregate, patents seek to promote technical progress, increase overall social welfare, and distribute rewards to meritorious inventors. But each issued patent is an individual entitlement, held usually by a private party. In this role, patents form the basis of private interactions. On this side of the ledger, patent law is therefore about something other than, or in addition to, societal well-being. The private law of patents is about interparty fairness within those interactions that form around patents. It is there, in patent-mediated dyads, that private law makes its most important contribution to the study of patents.