

ARTICLE

PROXIMATE CAUSE AND PATENT LAW

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ABSTRACT

The U.S. Supreme Court's WesternGeco LLC v. ION Geophysical Corp. decision provides the opportunity to broaden the role of proximate cause in patent litigation. As the country's highest Court has pushed patent law in the same direction as other civil causes of action, the full adoption of proximate cause as a prerequisite to all forms of monetary recovery appears inevitable. Proximate cause, as a multidimensional, policy-based requirement will allow the patent system to resolve several existing problems. As some examples, these include determining the appropriate extraterritorial reach of the system, accounting for the social benefits of infringing implementations, addressing the multiple serial plaintiff problem, and the problem of patent infringement actions brought against end-user consumers. As with other statutory causes of action that include proximate cause, the standard must be modified to account for the unique policy problems of the patent system. This Article offers a comprehensive approach to these issues.

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I. INTRODUCTION

Although much has been written about patent infringement and patent damages, the full causative relation between the two represents comparatively unexplored territory. Patent infringement is considered a form of tort that originates from the Patent Act.¹ Generally, tort law requires a plaintiff to show both but-for and proximate cause before recovery will be awarded.² In the negligence realm, the mere fact that an accident occurred and someone suffered an injury is not sufficient to support recovery.³ Rather, the law requires factual and legal cause between the defendant's conduct and the plaintiff's legally cognizable harm.⁴ As part of a line of cases analyzing statutory torts, the Supreme Court has held that proximate cause is presumed for statutory causes of action.⁵ More recently, the Supreme Court's 2018 *WesternGeco* opinion refers to proximate cause in the patent context but provides no guidance into its implementation or structure into this system.⁶ It is evident that a full analysis of proximate cause for the patent system is overdue. This Article picks up that task and offers the analysis that has been lacking in patent law for the incorporation of the doctrine for all forms of monetary damages.

Proximate cause asks whether imposing liability in a particular case is consonant with the law's purpose.⁷ Significantly, this label has two components. First, the phrase "proximate cause" refers to "cause," which has been considered a question of fact that examines the relation between the tortious act and the plaintiff's harm.⁸ Second, proximate cause is a policy based judgment that limits the legal consequences of a defendant's actions even where those actions are illegal, tortious or wrongful.⁹ As one court states, "the phrase 'proximate cause' is shorthand for the policy-based judgment that not all factual causes contributing to an injury should be legally cognizable causes."¹⁰ As described in

¹ *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27, 33 (1931) ("Infringement, whether direct or contributory, is essentially a tort, and implies invasion of some right of the patentee"); *Arctic Cat Inc. v. Bombardier Recreational Prod. Inc.*, 876 F.3d 1350, 1366 (Fed. Cir. 2017) ("patent infringement is a strict liability tort").

² W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 41, 263-74 (5th ed.1984) [hereinafter PROSSER & KEETON ON TORTS].

³ *Id.* at 264.

⁴ *Id.* at 264-65.

⁵ *Lexmark Int'l., Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 132 (2014) ("[W]e generally presume that statutory cause of action is limited to plaintiffs whose injuries are proximately caused by violations of the statute").

⁶ *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2136-39 (2018).

⁷ See Henry W. Edgerton, *Legal Cause*, 72 U. PA. L. REV. 211, 243-44 (1924).

⁸ *State Dep't of State Hosps. v. Superior Court*, 349 P.3d 1013, 1022 (Cal. 2015). See also *Holmes v. Sec. Inv'r Prot. Corp.*, 503 U.S. 258, 268 (1992).

⁹ See *Holmes*, 503 U.S. at 268; Sandra F. Sperino, *Statutory Proximate Cause*, 88 NOTRE DAME L. REV. 1199, 1202 (2013) ("[P]roximate cause inherently relates to policy").

¹⁰ *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 701 (2011).

Judge Andrews' *Palsgraf* dissent, this element has been put into place "because of convenience, of public policy, of a rough sense of justice, the law arbitrarily declines to trace a series of events beyond a certain point."¹¹

Proximate cause was primarily developed in the state courts in the consideration of negligence decisions.¹² It is not a model of clarity. Juries evidence confusion with the standard.¹³ There is no single clear definition. As one treatise describes: "[t]here is perhaps nothing in the entire field of law which has called forth more disagreement, or upon which the opinions are in such a welter of confusion."¹⁴ This has been attributed to the fact that the doctrine's policies have changed, vary across jurisdictions and differ when applied to disparate factual contexts.¹⁵

Since its inception, proximate cause has been extended beyond common law torts to certain statutory causes of action.¹⁶ These include several with civil enforcement provisions, including antitrust, false advertising and securities fraud causes of action.¹⁷ Recently, a limited number of appellate patent cases considered proximate cause as an appropriate limitation on the types of damages awarded in patent cases concerning lost profits.¹⁸ For reasonable royalty awards, model jury instructions do not include any information on causation.¹⁹ Although

¹¹ *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 103 (N.Y. 1928) (Andrews, J., dissenting).

¹² Peter C. Haley, *Paradigms of Proximate Cause*, 36 TORT & INS. L.J. 147, 149 (2000) ("[T]ort actions have been the subject of most of the judicial and scholarly attention devoted to proximate cause").

¹³ See Walter W. Steele Jr. & Elizabeth G. Thornburg, *Jury Instructions: A Persistent Failure to Communicate*, 67 N.C. L. REV. 77, 84 (1988). 85% of actual and potential jurors were unable to understand a pattern proximate cause instruction. *Id.* at 92. Robert P. Charrow & Veda R. Charrow, *Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions*, 79 COLUM. L. REV. 1306, 1353 (1979) (noting that nearly one quarter of subjects to the author's experiment regarding jury instructions misunderstood proximate cause to mean "approximate cause" or "estimated cause").

¹⁴ PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 263.

¹⁵ See James Fleming Jr. & Roger F. Perry, *Legal Cause*, 60 YALE L. J. 761, 784 (1951) ("It should be noted at this point that many courts and legal writers have stressed the fact that policy considerations underlie the doctrine of proximate cause. Of course they do, but the policies actually involved often fail to get explicit treatment.") (footnoted omitted); PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 263-64.

¹⁶ Sperino, *supra* note 9, at 1199-1200, 1216, 1228.

¹⁷ *Id.* at 1216-19, 1228-30.

¹⁸ See, e.g., *WesternGeco LLC v. ION Geophysical Corp. (WesternGeco III)*, 138 S. Ct. 2129, 2139 (2018); *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546 (Fed. Cir. 1995).

¹⁹ See, e.g., Northern District of California Model Patent Jury Instructions Instruction 5.7 (2017) (updated Dec. 2018), available at <https://www.cand.uscourts.gov/juryinstructions> [<https://perma.cc/6E9Y-YRGT>]; Federal Circuit Bar Ass'n Model Patent Jury Instructions, 70-74 (2016), available at <https://fedcirbar.org/IntegralSource/Model-Patent-Jury-Instructions> [<https://perma.cc/9D77-WTVU>].

proximate cause has centuries of precedent in other areas of law, it is an under-theorized and under-developed in the patent context. This Article seeks to remedy that by examining the doctrine and how it might be applied to facilitate patent law's purposes in both the lost profits and reasonable royalty contexts. In addition, this Article provides several specific examples of instances where the doctrine of proximate cause can be applied to a patent infringement reasonable royalty analysis. Fundamentally, this preview of the application of proximate cause to the reasonable royalty context demonstrates the manner in which this doctrine can open up a policy space that will avoid some forms of injustice that are currently plaguing the patent system.

This Article proceeds in several steps. First, the context of the recent cases in this area are examined. Second, the significant principles of proximate cause are outlined. Third, the Supreme Court's application of proximate cause to statutory civil actions is examined. Fourth, this Article examines several examples where proximate cause can be applied to patent liability determinations. Among this includes the extraterritorial reach of U.S. patent rights. Further, the Article will discuss how the doctrine can be used to fine-tune liability where the plaintiff's contribution to the defendant's implementation is minimal and the social benefits of the defendant's infringement is significant and predominant. Further, so as to better adjust liability to accord with the purposes of the patent system, proximate cause must be used to analyze damages where apportionment becomes complex as a result of multiple plaintiffs seeking recovery against the same infringing implementation. The doctrine can be used to limit liability where patents are asserted against numerous parties that include manufacturers, sellers and consumer users. In addition, this Article makes the argument that proximate cause can provide a lens to consider the manner in which some forms of infringement are part of the background risk of creativity and innovation.

II. WESTERNGECO AND ITS INTERNATIONAL IMPLICATIONS

A. *The WesternGeco Decision and its Early Progeny*

Since the earliest part of the nineteenth century, courts have held that domestic patent law does not apply to conduct that occurs outside the country.²⁰ As a consequence, federal statutes are presumed to apply to conduct within the U.S and no further.²¹ This presumption against extraterritoriality is based on comity, a principle which recognizes that all nations are empowered to make the laws that govern their territories.²² These decisions are driven by the concern

²⁰ See, e.g., *The Schooner Exch. v. McFaddon*, 11 U.S. 116, 147 (1812) (“[T]he Exchange, being a public armed ship, in the service of a foreign sovereign . . . should be exempt from the jurisdiction of the country”).

²¹ *WesternGeco III*, 138 S. Ct. at 2134.

²² *Hilton v. Guyot*, 159 U.S. 113, 164 (1895) (“[R]ecognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due

that applying domestic law outside the nation's borders imposes "the sovereign will of the United States onto conduct occurring within the territorial jurisdiction of another sovereign."²³ Unless there is an exception, federal statutes are presumed to have no territorial power in order to operationalize "the respect sovereign nations afford each other by limiting the reach of their laws."²⁴ A number of recent U.S. Supreme Court decisions confirm these long-held principles.²⁵

As the world becomes more interconnected, considerations beyond comity emerge. Treaties, protocols, and other forms of international cooperation require countries to create laws that conform to their international obligations. Under some circumstances, Congress has enacted laws that stretch across our borders to reach conduct overseas. To determine whether any particular statute has extraterritorial effect, and thereby rebutting the presumption against extraterritoriality, the courts examine a two-part test developed in the Supreme Court's *RJR Nabisco v. European Community*.²⁶ First, the court examines "whether the statute gives a clear, affirmative indication that it applies extraterritorially."²⁷ If the answer is yes, the court may apply the statute to extraterritorial conduct.²⁸ If the answer is no, then the court must examine the statute's focus to determine whether the case involves domestic application of the statute.²⁹ If the conduct that is within the statute's focus took place in the U.S., then the statute will be deemed applicable even if some relevant conduct also occurred abroad.³⁰ However, if this occurred entirely in a foreign country,

regard both to international duty and convenience, and to the rights of its own citizens, or of other persons who are under the protection of its laws").

²³ *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108, 121 (2013). *See also* *F. Hoffmann-La Roche Ltd. v. Empagran S.A.*, 542 U.S. 155, 167 (2004) (observing that "several foreign nations" have advised the Court that "to apply [U.S.] remedies would unjustifiably permit their citizens to bypass their own less generous remedial schemes, thereby upsetting a balance of competing considerations that their own domestic antitrust laws embody").

²⁴ *Hartford Fire Ins. Co. v. California*, 509 U.S. 764, 817 (1993); *Am. Banana Co. v. United Fruit Co.*, 213 U.S. 347, 356 (1909) ("But the general and almost universal rule is that the character of an act as lawful or unlawful must be determined wholly by the law of the country where the act is done" and that any other result would be "contrary to the comity of nations.").

²⁵ *See, e.g.*, *RJR Nabisco Inc. v. European Cmty.*, 136 S. Ct. 2090, 2100 (2016) (reapplying the "presumption against extraterritoriality"); *Morrison v. Nat'l Austl. Bank Ltd.*, 561 U.S. 247, 261 (2010) (stating "we apply the presumption in all cases, preserving a stable background against which Congress can legislate with predictable effects"); *Kiobel*, 133 S. Ct. at 1665 (applying the principles that underlie the presumption against extraterritoriality to constrain court jurisdiction under the Alien Tort Statute, 28 U.S.C. § 1350).

²⁶ *RJR Nabisco, Inc.*, 136 S. Ct. at 2101.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

then this is an impermissible extraterritorial application of U.S. law and relief will be denied.³¹

In June 2018, the U.S. Supreme Court decided a patent case which has implications for these principles, *WesternGeco LLC v. ION Geophysical Corp (WesternGeco III)*.³² The patentee, Western Geco, asserted four patents claiming technologies used to search for oil and gas under the ocean floor.³³ The claims described improvements to a system that relied on long streamers equipped with sensors that were suspended underneath ships and were used to map the ocean floor.³⁴ The resulting maps were more accurate, and therefore this method proved to be an improved method for locating offshore oil and gas reserves.³⁵ Both WesternGeco and the defendant ION were competitors as each performed oil exploration services for their clients.³⁶ At trial, a jury found that ION had infringed the claims of WesternGeco's patent and awarded both lost profits and a reasonable royalty as damages.³⁷ The lost profits damages were attributed to WesternGeco's loss of ten sales contracts that the patentee lost to ION for services using the patented technology that were performed outside the U.S.³⁸

The legal foundation for the case is a series of statutes that define infringement and the extraterritorial reach of U.S. patent law.³⁹ As a general matter, section 271(a) is the primary section that enumerates the operative acts that constitute infringement — specifically, making, using, offering to sell, selling or importing a device incorporating the invention.⁴⁰ In the 1972 decision *Deepsouth Packing Co. v. Laitram*, the Supreme Court established that the predicate acts for infringement under this subsection are sufficient only if those acts take place in the U.S.⁴¹ In *Deepsouth*, the claimed invention was a machine used to de-vein shrimp.⁴² The defendant argued that manufacturing individual machine parts in the U.S. and then shipping these parts to customers in “three separate boxes, each containing only parts of the one-and-three-quarter-ton machine” for re-assembly by the end users overseas was not infringement under section 271(a).⁴³

³¹ *Id.* at 2093-94.

³² 138 S. Ct. 2129, 2136-37 (2018).

³³ *Id.* at 2135.

³⁴ *WesternGeco L.L.C. v. ION Geophysical Corp.*, 913 F.3d 1067, 1070 (Fed. Cir. 2019).

³⁵ *See id.*

³⁶ *WesternGeco III*, 138 S. Ct. at 2135.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *See id.* at 2134-35.

⁴⁰ 35 U.S.C. § 271(a) (2012) (“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent”).

⁴¹ *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 527 (1972).

⁴² *Id.* at 519.

⁴³ *Id.* at 524.

The Supreme Court agreed.⁴⁴ As the Court explained, making an infringing device requires manufacture of “the operable assembly of the whole” and not just its parts in the U.S.⁴⁵ There was no infringement because the assembly at issue occurred abroad.⁴⁶ Absent an applicable exception, extraterritorial conduct does not infringe section 271(a) even if that conduct *would* infringe if it occurred in the U.S.⁴⁷ This principle has been reconfirmed in a number of cases over the years.⁴⁸

Deepsouth is consistent with the “basic premise of our legal system that, in general, United States law governs domestically but does not rule the world.”⁴⁹ Subject to some exceptions, a U.S. patent’s power is territorial.⁵⁰ Generally, this rule is based on sovereignty, which permits all nations to create the laws that govern within their borders.⁵¹ Subject to international treaties and obligations, each country can shape its own patent policy and “the laws of others have no claim on it.”⁵² Permitting U.S. law to delineate infringing activity in foreign jurisdictions threatens affected nations’ abilities to craft their own policy choices, issue patents based on their individual standards, and consider which activities should be either covered by — or exempt from — private patent rights.⁵³ Declining to enforce patents extraterritorially avoids the possibility for double patent recovery where foreign activity may infringe both U.S. and foreign patent rights.⁵⁴ Further, sovereignty gives other nations the policy space needed to determine their own laws that reflect their individual policy decisions based on local conditions.⁵⁵

In addition to the geographic scope of the subsection, section 271(a) requires strict identity — that is, all claim elements must appear in the accused device to support a finding of infringement.⁵⁶ In *WesternGeco*, ION “began selling a

⁴⁴ *Id.* at 532.

⁴⁵ *Id.* at 528.

⁴⁶ *Id.*

⁴⁷ *Id.* at 531.

⁴⁸ See *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 444 (2007); *Brown v. Duchesne*, 60 U.S. 183, 195 (1856); *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc. (Power Integrations I)*, 711 F.3d 1348, 1371 (Fed. Cir. 2013).

⁴⁹ *RJR Nabisco, Inc. v. European Cmty.*, 136 S. Ct. 2090, 2100 (2016) (internal quotations omitted) (quoting *Microsoft Corp.*, 550 U.S. at 454); *Deepsouth Packing Co.*, 406 U.S. at 531.

⁵⁰ *RJR Nabisco, Inc.*, 136 S. Ct. at 2100.

⁵¹ Christopher W. Morris, *The Modern State*, in HANDBOOK OF POLITICAL THEORY 198 (Gerald F. Gaus & Chandrun Kukathas eds., 2004).

⁵² *Id.*

⁵³ Timothy R. Holbrook, *Extraterritoriality in U.S. Patent Law*, 49 WM. & MARY L. REV. 2119, 2126-27 (2008).

⁵⁴ *Id.* at 2150, 2177.

⁵⁵ Amy L. Landers, *U.S. Patent Extraterritoriality within the International Context*, 36 REV. LITIG. 28, 41-42 (2016).

⁵⁶ *Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 709 F.3d 1348, 1362 (Fed. Cir. 2013); *Cross Med. Prod., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1310 (Fed.

competing system that was built from components manufactured in the United States, shipped to companies abroad, and assembled there into a system indistinguishable from WesternGeco's.⁵⁷ Critically, ION's manufacture of component parts in the U.S. *alone* was insufficient to infringe WesternGeco's claims.⁵⁸ Rather, these parts must be combined with the entire assembly to meet the strict identity test.⁵⁹ Because ION's combination occurred overseas, section 271(a) was not an appropriate basis to find infringement due to the extraterritorial restrictions on the reach of U.S. patent law.⁶⁰

In *WesternGeco*, the jury found infringement under section 271(f)(2).⁶¹ This section is a limited exception to patent's prohibition against the extraterritorial reach of a domestic patent. Under this subsection, infringement is established against one who supplies components specially designed to infringe and intends them to be combined overseas into an infringing system.⁶² While some might disagree, this subsection does not overrule *Deepsouth*; rather, *Deepsouth*'s territorial limitation continues to govern section 271(a).⁶³ It is more accurate to say that section 271(f) provides an alternative for establishing infringement on facts analogous to those at issue in *Deepsouth* — that is, shipping parts overseas for assembly there.⁶⁴ In styling the infringing act as the manufacture of the component parts in the U.S., section 271(f) sidesteps the sovereignty problem by focusing the operative act of infringement on U.S.-based activity.⁶⁵

Cir. 2005); *see also* AMY L. LANDERS, UNDERSTANDING PATENT LAW 331 (3rd ed. 2018) (“the direction infringement analysis considers whether the act implicates a product, method or process that has strict identity with the patentee’s claimed invention”).

⁵⁷ *WesternGeco III*, 138 S. Ct. 2129, 2137-38 (2018).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *WesternGeco III*, 138 S. Ct. at 2137-38. *See also* Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 457 (2007); Dowagiac Mfg. Co. v. Minnesota Moline Plow Co., 235 U.S. 641, 650 (1915) (“The right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated of acts wholly done in a foreign country”) (citation omitted).

⁶¹ *WesternGeco III*, 138 S. Ct. at 2135.

⁶² 35 U.S.C. § 271(f)(2) (2012) (“Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.”).

⁶³ *FastShip LLC v. United States*, 122 Fed. Cl. 71, 83 n.23 (2015), *aff’d*, 892 F.3d 1298 (Fed. Cir. 2018); *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 (Fed. Cir. 2000).

⁶⁴ *Deepsouth Packing Co., Inc. v. Laitram Corp.*, 406 U.S. 518, 524 (1972).

⁶⁵ *WesternGeco III*, 138 S. Ct. at 2138 (“The conduct that §271(f)(2) regulates — *i.e.*, its focus — is the domestic act of ‘suppl[ying] in or from the United States.’”).

The jury found that ION's manufacture of certain parts in the U.S. and subsequent shipment of those parts overseas for assembly into an infringing combination satisfied the requirements for infringement under section 271(f)(2).⁶⁶ In addition to a reasonable royalty award for supplying the parts overseas, the jury awarded WesternGeco lost profits from contracts that ION had performed abroad because "[a]ccording to WesternGeco, ION's customers would not have been able to win the contracts if they did not have access" to the claimed technology.⁶⁷ Reviewing this portion of the award, the Federal Circuit held that the lost profit award for these foreign contracts was improper, reasoning that the overseas performance of contracts was extraterritorial and therefore beyond the scope of the U.S. patent right.⁶⁸ The court explained that "[j]ust as the United States seller or exporter of a final product cannot be liable for use abroad, so too the United States exporter of the component parts cannot be liable for use of the infringing article abroad."⁶⁹

The Supreme Court reversed.⁷⁰ The Courts bypassed the first prong of the *RJR Nabisco* test and instead examined the second, finding that the focus of section 271(f)(2) is on the predicate act of supplying the component from the U.S.⁷¹ It determined that ION's shipment of components of the claim for overseas assembly was within the scope of the statute's language, and that therefore section 271(f)(2) has extraterritorial effect.⁷² In doing so, the *WesternGeco* Court read section 271(f)(2) in connection with the statute governing patent damages, section 284, which states in relevant part "the court shall award the claimant damages adequate to compensate for the infringement."⁷³ Finding that lost profits for the overseas contracts were permissible, the Court explained that the lost contracts were "merely incidental to the infringement."⁷⁴ Essentially, the Supreme Court conceptualized the foreign sales as connected (that is, "incidental") to the initial act of infringement of the domestic manufacture of parts, which was the first infringing act under section 271(f).⁷⁵ In reaching this determination, the Court expressly refrained

⁶⁶ *Id.* at 2135.

⁶⁷ *WesternGeco L.L.C. v. ION Geophysical Corp. (WesternGeco I)*, 791 F.3d 1340, 1349 (Fed. Cir. 2015), *rev'd WesternGeco III*, 138 S. Ct. 2129 (2018).

⁶⁸ *Id.* at 1350-51 (discussing *Power Integrations I*, 711 F. 3d 1348, 1371-72 (Fed. Cir. 2013)).

⁶⁹ *WesternGeco I*, 791 F.3d. at 1351.

⁷⁰ *WesternGeco III*, 138 S. Ct. at 2139.

⁷¹ *Id.* at 2136-38 (explaining that although "it will usually be preferable to begin with step one, courts have the discretion to begin at step two in appropriate cases.").

⁷² *Id.* at 2138.

⁷³ *Id.* at 2137 (quoting 35 U.S.C. § 284 (2012)).

⁷⁴ *Id.* at 2138.

⁷⁵ *Id.*

from considering whether the doctrine of proximate cause might cut off liability for the lost overseas contracts.⁷⁶

Since the decision in *WesternGeco III*, a district court applied this holding to damages awarded under section 271(a) in *Power Integrations, Inc. v. Fairchild Semiconductor International*.⁷⁷ As previously discussed, the Supreme Court held that this subsection is only effective domestically.⁷⁸ Yet in the district court, patent holder Power Integrations argued that lost worldwide sales were the foreseeable result of domestic infringement and “once a patentee demonstrates an underlying act of domestic infringement, the patentee is entitled to receive full compensation for ‘any damages’ suffered as a result of the infringement.”⁷⁹ It argued that in its industry, the nature of the sales and manufacturing solution meant that “a worldwide solution was essential” and therefore “‘but for’ Fairchild’s U.S. infringement, Power Integrations would have maintained 100% of [the] worldwide business.”⁸⁰ In an earlier opinion issued in 2013, the Federal Circuit had rejected this argument, finding that worldwide sales were not recoverable under the principle that the patent laws did not apply to foreign sales.⁸¹ After the Supreme Court’s *WesternGeco III* opinion was issued, the district court’s *Power Integrations* order determined that the Federal Circuit’s opinion was effectively overruled.⁸²

B. *The International Impact of the WesternGeco Decision*

The implications of the award of worldwide patent damages that these cases allow represents a significant shift from prior law. For patent owners, *WesternGeco III* allows the collection of higher damages awards for conduct that has a U.S. basis. More broadly, from a public policy perspective, permitting the award of worldwide damages based on U.S. conduct implicates the sovereignty of other nations to formulate their own patent policy. By allowing private parties to obtain patents under U.S. standards and permitting them to obtain damages under the standards formulated under U.S. law, the patent system erases each nation’s ability to fine-tune the patent system within their

⁷⁶ *Id.* at 2139 n.3.

⁷⁷ *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc. (Power Integrations II)*, No. CV 04-1371 -LPS, 2018 WL 4804685, at *1-*2 (D. Del. Oct. 4, 2018).

⁷⁸ *Power Integrations I*, 711 F.3d 1348, 1371 (Fed. Cir. 2013) (“It is axiomatic that U.S. patent law does not operate extraterritorially to prohibit infringement abroad.”).

⁷⁹ *Id.* at 1370.

⁸⁰ Non-Confidential Brief for Plaintiff-Cross Appellant Power Integrations, Inc. at 46-47, *Power Integrations I*, 711 F.3d 1348 (No. CV 04-1371-LPS).

⁸¹ *Power Integrations I*, 711 F.3d at 1371-72.

⁸² *Power Integrations II*, 2018 WL 4804685, at *1 (explaining that “Fairchild has identified no persuasive reason to conclude that the interpretation of § 284 should differ here from what was available in *WesternGeco III* just because the type of infringing conduct alleged is different. Instead, as *Power Integrations* puts it, “Section 271(a) ‘vindicates domestic interests’ no less than Section 271(f).”).

borders to incentivize — or disincentive — particular activity. In other words, if a nation finds that broad experimental use fosters desirable activity, that policy judgment cannot be cleanly implemented in multinational companies, who might have to pay U.S.-based judgments. In effect, this renders such activity more expensive to conduct abroad.

Among other things, this imposition of worldwide damages raises troubling policy concerns with regards to the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”).⁸³ This Agreement mandates that each of the over 160 member nations of the WTO institute a patent system to facilitate worldwide trade.⁸⁴ It has an open-ended framework and incorporates a series of flexibilities that allows each member to institute a patent system that fits local priorities.⁸⁵ As stated previously:

[T]he TRIPS Agreement was conceived to overcome the territoriality of domestic patent systems. At the same time, the TRIPS Agreement was intended to allow other nations flexibility in implementing the specifics of their patent systems to fit their local cultures, economies, and legal systems. By authorizing other sovereigns to enact individualized patentability standards, *the TRIPS Agreement permits all members to formulate their own answers to the policy questions that arise in patent cases.*⁸⁶

Imposing remedies on innovators in foreign jurisdictions circumvents those nations’ ability to shape their own patentability standards to suit their own economies.⁸⁷ Under the TRIPS Agreement, such flexibilities are expressly permitted and point toward the optimal path toward maximizing the aggregate global level of invention.⁸⁸ Further, this circumstance invites other nations to reciprocate and increase damages for U.S.-based activity if it implicates a foreign patent. The applicability of the *WesternGeco III* to other forms of relief, including the reasonable royalty, are unclear.

More broadly, the *WesternGeco III* decision adds another layer to the debate about the appropriate contours of an infringer’s liability. Within this context, it is critical that the element of cause be considered as thoughtfully as the others in a patent infringement claim and as thoughtfully as causation is analyzed in the tort context.⁸⁹ This emerging line of case law presents an opportunity to open

⁸³ See generally Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS Agreement]. See also, Landers, *supra* note 55, at 36 (“Indeed, if damages were available extraterritorially, there would have been little need for the TRIPS Agreement.”).

⁸⁴ Landers, *supra* note 55, at 36.

⁸⁵ Peter K. Yu, *The Objectives and Principles of the TRIPS Agreement*, 46 Hous. L. Rev. 979, 1022-23 (2009) (emphasis added).

⁸⁶ Landers, *supra* note 55, at 36

⁸⁷ See *id.* at 37-38.

⁸⁸ TRIPS Agreement, *supra* note 83, at 323.

⁸⁹ PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 264.

up a policy space to meaningfully examine whether damages should be imposed for particular types of conduct for all forms of recovery in patent infringement. As previously mentioned, the *WesternGeco III* Court provides at least one limitation, recognizing that “[i]n reaching this holding, we do not address the extent to which other doctrines, such as proximate cause, could limit or preclude damages in particular cases.”⁹⁰ *WesternGeco III*’s statement calls for a closer examination of cause in the patent litigation context and is consistent with other cases that have begun to recognize cause as an important aspect of patent law.

For example, an infringement finding based on active inducement must be based on a finding that the defendant’s conduct caused the patent infringement.⁹¹ In assessing the secondary considerations for obviousness, there must be a nexus between the commercial success of the product incorporating the invention and the claim at issue.⁹² To obtain an injunction, a patentee must demonstrate a causal nexus between the infringement and the products that are the subject matter of the court’s order.⁹³ Likewise, a reasonable royalty must be based on a causal connection between the award and the infringing features of a product or process.⁹⁴ For a patentee to recover royalties based on the entire product, the patented feature must have a causal connection to the demand for the entire device.⁹⁵ Underlying these decisions is the concept that, just as in tort law, liability does not exist in a vacuum but rather requires compensation with a legal link to particular kinds of harms.⁹⁶ The analyses supporting these rules touch both the elements and proximate cause of an issue, which provides a number of opportunities to better align liability findings with the purposes of the law.

III. CAUSE AND THE PATENT SYSTEM

Proximate cause is an umbrella term that has two components — first, cause in fact and second, (and somewhat confusingly) proximate cause.⁹⁷ Cause —

⁹⁰ *WesternGeco III*, 138 S. Ct. 2129, 2139 n.3 (2018).

⁹¹ *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 76 (Fed. Cir. 2012).

⁹² *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311-12 (Fed. Cir. 2006).

⁹³ *Macom Tech. Sols. Holdings, Inc. v. Infineon Techs. AG*, 881 F.3d 1323, 1330 (Fed. Cir. 2018) (quoting *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 640 (Fed. Cir. 2015)) (“[T]o satisfy the irreparable harm requirement, there must be a causal nexus between conduct shown to be wrongful and the alleged harm. This requirement ‘ensures that an injunction is only entered against a defendant on account of a harm resulting from the defendant’s wrongful conduct, not some other reason.’”). See also Bernard Chao, *Causation and Harm in A Multicomponent World*, 164 UNIV. PA. L. REV. ONLINE, 61, 65 (2016).

⁹⁴ *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc. (Power Integrations III)*, 904 F.3d 965, 977 (Fed. Cir. 2018) (“A patentee is only entitled to a reasonable royalty attributable to the infringing features.”).

⁹⁵ *LaserDynamics*, 694 F.3d at 67.

⁹⁶ *Id.*

⁹⁷ PROSSER & KEETON ON TORTS, *supra* note 2, §§ 41-42. In some negligence contexts, the term “proximate cause” has been referred to as simply “scope of the risk.” RESTATEMENT

which sometimes called “cause in fact” or “factual cause” and which is typically a jury question — asks whether the injury would have occurred in the absence of defendant’s tortious conduct.⁹⁸ Although there are exceptions for cases where this test is not an appropriate fit, the general rule queries whether the plaintiff would have been harmed “but-for” the defendant’s conduct.⁹⁹ Cause in fact requires the plaintiff to show that a defendant’s conduct make a material or substantial contribution to the plaintiff’s injury.¹⁰⁰ This showing can be made even if other innocent causes or another’s tortious behavior are contributing factors.¹⁰¹

A. Connection to the Harm

Proximate cause is presumed to apply to civil statutory causes of action.¹⁰² This limitation has been applied to a number of federal claims.¹⁰³ As the Supreme Court has explained, “[t]hat venerable principle reflects the reality that the judicial remedy cannot encompass every conceivable harm that can be traced to alleged wrongdoing.”¹⁰⁴ Thus, it is inherent in any compensatory system that a plaintiff demonstrates a causal connection between the defendant’s wrongful conduct and the plaintiff’s harm. As a consequence, as a legal system “[the U.S. is] willing to exonerate a suspected person whenever we decide that his conduct ‘had nothing to do with’ the event in which we are interested.”¹⁰⁵ Essentially, a wrongdoer is not responsible to pay damages unless there is some level of certainty that the plaintiff’s harm would not have occurred but-for the

(SECOND) OF TORTS § 281 cmt. g (AM. LAW INST. 1965) [hereinafter RESTATEMENT (SECOND) OF TORTS]. As risk is the foundation of a negligence cause of action, that terminology is not used in this piece.

⁹⁸ PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 264-65. Doctrinally, cause in fact is sometimes placed under the umbrella of proximate cause. *Id.* This work excludes cause in fact from the proximate cause analysis.

⁹⁹ *See id.* at 266.

¹⁰⁰ *See* Leon Green, *Proximate Cause in Texas Negligence Law*, 28 TEX. L. REV. 471, 474-75 (1950).

¹⁰¹ *Id.* at 475 (“There may be and usually are several factors contributing to a plaintiff’s hurt, but it is not required that a defendant’s negligence be the only cause of the hurt.”).

¹⁰² *Lexmark Int’l., Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 132 (2014) (“[W]e generally presume that statutory cause of action is limited to plaintiffs whose injuries are proximately caused by violations of the statute.”).

¹⁰³ *See, e.g.*, *Dura Pharm., Inc. v. Broudo*, 544 U.S. 336, 346 (2005) (securities fraud); *Holmes v. Sec. Inv’r Prot. Corp.* 503 U.S. 258, 268–69 (1992) (RICO); *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 529–35 (1983) (Clayton Act); *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983) (NEPA). *See also* Sandra F. Sperino, *Statutory Proximate Cause*, 88 NOTRE DAME L. REV. 1199, 1216-17 n.79 (2013) (citing cases).

¹⁰⁴ *Lexmark*, 572 U.S. at 132 (quotations and citation omitted).

¹⁰⁵ *Wes Malone, Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60, 66 (1957).

defendant's conduct.¹⁰⁶ To effectuate the law's goals, causation serves the goals of compensation as well as determining that the appropriate party to pay damages is the one who caused the plaintiff's injury.¹⁰⁷ In other words, a plaintiff's compensation depends on identifying a defendant's particularized conduct that led to the injury.¹⁰⁸ A jury's understanding of cause in fact controls and that body's knowledge of cause and effect may be critical to their determinations.¹⁰⁹

Patent law incorporates this compensatory purpose to the liability framework for patent infringement. The patent statute that governs monetary relief states that a patentee is entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer."¹¹⁰ The phrase "damages adequate to compensate for the infringement" makes clear that the purpose of monetary relief for patent infringement is *compensatory*.¹¹¹ As in the common law, the concept behind these measures of compensation is that monetary relief is available for an infringement that leads to the patentee's legally cognizable harm.¹¹² This necessarily requires a causal relation between the injury and the infringement. Compensation, which places the patentee in the same position that it would have been absent the defendant's infringement, depends on ensuring that the defendant's injury contributed to the harm.¹¹³

This standard has been traditionally applied where lost profits are sought.¹¹⁴ These awards allow patentees to recover for money that would have been earned

¹⁰⁶ *See id.*

¹⁰⁷ *See* James E. Viator, *When Cause-in-Fact Is More Than A Fact: The Malone-Green Debate on the Role of Policy in Determining Factual Causation in Tort Law*, 44 LA. L. REV. 1519, 1530 (1984).

¹⁰⁸ *Id.*

¹⁰⁹ *See* William E. Nelson, *From Fairness to Efficiency: The Transformation of Tort Law in New York, 1920-1980*, 47 BUFF. L. REV. 117, 131-32 (1999) (observing a shifting historic trend that "[a]s juries and others adopted the new paradigm holding that victims of injury should receive compensation from some source, they simultaneously rejected the older, nineteenth century world view that injury, death and other sudden calamities were inevitable, random and frequent events attributable to cosmic rather than human agency.").

¹¹⁰ 35 U.S.C. § 284 (2012).

¹¹¹ *See* Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964) (the statutory measure of damages is "the difference between [the patent owner's] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.").

¹¹² *Id.*

¹¹³ *See* Leon Green, *The Causal Relation Issue in Negligence Law*, 60 MICH. L. REV. 543, 548 (1962) ("The inquiry is limited to the fact of defendant's contribution to the injury.").

¹¹⁴ WILLIAM C. ROOKLIDGE ET AL., FED. JUDICIAL CTR., COMPENSATORY DAMAGES ISSUES IN PATENT INFRINGEMENT CASES, COMPENSATORY DAMAGES ISSUES IN PATENT INFRINGEMENT CASES 2 (2d ed. 2017),

if the defendant had not entered the market with a competing infringing product, including lost sales, price erosion and convoyed sales that might have been made absent competition from the infringer.¹¹⁵ It is well-established that to recover lost profits, the patentee must demonstrate a causative link between the monetary loss and the infringement.¹¹⁶ Yet there is no reason to limit its applicability to lost profits, given that reasonable royalty awards are also compensatory in their purpose.

B. Causation and the Reasonable Royalty

A second form of damages for patent infringement is the reasonable royalty, which was developed in the legal courts prior to their merger with the courts of equity.¹¹⁷ During the nineteenth century, a patentee was entitled to recover damages in the amount of an established license rate, if one existed.¹¹⁸ Over time, the courts began to recognize that — in the absence of evidence establishing lost profits or a customary licensing rate — a patentee could be awarded a reasonable royalty that reflected the value of the patented invention used by the infringer.¹¹⁹ This remedy relies on the principle that a legally cognizable harm can include the mere act of infringement of the patent right, even if the patentee had suffered no pecuniary loss in the market.¹²⁰ This allows patentees who do not sell products to obtain monetary recovery to compensate

https://www.fjc.gov/sites/default/files/2017/Compensatory_Patent_Damages_2d_ed_2017.pdf [<https://perma.cc/A2QJ-DBMV>].

¹¹⁵ *Id.* at 3, 6-7.

¹¹⁶ *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 552–53 (1886) (“[T]he difference [in the plaintiff’s] pecuniary condition . . . is to be measured . . . by the difference between the money he would have realized from such sales [but for] . . . the infringement . . . and the money he did realize”); *Minco, Inc. v. Combustion Eng’g, Inc.*, 95 F.3d 1109, 1118 (Fed. Cir. 1996) (“To recover lost profits, however, the patent holder must show that the infringement actually caused the economic harm for which the patentee seeks compensation.”); *King Instruments Corp. v. Perego*, 65 F.3d 941, 952 (Fed. Cir. 1995), *cert. denied*, 517 U.S. 1188 (1996) (“To recover lost profits damages for patent infringement, the patent owner must show that it would have received the additional profits ‘but for’ the infringement.”); *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995) (“[T]he patentee must show a reasonable probability that, ‘but for’ the infringement, it would have made the sales that were made by the infringer.”).

¹¹⁷ Amy Landers, *Patent Claim Apportionment, Patentee Injury, and Sequential Invention*, 19 GEO. MASON L. REV. 471, 498-99 (2012) (tracing the history of the reasonable royalty).

¹¹⁸ *Clark v. Wooster*, 119 U.S. 322, 326 (1886) (“It is a general rule in patent cases that established license fees are the best measure of damages that can be used.”).

¹¹⁹ *Dowagiac Mfg. Co. v. Minnesota Moline Plow Co.*, 235 U.S. 641, 649 (1915) (allowing patentee recovery where “the only measure of damages was such sum as, under all the circumstances, would have been a reasonable royalty for the defendant to have paid.”).

¹²⁰ Oskar Liivak, *When Nominal is Reasonable: Damages for the Unpracticed Patent*, 56 B.C. L. REV. 1031, 1038 (2015).

for the use of the claimed invention.¹²¹ The mere violation of the patent right is the identified harm, unlike lost profits which redresses monetary loss where a competitor infringer sells products and the patentee therefore loses sales that it would have made absent the infringement.¹²² As one court described, “[t]he reasonable royalty theory of damages . . . seeks to compensate the patentee not for lost sales caused by the infringement, but-for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing.”¹²³

Since the merger of law and equity courts, any patentee may elect to recover either lost profits or a reasonable royalty including those who do — and those who do not — sell products.¹²⁴ With a proper evidentiary showing, a patentee is free to demonstrate entitlement to recover monetary damages under both theories.¹²⁵ Reasonable royalty awards are the most widely sought-after form of monetary damages and are available in all patent cases.¹²⁶ As a practical matter, patent owners favor reasonable royalty recovery because the standards for proof are less exacting and the overall recovery tends to be higher.¹²⁷ Yet, from a policy perspective, this form of recovery has been criticized as moving too far from the statute’s compensatory purposes.¹²⁸ This may be because, beyond

¹²¹ *Id.*

¹²² *Id.*

¹²³ *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1334 (Fed. Cir. 2015).

¹²⁴ *Liivak*, *supra* note 120, at 1038.

¹²⁵ *Id.*

¹²⁶ See Zelin Yang, *Damaging Royalties: An Overview of Reasonable Royalty Damages*, 4 BERKELEY. TECH. L.J. 647, 648 (2014) (“Reasonable royalties are the most common form of damages, accounting for eighty-one percent of the damages awards over the last six years.”). See also Christopher B. Seaman, *Reconsidering the Georgia-Pacific Standard for Reasonable Royalty Patent Damages*, 5 BYU L. REV. 1661, 1667 (2010) (“[A] reasonable royalty recently has become the most commonly employed method for calculating patent infringement damages, supplementing or replacing the traditional remedy of the patentee’s lost profits.”).

¹²⁷ See Mark A. Lemley, *Distinguishing Lost Profits From Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 667 (2009) (“[T]he situation has gotten so bad that some patentees who can prove lost profits elect instead to seek a ‘reasonable’ royalty that is far in excess both of what the parties would have negotiated and of the actual losses the patentee suffered.”); PRICEWATERHOUSECOOPERS, 2018 PATENT LITIGATION STUDY 6 (2018), <https://www.pwc.com/us/en/forensic-services/publications/assets/2018-pwc-patent-litigation-study.pdf> [<https://perma.cc/2FPP-FTDC>].

¹²⁸ The reasonable royalty damages figure is based on a thirteen-factor test that was established in *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970), modified sub nom. *Georgia-Pac. Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295 (2d Cir. 1971). See Brian Love, *The Misuse of Reasonable Royalty Damages as a Patent Infringement Deterrent*, 74 MO. L. REV. 909, 923-24 (2009). See also Seaman, *supra* note 126, at 1666 (“[T]here is a growing body of evidence that *Georgia-Pacific* has resulted in the systematic overcompensation of patent owners in certain industries.”).

problems calculating the reasonable royalty, causal links between the infringement and plaintiff's harm remain virtually unexamined.¹²⁹

Although causation may not be critical in all cases, in others it may be outcome determinative. For instance, in *Ericsson, Inc. v. TCL Communications Technology Holdings* (“TCL”), the district court incorporated a causal requirement for a lump-sum reasonable royalty award.¹³⁰ There, Ericsson demonstrated that TCL's use of the Android operating system infringed a number of its patent claims.¹³¹ Ericsson's damages verdict included \$75 million lump-sum royalty, which was based on expert testimony that included a component for the time period that ran from the date of trial until the patents expired.¹³² The *Ericsson* court explained that the award was erroneous, in part because it was based on projected losses and that “projected future loss must be factually and proximately caused by a wrong (such as a tort) that has *already occurred*.”¹³³ Finding “there is no exception to these principles in patent law,” the court explained:

Although a lump sum royalty includes compensation for projected future infringement, the patent holder must establish that but-for infringement that has already occurred with respect to a certain product, the infringer would have paid a lump sum royalty for a license to keep selling that certain product through the life of the patent. In other words, what the patent holder actually lost, because of a party's past infringement, was a lump sum royalty. The lump sum may be based on developments that have occurred after the date of the hypothetical negotiation, including realistic projections of future sales, but the lump sum must be based on a product accused in the lawsuit and found by the jury to infringe.¹³⁴

¹²⁹ Certainly, the reasonable royalty analysis has woven some causation concepts into the application of the *Georgia-Pacific* test. To determine the royalty base for a multicomponent product, the general rule is that the royalty is limited to the value of the infringing feature of the entire product and nothing more. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014). This requirement is intended to ensure that the compensation award is connected to the defendant's infringing use and not on the defendant's sale of products more generally. Lemley, *supra* note 127, at 661-62 (recognizing that reasonable royalty awards are available to all patentees, including those who produce and sell products). In a similar vein, admissible licenses to demonstrate the amount of compensation must have a relation to the patented technology. *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012).

¹³⁰ Memorandum Opinion and Order at 14, *Ericsson, Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, No. 2:15-cv-00011-RSP (E.D. Tex. Mar. 7, 2018) [hereinafter *Ericsson v. TCL* Memorandum Opinion & Order].

¹³¹ *Id.* at 1.

¹³² *Id.* at 1-3.

¹³³ *Id.* at 13-14.

¹³⁴ *Allergan Sales, LLC v. UCB, Inc.*, No. 215CV01001JRGRSP, 2016 WL 8222619, at *2 (E.D. Tex. Nov. 7, 2016) (“Both a running royalty and a lump sum royalty, however, compensate the patent holder for loss resulting from infringement that has already

Here, the court found that the award was not supported by evidence because it was based on products that “do not yet exist or that have never been found to infringe.”¹³⁵ Thus, any causal connection between the plaintiff’s asserted harm and the monetary damage was lacking.¹³⁶ Perhaps it is not surprising that the jury had reached an erroneous conclusion, given that the law does not clearly call out the need for this filter before juries decide damages awards during trial.

At least one district court has used causation to reduce an inflated reasonable royalty that, as calculated in an expert report, was unsustainably high.¹³⁷ There, the court determined that royalty damages could not be set based on draft negotiation documents for a deal that had never been consummated.¹³⁸ As the court explained, the amounts discussed in those documents were not sufficiently reliable to demonstrate a royalty figure that the plaintiff would have obtained but-for the infringement.¹³⁹ In other words, those negotiation documents were not reflective of any amount necessary to place the patentee “in the pecuniary condition he would have enjoyed but for the defendant’s infringement,” which is a classic causation analysis.¹⁴⁰ It is evident from these examples that courts are capable of applying causative concepts to liability and harm concepts, either in whole or in part, to the reasonable royalty award. Yet without a focus on causation throughout the patent system, the ability to fine-tune the relation between liability and damages, and ensuring just results, has been essentially foreclosed.

Cause is an element of establishing liability. The type of remedy—whether lost profits or the reasonable royalty—is not determinative. In a traditional tort case, the question is whether there is a sufficient connection between liability and the element of damage claimed. For example, a plaintiff seeking to recover for the tortious interference with her business must establish a connection between any losses and the defendant’s wrongful conduct, regardless of whether such recovery is restitutionary or compensatory. The method of calculation or its label does not impact whether proximate cause should (or should not) limit liability with respect to a particular element of damages.

happened. Although a lump sum royalty includes compensation for projected future infringement, the patent holder must establish that but-for infringement that has already occurred, the infringer would have paid a lump sum royalty.”); *Ericsson v. TCL* Memorandum Opinion & Order, *supra* note 130, at 14 (citation omitted).

¹³⁵ *Ericsson v. TCL* Memorandum Opinion & Order, *supra* note 130, at 14.

¹³⁶ *See id.*

¹³⁷ *Michaels v. Art Betterley Enters., Inc.*, No. 90-CV-1015E(M), 1996 WL 722007, at *3 (W.D.N.Y. Dec. 13, 1996).

¹³⁸ *Id.* at *2.

¹³⁹ *Id.* at *3.

¹⁴⁰ *Id.* at *2.

Some might argue that patent infringement is akin to the tort of trespass and that therefore damages should be presumed for any violation.¹⁴¹ Such an analogy, to the extent that it is apt, might rest on the assumption that the mere violation of the patent right is sufficient to demonstrate entitlement to a reasonable royalty without consideration of any causative connection to a pecuniary loss. The argument might continue that, because the violation of the right *is* the harm, then the link to the reasonable royalty is established by a violation of the right of exclusive possession.

This argument ignores the statutory structure of the Patent Act. Section 284, which defines the entitlement to a reasonable royalty, sets forth various measures of available damages.¹⁴² Section 284 does not define civil liability or the patentee's harm.¹⁴³ Rather, section 281, which defines civil liability, does not contain any language that would rebut the presumption for a causative requirement as a matter of determining liability.¹⁴⁴ Beyond the Supreme Court's direction, the Federal Circuit has acknowledged that, as a general matter, "[e]xpress language is not required" because "statutes speak in general terms rather than specifically expressing every detail."¹⁴⁵ It is worth noting then, that section 284 was adopted against a backdrop of common law liability, which overwhelmingly applies the principles of cause in fact and proximate cause as a prerequisite for monetary recovery.¹⁴⁶

Further, to the extent the trespass analogy might be applicable, common law trespass actions recognize that the mere violation of the right of exclusive possession generally does not lead to a full panoply of remedies.¹⁴⁷ For mere violations of the right, a property owner obtains a nominal figure.¹⁴⁸ To recover for any actual pecuniary loss, the landowner must demonstrate a causative

¹⁴¹ See Adam Mossoff, *The Trespass Fallacy in Patent Law*, 65 FLA. L. REV. 1687, 1693 (2013) (outlining the historical origins of the analogy while criticizing that it is applicable).

¹⁴² 35 U.S.C. § 284 (2012).

¹⁴³ *Id.*

¹⁴⁴ 35 U.S.C. § 281 (2012) ("A patentee shall have remedy by civil action for infringement of his patent.").

¹⁴⁵ *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1547 (1995) (applying a proximate cause analysis to lost profits).

¹⁴⁶ *Id.* at 1559-60.

¹⁴⁷ See, e.g., *Benson v. Waukesha*, 41 N.W. 1017, 1020 (Wis. 1889) (finding the plaintiff seeking recovery "for an act which did not injure her property would entitle her to recover *only* nominal damages.") (emphasis added).

¹⁴⁸ See, e.g., *Hill v. Raziano*, 63 A.D.3d 682, 683 (2009); *Adams v. Cleveland-Cliffs Iron Co.*, 602 N.W.2d 215, 220 (Mich. App. 1999) (discussing the "traditional principle that at least nominal damages are presumed in cases of trespass"); *id.* at 224-25 ("A jury instruction with respect to the latter should announce that because the violation of the right to exclude causes cognizable injury in and of itself, a plaintiff proving that violation is presumptively entitled to at least nominal damages.").

connection to the amount of actual damages suffered.¹⁴⁹ By analogy, a reasonable royalty figure for the mere violation of the patent right does not, absent a showing of causation to the harm, render entitlement to a full reasonable royalty *per se* available. Moreover, in the tort context, some decisions have adopted a rule that *de minimis* invasions do not warrant recovery of even nominal damages.¹⁵⁰ It is remarkable that patent law has, as a whole, ceded the policy space that proximate cause applies to other civil cases.¹⁵¹ For example, a patentee should not be able to recover a reasonable royalty for technology that is outside its claim scope unless there is an affirmative showing of a causative connection to the infringement.

One might argue that, at least for cause in fact, policy plays no role for the fact-based inquiry. Yet as Professor Wes Malone recognized, judges exercise considerable control that infuses policy into the cause in fact analysis.¹⁵² Through pre- and post-trial motion practice and evidentiary rulings, courts can shape the information that the jury hears and provide some level of scrutiny to their decisions.¹⁵³ Today, challenges to expert testimony on causality issues can be used to prevent irrelevant or unsupported theories from reaching the jury in tort cases.¹⁵⁴ Appellate courts act as another check on the jury's finding. Thus, regardless of the extent to which cases do or do not require judicial oversight of cause in fact, tools exist for doing so.

As Professor Malone further explains, policy operates in under-appreciated ways.¹⁵⁵ Some of this work is performed in assessing the counter-factual question of what might have happened in the absence of the defendant's wrong.¹⁵⁶ This inquiry invites speculation, yet it is a necessary component of the inquiry.¹⁵⁷ Professor Malone points out that while parties present facts to the

¹⁴⁹ See *Allstate Fire Ins. Co. v. Singler*, 236 N.E.2d 79, 81 (Ohio 1968); *Woodbury v. Whitmire*, 271 S.E.2d 491, 492 (Ga. 1980).

¹⁵⁰ See *Pub. Serv. Co. of Colorado v. Van Wyk*, 27 P.3d 377, 390 (Colo. 2001); *Bradley v. Am. Smelting & Ref. Co.*, 709 P.2d 782, 791 (Wash. 1985); *Martin v. Reynolds Metals Co.*, 342 P.2d 790, 795-96 (Or. 1959).

¹⁵¹ See Mossoff, *supra* note 141, at 1695 (recounting allegations that the trespass doctrine operates in a manner that is determinate and efficient while patent claims are vague and indeterminate).

¹⁵² Wex S. Malone, *Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60, 68-69 (1956).

¹⁵³ Theodore Eisenberg, *Judicial Decisionmaking in Federal Products Liability Cases, 1978-1997*, 49 DEPAUL L. REV. 323, 325 (1999) ("Even in jury trials, judges can exert substantial influence over the outcome through pretrial motions, evidentiary rulings, and post-judgment motions.").

¹⁵⁴ See Cynthia H. Cwik, *Guarding the Gate: Expert Evidence Admissibility*, LITIG., Summer 1999, at 6, 6 (1999) (Discussing the duty of judges to determine the admissibility of expert testimony and that expert testimony is often used to help the jury determine cause in tort cases.).

¹⁵⁵ See *id.* at 60-61.

¹⁵⁶ *Id.* at 67.

¹⁵⁷ See *id.*

courts, judges must ultimately determine the legal sufficiency of those facts.¹⁵⁸ The law provides a range of acceptable options for so determining. For example, a court accepted that an employer was liable for an injury that resulted from the plaintiff's having fell on a coffee pot during an epileptic seizure at the workplace, because the coffee pot's presence increased the risk of harm.¹⁵⁹ One dissent to this decision argued that "[t]he coffee pot was part of the resulting injury, not its cause."¹⁶⁰ A separate dissent asserted, "[n]o connection is urged (and none was shown) to indicate that the presence of the coffee maker in the perimeter of claimant's fall increased the severity of harm from her fall."¹⁶¹ This range of opinions on the same factual proof illustrates Professor Malone's point that the legal standard can be judicially controlled to implement liability and compensation policies.¹⁶²

Another of Professor Malone's examples considers a failure to comply with a statute requiring fire escapes, which raises a host of causation issues.¹⁶³ The issue becomes quite complicated if the statute does not mandate the fire escape's location.¹⁶⁴ As Professor Malone explains, a defendant may show other locations that would have complied with the law but were too far from the victim to change the outcome.¹⁶⁵ Other factors, such as a blocked door or too much smoke might have been overwhelming causes compared to the landlord's failure to provide a fire escape.¹⁶⁶ In the course of deciding cases that raise these issues, courts will exercise policy choices to determine which are sufficient to go to a jury. Similarly, Professor Malone observed that courts have, over time, shifted their willingness to send cases to a jury where the defendant is alleged to be negligent for failure to have a life guard on duty.¹⁶⁷ In other circumstances, the courts have developed causation rules, including burden-shifting and presumptions that assist in resolving difficult questions of cause in fact.¹⁶⁸ Perhaps one of the most well-known is *Summers v. Tice*, where the court shifted the burden of proof to joint, concurrent tortfeasors.¹⁶⁹ As these cases illustrate, there is room for policy to operate in the cause in fact space.¹⁷⁰ As detailed in later sections of this article,

¹⁵⁸ See *id.* at 61-62.

¹⁵⁹ *Flanner v. Tulsa Pub. Sch.*, 41 P.3d 972, 973, 976 (Okla. 2002) *as corrected* (Feb. 13, 2002).

¹⁶⁰ *Id.* at 977 (Hodges, J., dissenting).

¹⁶¹ *Id.* (Opala, J., dissenting).

¹⁶² *Id.* at 72-73.

¹⁶³ *Malone, supra* note 152, at 77-79.

¹⁶⁴ *Id.* at 79.

¹⁶⁵ *Id.* at 79.

¹⁶⁶ *Id.* at 82.

¹⁶⁷ *Id.* at 71 (quoting *Rovegno v. San Jose Knights of Columbus Hall Ass'n*, 291 Pac. 848, 850 (Cal. App. 1930)).

¹⁶⁸ See, e.g., *Summers v. Tice*, 199 P.2d 1, 6 (Cal. 1948).

¹⁶⁹ *Summers*, 199 P.2d at 5.

¹⁷⁰ *Malone, supra* note 152, at 64.

proximate cause provides an even more compelling case for judicial intervention.

Causation's use as a policy lever in patent law already exists for lost profit recovery. In that context, a patentee may demonstrate entitlement to lost profits through customer testimony that demonstrates the customer would have purchased the patentee's products but-for the defendant's infringement.¹⁷¹ Absent such evidence, patent law has developed a causation test that relies on inferences based on a series of factual circumstances.¹⁷² This test, known as the *Panduit* test, requires patent holders to show but-for causation of the patentee's lost sales.¹⁷³ The courts have modified the standard but-for causation test for policy reasons to enable patentees to recover under the *Panduit* test in multi-competitor markets.¹⁷⁴ The courts have created another variation that vitiates the patentee's ability to collect lost profits where the defendant had the ability to create a non-infringing alternative.¹⁷⁵ In other words, in the lost profits context, the courts have formulated rules that exercise policy control over cause in fact.

Cause is a relatively unexamined policy lever for the reasonable royalty, and therefore the courts have not engaged in the comparable development of thought or the creation of rules. In the extraterritorial infringement context, this is problematic. It is questionable whether overseas infringement has a causative relation to any *legally cognizable* harm. It has long been held that a U.S. patent's legal effect does not extend beyond the U.S. border.¹⁷⁶ As Arthur Ripstein explains "[i]t is a commonplace of legal analysis that not all harms are legal wrongs, and not all legal wrongs are harms."¹⁷⁷ Presuming entitlement to

¹⁷¹ Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 658 n.14 (2009) (citing *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1578 (Fed. Cir. 1989)).

¹⁷² See *Panduit Corp. v. Stahlin Brothers Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir.1978).

¹⁷³ *Id.* ("To obtain as damages the profits on sales he would have made absent the infringement, i. e., the sales made by the infringer, a patent owner must prove: (1) demand for the patented product, (2) absence of acceptable noninfringing substitutes, (3) his manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit he would have made.").

¹⁷⁴ *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1218-19 (Fed. Cir. 1993).

¹⁷⁵ *Grain Processing Corp. v. Am. Maize-Prod. Co.*, 185 F.3d 1341, 1349 (Fed. Cir. 1999).

¹⁷⁶ *General Information Concerning Patents: What is a Patent?*, U.S. PAT. & TRADEMARK OFF. (Oct. 2015), <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents> [<https://perma.cc/2KJ7-SBAT>].

¹⁷⁷ Arthur Ripstein, *As If It Had Never Happened*, 48 WM. & MARY L. REV. 1957, 1960 (2007). See also Stephen Perry, *Harm, History, and Counterfactuals*, 40 SAN DIEGO L. REV. 1283, 1308 (2003) (recognizing the relationship between harm and legal rights, as well as the concept that one's interests can be set back without any legally cognizable harm occurring).

compensation for overseas activity allows the factfinder to skip a meaningful look at the causative step, which would require application of this rule.¹⁷⁸

Additionally, where there are multiple actors, there may be incidental infringements by some that create such a *de minimis* harm to the plaintiff that they cannot be said to be a substantial factor of an injury.¹⁷⁹ In standard tort cases, “when the plaintiff has suffered nothing more than *de minimis* or trifling damages at the inception of the defendant’s acts, the doctrine of *de minimis non curat lex* bars recovery.”¹⁸⁰ Yet patent infringement currently might lead to reasonable royalty recovery without pausing to consider this important limitation.

The judicially-created rules for lost profits fill the gap in both the patent act and section 284, the latter of which defines the foundation of monetary recovery.¹⁸¹ The presumption that all patent infringement, no matter how nominal, extraterritorial or contrary to patent policy, supports a finding of cause in fact to the reasonable royalty is noteworthy. As a practical matter, in the tort context “[i]t should be quite obvious that, once events are set in motion, there is, in terms of causation alone, no place to stop.”¹⁸² In patent context, however, this presumption of cause in fact for the reasonable royalty represents missed opportunities to ensure that the purposes of patent law are met in the process of determining liability.

IV. RATIONALES FOR PROXIMATE CAUSE

A. *An Overview*

In the majority of cases, the application of factual cause does little to limit liability.¹⁸³ Yet just as the flap of a butterfly’s wing in Brazil has been posited to

¹⁷⁸ Before *WesternGeco*, a defendant could limit damages for worldwide sales by invoking the holding of the Supreme Court’s *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007). After *WesternGeco* and the district court’s *Power Integrations II*, the status of the ability to limit royalty recovery to the U.S. territory is in question. See footnote 82 and accompanying text.

¹⁷⁹ See *Mitchell v. Gonzales*, 819 P.2d 872, 884 (Cal. 1991) (applying the substantial factor test to the question of cause in fact).

¹⁸⁰ *G.M. Sign, Inc. v. Elm St. Chiropractic, Ltd.*, 871 F. Supp. 2d 763, 769 (N.D. Ill. 2012).

¹⁸¹ But see Peter Menell, *The Mixed Heritage of Federal Intellectual Property Law and Ramifications for Statutory Interpretation*, in *INTELLECTUAL PROPERTY AND THE COMMON LAW* 63, 64 (Shyam Balganeshe et al. eds., 2011) (“[I]ntellectual property reflects a mixed heritage in which courts, operating in what can most aptly be characterized as a common law mode, came to play a principal role in fleshing out and evolving terse early legislative enactments.”).

¹⁸² PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 266.

¹⁸³ See Jeremiah Smith, *Legal Cause in Actions of Tort*, 25 HARV. L. REV. 103, 109 (1911).

set off a tornado in Texas,¹⁸⁴ a slight wrong has the potential to impose disproportional liability on a single actor.¹⁸⁵ As Professor Smith recognized, “[t]he fact that the damage would not have happened, ‘but for’ the commission of the defendant’s tort, does not invariably justify the conclusion that the tort was the cause, in the legal sense.”¹⁸⁶ Courts developed proximate cause as a policy mechanism to cut off a defendant’s liability either entirely or for particular elements of damages.¹⁸⁷ As one state court decision explained in 1865:

In strict logic it may be said that he who is the cause of loss, should be answerable for all the losses which flow from his causation. But in the practical workings of society, the law finds, in this as in a great variety of other matters, that the rule of logic is impracticable and unjust. . . . To visit upon them *all* the consequences of failure would set society upon edge, and fill the courts with useless and injurious litigation.¹⁸⁸

Early legal scholarship recognized that a defendant’s contribution may be remote in space or time and, therefore, not sufficient to warrant the imposition of liability.¹⁸⁹ An early example of this principle appears in the 1793 case of *Ashley v. Harrison*, which considered an action brought by the owner of a theater against a defendant who had slandered a singer who was scheduled to perform there.¹⁹⁰ After the slander, the performer cancelled her appearance because she feared “being hissed and ill-treated.”¹⁹¹ The court rejected the theater owner’s claim against the slanderer.¹⁹² Lord Kenyon’s opinion observed that, although the performer might have a valid cause of action against the defendant, the

¹⁸⁴ Edward Lorenz, Professor of Meteorology, Mass. Inst. Tech., Address to the Annual Meeting of the American Association for the Advancement of Science, Predictability: Does the Flap of a Butterfly’s Wings in Brazil Set Off a Tornado in Texas? (Dec. 29, 1979).

¹⁸⁵ See generally, Jay Tidmarsh, *A Process Theory of Torts*, 51 WASH. & LEE L. REV. 1313, 1354 (1994) (observing that legal causation is a construct and that “[w]e cannot exclude the possibility that some tort system might desire, hundreds of years after the fact, to hold the estate of Christopher Columbus liable for all the causal consequences of his conduct.”).

¹⁸⁶ Smith, *supra* note 183, at 109.

¹⁸⁷ Fleming & Perry, *supra* note 15, at 761. Furthermore, Fleming and Perry note that proximate cause is driven by policy, “but the policies actually involved often fail to get explicit treatment.” *Id.* at 784 (“One consideration which is common to all cases under any system is the practical need to draw the line somewhere so that liability will not crush those on whom it is put.”). See also John G. Fleming, *The Passing of Polemis*, 39 CAN. BAR REV. 489, 490 (1961).

¹⁸⁸ *Fleming v. Beck*, 48 Pa. 309, 313 (Pa. 1865).

¹⁸⁹ Smith, *supra* note 183, at 109 (“The defendant’s tort must be distinctly traceable as one of the substantial efficient antecedents; as having had a substantial share in subjecting plaintiff to the damage”).

¹⁹⁰ *Ashley v. Harrison*, 170 Eng. Rep. 276 (K.B. 1793).

¹⁹¹ *Id.*

¹⁹² *Id.*

theater owner's harm was too remote.¹⁹³ He explained that the singer's fears might be groundless and that the defendant's actions were too removed to support relief.¹⁹⁴ The *Ashley* case demonstrates that, although the third-party's slander was a but-for cause of the lost theater revenue, the slanderer should not be held liable absent stronger proof of a direct connection between the risks created by making false statements and the theater's lost revenue.¹⁹⁵

This concept is echoed in the term "proximate," which suggests either physical or temporal closeness and echoes the ancient concept of *in jure non remota causa sed proxima spectator*.¹⁹⁶ Justice Holmes set out one theory of proximate cause in 1918, prescribing that "the general tendency of the law, in regard to damages at least, is not to go beyond the first step."¹⁹⁷ This principle was explored in depth in the 1919 Joseph H. Beale's *Proximate Consequences of an Act*.¹⁹⁸ In this piece, Beale relied loosely on Francis Bacon's work to recognize that various cases considered the proximate cause to be the most recent active force prior to the injury.¹⁹⁹ Beale's articulation of proximate cause rested primarily on the theory that courts have limited resources, and that efforts to trace all plausible causes to their ends would overwhelm them.²⁰⁰ As he describes, "the court can give to the tracing of the consequences of any particular act only its fair share of all the available time, considering the other acts which are waiting its attention."²⁰¹

Over time, this requirement of proximate cause has begun to play a more complex policy role.²⁰² As Justice Andrews explained in his well-known dissent

¹⁹³ *Id.*

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ Smith, *supra* note 183, at 106 (explaining that this roughly translates to "[i]n law the near cause is looked to, not the remote one.")

¹⁹⁷ *S. Pac. Co. v. Darnell-Taenzer Lumber Co.*, 245 U.S. 531, 533 (1918).

¹⁹⁸ Joseph H. Beale, *Proximate Consequences of an Act*, 33 HARV. L. REV. 633, 633-34 (1920).

¹⁹⁹ *Id.* at 633, 641 ("We may therefore begin our investigation with the assumption that the immediate result of an active force is primarily the proximate result; and that if the principle of proximity is discoverable, it must be by some method of relating the defendant's act to the final active force.")

²⁰⁰ *Id.* at 636 ("[T]he limitation of legal investigation to proximate cause or consequence is due to the impossibility of the court making a complete investigation and thus doing complete justice"). Omissions and passive activity were included within Beale's definition of proximate cause as well. *Id.* at 641 ("The whole problem may therefore be stated thus: when is one responsible for the operation (a) of an active force which he has created; (b) of an active force which acts upon a passive force which he created, or upon a passive force which he was legally bound to change.")

²⁰¹ *Id.* at 640.

²⁰² *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 133 (2014) ("The proximate-cause inquiry is not easy to define, and over the years it has taken various forms"); *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 693 (2011) ("Common-law 'proximate cause'

in *Palsgraf v. Long Island Railroad*, “[w]hat we do mean by the word ‘proximate’ is that, because of convenience, of public policy, of a rough sense of justice, the law arbitrarily declines to trace a series of events beyond a certain point.”²⁰³ Similarly, Leon Green asserts “[t]he doctrine denying recovery in such cases is really based on a so-called public policy, a balancing of interests, with the conclusion that it is better to deny protection to the interest involved under such circumstances than it is to undertake to give compensation under all the difficulties of the case.”²⁰⁴ Through a number of tests and sub-rules, the law has used proximate cause to do that work by fine-tuning legal responsibility to align legal responsibility with the relevant law.²⁰⁵

Historically, there were a number of asserted justifications for the doctrine. Among these are the difficulty in providing harms from remote causes.²⁰⁶ A nineteenth century treatise recognizes that the law considers a human actor’s ability to make a moral choice, rather than inanimate albeit dangerous conditions such as water or ice, as the critical factor in fixing liability on a defendant who is capable of reason.²⁰⁷ Another perspective recognizes the necessity of avoiding crushing liability.²⁰⁸ As this policy suggests, negligence protects plaintiffs against unreasonable risks.²⁰⁹ The law tolerates reasonable risks and such activity is considered to be socially valuable. Applying proximate cause ensures

formulations varied, and were often both constricted and difficult to comprehend.”); PROSSER & KEETON ON TORTS, *supra* note 2, § 41, at 263. *See also generally* Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735 (1985) (surveying various formulations).

²⁰³ *Palsgraf v. Long Island R. Co.*, 162 N.E. 99, 103 (N.Y. 1928).

²⁰⁴ Leon Green, *Causal Relation in Legal Liability-In Tort*, 36 YALE L. J. 513, 532 (1927).

²⁰⁵ *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 692 (2011) (“The term ‘proximate cause’ is shorthand for a concept: Injuries have countless causes, and not all should give rise to legal liability.”).

²⁰⁶ *Marble v. City of Worcester*, 70 Mass. 395, 398 (1855) (“The law however looks to a practical rule, adapted to the rights and duties of all persons in society, in the common and ordinary concerns of actual and real life; and on account of the difficulty in unravelling a combination of causes, and of tracing each result, as a matter of fact, to its true, real and efficient cause, the law has adopted the rule before stated, of regarding the proximate, and not the remote cause of the occurrence which is the subject of inquiry.”)

²⁰⁷ *See* F. WHARTON, A TREATISE ON THE LAW OF NEGLIGENCE 73-75 (2d ed. 1878) (distinguishing conditions and causes, with the latter warranting a finding of proximate cause).

²⁰⁸ ROBERT E. KEETON, LEGAL CAUSE IN THE LAW OF TORTS 19 (1963) (“There is surely an interest of public policy in formulating rules that do not impose crushing liability.”). *See, e.g.*, *Fleming v. Beck*, 48 Pa. 309, 313 (Pa. 1865).

²⁰⁹ Robert L. Rabin, *Tort Recovery for Negligently Inflicted Economic Loss: A Reassessment*, 37 STAN. L. REV. 1513, 1534 (1985) (“The Anglo-American judicial tradition maintains a deep abhorrence to the notion of disproportionate penalties for wrongful behavior.”).

that onerous liability standards do not chill reasonable actors from undertaking reasonable risks.²¹⁰

In a similar vein, in the 1980's, Steven Shavell wrote that the causation inquiry should exclude liability for accidents that do not have a sufficiently high potential for incentivizing the defendant to meet the standard of care.²¹¹ He explains that this approach has some advantages, including lower administrative costs for litigating claims that are unlikely to have a deterrent effect.²¹² Second, Shavell points out that fine-tuning the analysis will avoid dis-incentivizing actors from engaging in socially useful conduct because of a fear of overwhelming compensatory costs.²¹³ He argues that, at least in theory, a properly implemented causation system should exclude certain types of activity from liability so long as it does not impact a defendant's motivation to exercise due care.²¹⁴ Significantly, however, he recognizes that the principles that work in theory may fall down in practice because "injurers who do in fact act with due care or attempt to do so will sometimes be found negligent and have to pay damages."²¹⁵ This is so for a number of reasons, including the fact that negligence occurs in the world due to the everyday flaws of human nature and because courts make mistakes in the over-broad application of due care standards.²¹⁶ In this sense, he explains that negligence liability can take on some characteristics of strict liability.²¹⁷ Shavell argues that, as a consequence, proximate cause helps ensure that the law operates to maximize social benefits of risk-creating conduct.²¹⁸

B. *Separating Tortious Causes from Inherent Risks*

The world can be a dangerous place. This is true in the absence of tortious conduct. One may break a leg crossing a street, one may develop cancer, or lightning may strike for reasons that have nothing to do with a defendant's activity. Among other things, cause ensures that the defendant's liability is based

²¹⁰ Steven Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 J. LEGAL STUD., 463, 499 (1980) ("[R]estricting the scope of liability reduces the likelihood of the injurer being discouraged from engaging in a socially worthwhile activity by a crushing burden of liability").

²¹¹ *Id.* at 484.

²¹² *Id.* at 465.

²¹³ *Id.*

²¹⁴ *Id.* at 488 ("Other things equal, it is best to restrict the scope of liability in such a way that the incentive to take due care is reduced as little as possible").

²¹⁵ *Id.* at 489.

²¹⁶ *Id.* at 489 ("Courts might make mistakes in formulating due care standards or in gathering facts; injurers might err in deciding how much care to exercise").

²¹⁷ *Id.* at 489 ("[I]n reality the scope of liability under the negligence rule is determined by the body of principles deduced as desirable in previous part on strict liability.").

²¹⁸ *See id.* at 465-66 ("[P]rinciples of causation in fact...implicitly serve to maximize social welfare and thus *ought* to be employed to limit the scope of liability.").

on its *tortious* activity. Generally, plaintiffs are expected to bear the risk of loss the derive from a defendant's actions which constitute a reasonable level of risk. Significantly, plaintiffs also bear the cost of accidents which derive from background risk.²¹⁹

Through doctrine that includes the scope of the risk inquiry, proximate cause restricts the plaintiff's recovery to those harms with a sufficient legal relation to the defendant's negligent conduct. A plaintiff's injury caused by inherent risks of living in the world, sometimes called background risk, cannot establish grounds for tort liability.²²⁰ As Professor Fletcher describes "we may be expected to bear, without indemnification, those risks we all impose reciprocally on each other," for example, "[i]f we all drive, we must suffer the costs of ordinary driving."²²¹ It is the driver who raises the level of risk above that inherent in the activity who, absent excuse or other mitigating rationale, will be held liable for the plaintiff's injuries. Certainly, some of this inquiry is present in the other elements of negligence. For a breach, the defendant must increase risk to an unreasonable level above background level.²²² In addition to the categorical duty rules, the law imposes a legal duty on those who create risk to a foreseeable plaintiff.²²³

Proximate cause functions to screen out background risks as grounds for liability in a particularized way. Although other elements of the negligence inquiry do so, there are occasions when they fail in that function for a variety of reasons. For example, duty is applied in a categorical way to encompass relationships, such as doctor/patient and business/invitee, which do not consider the precise relation between the injurer's conduct and the injured. Other duty analyses represent a balance of interests that may not fully account for the specific manner that the injury occurred.²²⁴ Likewise, the breach analysis fails

²¹⁹ Jules L. Coleman, *Moral Theories of Torts: Their Scope and Limits: Part I*, 1 LAW & PHIL. 371, 390 (1982) (As Professor Coleman explains, "there is a level of risk that individuals are expected to bear for which they cannot expect to receive recompense in the event harm occurs. Exposure to risks that exceed the level of background risk creates the legitimate expectation of recompense in the event harm occurs.").

²²⁰ *Id.*

²²¹ George P. Fletcher, *Fairness and Utility in Tort Theory*, 85 HARV. L. REV. 537, 543 (1972).

²²² *See, e.g.,* Rogers v. Retrum, 170 Ariz. 399, 403 (Ariz. App. 1991) (finding that a school's open campus policy did not breach the duty of care toward a student injured in a traffic accident while riding with another student during school hours, given that "Members of our mobile society face the risk of collision whenever they are in cars. This risk is arguably higher for teenage passengers of teenage drivers. The school in this case, however, did nothing to increase this general risk.").

²²³ W. Jonathan Cardi & Michael D. Green, *Duty Wars*, 81 S. CAL. L. REV. 671, 677 (2008) ("there is a general duty of reasonable care if one acts in a way to create a risk of harm of physical injury to another").

²²⁴ *See* W. Jonathan Cardi, *The Hidden Legacy of Palsgraf: Modern Duty Law in Microcosm*, 91 B.U. L. REV. 1873, 1878 (2011) (summarizing various multi-factor duty tests).

to account for the precise manner in which a harm occurred.²²⁵ From a number of perspectives, this is consistent with the purpose of the causation requirement. As one example, it is unlikely that a defendant will have incentive to change their conduct to comply with the standard of care if they are required to compensate plaintiffs for all causal harms. In many of these circumstances, the purpose of the law is not be served.

As explained in Section V, subsection B, proximate cause does this work by filtering out background works from the liability analysis.²²⁶ In these cases, liability for the accident is not expected to have any influence on the injurer's incentives to comply with the standard of care. As one source explains, "[s]ince accidents [that are] not within the risk are such at the injurer has relatively little influence on expected accident losses, they should be excluded from the scope of liability."²²⁷ In other words, accidents that occur due to the existence of inherent or background risk are outside the scope of liability because imposing liability for them has no impact on the standard of care. Additionally, the Restatement considers that imposing liability for harm that are not within the scope of the risk subject the defendant to "unlimited or enormous liability," which is one of the historically-grounded drivers of proximate cause.²²⁸ Under those circumstances, socially beneficial conduct might be suppressed or eliminated. As with all liability systems, the limitations of the system perform a crucial role of seeking to balance compensation and deterrence on one hand with preserving socially beneficial conduct on the other.

C. *Maximizing Socially Beneficial Activity*

Some scholars point out that the negligence doctrine, as applied in the courts, is replete with harsh outcomes and errors.²²⁹ Broad standards of duty, coupled with a breach assessment that does not consider the social utility of the defendant's conduct, when taken together with to the open-ended cause in fact standard, can result in liability that might discourage a defendant from engaging

²²⁵ See, e.g., *Berry v. Sugar Notch Borough*, 191 Pa. 345, 43 A. 240 (1899); *Baker v. Herman Mut. Ins. Co.*, 17 Wis. 2d 597, 602, 117 N.W.2d 725, 728 (1962).

²²⁶ See also Restatement (Third) of Torts: Liability for Physical Harm (Basic Principles) § 29 (2002) ("An actor is not liable for harm different from the harms whose risks made the actor's conduct tortious.").

²²⁷ Steven Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 THE JOURNAL OF LEGAL STUDIES 463, 493 (1980).

²²⁸ RESTATEMENT (THIRD) OF TORTS § 29 cmt. f (2002).

²²⁹ Omri Ben-Shahar, *Causation and Foreseeability*, in 3 ENCYCLOPEDIA OF LAW AND ECONOMICS 644, 651 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000) ("Inasmuch as the application of the negligence rule is plagued with error and uncertainties . . . the unrestricted scope of liability can have the crushing effect"); WILLIAM M. LANDES & RICHARD POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 236 (1987) (finding that in the real world of errors, excessive liability "will have misallocative effects.").

in valuable risk-creating enterprises.²³⁰ More generally, the legal standards for negligence law fail to account for social benefits that generated by the defendant's conduct.²³¹ In other words, the legal test for assessing reasonableness fails to consider the social good generated by the defendant's behavior, which can occur even where the defendant's conduct is tortious. It is the proximate cause element that is equipped to undertake this work. Recall *Palsgraf*: absent proximate cause, the railroad might be liable for Mrs. Palsgraf's injuries despite the attenuated relation between the original tort in assisting the passenger who held the package onto the train and the scales which fell upon her. To hold the railroad liable for these remote injuries might cause railroads to refuse to carry passengers, or to allow passengers to bring packages onto the train, or to engage in other socially useful activity. This line of scholarship recognizes that the standard elements of a negligence claim can result in the over-deterrence of risk-creating activities and fails to account for their positive impact.

One such work is Mark Grady's *Proximate Cause Decoded*.²³⁰ Grady points out that negligence is a harsh standard and impossible to satisfy each and every time that an activity is undertaken.²³² Given the breadth of duty and the requirement to meet the objective standard of care, the fallibility of human nature inevitably leads to slip-ups even among those who typically seek to meet it.²³³ According to Grady, proximate cause functions to limit liability for some comparatively blameless activity.²³⁴ As he explains, "unless liability is limited in some way, people will avoid the activities in which their own breach of duty is predictably likely or especially costly, even if these activities are valuable to them and to the community."²³⁵ For example, Grady considers the notion that the doctrine of intervening, superseding cause can be used to save a less

²³⁰ See Israel Gilead & Michael D. Green, *Positive Externalities and the Economics of Proximate Cause*, 74 WASH. & LEE L. REV. 1517, 1555 (2017) (examining the economic justifications for the application of proximate cause, stating "*Ex post* imposition of liability on D for such conduct-unrelated harm will have no efficient deterrent effect on D's incentives to avoid harms because increased care would not reduce the probability of the coincidental risk's materialization. Such liability would be excessive and lead to over-deterrence.") (footnotes omitted); Mark F. Grady, *Proximate Cause Decoded*, 50 UCLA L. REV. 293, 294-295 (2002).

²³¹ See Ariel Porat, *Private Production of Public Goods: Liability for Unrequested Benefits*, 108 MICH. L. REV. 189, 190 (2009) (recognizing the law's disparate treatment of positive and negative externalities).

²³² *Id.* at 294.

²³³ *Id.*

²³⁴ *Id.*

²³⁵ *Id.*

blameworthy defendant from liability and thereby preserves the actor's ability to engage in valuable forms of risk-creating conduct.²³⁶

One example that Grady cites in support of his thesis is *Pittsburg Reduction Co. v. Horton*.²³⁷ The first tortfeasor, Pittsburg Reduction, failed to safely dispose of some dynamite caps, which it had openly stored near a schoolyard.²³⁸ A ten-year-old student of the school found them, took them home, and played with them for about a week.²³⁹ In fact, his mother picked the caps up after he was done playing at the end of the day and that although "she did not know what the shells contained, but she did know that they were shells for some kind of explosives, that her son brought them home, and that he played with them."²⁴⁰ The student's father, who also lived in the home, was familiar with blasting caps from his work at Pittsburg Reduction's competitor.²⁴¹ After the week was over, the student traded the caps to a classmate, who was injured when it exploded when he tried to open one.²⁴² The court held that the conduct of the student's parents cut off the causal chain and rendered Pittsburg Reduction's negligence free from liability.²⁴³

In a world without proximate cause, the entity Pittsburg Reduction would have been considered a concurrent cause and almost certainly be held liable. Storing dynamite caps in an unsecured way in close proximity to the school was a breach and one of the causes of the classmate's injury. Yet, as Grady explains, the court's decision excused Pittsburg Reduction's error in light of the parents' more reckless failure to prevent the injury.²⁴⁴ He reasons that, as a practical matter, holding both defendants liable would have meant that Pittsburg Reduction would have paid the judgment in full given its deeper corporate resources.²⁴⁵ In effect, the parents would escape liability despite their more predominant contribution to the injury.²⁴⁶ The use of proximate cause to limit the entities' liability lightens Pittsburg Reduction's cost of doing business and places the full judgment on those who were in better position to appreciate the

²³⁶ See Grady, *supra* note 230, at 315-21. See also Shavell, *supra* note 210, at 500 (recognizing that holding a defendant liable for unforeseeable harms does not increase that defendant's incentives to comply with the standard of care).

²³⁷ Grady, *supra* note 230, at 316 (discussing *Pittsburg Reduction Co. v. Horton*, 113 S.W. 647, 648 (Ark. 1908)).

²³⁸ *Pittsburg Reduction Co.*, 113 S.W. at 649.

²³⁹ *Id.*

²⁴⁰ *Id.* at 649.

²⁴¹ *Id.* at 648-49.

²⁴² *Id.* at 649.

²⁴³ *Id.* ("It established a new agency, and the possession by [the student] of the caps or shells was thereafter referable to the permission of his parents, and not to the original taking.").

²⁴⁴ Grady, *supra* note 230, at 316.

²⁴⁵ *Id.*

²⁴⁶ *Id.*

risk and prevent the injury.²⁴⁷ Such cases put meat on the bones of the use of proximate cause to avoid crushing liability on the less culpable party and implicitly allows the social benefit of their activity to continue. As Grady explains, proximate cause can be used to terminate liability for such a defendant as against a subsequent tortfeasor in a principled, justifiable manner that seeks to carry out the purposes of negligence law — under his view, optimizing the level of socially desirable risk while holding others financially responsible where there are reasons to do so.²⁴⁸

Another line of scholarship calls for a reassessment of social cost for tort liability.²⁴⁹ These works consider tort's economic purpose to require tortfeasors to internalize the negative externalities of their negligent conduct. For example, a car company that fails to optimize the point at which an airbag deploys (the “set-point”), has negligently failed to minimize potential injuries to passengers. In this example, we might assume that an airbag that deploys at a low rate of speed (for example, while the car is traveling under fifteen miles an hour) will cause more injuries to passengers from the force of airbag deployment compared to a car that has no airbag at all. Thus, a company that fails to conduct proper testing to determine the appropriate set-point will be found to be negligent and required to pay for a plaintiff's injuries caused by these failures. This result has been justified by the principle that, unless the car company is forced to internalize the cost of the accidents that occur as a result of its negligence, it lacks sufficient incentives to take these reasonable precautions.²⁵⁰

To take this analysis a step further, a distinction between private costs and social costs of tortious activity has been recognized.²⁵¹ To use the above illustration, assume that a car company fails to perform proper testing and creates a set-point for airbag deployment at fifteen or more miles per hour simply by guessing. A plaintiff who is seriously injured while a car is traveling at ten miles an hour might suffer a serious private cost, made worse by the fact that the plaintiff failed to wear a seatbelt. Scholars have observed that awarding this plaintiff full compensation forces the car maker to internalize a higher cost than the social cost of the accident unless the damages calculation accounts for the plaintiff's failure to mitigate.²⁵² In other words, the concept that the private cost

²⁴⁷ *Id.*

²⁴⁸ *See id.* at 316, 321.

²⁴⁹ R. H. Coase, *The Problem of Social Cost*, 56 J. L. & ECON. 837, 874 (2013) (“The belief that it is desirable that the business which causes harmful effects should be forced to compensate those who suffer damage . . . is undoubtedly the result of not comparing the total product obtainable with alternative social arrangements.”).

²⁵⁰ *But see id.* at 877 (2013) (“[T]he right to do something which has a harmful effect . . . is also a factor of production.”).

²⁵¹ *See* Israel Gilead, *Tort Law and Internalization: The Gap Between Private and Social Cost*, 17 INT'L REV. L. & ECON. 589, 590 (1997).

²⁵² *See id.* at 592-93 (discussing R. Coater, *The Cost of Coase*, 11 J. LEGAL STUD. 1, 8 (1982), stating “Coater concurs with the view that the victims' ability to mitigate loss may

for recovery is equal to the social cost of the defendant's conduct, a common assumption underlying discussion about damages, is open to question.

More broadly, these theorists recognize gaps between private and social costs, and that the failure to recognize them can lead to under- and over-deterrence.²⁵³ Consider that the car company from the above example has conducted a study that concludes that, in the aggregate, fewer people are seriously injured when the airbag deployment set-point is at a minimum of fifteen miles per hour. However, our plaintiff is seriously injured while the car is traveling at ten miles per hour and, due to the peculiar nature of the way that the injury occurred, this plaintiff's injury would have been avoided if the airbag had deployed at the lower speed (ten miles per hour) than the maker set (at fifteen miles per hour). Finding the car maker negligent under these circumstances internalizes the private cost of the accident but raises the social costs to others who might be more severely injured at collision speeds between ten and fifteen miles per hour if the car maker lowers the airbag deployment set-point in response to this imposition of liability. In other instances, this gap that might cause the car maker to absorb higher private costs compared with the socially optimal solution for avoiding injuries across the population. More generally, over-compensation incentivizes injurers to over-invest in precautionary measures or to cease engaging in socially beneficial activities together.²⁵⁴

This principle has led to another insight in the negligence framework. Some conduct that creates risk also creates benefits.²⁵⁵ Some examples include medical treatments and driving — in one sense, these create risks of harms yet there are benefits to these activities that help society in the aggregate.²⁵⁶ In other cases, the plaintiff may receive a mix of harms and benefits, such as where a pharmaceutical cures a disease but has an adverse side effect. Another example is a tort that stops the production of goods or provision of services.²⁵⁷ If consumers obtain those products and services elsewhere, third parties benefit from increased sales beyond those they would have made in the absence of a tort. This body of work acknowledges that, although a private individual may be harmed by a defendant's conduct, there may be positive social benefits that derive from the defendant's activity that offset the harm, whether fully or

open up a gap between private loss and externalized social cost, but he argues that this problem can be solved by proper legal rules of loss mitigation.”).

²⁵³ See *id.* at 590.

²⁵⁴ See Coase, *supra* note 249, at 590 (“Imposing a liability burden higher than the externalized social cost may lead to ‘over-internalization’ and to the overdeterrence of injurers...”). See also Ariel Porat, *Offsetting Risks*, 106 MICH. L. REV. 243, 264–65 (2007) (describing the gap using childbirth examples, stating “[t]o ensure efficient incentives, liability should be set at the level of the social costs of the particular action”).

²⁵⁵ Gilead & Green, *supra* note 230, at 1525 & 1525 n.36 (2017).

²⁵⁶ *Id.* at 1531.

²⁵⁷ *Id.* at 1546.

partially.²⁵⁸ Beyond this, it has been recognized that the negligence system induces actors to “engage too little in a socially desirable activity and forgo investments in efficient prevention” where the costs of those preventions is below the private benefit obtained from the increased activity.²⁵⁹ The benefits and utility of the defendant’s product are explicitly considered in products liability cases for design defect.²⁶⁰

Some scholars have explored the concept that the social *benefits* of a defendant’s negligent conduct should be factored into the negligence liability system.²⁶¹ In other words, “The tort system . . . can incorporate positive externalities into its internalization mechanism of liability rules only by offsetting them against negative externalities.”²⁶² In particular, Israel Gilead and Michael Green suggest that proximate cause’s harm within the risk rule can be used to offset the social benefits of activities in particular circumstances.²⁶³ These benefits include those that are external in nature and do not accrue solely to the negligent actor.²⁶⁴ According to Gilead and Green, other conditions where reliance on this internalization mechanism may be appropriate are where the benefits outweigh (or at least equal) the harm caused by the negligent conduct.²⁶⁵ For instance, a plaintiff might undeniably suffer a private loss from an experimental surgery that fails to accomplish the desired result.²⁶⁶ However, this tortious activity might yield significant public benefits in the form of information that is learned so that the technique is improved and can then be used successfully on all subsequent patients.²⁶⁷ Gilead and Green argue that proximate cause can be used to limit liability for conduct that provides net social benefits, particularly when the harm from engaging in such conduct is unforeseeable.²⁶⁸

²⁵⁸ Ariel Porat, *Offsetting Risks*, 106 MICH. L. REV. 243, 246 (2007).

²⁵⁹ David Gilo & Ehud Guttel, *Negligence and Insufficient Activity: The Missing Paradigm in Torts*, 108 MICH. L. REV., 277, 281-282 (2009).

²⁶⁰ See, e.g., *Soule v. Gen. Motors Corp.*, 882 P.2d 298, 306 (Cal. 1994) (describing the risk-benefit test used in California); *Armentrout v. FMC Corp.*, 842 P.2d 175, 182 (Colo. 1992); *Hernandez v. Tokai Corp.*, 2 S.W.3d 251, 257 (Tex. 1999) (assessment of a design defect claim takes “into consideration the utility of the product and the risk involved in its use.”); *Voss v. Black & Decker Mfg. Co.*, 450 N.E.2d 204, 208 (1983) (in New York, a product is defective if “reasonable person would conclude that the utility of the product did not outweigh the risk inherent in marketing a product designed in that manner.”).

²⁶¹ See Mario J. Rizzo, *A Theory of Economic Loss in the Law of Torts*, 11 J. LEGAL STUD. 281, 286 (1982); Gilead & Green, *supra* note 230, at 1565.

²⁶² Gilead & Green, *supra* note 230, at 593.

²⁶³ *Id.* at 1530.

²⁶⁴ *Id.* at 1545.

²⁶⁵ *Id.*

²⁶⁶ *Id.* at 1525.

²⁶⁷ *Id.*

²⁶⁸ See *id.* at 1518-25.

Using proximate cause as a policy lever might ensure that beneficial activity is not deterred by a compensation system that fails to account for a good generated by risk-creating conduct. As this Article will subsequently outline, this principle has valuable implications for patent law.

V. PROXIMATE CAUSE: FORMS OF ANALYSIS

Negligence law has provided a large and rich source of precedent in cases that range back as far as the mid-nineteenth century.²⁶⁹ Courts have formulated multiple theories of negligence law.²⁷⁰ Locating a unified formulation of the doctrine has been characterized as “fruitless.”²⁷¹ Yet there are numerous themes that address “distinct problems, more or less unrelated.”²⁷² As this phrase suggests, the policies implemented in the proximate cause requirement are varied. In some instances, the courts have used the proximate cause requirement to prevent crushing liability on a defendant.²⁷³ Historically, the social utility of the defendant’s conduct has been considered as part of the liability calculus.²⁷⁴ Therefore, proximate cause determinations have been made to preserve certain institutions because of the public benefit that some provide, such as public utilities. Courts often modify their construction of these terms to facilitate other broad policy goals, such as the imposition of liability to penalize reprehensible behavior and facilitate compensation (*e.g.*, via imposition of liability on a large entity where the primary actor is insolvent).²⁷⁵

In some cases, proximate cause is capable of eliminating all liability for a negligent defendant. For example, a negligence suit for personal injuries against a restaurant failed for lack of proximate cause because the injury was the result of an unforeseeable act — there, a truck that had been unexpectedly driven through the defendant restaurant’s wall.²⁷⁶ Alternatively, proximate cause may eliminate recovery for individual elements of a plaintiff’s damages. In other words, a plaintiff may bear the burden of demonstrating proximate cause for some damages but not for others. For example, an accident victim may seek

²⁶⁹ See Patrick J. Kelley, *Proximate Cause in Negligence Law: History, Theory, and the Present Darkness*, 69 WASH. U. L. Q. 49, 70 (1991) (explaining that negligence law’s proximate cause doctrine borrowed from other areas, including damages rules and maritime law).

²⁷⁰ PROSSER & KEETON ON TORTS, *supra* note 2, § 42, at 273.

²⁷¹ *Id.* at 279.

²⁷² *Id.*

²⁷³ Kelley, *supra* note 269, at 54.

²⁷⁴ Note, *Impact of the Risk Theory on the Law of Negligence.*, 63 HARV. L. REV. 671, 673 (1950).

²⁷⁵ See Richard L. Abel, *A Critique of Torts*, 37 UCLA L. REV. 785, 811–12 (1990) (“Courts often look for the ‘deep pocket’ defendant (large public or private entities or those likely to be insured) and then construct negligence and causation in order to rationalize the imposition of liability”).

²⁷⁶ *Albert v. Hsu*, 602 So.2d 895, 896 (Ala. 1992).

damages for both injuries that occurred from an initial impact and those that developed months later.²⁷⁷ Depending on the facts presented and the governing standards, a jury may find recovery permissible in the case presented by the first example, but not the second. As a general rule, proximate cause does not cap recovery to a manageable level in all circumstances.²⁷⁸ For example, a defendant must pay for the harm caused by his or her actions, even if the extent of the damage caused could not have been foreseen when the injurious act occurred.²⁷⁹ As one source explains, “If I throw into the ocean a box belonging to A, which I have every reason to suppose empty, but there is hidden in it a purse of gold which is lost, I am liable for the loss.”²⁸⁰

The law acknowledges the reality that nearly all injuries are caused by multiple causes consisting of a mix of tortious and non-tortious causes. For liability to attach, it is sufficient that a defendant’s actions be a proximate cause of a plaintiff’s injury; there is no requirement that the defendant be *the sole* proximate cause.²⁸¹

A. *Starting Points*

The Supreme Court has acknowledged that proximate cause is “notoriously confusing” and “the lack of consensus on any one definition of ‘proximate cause’ is manifest.”²⁸² As one opinion explains, “[t]he proximate-cause inquiry is not easy to define, and over the years it has taken various forms; but courts have a great deal of experience applying it, and there is a wealth of precedent for them to draw upon in doing so.”²⁸³ Moreover, although the courts have attempted to infuse proximate cause analysis with the policies of the statute under examination, they appear to have difficulty breaking away from the centuries of precedent that formed the doctrine in the negligence realm.

Nonetheless, a doctrinal outline of proximate cause reveals some structure which varies somewhat among different jurisdictions. Some theories which operate as touchstones for the analysis include the concepts of the directness of the injury and the foreseeability of harm to the defendant at the time of the injurious conduct.²⁸⁴ Frequently, courts consider a mix of both.²⁸⁵ Although none

²⁷⁷ See, e.g., *Zerr v. Trenkle*, 454 F.2d 1103, 1104 (10th Cir. 1972) (heart attack); *Clark v. S. Loop Nat. Bank*, 740 S.W.2d 471, 473 (Tex. App. 1987) (same).

²⁷⁸ J. H. Jr. Beale, *Recovery for Consequences of an Act*, 9 HARV. L. REV. 80, 86 (1895).

²⁷⁹ *Id.*

²⁸⁰ *Id.* at 82.

²⁸¹ See, e.g., *Smith v. Ill. Cent. R.R. Co.*, 37 N.E.3d 445, 464 (Ill. App. 4 Dist. 2015).

²⁸² *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 701 (2011).

²⁸³ *Lexmark Intern., Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 133 (2014).

²⁸⁴ See Jessie Allen, *The Persistence of Proximate Cause: How Legal Doctrine Thrives on Skepticism*, 90 DENV. U. L. REV. 77, 88 (2012).

²⁸⁵ See, e.g., *Shelton v. Bd. of Regents of Univ. of Nebraska*, 211 Neb. 820, 825-827 (1982); *S. Ry. Co. v. Webb*, 42 S.E. 395, 397 (Ga. 1902) (“The injury must be the direct result of the misconduct charged; but it will not be considered too remote if, according to the usual

offers a complete framework, these operate as starting points for the remainder of the analysis that can operate like a complex web of considerations. Attempting to crystalize this area into a single clear test is not possible, nonetheless a review of some of the primary points of decision provides a valuable foundation.

In some jurisdictions, the inquiry focuses on the *directness* between the defendant's conduct and the plaintiff's injury, which derives from the landmark English case, *In re Polemis*.²⁸⁶ Professor Kelley suggests that this standard derives from very early tort decisions that considered the distinction between the now-defunct causes of action for trespass and trespass on the case (or "case").²⁸⁷ Both were recognized means for a plaintiff to recover in a civil action, but were subject to rigid pleading rules, such that "direct or immediate causation is required for trespass and indirect or consequential causation supports an action in case."²⁸⁸ As Professor Kelley explains the facts of an early decision, *Scott v. Shepard*:

Shepherd, a mischievous child, threw a lighted squib, filled with gunpowder, into a partially enclosed market-house. The squib fell on the stand of a seller in the market, who picked it up and threw it across the market-house. It fell on the stand of another seller, who picked it up and threw it, too. On this throw, the squib hit Scott in the face and exploded, putting out his eye.²⁸⁹

To determine whether the plaintiff had properly pled a trespass action, the *Scott* court was required to consider whether Shepard's actions directly injured Scott, or whether the intervening conduct of the sellers throwing the squib rendered the plaintiff's harm as indirect and therefore not sufficient to give rise to liability.²⁹⁰ Those familiar with proximate cause analysis might recognize that the question of directness was translated into a starting point for some forms of proximate cause analysis.²⁹¹ Similarly, *In re Polemis* is emblematic of applying the former directness standard, explaining "the question [of] whether particular damages

experience of mankind, the result ought to have been apprehended."); Allen, *supra* note 284, at 88 ("Although the modern cases often talk more about foreseeability, they typically still mix that concept with the idea of unbroken continuity, as courts have been doing for a very long time").

²⁸⁶ See *In re Polemis and Furness, Withy & Co., Ltd.*, 3 K.B. 560, 560 (CA 1921).

²⁸⁷ Patrick J. Kelley, *Restating Duty, Breach, and Proximate Cause in Negligence Law: Descriptive Theory and the Rule of Law*, 54 VAND. L. REV. 1039, 1057 (2001).

²⁸⁸ Kelley, *supra* note 269, at 59.

²⁸⁹ *Id.* at 58 (discussing *Scott v. Shepard*, (1773) 2 Black, W. 892, 96 Eng. Rep. 525 (K.B.)).

²⁹⁰ See *id.* at 59.

²⁹¹ *Id.* at 75 (noting that the *Scott* decision became a canon for proximate cause "on the nature of the causal sequence" and "no doubt seemed only natural to judges who looked back into the depths of the common law for substantive proximate cause precedents and, not knowing there were none, dredged up *Scott v. Shepard*").

are recoverable depends only on the answer to the question whether they are the direct consequences of the act.”²⁹² A common U.S. formulation of the directness standard examines whether there was “an unbroken connection between the wrongful act and the injury, a continuous operation.”²⁹³ Despite its early origin, the directness standard continues to have viability in a number of courts today in both negligence and statutory causes of action.

A simple case applying the directness standard is the Pennsylvania Supreme Court’s 1921 decision in *Kelley v. Philadelphia, Baltimore & Washington Railroad Co.*²⁹⁴ There, the plaintiff was the driver of a car who was injured when driving by a warehouse which had a very large door that had swung out unexpectedly in front of her car.²⁹⁵ She sued the railroad, which was responsible for removing a post that had been installed by the warehouse to prevent the door from swinging out into the street where the plaintiff had been driving when the accident occurred.²⁹⁶ Although the railroad was responsible for increasing the danger of the condition, the court found that it was not the proximate cause of the injury.²⁹⁷ Rather, the court held that the warehouse was legally responsible for the swinging door and was therefore the direct and proximate cause of the accident.²⁹⁸

A more complex application of this standard is *City of Philadelphia v. Beretta U.S.A. Corp.*, a 2002 case brought by Philadelphia against fourteen gunmakers for, among other things, negligence and negligent entrustment for the distribution and sale of firearms.²⁹⁹ This complaint sought the recovery of costs for preventing and responding to gun-related acts within the city’s borders based on the defendants’ marketing and distribution of guns that ultimately fell into the hands of criminals and children.³⁰⁰ The court applied a six-factor test to assess the causal connection between the harm to the city and the defendant’s alleged negligence, as follows:

²⁹² *In re Polemis*, 3 K.B. at 574.

²⁹³ *Milwaukee & St. P.R. Co. v. Kellogg*, 94 U.S. 469, 475 (1876). *See also* *Duphily v. Delaware Elec. Coop., Inc.*, 662 A.2d 821, 829 (Del. 1995) (“[A] proximate cause is one ‘which in natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the result would not have occurred.’ . . . The mere occurrence of an intervening cause, however, does not automatically break the chain of causation . . . In order to break the causal chain, the intervening cause must also be a superseding cause, that is, the intervening act or event itself must have been neither anticipated nor reasonably foreseeable by the original tortfeasor.”).

²⁹⁴ 270 Pa. 149 (1921).

²⁹⁵ *Id.* at 151.

²⁹⁶ *Id.*

²⁹⁷ *Id.*

²⁹⁸ *Id.*

²⁹⁹ 277 F.3d 415, 419 (2002).

³⁰⁰ *Id.*

(1) the causal connection between the defendant's wrongdoing and the plaintiff's harm; (2) the specific intent of the defendant to harm the plaintiff; (3) the nature of the plaintiff's alleged injury and whether it relates to the purposes of tort law; (4) whether the claim for damages is highly speculative; (5) the directness or indirectness of the alleged injury; and (6) the aim of keeping the scope of complex trials within judicially manageable limits, *i.e.*, avoiding the risks of duplicative recoveries and the danger of complex apportionment.³⁰¹

Overall, the *Beretta* court affirmed the district court's finding that the causal connection was too weak to sustain liability.³⁰² Finding a lack of intent to harm the City, the analysis considered that the City's harm was derivative of those who had been directly injured by the defendant's guns.³⁰³ Further, the court considered the City's harm speculative because the amount of lost resources was difficult to calculate.³⁰⁴ Holding that any gun's route from the defendant to the user "long and tortuous," the court determined that many of the injuries were directly caused by the gun owners rather than the gun makers.³⁰⁵ The *Beretta* court concluded that "any effort to compensate plaintiffs would require the expenditure of enormous judicial resources to determine which defendants should bear what percentage of liability."³⁰⁶ Significantly, this decision illustrates that the concept of directness can incorporate nuanced policy analysis to consider whether the imposition of liability is consistent with the governing law. By expressly considering the larger purposes of the law, the speculative nature of the plaintiff's injury and the defendant's intent, the analysis goes beyond an impulsive label.

Other courts consider whether the plaintiff's injury would have been *foreseeable* to the defendant at the time of the injurious conduct.³⁰⁷ The textbook example of this standard is *Overseas Tankship (U. K.) Ltd. v. Morts Dock & Engineering Co. (The Wagon Mound I)*.³⁰⁸ Some suggest that "[a] party's act is the proximate cause of an injury if it is the natural and probable consequence of the act and should have been reasonably foreseen and anticipated in light of the circumstances."³⁰⁹ Others argue that:

Proximate cause is cause which in natural and continuous sequence, unbroken by an efficient intervening cause, produces the injury, and

³⁰¹ *Id.* at 423.

³⁰² *Id.*

³⁰³ *Id.*

³⁰⁴ *Id.*

³⁰⁵ *Id.*

³⁰⁶ *Id.* at 425.

³⁰⁷ Fleming, *supra* note 187, at 490-91 (discussing foreseeability in the context of *Comers. v. Coultas*, (1888) 13 App. Cas. 222 and *Lynch v. Knight*, (1861) 9 H. L. C. 577).

³⁰⁸ [1961] AC 388 (PC) (appeal taken from NSW).

³⁰⁹ *Hassan v. Begley*, 836 N.E.2d 303, 307 (Ind. Ct. App. 2005) (citation omitted).

without which the injury would not have occurred, the injury being the natural and probable consequences of the wrongful act.³¹⁰

Foreseeability is a term of art with several facets. In the negligence realm, foreseeability may use any number of policy levers, including: (1) whether the type of harm is foreseeable due to the nature of the risk created; (2) whether the manner of harm is foreseeable; and (3) whether the plaintiff is part of a foreseeable class of persons.³¹¹ In negligence cases, “[n]ot all courts use all three, but many commonly employ more than one of these limits.”³¹² Moreover, some state courts, might implement these limitations as part of proximate cause analysis, while others might treat some of these considerations as part of the duty inquiry.³¹³

One example of the application of the foreseeability standard is *Mason v. Nashville*.³¹⁴ There, a plaintiff, who had been injured by a student with a razor provided in a cosmetology course, sued the school district.³¹⁵ The plaintiff alleged that the school district was negligent for giving razors to students, despite a zero-tolerance policy against the possession of a weapon.³¹⁶ In this case, the *Mason* court found foreseeability lacking.³¹⁷ Following the highly context-specific Tennessee standard, the court found that the injury was not foreseeable, as the instructor had properly counseled the students in safety measures, there were no prior incidents of razor misuse, and the school had no reason to foresee that the particular student who had used the razor would be capable of being the aggressor in a fight.³¹⁸ As another example, in the Texas decision *Ryder Integrated Logistics, Inc. v. Fayette County*, the court considered whether a police department was liable for injuries to a truck driver who was killed as he drove past the scene of a traffic stop on the side of a highway.³¹⁹ The plaintiff’s injury occurred when he was distracted by the police vehicle, which was in the process of turning around so that its headlights and flashing lights

³¹⁰ Edwards ex rel. Fryover v. Anderson Eng’g, Inc., 251 P. 3d 660, 664 (Kan. Ct. App. 2011) (citations omitted).

³¹¹ David A. Fischer, *Products Liability — Proximate Cause, Intervening Cause, and Duty*, 52 MO. L. REV. 547, 549 (1987) (summarizing negligence principles).

³¹² *Id.*

³¹³ *Id.*

³¹⁴ 189 S.W.3d 217 (Tenn. Ct. App. 2005).

³¹⁵ *Id.* at 217, 218-19.

³¹⁶ *Id.* at 217, 218-19.

³¹⁷ *Id.* at 227.

³¹⁸ *Id.* at 226-27 (“The Tennessee standard is whether it was foreseeable that a student like Ms. Moore- who received proper instruction as to the safe use and transportation of the cosmetology kit, who had been tested on those instructions, who had been warned that an improper use of the kit or its contents could violate the zero tolerance policy, and who had no history of violence – would take the razor from the cosmetology kit and use it as a weapon to criminally assault another student at school.”).

³¹⁹ 453 S.W.3d 922 (Tex. 2015).

faced oncoming traffic.³²⁰ As with *Mason*, the *Ryder* analysis was highly fact-specific, holding that a fact issue arose with respect to proximate cause because “a reasonable peace officer could have foreseen that driving westbound near an eastbound shoulder at night—with headlights and emergency lights illuminated—might confuse drivers, disrupt traffic, and lead to a collision much like the one that ultimately occurred.”³²¹

The introduction of foreseeability into the proximate cause inquiry aims to further the negligence cause of action’s purposes. In this way, foreseeability asks whether the imposition of liability is consonant with the purposes of this particular cause of action. To a significant degree, negligence law is concerned with the liability for risk taken in light of foreseeable harms.³²² Foreseeability is evident in negligence duty formulations, which consider foreseeability as a question of law for assessing “whether the category of negligent conduct at issue is sufficiently likely to result in the kind of harm experienced that liability may appropriately be imposed on the negligent party.”³²³ Foreseeability is integrated in the standard of care, which inquires whether the defendant’s burden of avoiding an accident would have been reasonable in light of the foreseeable risks to the plaintiff.³²⁴ As part of the overall negligence inquiry, the proximate cause standard has been defined through the use of such terms as “reasonably foreseen” and “natural” and “probable.”³²⁵

Theorists have considered various reasons that courts apply the foreseeability doctrine despite the fact that this consideration already exists in other elements of the tort. Professor Grady considers that this standard eliminates liability for accidents that are “merely coincidental accidents.”³²⁶ Professor Kelley posits that foreseeability may seem to be “an accurate and illuminating way of expressing delicate judgments about the mutual expectations in social systems of reliance that underlie some of our basic judgments about wrongdoing in any particular social context.”³²⁷ Yet as proximate cause evolved as a legal requirement, these explanations may be considered incomplete. Moreover, as a malleable concept, foreseeability has been criticized for “its triple role and its

³²⁰ *Id.* at 929.

³²¹ *Id.*

³²² PROSSER & KEETON ON TORTS, *supra* note 2, § 43, at 281. *See also, e.g.*, *Chapman v. Mayfield*, 361 P.3d 566, 572 (Or. 2015); *Walker v. Harris*, 924 S.W.2d 375, 377 (Tex. 1996); *Amaya v. Potter*, 94 S.W.3d 856, 861 (Tex. App. 2002); *Hegyegs v. Unjian Enterprises, Inc.*, 234 Cal. App. 3d 1103, 1130 (Ct. App. 1991), *reh’g denied and opinion modified* (Oct. 23, 1991); *Crislip v. Holland*, 401 So. 2d 1115, 1116 (Fla. Dist. Ct. App. 1981).

³²³ *Ballard v. Uribe*, 41 Cal. 3d 564, 573 n.6 (1986).

³²⁴ *See, e.g.*, *Becker v. Interstate Properties*, 569 F.2d 1203, 1212 (3d Cir. 1977) (reciting the definition of legal duty adopted by the New Jersey Supreme Court) (citation omitted).

³²⁵ *See supra* notes 308-310 and accompanying text.

³²⁶ Grady, *supra* note 230, at 300.

³²⁷ Kelley, *supra* note 269, at 77.

accordion-like meaning” and as “clearly one of the murky concepts that has led students and scholars to think that negligence law lacks conceptual integrity.”³²⁸

Some courts apply a mix of both foreseeability and directness. One example of this is *Pepsi-Cola Bottling Co. of Tulsa, Okl. v. Von Brady*.³²⁹ There, the plaintiff was driving in the right lane and was cut off by the sudden turn of a third party, who swerved into her from the left lane. To avoid a collision, the plaintiff turned right and hit the defendant Pepsi’s truck which was parked illegally on the side of the road by its employee.³³⁰ She sued Pepsi as the owner and employer, claiming that but-for the illegally parked truck she would have avoided the injury because there would have been sufficient space for her to navigate away from the scenario. Clearly, Pepsi’s actions were in breach of local parking regulations.³³¹ The court recognized that “the parking of the truck created a condition prior to the accident cannot be disputed, but [questioned whether it was] . . . such a ‘condition’ that liability can be predicated thereon?”³³² Rejecting this, the court instead held that the third party was the sole and proximate cause of the injury.³³³ The court explained that the Pepsi truck was not the “efficient cause” and had “merely furnishe[d] a condition by which the injury was made possible,” which is language used in the directness formulation.³³⁴ Additionally, the opinion explained that the that the Pepsi employee could not have foreseen the third party’s action at the time that the truck was illegally parked. Although the *Pepsi-Cola Bottling Co.* court might have held that the truck was a direct (and therefore proximate) cause of the plaintiff’s injury given that it provided source of the point of impact, it chose instead to predicate liability solely on the third party’s more overt negligence.³³⁵ In doing so, the court relied on a mix of directness and foreseeability.

In the abstract, the choice between these starting points may not be critical. Each formulation is sufficiently malleable to accommodate a range of policy choices. To trace any of these standards reveals shifts that function as a marker of the larger societal changes and attitudes about recovery, liability and risk.³³⁶ Nonetheless, one must be cognizant of how these terms are used in our current

³²⁸ Benjamin C. Zipursky, *Foreseeability in Breach, Duty, and Proximate Cause*, 44 WAKE FOREST L. REV. 1247, 1249 (2009).

³²⁹ 386 P.2d 993 (Okla. 1963).

³³⁰ *Id.* at 994-95.

³³¹ *Id.* at 995.

³³² *Id.* at 996. See also F. WHARTON, A TREATISE ON THE LAW OF NEGLIGENCE 73-84 (2nd ed. 1878) (distinguishing conditions and causes).

³³³ *Pepsi-Cola Bottling Co.*, 386 P.2d. at 996.

³³⁴ *Id.* at 996.

³³⁵ *Id.* at 997.

³³⁶ Fleming, *supra* note 187, at 492 (observing with respect to one such change “was to be attributable to a deep shift in social philosophy, associated with the modern welfare state, in which judges have on the whole collaborated with juries to ensure a much wider range of loss distribution than would have been acceptable forty years ago”).

legal and economic culture. Almost anything can be imagined to be direct, indirect, foreseeable or unforeseeable. As one example, one might say that it is foreseeable that a large multi-national corporation will sell products overseas. Based on that, one might find all types of international activity compensable. Yet that facile conclusion fails to recognize the very real tensions of international law, as well as the overall goal of facilitating invention and innovation in the aggregate. As these standards become crystallized into patent precedent, they must begin to reflect outcome-determinative meanings that reflect policy choices. For example, certain states have created default rules under which instances of a plaintiff's suicide, excessive drinking or product misuse are sufficient to constitute intervening, superseding causes that terminate defendants' liability.³³⁷ These decisions implement policies that concern compensation, responsibility, and risk.³³⁸ Over time, similar presumptions should be implemented in the patent context to increase predictability of the governing standards.

More broadly, proximate cause shapes liability in negligence cases in a manner that is consistent — and conforms — to the purpose of the cause of action. Rather than considering concepts such as directness and foreseeability as immutable, it is critical that the context for their construction is considered as that standard is translated to patent law.

B. *Scope of the Risk Analysis*

Negligence might be defined as a protection against the unreasonable risk of harms created by others.³³⁹ In the proximate cause analysis, the plaintiff's injury must derive from the type of harm that renders the defendant's conduct tortious. This "harm within the risk" rule is intended to ensure that "whatever risks, in other words, made one negligent should also be the only risks for which one should have to pay if they have materialized in actual harm."³⁴⁰ Derived from cases written in the 1850's, this principle limits the plaintiff's compensation to the injuries that are the same *types of harm* that render the defendant's acts tortious.³⁴¹

³³⁷ *White v. Lawrence*, 975 S.W.2d 525, 530 (Tenn. 1998) (citing cases and recognizing that "suicide may constitute an intervening cause if it is a willful, calculated, and deliberate act of one who has the power of choice.") (citations omitted); *Marshall v. Clark Equip. Co.*, 680 N.E.2d 1102, 1108 (Ind. Ct. App.), *decision clarified on denial of reh'g*, 683 N.E.2d 1351 (Ind. Ct. App. 1997) ("An intervening cause, such as a misuse of the product, will relieve the manufacturer of liability when the intervening acts could not have been reasonably foreseen by the manufacturer."); *Sapko v. State*, 305 Conn. 360, 388 (2012) (finding the decedent's ingestion of excessive quantities of prescription drugs to be a superseding cause of death).

³³⁸ See *Kelley*, *supra* note 269, at 52 (classifying "foreseeability" as "an elastic concept").

³³⁹ RESTATEMENT (SECOND) OF TORTS, *supra* note 97, at § 282.

³⁴⁰ Heidi M. Hurd & Michael S. Moore, *Negligence in the Air*, 3 THEORETICAL INQUIRIES L. 333, 339-40 (2002).

³⁴¹ *Id.* at 340.

Professor John C. P. Goldberg has a set of useful hypotheticals to explain how this requirement operates.³⁴² As he describes, imagine a driver who carelessly throws a half-filled coffee cup out of his window.³⁴³ In the first hypothetical, the coffee splashes on the windshield of an approaching car.³⁴⁴ As the coffee blocks the vision of the driver of that car, he swerves, strikes, and seriously injures a pedestrian standing on the far sidewalk.³⁴⁵ In this case, the plaintiff's injury is arguably within the scope of the risk of the defendant's activity. Under a proper analysis, the defendant is not required to foresee the precise manner in which the plaintiff was harmed, but only that a passerby might be physically harmed by this careless act.³⁴⁶ Alternatively, consider that the cup falls harmlessly on the street.³⁴⁷ Infuriated by this thoughtlessness, the plaintiff raises his arm in anger, which inadvertently knocks into a hidden beehive located on a nearby tree limb.³⁴⁸ According to Goldberg, the plaintiff's injury from the bee stings, although a *cause in fact* of the defendant's action, is not *proximately* caused by it.³⁴⁹ As he explains, "the risk of a pedestrian's being injured by a bee sting was not one of the risks that inclines us to label throwing litter out of a moving car to be a careless activity."³⁵⁰ In other words, bee stings are not within the scope of the risk of littering from a moving car.³⁵¹

To properly apply this standard, one must first identify the nature of the tortious conduct and the scope of the relevant risk.³⁵² Unquestionably, there are assumptions and judgments made during this definitional act. A broader

³⁴² See John C.P. Goldberg, *Rethinking Injury and Proximate Cause*, 40 SAN DIEGO L. REV. 1315, 1337-38 (2003).

³⁴³ *Id.* at 1337.

³⁴⁴ *Id.*

³⁴⁵ *Id.*

³⁴⁶ *Id.* at 1338.

³⁴⁷ *Id.*

³⁴⁸ *Id.*

³⁴⁹ *Id.* at 1338.

³⁵⁰ *Id.* at 1338.

³⁵¹ See also DAN B. DOBBS ET AL., *THE LAW OF TORTS* § 198 (2d ed. 2018). Dobbs et al. provide the following example:

[S]uppose that the defendant negligently manufactures a vacuum cleaner so that it does not have good suction. After several frustrating days using the cleaner, the purchaser takes it to the repair shop. On her way to the shop, the purchaser is struck by a car and suffers injury. The manufacturer was negligent. The manufacturer's negligence was one of the many factual causes leading to the purchaser's harm—but for the manufacturer's negligence, the purchaser would have stayed home safely cleaning carpets and would not have been struck by a car. Yet here again, legal professionals are likely to agree that the manufacturer's conduct in making the poor vacuum was not a proximate cause of the plaintiff's injury, because the defendant's negligence did not create or increase the risk of injury in a vehicular collision.

Id.

³⁵² See John C.P. Goldberg, *Rethinking Injury and Proximate Cause*, 40 SAN DIEGO L. REV. 1315, 1337 (2003).

definition of tortious conduct will result in more instances where liability will be imposed — for example, “driving” has a broader range of available risks compared with the narrower activity of “littering from a car window.” Next, one considers the relevant risks of the activity and determine whether the injury has a sufficient relation to at least one of those risks.³⁵³ For example, it has been said that the risk of handing a loaded gun to a child is the risk of injury resulting from the child firing the gun because very young person’s lack a full understanding its danger.³⁵⁴ Therefore, if the child drops the gun and injures her foot, that harm is outside the scope of the risk created through the negligent entrustment.³⁵⁵ This would trigger proximate cause to terminate liability. That is, rules against giving children guns are not enforced by compensation for an injury that would have occurred if the defendant had handed the child a non-dangerous, but heavy, object such as an iron pot. In other words, the harm within the risk rule is intended to ensure the necessary correlation between the defendant’s tort and the plaintiff’s harm.³⁵⁶

As one source explains, this limitation ensures fairness from a corrective justice standpoint that “the defendant is not held legally responsible for the materialization of a harm that is not within the set of possibilities that supply a reason for exercising due care.”³⁵⁷ This aspect of the proximate cause requirement provides a vital link between a tortious event and the plaintiff’s harm.³⁵⁸ If the law permitted plaintiff’s recovery for innocent conduct: (1) socially valuable non-tortious activity would be discouraged; (2) the plaintiff would be overcompensated; and (3) negligence would operate in a similar manner to strict liability.³⁵⁹ Negligence would be treated in a manner similar to strict liability in the sense that liability would be imposed on a defendant without a showing of fault, but without the limitations required to bring a strict liability claim.³⁶⁰

Inherent in this rule is the concept that, absent the meaningful application of proximate cause, the other elements of a negligence claims are over inclusive.³⁶¹

³⁵³ See Hurd & Moore, *supra* note 340, at 334.

³⁵⁴ Benjamin C. Zipursky, *Foreseeability in Duty, Breach, and Proximate Cause*, 44 WAKE FOREST L. REV. 1247, 1253 (2009) (citing RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL HARM § 29 cmt. D, Illus. 3 (AM. L. INST. Proposed Final Draft No. 1, 2005); RESTATEMENT (SECOND) OF TORTS § 281 cmt. F, Illus. 3 (AM. L. INST. 1965)).

³⁵⁵ *Id.*

³⁵⁶ Hurd & Moore, *supra* note 340, at 334. If, however, the tortious action is defined as handing a small child a very heavy object — in this case, it happens to be a loaded gun — then liability can be imposed. *Id.*

³⁵⁷ Ernest J. Weinrib, *The Disintegration of Duty*, 31 ADVOC. Q. 212, 219 (2006).

³⁵⁸ See *id.*

³⁵⁹ See Shavell, *supra* note 210, at 486.

³⁶⁰ See *id.* at 489

³⁶¹ *Id.* (“In reality a significant element of strict liability is inherent in the negligence rule: injurers who do in fact act with due care or attempt to do so will sometimes be found negligent and have to pay damages.”).

In other words, following the letter of the other tort elements results in the imposition of liability for even reasonable risks.³⁶² The tort duty rules, together with the standard breach analysis, can deliver results that, particularly when coupled with the expansive cause in fact analysis, are inconsistent with the purposes of the law.³⁶³ Significantly, proximate cause cuts off liability despite the fact that a defendant breached a duty to an injured plaintiff.³⁶⁴ As one source explains, proximate cause “serves as the final and finest sieve” that considers the specific context in which the alleged harm occurred.³⁶⁵ The harm within the risk rule provides a vital link that excludes injuries that result from either socially beneficial risks or those that are merely fortuitous from the liability calculation.³⁶⁶

C. Intervening, Superseding and Efficient Causes

Proximate cause doctrine relies on the mechanism of the intervening, superseding cause to cut off liability in particular cases.³⁶⁷ In some jurisdictions, a parallel concept is used to cut off liability at its efficient cause (sometimes called the operating efficient cause or efficient intervening cause), which “is usually termed the cause, whose share in the matter is most conspicuous, and is immediately preceding and proximate to the event.”³⁶⁸ These concepts have been described as follows:

The issue of an intervening cause occurs when a new and independent force . . . so interrupts the chain of events that it becomes the responsible, direct, proximate, and immediate cause of the injury.³⁶⁹

Such acts typically occur between the defendant’s initial injurious act and the time that the plaintiff is injured. In negligence cases, “[i]f the intervening force

³⁶² Grady, *supra* note 230, at 294 (describing the stringent duty standard and explaining “unless liability is limited in some way [namely proximate cause], people will avoid the activities in which their own breach of duty is predictably likely”).

³⁶³ *Id.*

³⁶⁴ *See id.* 294-95.

³⁶⁵ W. Jonathan Cardi, *Reconstructing Foreseeability*, 46 B.C. L. REV. 921, 971 (2005).

³⁶⁶ Gilead & Green, *supra* note 230, at 1538.

³⁶⁷ *See, e.g.*, Milwaukee & St. P.Ry. Co. v. Kellogg, 94 U.S. 469, 475 (1876); Duphily v. Delaware Elec. Coop., Inc., 662 A.2d 821, 829 (Del. 1995) (“In order to break the causal chain, the intervening cause must also be a superseding cause, that is, the intervening act or event itself must have been neither anticipated nor reasonably foreseeable by the original tortfeasor.”); Carson v. Dudley, 25 A.D.3d 983, 983 (N.Y. App. Div. 2006).

³⁶⁸ Powers v. Standard Oil Co., 119 A. 273, 274 (N.J. 1923), *aff’d*, 121 A. 926 (N.J. 1923); Tapp v. Blackmore Ranch, Inc., 575 N.W.2d 341, 349 (Neb. 1998); Smith v. Secrist, 590 S.W.2d 386, 389 (Mo. Ct. App. 1979). This article will refer to these standards collectively as the intervening, superseding cause.

³⁶⁹ English v. Empire Dist. Elec. Co., 220 S.W.3d 849, 857 (Mo. Ct. App. 2007) (citation omitted). *See also* Hassan v. Begley, 836 N.E.2d 303, 307 (Ind. Ct. App. 2005) (citation omitted).

actually *does* intervene—producing harm by active operation *after* the negligent commission or omission of the actor sought to be held liable, then, usually, that actor’s conduct is exonerated provided that the intervening force was *not* foreseeable.³⁷⁰ Such acts are caused by third parties or independent forces such as an unforeseen storm, physical aspects of a landscape or road, or other significant contributing factors to the plaintiff’s injury that are more proximate in time or space.

There are significant exceptions to the intervening, superseding cause rule.³⁷¹ One is that a second tortfeasor engaged in a risk that is objectively *foreseeable* to the defendant will not break the causal chain.³⁷² As with foreseeability in other contexts, the term is a legal conclusion that varies based on both the facts and policy judgment. For example, in *Biggers v. Continental Bus System, Inc.*,³⁷³ a decedent whose car had been hit head-on by one of Continental’s buses that was being driven at an excessive speed.³⁷⁴ At the time of the accident, the decedent’s car was driving in the wrong lane toward the bus.³⁷⁵ The defendant, Continental, argued that proximate cause was lacking because “one operating an automobile on a highway is not required, under any circumstances, to foresee or anticipate that an automobile traveling in the opposite direction may enter the wrong traffic lane.”³⁷⁶ Recognizing that other jurisdictions were in conflict, the Texas Supreme Court sided with the line of cases holding that such events were foreseeable.³⁷⁷ This court explained “[i]t is a matter of common knowledge that a fair proportion of collisions on highways are ‘head-on’ collisions, resulting from one of the automobiles being in the wrong lane of traffic.”³⁷⁸ On that basis, the *Biggers* court affirmed a jury finding that the bus’s excessive speed was the proximate cause of the collision.³⁷⁹

Biggers’ holding underscores that foreseeability operates as a policy judgment. The decedent’s car began driving in the wrong lane because it was part of a line of cars that was forced to suddenly slow down.³⁸⁰ This was because the lead car hit its brakes and slowed from driving 40-45 miles per hour down to 10-15 “to observe the creek to ascertain if it was too muddy for fishing.”³⁸¹ The

³⁷⁰ Alfred W. Gans et al., *Superseding Cause; Intervening Force: Generally*, 3 AM. L. TORTS § 11:9 (2019).

³⁷¹ See M. Albert Figinski, *Foreseeable Intervening Negligence Not a Superseding Cause—Jubb v. Ford*, 21 MD. L. REV. 68, 71 (1961).

³⁷² *Id.*

³⁷³ 157 Tex. 351 (1957).

³⁷⁴ *Id.* at 345-55.

³⁷⁵ *Id.* at 355.

³⁷⁶ *Id.* at 357.

³⁷⁷ *Id.* at 357-58.

³⁷⁸ *Id.* at 358.

³⁷⁹ See *id.* at 366.

³⁸⁰ *Id.* at 354.

³⁸¹ *Id.* at 354.

decedent, driving behind this lead car, slowed to avoid an accident.³⁸² However, the car behind the decedent was unable to brake quickly enough and continued forward, pushing the decedent's car into oncoming traffic right in front of the speeding bus.³⁸³ The defendant bus company argued "that its driver could not reasonably foresee the unusual circumstance" that led the decedent's car to arrive in the wrong lane.³⁸⁴ In response, the *Biggers* court over-ruled precedent that had held that "one's negligence cannot be a proximate cause of an injury unless the precise manner or means of the injury resulting from the negligence can be foreseen."³⁸⁵ Instead, the *Biggers* court applied the rule that proximate cause was established so long as a hypothetical reasonable person driving the bus should have foreseen the risk of excessive speed to any car that entered the wrong lane for any reason.³⁸⁶ In effect, the court considered both the nature of the risk (excessive speed) coupled with the foreseeability of the plaintiff (any car in the wrong lane) to further a policy that favors compensation to injured plaintiffs. Additionally, by steering the analysis toward the generalized nature of the risk of excessive speed and away from the foreseeability of the particularized manner in which the accident occurred, the *Biggers* court relied on all three policy guides to allow recovery for the decedent.³⁸⁷

More broadly, these cases illustrate that in close cases the concept of foreseeability, which tracks other policies woven throughout negligence law, can operate within proximate cause to separately allow or withhold damages to further the law's goals. These turning points — whether under the direct or foreseeability standard — can be similarly implemented in the patent system to guide liability as a matter of policy. Over time, these precedents can be crystallized to provide certainty and act as an incentive to structure transactions appropriately.

D. *Modifying Proximate Cause*

Although the roots of proximate cause developed primarily in negligence law, the requirement applies to other common law torts. In such cases, the proximate cause is fine-tuned to fit contextually with the relevant cause of action. For example, some sources hold that those who act willfully for the purpose of causing harm cannot rely on the argument that foreseeability is lacking and that, therefore, recovery should be denied for lack of proximate cause.³⁸⁸ In such cases, the inquiry collapses to the cause in fact question and a defendant cannot

³⁸² *Id.* at 354.

³⁸³ *Id.* at 354-55.

³⁸⁴ *Id.* at 358.

³⁸⁵ *Id.* at 359.

³⁸⁶ *Id.*

³⁸⁷ *Id.*

³⁸⁸ See *Kimberlin v. DeLong*, 637 N.E.2d 121, 127 (Ind. 1994) ("The rule has therefore emerged that the doctrine of superseding cause is inapplicable to willful torts"); RESTATEMENT (SECOND) OF TORTS § 435A (AM. LAW. INST. 1965).

rely on the argument that the harm was unforeseeable to terminate liability. For example, those engaged in an intentional tort will be liable for all harm caused, including harms that are not reasonably foreseeable.³⁸⁹ This is because the law seeks to powerfully discourage intentionally wrongful conduct.³⁹⁰ In effect, the rule requires the defendant to become liable for consequences that are entirely unexpected, even if the defendant would not have been responsible for those harms if he had been merely negligent.³⁹¹

In contrast, a California court *narrowed* the scope of proximate cause in a case asserting negligence against the state, rendering it more difficult for the plaintiff to recover where governmental decision-making was challenged.³⁹² In that case, the plaintiff alleged that a governmental actor had failed to order a sufficient psychological evaluative test for an inmate, Pitre, who was soon to be released from prison.³⁹³ According to the plaintiff, an adequate evaluation, as required by a state statute, would have led to Pitre's psychiatric commitment.³⁹⁴ Instead, she was murdered by Pitre soon after his release.³⁹⁵ The relevant statute directed, among other things, that government's immunity rested on proximate cause between the government employee's conduct and the harm. The court recognized that its conclusion about proximate cause was based on public policy.³⁹⁶ After reviewing a line of California governmental immunity decisions which found proximate cause lacking in cases brought against governmental decision makers, this Court affirmed the lower court's demurrer of plaintiff's

³⁸⁹ RESTATEMENT (THIRD) OF TORTS § 33(a) (AM. LAW. INST. 2010) (“An actor who intentionally causes harm is subject to liability for that harm even if it was unlikely to occur.”).

³⁹⁰ *See id.* at cmt. a. Notably, proximate cause continues to limit liability if the harm cause is outside the scope of the risk designated by the controlling source of law. *Id.* at § 33(c) (a tortious actor “is not subject to liability for harm the risk of which was not increased by the actor’s tortious conduct.”). Moreover, certain forms of intervening causes will cut off liability in cases of an intentional tort, so long as the intervening cause is not driven by the defendant’s conduct. *Id.* at §34. The Restatement (Second) of Torts also provides that “[a] person who commits a tort against another for the purpose of causing a particular harm to the other is liable for such harm if it results, whether or not it is expectable, except where the harm results from an outside force the risk of which is not increased by the defendant’s act.”). RESTATEMENT (SECOND) OF TORTS § 435A (AM. LAW. INST. 1965)

³⁹¹ Charles A. Sullivan, *Tortifying Employment Discrimination*, 92 B.U. L. REV. 1431, 1465 n.143 (2012) (quoting RESTATEMENT (SECOND) OF TORTS § 435A (AM. LAW. INST.1965)).

³⁹² *State Dep’t of State Hosps. v. Superior Court*, 61 Cal. 4th 339, 356 (2015) (“The policy considerations bearing on the question of proximate cause are also a considerable obstacle to plaintiff’s claim.”).

³⁹³ *Id.* at 346-47.

³⁹⁴ *Id.* at 347.

³⁹⁵ *Id.* at 346.

³⁹⁶ *Id.* at 353 (“[P]roximate cause is ordinarily concerned, not with the fact of causation, but with the various considerations of policy that limit an actor’s responsibility for the consequences of his conduct.”) (quotations omitted).

action, finding proximate cause lacking as a matter of law.³⁹⁷ Given that evaluators had discretion in the review process, the court found that “[a]s a matter of policy” the proximate cause inquiry was “problematic, because it trenches closely upon the discretionary functions of the evaluation process” established by statute.³⁹⁸ In short, to protect the discretion of governmental decision makers, the court held that proximate cause was not met.³⁹⁹ In such instances, proximate cause’s black letter standard is varied based on the policy reasons that derive from the nature of the claim.

As in tort law, proximate cause can be varied to apply to different instances of infringement in the patent context. Thus, proximate cause in cases of willful infringement might allow the capture of liability compared to cases where the infringer had no notice of the patent. Similarly, proximate cause in cases of attenuated liability, such as where a manufacturer provides a very minor infringing component of a multicomponent device, proximate cause might be applied more stringently.

E. *The Appearance of Redundancy*

One pervasive characteristic of proximate cause analysis is the doctrine’s tendency to apply standards that are duplicative of other elements of the substantive cause of action. In negligence law, the proximate cause analysis in many jurisdictions relies heavily on foreseeability, which is also central to aspects of the duty and breach analysis.⁴⁰⁰ In other words, the proximate causal chain encompasses foreseeable types of harm, and the determination over whether an event is an intervening cause rests on whether it is foreseeable. At the same time, one way to establish a legal duty toward another is based on whether or not the plaintiff should have been a foreseeable victim that might be harmed by the defendant’s risk-creating activity.⁴⁰¹ Additionally, foreseeability governs the scope of the defendant’s duty, in that traditional breach analyses encompass limitations for the objectively foreseeable likelihood of harms to others. Professor Leon Green argues that proximate cause’s “chameleon quality permits it to be substituted for any one of the elements of a negligence case when decision on that element becomes difficult.”⁴⁰²

Although there may be some truth in his argument, the analysis of redundant elements evidences that courts apply foreseeability *differently* within proximate

³⁹⁷ *Id.* at 353, 357.

³⁹⁸ *Id.* at 357.

³⁹⁹ *See id.* at 360-62.

⁴⁰⁰ *See supra* notes 323-326 and accompanying text.

⁴⁰¹ *See, e.g.,* Lopez v. McDonald’s Corp., 193 Cal. App. 3d 495, 508 n.7 (Cal. Ct. App. 1987) (“The defendant owes a duty of care to all persons who are foreseeably endangered by his conduct, with respect to all risks which make the conduct unreasonably dangerous.”) (citations and quotations omitted).

⁴⁰² Leon Green, *Proximate Cause in Texas Negligence Law*, 28 TEX. L. REV. 471, 471 (1950).

cause compared to others. This allows courts to fine-tune liability where the other elements of the claim do not lead to just results that are commensurate with the law's purpose. In the negligence context, this occurs where there is a categorical rule establishing a legal duty to the plaintiff, for example the doctor-patient duty or the business invitee rule. The legal system tends to create such precedent to provide some level of certainty for actors engaged in risk-creating activity. That is, prospective defendants should know where their legal liability begins and ends so that they can shape their activities to minimize the potential for payment. The negligence system benefits from this stability, because it allows for the creation of legal rules that can incentivize risk creators to aim for an optimal level of risk. This balance is important because a burdensome negligence standard incentivizes risk creators to undertake wasteful spending on protective measures or curtailing socially valuable activity entirely. Yet, as applied in some cases, negligence law's categorical rules can deliver harsh results in the absence of doctrines to limit liability. In other words, a negligence system does not impose liability for *all* risks, but relies on doctrines that include proximate cause to calibrate liability to guide defendants to engage in appropriate levels of risk.

For example, in *Pine v. Arruda*, a woman was injured at a golf course when she was hit by a member who was driving a golf cart, which suddenly accelerated when the plaintiff's golf bag fell on the accelerator.⁴⁰³ The accident occurred during a sudden rain and lightning storm that arose during tournament, when a member tried to pull the cart out of the rain into a covered area so that the plaintiff's bag would not get wet.⁴⁰⁴ The plaintiff sued the golf course alleging negligence for its failure to exercise due care by failing to have more covered storage areas and assistance with golf carts during rain delays.⁴⁰⁵ Applying the categorical duty rule for business invitees, the court found the defendant golf course owed the plaintiff a legal duty to "maintain its property in a reasonably safe condition in view of all the circumstances, including the likelihood of injury to others, the seriousness of the injury, and the burden of avoiding the risk."⁴⁰⁶ Accepting the defendant's argument that liability under these circumstances would impose "liability for all injuries resulting from the negligence use of their golf carts no matter who was using them or how attenuated the link was between the conduct of the country club and the resulting injury."⁴⁰⁷ Accepting that argument, the court found that the plaintiff's claim should be rejected for the lack of proximate cause.⁴⁰⁸ Among other things, the court considered the golf cart's driver as an unforeseeable intervening cause that terminated any potential

⁴⁰³ *Pine v. Arruda*, 448 F. Supp. 2d 282, 283 (D. Mass. 2006).

⁴⁰⁴ *Id.*

⁴⁰⁵ *Id.* at 285.

⁴⁰⁶ *Id.* at 285.

⁴⁰⁷ *Id.* at 284-85.

⁴⁰⁸ *Id.* at 285.

liability.⁴⁰⁹ The *Pine* court's entry of judgment in favor of the defendant demonstrates that, more broadly, proximate cause allows for the courts to craft liability rules that allow risk-creating businesses to engage in appropriate levels of risk. Further, proximate cause prevents defendants from incurring liability for injuries over which they have little to no control.

Certainly, a court might have concluded differently than the *Pine* court did. This is the type of policy judgment that allows courts to set an appropriate level of risk as a matter of policy. A court might determine, for example, that the defendant country club needed to incentives to provide more protective measures than were taken here. The existence of proximate cause gives courts the flexibility and policy space to make that judgment. In the patent context, the existence of a cause in fact inquiry in the lost profits inquiry therefore does not preclude the applicability of proximate cause in that area. Nor does it preclude consideration of both cause in fact and proximate cause for reasonably royalty relief.

VI. PROXIMATE CAUSE AND STATUTORY CAUSES OF ACTION

A. Overview

The proximate cause limitation of negligence law cannot be imported wholesale into all statutory causes of action. Given the disorderly state of the common law across the fifty states, the Supreme Court has recognized the difficulty of stating a precise proximate cause test for application to federal statutory claims.⁴¹⁰ Many of the leading cases integrate a patchwork of considerations. Each bears the same judicial stamp that considers the appropriate limits on liability. Yet another consistent theme among these authorities is that the policies of proximate cause are malleable to fit the policies reflected in the relevant statute.

In some cases, the Court has applied a modified scope of the risk analysis. For example, in *Blue Shield of Virginia v. McCready* — an antitrust action — the Supreme Court set forth the relevant test as a mix of the common law standard coupled with limitations that are relevant to the purposes of the antitrust statute.⁴¹¹ Further, in *Associated General Contractors of California v. California State Council of Carpenters*, the Supreme Court's analysis, explicitly regarded any harms caused by conduct that were not re-dressable by the antitrust law as

⁴⁰⁹ *Id.*

⁴¹⁰ *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 536-37 (1983).

⁴¹¹ *Blue Shield of Va. v. McCready*, 457 U.S. 465, 478 (1982) (describing the relevant test as comprised of two-factors: "(1) . . . the physical and economic nexus between the alleged violation and the harm to the plaintiff, and (2), more particularly, . . . the relationship of the injury alleged with those forms of injury about which Congress was likely to have been concerned in making defendant's conduct unlawful and in providing a private remedy under § 4.").

irrelevant.⁴¹² This analysis evolved the common law “harm within the risk” rule to a “harm within the statute’s purpose” rule, which fine-tuned the policy driven imposition of liability. In *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, the Court instructed that that the “[p]roximate-cause analysis is controlled by the nature of the statutory cause of action,” and that an important part of the proximate cause inquiry turns on whether “the harm alleged has a sufficiently close connection to the conduct the statute prohibits.”⁴¹³ These decisions underscore that proximate cause must be modified to further the purposes of the statute that is asserted to create the defendant’s liability. For patent law, the relevant inquiry must therefore be viewed in light of the goals of the system which gives rise to invention and innovation.

Certainly, the leading statutory cases use parts of the structure of proximate cause as that doctrine developed in negligence law. For example, the directness of the plaintiff’s harm is a key consideration for proximate cause in many statutory causes of action; although the foreseeability inquiry controls in others.⁴¹⁴ Those terms remain as malleable as it is in common law tort cases. For example, in *Lexmark Int’l v. Static Control Components*, the Supreme Court considered proximate cause in the context of a federal statutory cause of action for false advertising.⁴¹⁵ There, the Court applied the directness standard.⁴¹⁶ In doing so, the Court wove in some of the considerations that are similar to those discussed in the *Beretta* case.⁴¹⁷ The *Lexmark* opinion considered the directness of the plaintiff’s asserted injury, the policy of keeping the scope of trials within

⁴¹² *Associated Gen. Contractors*, 459 U.S. at 526-527 (“Such deceptive diversion of business to the nonunion portion of a so-called ‘double-breasted’ operation might constitute a breach of contract, an unfair labor practice, or perhaps even a common-law fraud or deceit, but in the context of the bargaining relationship between the parties to this litigation, such activities are plainly not subject to review under the federal antitrust laws.”). Although the language of the *Associated General Contractors* decision does not appear to expressly create a proximate cause requirement for Clayton Act claims, the opinion has been read to do so. See *Holmes v. Sec. Inv. Protection Corp.*, 503 U.S. 258, 267-68 (1992) (construing *Associated General Contractors*, stating that in that case “we held that a plaintiff’s right to sue under § 4 [of the Clayton Act] required a showing that the defendant’s violation not only was a ‘but for’ cause of his injury, but was the proximate cause as well.”).

⁴¹³ *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 133 (2014).

⁴¹⁴ *Associated Gen. Contractors*, 459 U.S. at 532 (“[A] number of judge-made rules circumscribed the availability of damages recoveries in both tort and contract litigation—doctrines such as foreseeability and proximate cause, directness of injury, [etc.]”). *Associated General Contractors*, an antitrust case, utilized the directness standard. *Id.* at 540.

⁴¹⁵ *Lexmark Int’l Inc.*, 572 U.S. at 120-21.

⁴¹⁶ See *Lexmark Int’l Inc.*, 572 U.S. at 135.

⁴¹⁷ *Id.* at 134-35. See also *Southern Pac. Co. v. Darnell-Taenzer Lumber Co.*, 245 U.S. 531, 533 (1918) (recognizing “the general tendency of the law, in regard to damages at least, is not to go beyond the first step.”); *City of Philadelphia v. Beretta U.S.A. Corp.*, 277 F.3d 415, 423 (3rd Cir. 2002).

judicially manageable limits, as well as the risks of duplicative recoveries and complex apportionment.⁴¹⁸

In other cases, the Court has considered a number of policy considerations relevant to the asserted cause of action that are akin to those considered in *Berretta*,⁴¹⁹ including whether there are victims who are more directly impacted and therefore have sufficient incentives to vindicate the same wrongful conduct.⁴²⁰ Also, recognizing that defendants have limited resources, courts examine whether awarding damages to those who are indirectly harmed might preclude meaningful recovery of others who are more directly injured.⁴²¹ For example, in *Associated General Contractors* the Supreme Court avoided allowing multiple recoveries and fashioning complicated rules apportioning damages.⁴²² The Court expressed concern that multiple claims to recovery would deplete the defendant's resources and therefore render it difficult for others to obtain meaningful financial recovery.⁴²³

There is also potential difficulty in ascertaining the amount of the plaintiff's actual damages compared with other factors that may have led to the plaintiff's losses. This consideration recognizes that plaintiff's harms might be caused from multiple sources, including those that do not derive from the defendant's wrongful conduct.⁴²⁴ As one opinion explains, "the more indirect the injury, the more difficult it becomes to ascertain the amount of a plaintiff's damages attributable to [the defendant's wrongdoing], as distinct from other, independent, factors."⁴²⁵ Some dicta suggests that the mere *potential* complexity of apportioning harms is not determinative.⁴²⁶ Nonetheless, consistent with the common law, where there are a multiplicity of factors that contribute to the plaintiff's injury — leading to a conclusion that the defendant's conduct is not a substantial factor to the plaintiff's harm, recovery is denied.⁴²⁷

⁴¹⁸ *Lexmark Int'l Inc.*, 572 U.S. at 134-35.

⁴¹⁹ *See, e.g., Lexmark Int'l Inc.*, 572 U.S. at 134-35; *Anza v. Ideal Steel Supply Corp.*, 547 U.S. 451, 458-60 (2006); *Gelboim v. Bank of Am. Corp.*, 823 F.3d 759, 772 (2d Cir. 2016). *See also City of Philadelphia*, 277 F.3d at 423.

⁴²⁰ *Anza*, 547 U.S. at 460.

⁴²¹ *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 545 (1983).

⁴²² *Id.* at 543-44.

⁴²³ *See id.* at 543-44.

⁴²⁴ *Holmes v. Securities Investor Protection Corp.*, 503 U.S. 258, 269 (1992).

⁴²⁵ *Id.*

⁴²⁶ *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 135 (2014) (stating that the "potential difficulty in ascertaining and apportioning damages is not . . . an independent basis for denying standing where it is adequately alleged that a defendant's conduct has proximately injured an interest of the plaintiff's that the statute protects.")

⁴²⁷ *Perron ex rel. Jackson v. J.P. Morgan Chase Bank, N.A.*, 845 F.3d 852, 858 (7th Cir. 2017) (finding that the plaintiffs' attempt to recover for dissolution of their marriage due to the defendant's violation of the federal Real Estate Settlement Procedures Act (RESPA) was rejected for lack of proximate cause because "[t]his kind of claimed harm is far too attenuated

Just as in negligence cases, some of these policy considerations are redundant of some of the statutory cause of action's other elements. Proximate cause applied in the antitrust context is one example, where both consider the nature of the plaintiff's injury as central to the resolution of both standing and proximate cause.⁴²⁸ Just as in negligence law, this injury is analyzed differently for the statutory tort. For standing in antitrust cases, the plaintiff's injury is considered to assess whether it is within the zone of interests protected by the antitrust law.⁴²⁹ In contrast, for proximate cause in antitrust cases, the question of the plaintiff's injury "is not one of standing, but of directness."⁴³⁰ Similarly, in *Lexmark v. Static Control Components*, a false advertising case, the Court considered both the type of injury suffered by the plaintiff for standing purposes and its directness to determine proximate cause.⁴³¹ Although those conversant with patent infringement analysis are accustomed to compartmentalizing issues within particular elements, the trend in proximate cause analysis allows for redundancy that considers different aspects of policy in different claim elements.

B. Statutory Torts and Proximate Cause

A number of Supreme Court cases demonstrate the manner in which the court applies the doctrine of proximate cause to federal statutory claims. As an early example, in *Associated General Contractors of California v. California State Council of Carpenters* ("*Associated General Contractors*"),⁴³² the Supreme Court examined whether plaintiff-union could bring a claim for treble damages § 4 of the Clayton Act, which authorizes recovery by "any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws."⁴³³ The union alleged \$25 million in damages based on defendant-employer's efforts to persuade employers to hire non-union workers.⁴³⁴ As a

from the alleged violation to cross the proximate-cause threshold." See also RESTATEMENT (SECOND) OF TORTS § 281 cmt. f (AM. LAW INST. 1965) ("Where the harm which in fact results is caused by the intervention of factors or forces which form no part of the recognizable risk involved in the actor's conduct, the actor is ordinarily not liable.").

⁴²⁸ See *South Dakota v. Kansas City S. Indus., Inc.*, 880 F.2d 40, 46 (8th Cir. 1989) ("[A]s the Supreme Court has observed, the determination of whether there is antitrust standing is similar to the determination of whether there is proximate cause.").

⁴²⁹ See *id.* at 46 (explaining that an injury must be "directly related to the harm the antitrust laws were designed to protect" to form the basis of a claim.).

⁴³⁰ *Chrysler Corp. v. Fedders Corp.*, 643 F.2d 1229, 1235 (6th Cir. 1981), *cert. denied*, 454 U.S. 893 (1981).

⁴³¹ *Lexmark Int'l., Inc.*, 572 U.S. at 137-38.

⁴³² 459 U.S. 519 (1983).

⁴³³ 15 U.S.C. § 15(a) (2012); *Associated Gen. Contractors*, 459 U.S. at 521.

⁴³⁴ *Associated Gen. Contractors*, 459 U.S. at 522-24. The relevant allegations redressable by the Clayton Act are described by the Court are:

[T]hat defendants 'coerced' two classes of persons: (1) landowners and others who let construction contracts, i.e., the defendants' customers and potential customers; and (2) general contractors, i.e., defendants' competitors and defendants themselves. Coercion

result, the complaint alleged that contractors and subcontractors who employed union workers lost contracts, and that the defendant's conduct interfered with employers' ability to make "free choices between market alternatives [and] is inherently destructive of competitive conditions."⁴³⁵ Although the Court concluded that the law's statutory history did not discuss proximate cause, the *Associated General Contractors* Court read the requirement into the statute.⁴³⁶ Ultimately, the Court determined that the plaintiff union could not bring its claims under the Clayton Act because its allegations did not establish that its injury had been proximately caused by the defendant's alleged conduct.⁴³⁷

In coming to its decision, the *Associated General Contractors* Court relied on both the type of harm and the foreseeability of plaintiff's injuries.⁴³⁸ Specifically, the Court held that these damages were not the type of harm that Congress sought to protect by enacting the antitrust laws.⁴³⁹ Further, the Court found that the union was not within the class of plaintiffs that Congress sought to protect with these laws, evoking the common law's "foreseeable plaintiff" concept.⁴⁴⁰ In addition, the Court considered the directness of the union's injuries, evoking *Polemis*' legal rule.⁴⁴¹ Yet unlike *Polemis* which used directness to expand liability, the *Associated General Contractors* Court read the word "direct" narrowly to hold that the union could not establish proximate cause under the facts presented.⁴⁴²

The *Associated General Contractors* Court relied on several policy considerations, including that the harm from the alleged conduct was diffused among others with more direct injuries. In addition to the fact that these plaintiffs had incentives to vindicate their own claims, the Court found that the union's

against the members of both classes was designed to induce them to give some of their business—but not necessarily all of it—to nonunion firms.

Id. at 527-28.

⁴³⁵ *Id.* at 528. See also *Lexmark Int'l Inc.*, 572 U.S. at 126 (stating that, in *Associated General Contractors*, the Court "held that the statute limited the class to plaintiffs whose injuries were proximately caused by a defendant's antitrust violations.").

⁴³⁶ *Assoc. Gen. Contractors*, 459 U.S. at 532-33

⁴³⁷ *Id.* at 540 (citing *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 487-489 (1977) (drawing on antitrust's standing jurisprudence and explaining "[i]n each case its alleged injury must be analyzed to determine whether it is of the type that the antitrust statute was intended to forestall. In this case, particularly in light of the longstanding collective bargaining relationship between the parties, the Union's labor-market interests seem to predominate, and the *Brunswick* test is not satisfied.").

⁴³⁸ *Id.* at 538.

⁴³⁹ *Id.* at 545.

⁴⁴⁰ *Id.* at 540 ("Set against this background, a union, in its capacity as bargaining representative, will frequently not be part of the class the Sherman Act was designed to protect").

⁴⁴¹ *Id.* at 540.

⁴⁴² See *Associated General Contractors*, 459 U.S. at 539-46. Note that the court determined that there was "no risk of double recovery" in the case. *Id.* at 551.

injuries were, by comparison, “speculative.”⁴⁴³ The Court observed that the union’s alleged harm might have been caused by other factors unrelated to the defendant’s conduct, and that its claim raised the “risk of duplicate recoveries on the one hand, or the danger of complex apportionment of damages on the other.”⁴⁴⁴ Additionally, the Court expressed concern that allowing the union’s complaint would mean that “the District Court would face problems of identifying damages and apportioning them among directly victimized contractors and subcontractors and indirectly affected employees and union entities,” which might render the litigation unmanageable.⁴⁴⁵

In a subsequent decision, *Holmes v. Securities Investor Protection Corporation*, the Supreme Court applied this standard to a claim brought under the Racketeer Influenced and Corrupt Organizations Act (RICO).⁴⁴⁶ There, the Court held that an entity obligated to reimburse economically injured broker-dealers could not demonstrate proximate cause.⁴⁴⁷ Despite legislative history suggesting that RICO should be liberally construed to effectuate its remedial purpose, the court determined that the plaintiff must demonstrate a “direct relation between the injury asserted and the injurious conduct alleged.”⁴⁴⁸ Primarily, the Court relied on the *Associated General Contractors* Court’s direct harm analysis because Congress had drafted the RICO statute based on the Clayton Act.⁴⁴⁹

The *Holmes* Court found that the plaintiff was unable to prove a sufficiently direct injury.⁴⁵⁰ In addition to relying on statutory policies, the Court invoked some policies derived from the common law.⁴⁵¹ As the *Holmes* Court observed, in the case of those indirectly harmed, it would be difficult to trace whether the plaintiff’s harm was due to other causes, such as “the broker-dealers’ poor business practices or their failures to anticipate developments in the financial markets.”⁴⁵² The Court emphasized that those who were more directly injured had sufficient incentives to bring suit to remedy their losses, alleviating the concern that tortious conduct would occur without consequence.⁴⁵³ Critically, the Court recognized that the defendant had limited resources and that to allow those indirectly injured to recover might deprive the directly injured of any

⁴⁴³ *Id.* at 542-43, 545.

⁴⁴⁴ *Id.* at 543-44.

⁴⁴⁵ *Id.* at 545.

⁴⁴⁶ *Holmes v. Securities Investor Protection Corp.*, 503 U.S. 258, 267-70 (1992).

⁴⁴⁷ *Id.* at 276.

⁴⁴⁸ *Id.* at 268, 273.

⁴⁴⁹ *Id.* at 267-68.

⁴⁵⁰ *Id.* at 276.

⁴⁵¹ *Id.* at 268.

⁴⁵² *Id.* at 272-73.

⁴⁵³ *Id.* at 273 (“[T]hose directly injured . . . could be counted on to bring suit for the law’s vindication.”).

compensation.⁴⁵⁴ Further, as the *Holmes* Court explained, beyond this, the “claims of the indirectly injured would force courts to adopt complicated rules apportioning damages among plaintiffs removed at different levels of injury from the violative acts, to obviate the risk of multiple recoveries.”⁴⁵⁵

These same policy considerations were examined at length in another RICO case, *Anza v. Ideal Steel Supply Corp.*⁴⁵⁶ The plaintiff Ideal, a company that supplies equipment for making steel, challenged the actions of its competitor National.⁴⁵⁷ Ideal alleged that National violated RICO by selling products tax-free to customers who paid cash, which amounted to a price discount.⁴⁵⁸ According to Ideal, National then mis-reported its tax earnings by submitting fraudulent tax returns to the New York State Department of Taxation and Finance to conceal these transactions.⁴⁵⁹ Applying the *Holmes* standard, the Court ruled that Ideal could not establish proximate cause for its lost sales due to price competition from National’s tax-free policy for customers who paid cash.⁴⁶⁰ The *Anza* Court explained that the directly injured entity was the state of New York and that there were numerous policy reasons for denying relief to Ideal.⁴⁶¹ The Court observed “[o]ne motivating principle is the difficulty that can arise when a court attempts to ascertain the damages caused by some remote action.”⁴⁶² In a passage that evokes Andrews’ *Palsgraf* dissent, the *Anza* Court noted that ascertaining damages for those who were indirectly harmed posed almost insurmountable problems.⁴⁶³ For example, the Court explained that “Ideal’s lost sales could have resulted from factors other than petitioners’ alleged acts of fraud. Businesses lose and gain customers for many reasons, and it would require a complex assessment to establish what portion of Ideal’s lost sales were the product of National’s decreased prices.”⁴⁶⁴

In *Lexmark v. Static Control Systems*, the Court considered whether a manufacturer of parts used to refurbish Lexmark’s ink toner cartridges had standing to bring a federal false advertising claim.⁴⁶⁵ Static Control’s allegations targeted Lexmark’s “Prebate” program, which offered customers a twenty percent discount, so long as the customer agreed to return the cartridge after it was spent.⁴⁶⁶ As a supplier of parts to entities that refurbished cartridges, the

⁴⁵⁴ *Id.* at 274.

⁴⁵⁵ *Id.* at 269.

⁴⁵⁶ *Anza v. Ideal Steel Supply Corp.*, 547 U.S. 451, 458-60 (2006).

⁴⁵⁷ *Id.* at 453-54.

⁴⁵⁸ *Id.* at 454.

⁴⁵⁹ *Id.*

⁴⁶⁰ *Id.* at 457.

⁴⁶¹ *Id.* at 458.

⁴⁶² *Id.*

⁴⁶³ *See id.* at 466-67.

⁴⁶⁴ *Id.* at 459.

⁴⁶⁵ *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 118 (2014).

⁴⁶⁶ *Id.* at 121.

plaintiff's business depended on customer's willingness to purchase refurbished cartridges.⁴⁶⁷ Static Control alleged that, through the Prebate program, Lexmark made misrepresentations to consumers and that Lexmark cartridges purchased through the Prebate program could not lawfully be refurbished.⁴⁶⁸ Also, Lexmark sent letters to refurbishers stating that it was illegal to sell refurbished toner cartridges that use Static Control's parts.⁴⁶⁹

The *Lexmark* Court considered whether Lexmark's alleged misrepresentations proximately caused Static Control's alleged harm.⁴⁷⁰ It explained that this inquiry "is controlled by the nature of the statutory cause of action."⁴⁷¹ In concluding that Static Control's allegations met the standard, the Court focused on multiple areas of inquiry. First, the plaintiff's harm must be within the scope of the rights protected by the statute.⁴⁷² Second, the defendant's conduct must be the proximate cause of the alleged injuries — that is, the injuries must have a sufficiently close connection to the conduct prohibited by the statute.⁴⁷³ In Lanham Act false advertising cases, this standard is met if a competitor's injuries included sales that were lost because of the defendant's misrepresentation.⁴⁷⁴ Additionally, the *Lexmark* Court stated that reputational harms that stemmed from the defendant's statements were actionable under false advertising law.⁴⁷⁵ With respect to this factor, the Court observed "[w]hen a defendant harms a plaintiff's reputation by casting aspersions on its business, the plaintiff's injury flows directly from the audience's belief in the disparaging statements."⁴⁷⁶ The Court noted that, according to the plaintiff's allegations, the defendant's statements implied that Static Control's customers were engaged in illegal activity.⁴⁷⁷ The Court reasoned that, where consumers ceased to buy refurbished cartridges based on these misrepresentations, the plaintiff's harm would be a sufficiently direct to impact Static Control's sale of parts and

⁴⁶⁷ *Id.* at 123.

⁴⁶⁸ *Id.* at 122-23 (summarizing Static Control's claims stating "it alleged that through its Prebate program Lexmark 'purposefully misleads end-users' to believe that they are legally bound by the Prebate terms and are thus required to return the Prebate-labeled cartridge to Lexmark after a single use.>").

⁴⁶⁹ *Id.* at 123.

⁴⁷⁰ *Id.* at 126.

⁴⁷¹ *Id.* at 133.

⁴⁷² *Id.* at 137 ("The relevant question . . . is whether [the plaintiff's interest] is one the Lanham Act protects"). The Court stated that the plaintiff met the requirement for this element by alleging that it was "a perso[n] engaged in commerce within the control of Congress' whose position in the marketplace has been damaged by Lexmark's false advertising § 1127." and that "[t]here is no doubt that it is within the zone of interests protected by the statute." *Id.* (internal quotation marks omitted).

⁴⁷³ *Id.* at 132.

⁴⁷⁴ *Id.* at 140.

⁴⁷⁵ *Id.* at 133.

⁴⁷⁶ *Id.* at 138.

⁴⁷⁷ *See id.* at 122-23.

therefore harm the plaintiff's income.⁴⁷⁸ Certainly, the Court could not have allowed consumers to directly recover in a false advertising case, because that cause of action does not allow consumers standing to bring suit.⁴⁷⁹ Nonetheless, the Court expanded the ability to demonstrate proximate cause beyond competitors and allowed this parts supplier to demonstrate harm by extending directness to encompass anything that was not "too remote" from the defendant's unlawful conduct.⁴⁸⁰

In contrast, in *CSX Transportation v. McBride*, the Supreme Court applied a relaxed proximate cause standard for negligence claims filed under the Federal Employers' Liability Act (FELA).⁴⁸¹ The relevant section of this act allows employees to recover from railroads for personal injuries or deaths that result "in whole or in part from [carrier] negligence."⁴⁸² The Court's analysis relied on a combination of reasons, including the statute's "in whole or in part" language.⁴⁸³ The Court construed this language to expand recovery compared to common law proximate cause, and relied on Congress' intent to enact FELA with humanitarian and remedial goals.⁴⁸⁴ Ultimately, the *CSX Transportation* Court found that the jury's "common sense" was the primary limit on compensating workers' injuries.⁴⁸⁵ This relaxed standard allows compensation for a broader class of harms compared to common law negligence cases.⁴⁸⁶ As the statute limits recovery to federal employees injured on the job, the court found that proximate cause did not add any further limitation on the type of plaintiff who could recover.⁴⁸⁷ Throughout, the opinion relies on a close reading of the statute to form the iteration of proximate cause in the FELA context.⁴⁸⁸ Unlike many other statutory proximate cause cases which draw heavily on common law principles drawn from negligence cases, *CSX Transportation*

⁴⁷⁸ See *Lexmark Int'l., Inc.*, 572 U.S. at 140 ("Static Control's allegations suggest that if the remanufacturers sold 10,000 fewer refurbished cartridges because of Lexmark's false advertising, then it would follow more or less automatically that Static Control sold 10,000 fewer microchips for the same reason").

⁴⁷⁹ See *id.* at 132.

⁴⁸⁰ *Id.*

⁴⁸¹ 564 U.S. 685, 690 (2011).

⁴⁸² *Id.* at 688 (quoting 45 U.S.C. § 51 (2012)).

⁴⁸³ *Id.* at 691-92.

⁴⁸⁴ See *id.*

⁴⁸⁵ See *id.* at 704.

⁴⁸⁶ *Id.* at 703-04 ("If negligence is proved, however, and is shown to have played any part, even the slightest,

in producing the injury. . . then the carrier is answerable in damages even if the extent of the [injury] or the manner in which it occurred was not probable or foreseeable.") (citation omitted) (internal quotations omitted).

⁴⁸⁷ *Id.* at 704 (finding that there are "there are no unforeseeable plaintiffs in FELA cases.").

⁴⁸⁸ See *id.* at 686-87 ("The [proximate cause] charge proper in FELA cases, we hold, simply tracks the language Congress employed").

deeply embeds the legislative structure and language throughout the legal standard in a comprehensive manner.

VII. PROXIMATE CAUSE AND THE PATENT SYSTEM

A. Background

The Supreme Court's presumption for proximate cause applies to patent cases.⁴⁸⁹ The word "compensate," long used in the common law to include proximate cause, together with the objective of the compensation ("use made of the invention") suggests a necessary link between the plaintiff's harm and the monetary award.⁴⁹⁰ Some nineteenth century cases use language that suggests that proximate cause was considered in awarding damages.⁴⁹¹ In the Federal Circuit's *Rite Hite* decision, the court expressly discussed proximate cause as a governing principle for lost profit awards.⁴⁹² Most recently, the Supreme Court's 2018 *WesternGeco* opinion refers to proximate cause as an issue that could limit the reach of lost profits damages.⁴⁹³ As part of a larger trend of the Court's presumption that proximate cause is to be read into all federal statutory causes of action, express consideration of this element in the patent system for all forms of monetary recovery is overdue.

The Federal Circuit's *Rite-Hite* majority includes a mix of terminology in describing the form that proximate cause might take, in a manner consistent with the *Pepsi-Cola* negligence case discussed previously.⁴⁹⁴ Although the decision characterizes proximate cause as a matter of foreseeability, the opinion proceeds to discuss that "[s]uch labels have been judicial tools used to limit legal

⁴⁸⁹ See *Lexmark Intern., Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 132 (2014) ("[W]e generally presume that a statutory cause of action is limited to plaintiffs whose injuries are proximately caused by violations of the statute.").

⁴⁹⁰ 35 U.S.C. § 284 (2012) ("Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer"). See also *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) ("[A]warding damages through litigation attempts to assess the difference between [the patentee's] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.") (citing *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 552 (1886)).

⁴⁹¹ *Carter v. Baker*, 5 F. Cas. 195, 202 (C.C.D. Cal. 1871) ("Their profits must be the direct and legitimate fruits of that patent. They may have sustained damages from this source, but they are too remote. . . . It rarely happens, that all the damages, incidental and remote, resulting from a wrongful act, are permitted to be recovered by the law."); *Buerk v. Imhaeuser*, 4 F. Cas. 594, 595 (S.D.N.Y. 1876) ("The damages in such a case must be confined to the direct and immediate consequences of the infringement, and not embrace those which are both remote and conjectural.").

⁴⁹² *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546-47 (1995) (applying a proximate cause analysis to lost profits).

⁴⁹³ *WesternGeco III*, 138 S. Ct. 2129, 2139 n.3 (2018).

⁴⁹⁴ See *supra* note 329 and accompanying text.

responsibility for the consequences of one's conduct that are *too remote* to justify compensation."⁴⁹⁵ The court therefore appears to rely on both foreseeability and the direct/remote consequences test by using verbiage suggesting that it considers proximate cause to be, as a policy matter, a doctrine used to address the "background question [of] whether the asserted injury is of the type for which the patentee may be compensated."⁴⁹⁶ This nuanced point is key. As the *Rite Hite* court recognized, proximate cause is a tool that the judiciary can use to properly implement the purposes of patent law, observing that "judicial relief cannot redress every conceivable harm that can be traced to an alleged wrongdoing."⁴⁹⁷ As the court explained, "[t]he general principles expressed in the common law tell us that the question of legal compensability is one to be determined on the facts of each case upon mixed considerations of logic, common sense, justice, policy and precedent."⁴⁹⁸

B. Doctrinal Considerations

As previously described, proximate cause has two doctrinal dimensions — factual cause (or cause in fact) and proximate cause. Although not significant in all cases, in some circumstances the doctrine would allow the system to better align damage awards with the purpose of the law. Perhaps because they are faced with evidentiary standards that require more demanding economic standards of proof in accordance with the *Daubert* standards, patentees have sought ever-widening theories of recovery over the past several years.⁴⁹⁹ Significant here, some rely on incomplete statements of proximate cause, such as the proximate cause concept of harm that follows in a "natural and unbroken" sequence from the original infringement.⁵⁰⁰ In other words, some companies have asserted the right to relief from damages that "inexorably flow" from the infringement.⁵⁰¹ This parallels the patentee's argument in *Power Integrations I*, which sought to expand liability to worldwide activity as a foreseeable consequence of domestic

⁴⁹⁵ *Rite-Hite*, 56 F.3d at 1546 (emphasis added).

⁴⁹⁶ *Id.*

⁴⁹⁷ *Id.*

⁴⁹⁸ *Id.* at 1547 (internal quotations omitted) (citation omitted).

⁴⁹⁹ See, e.g., *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 831 F.3d 1369, 1372 (Fed. Cir. 2016); *Carnegie Mellon Univ. v. Marvell Tech. Grp.*, 807 F.3d 1283, 1288 (Fed. Cir. 2015); *Power Integrations I*, 711 F.3d 1348, 1372 (Fed. Cir. 2013).

⁵⁰⁰ See, e.g., *Edwards ex rel. Fryover v. Anderson Eng'g, Inc.*, 251 P.3d 660, 664 (Kan. Ct. App. 2011) ("Proximate cause is cause which in natural and continuous sequence, unbroken by an efficient intervening cause, produces the injury, and without which the injury would not have occurred, the injury being the natural and probable consequences of the wrongful act") (citation omitted).

⁵⁰¹ *Mars, Inc. v. TruRX LLC*, No. 6:13-cv-526-RWS-KNM, at 11 (E.D. Tex. 2016) (parent company seeking damages from infringement of subsidiary's patent, alleging compensation for all harms that "inexorably flow to the parent/patentee – even if the subsidiary is not a party to the litigation").

infringement.⁵⁰² Perhaps some courts view these theories with some skepticism because they rely on incomplete statements of proximate cause. Specifically, these efforts omit all of the *limitations* that are central to the proximate cause inquiry. By relying on expansive language alone, these efforts stand on flawed doctrinal grounds. To fully implement the doctrine, consideration of its limitations must be incorporated.

As *CSX Transportation v. McBride* suggests, the doctrine operates best when the fundamental structure of proximate cause doctrine is modified to fit the relevant statute.⁵⁰³ Application of proximate cause, as it exists in negligence law, would be a poor fit to further the purposes of the patent system. This is especially so when one considers that intangible information and the dynamics of the commercial innovative context is distinct from the principles governing physical injury. Certainly, proximate cause holds significant promise to open a policy space for the patent system to address a number of issues that have remained unresolved. Delivery of this promise depends on the law's willingness to adapt the law to the patent context.

One question arises as to the proper form of inquiry. If the negligence standard and the Federal Circuit's *Rite-Hite* are any guide, both foreseeability and the directness standard might be sufficiently malleable to accommodate the policy drivers for patent cases or even a mix of the two.⁵⁰⁴ Notably, with some exceptions, the general trend in Supreme Court cases has relied on the directness standard, or according to *Lexmark* the "not too remote" standard.⁵⁰⁵ This standard appears to be better suited to commercial cases, which are distinct from negligence law's foreseeability framework.⁵⁰⁶ Relying on the foreseeability standard in statutory causes of action alone might pull decision-makers toward using negligence precedent, which has little relevance to the patent context.⁵⁰⁷ Additionally, the factual circumstances that give rise to liability in the commercial context, which include false advertising, antitrust and patent law, are more alike when compared to the wide-ranging and unpredictable possibilities that give rise to negligence claims. Thus, the directness standard may more appropriate for commercially-based torts.⁵⁰⁸

⁵⁰² See *Power Integrations I*, 711 F.3d at 1371.

⁵⁰³ See *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 702-03 (2011).

⁵⁰⁴ See *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546 (1995) (stating "[f]or example, remote consequences . . . caused indirectly by infringement are not compensable" and "the reasonable limits of liability encompassed by general principles of law can best be viewed in terms of reasonable, objective foreseeability") (emphasis added).

⁵⁰⁵ See, e.g., *Lexmark*, 572 U.S. at 133.

⁵⁰⁶ *Id.* at 122-33.

⁵⁰⁷ See Robert P. Merges, *A Few Kind Words for Absolute Infringement Liability in Patent Law*, 31 BERKELEY TECH. L.J. 1, 35-36 n.67-68 (2016).

⁵⁰⁸ Timothy R. Holbrook, *Extraterritoriality and Proximate Cause after WesternGeco*, 21 YALE J.L. & TECH. 189, 226 (2019) (observing that "the blanket 'foreseeability' test is prone to abuse. Indeed, it is an ever-changing standard.").

Applying proximate cause to the patent system's purposes presents some challenges. As a practical matter, the purpose of the patent system has not been consistently articulated.⁵⁰⁹ Although the constitutional aim is broadly stated "to promote the [p]rogress of [s]cience and useful [a]rts,"⁵¹⁰ modern sources cite the system's potential to drive innovation, job growth, and a successful economy.⁵¹¹ Alternatives consider the distributive and social justice aspects of the system.⁵¹² As a practical matter, rights holder use patents to license, create new forms of revenue, securitize assets, create defensive portfolios, and as reputational signals to facilitate business transactions.⁵¹³ Further, companies use patents to capture the value of their research and development, which is useful for acquisitions and

⁵⁰⁹ See Amy L. Landers, *Patentable Subject Matter as a Policy Driver*, 53 HOUS. L. REV. 505, 505-08 (2015) (collecting information about the various purpose of patent law).

⁵¹⁰ See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989) (quoting U.S. CONST. art. 1, § 8, cl. 8). See generally Dotan Oliar, *The (Constitutional) Convention on IP: A New Reading*, 57 UCLA L. REV. 421 (2009) (analyzing the history and meaning of U.S. CONST. art. 1, § 8, cl. 8).

⁵¹¹ ECON. & STATISTICS ADMIN. & U.S. PATENT & TRADEMARK OFFICE, INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: INDUSTRIES IN FOCUS, at i (Mar. 2012) https://www.uspto.gov/sites/default/files/news/publications/IP_Report_March_2012.pdf [<https://perma.cc/2CKV-PHYD>] ("Innovation protected by IP rights is key to creating new jobs and growing exports. Innovation has a positive pervasive effect on the entire economy, and its benefits flow both upstream and downstream to every sector of the U.S. economy."). See also generally VANNEVAR BUSH, SCIENCE: THE ENDLESS FRONTIER, A REPORT TO THE PRESIDENT (1945), <https://www.nsf.gov/od/lpa/nsf50/vbush1945.htm> [<https://perma.cc/J8H2-493A>] (discussing the importance of scientific innovation).

⁵¹² See Anupam Chander & Madhavi Sunder, *Foreword: Is Nozick Kicking Rawls's Ass?*, 40 U.C. DAVIS L. REV. 563, 568–71 (2007); Peter Lee, *Toward a Distributive Commons in Patent Law*, 2009 WIS. L. REV. 917, 928–31 (2009) (criticizing the patent system as being a detriment to low-income populations); MADHAVI SUNDER, FROM GOODS TO A GOOD LIFE: INTELLECTUAL PROPERTY AND GLOBAL JUSTICE 178 (2012). See also ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 121–36 (2011) (discussing how current intellectual property law addresses distributive justice); Madhavi Sunder, *Novartis v Myriad: The Indian and US Supreme Courts on Patents and Public Health*, 35 EUR. INTEL. PROP. REV. 711, 714 (2013) ("[T]he purpose of intellectual property law need not be seen in narrow terms of incentives for innovation alone.").

⁵¹³ Clarissa Long, *Patent Signals*, 69 U. CHI. L. REV. 625, 638–39, 646 (2002); Wesley M. Cohen et al., *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)* 17, 19 (Nat'l Bureau of Econ. Research, Working Paper No. 7552, 2000), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.216.2585&rep=rep1&type=pdf> [<https://perma.cc/B7VX-9DB8>]. See also Adam B. Jaffe, *The U.S. Patent System in Transition: Policy Innovation and the Innovation Process*, 29 RES. POL'Y 531, 539 (2000) (observing that some of these purposes are "to a significant extent in a zero- or negative-sum game").

sales.⁵¹⁴ Resolving the conflicts between these different goals of the patent system is beyond the scope of this piece. Nonetheless, one must keep in mind that one or any of these goals could potentially drive policy results through the mechanism of proximate cause.

VIII. RESOLVING PARTICULAR PROBLEMS IN PATENT LAW

A. *International Considerations and the Scope of the Statute*

As an initial matter, given the strong policy against the extraterritoriality of the application of U.S. patent rights, the Supreme Court's suggestion that proximate cause might limit liability for extraterritorial infringement appears sound. The doctrine provides a useful platform to terminate liability for factual circumstances like those in *WesternGeco*.⁵¹⁵ Generally, foreign sales activities are outside the scope of a domestic patent. As previously noted, whether a plaintiff can establish any legally cognizable harm for the use of a U.S. patent for overseas activity is arguable. In U.S. law, two hundred years of precedent upholding the principles that U.S. patent rights are territorial, absent compliance with one of the statutory exceptions.⁵¹⁶ To the extent that the scope of the statute inquiry is taken seriously in the proximate cause inquiry, as least as seriously as it in negligence law, this inquiry would terminate liability for ION's overseas activity under the "harm outside the scope of the risk" rule. Alternatively, cause in fact might trim the foreign contracts from the analysis because they are not legally cognizable harms. To the extent that patentees seek recovery for such activity, their options include using patents filed internationally to prevent such conduct.

Significantly, there is a distinction between the act of "making" an infringing machine domestically under section 271(a) and the follow-on international sales from the use of the machines abroad.⁵¹⁷ In *WesternGeco*, ION was liable for the domestic manufacture of the infringing machines and was liable for a reasonable royalty for that activity. The patentee sought additional lost profits damages for the contracts that were international in scope.⁵¹⁸ Here, the patentee received full compensation for all direct harms from the infringement in the form of a reasonable royalty. Under the standard proximate cause analysis, the harm from the performance of overseas contacts is an indirect harm under patent law particularly given the harms to the system which flow from awarding damages for overseas activities through such mechanisms as the intervening, superseding

⁵¹⁴ See generally Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1 (2005).

⁵¹⁵ *WesternGeco III*, 138 S. Ct. 2129 (2018).

⁵¹⁶ See *supra* text accompanying notes 20-25.

⁵¹⁷ See *WesternGeco III*, 128 S. Ct. at 2135 ("The Federal Circuit had previously held that §271(a), the general infringement provision, does not allow patent owners to recover for lost foreign sales.").

⁵¹⁸ *Id.* at 2133.

cause. In other words, this act represents a point where proximate cause can cut off the causal chain of claimed damages.

This principle can be applied to the facts of the *WesternGeco* case. There, the jury had awarded WesternGeco lost profits from contracts that ION had performed abroad using components assembled from parts shipped overseas from the U.S.⁵¹⁹ The Supreme Court reasoned that these sales were causally connected to the U.S.-based infringing conduct of manufacturing the parts domestically for assembly abroad, which constitute infringing acts under section 271(f).⁵²⁰ Yet, considering the presumption against the extraterritorial application of U.S. patent law abroad as detailed in the *Microsoft* decision,⁵²¹ the contracts performed might be struck from the judgment because they constitute an indirect harm. Thus, as conduct crosses over into areas of the world with their own sovereign patent law, such conduct might be viewed as subject to an intervening, superseding act as it crosses outside the U.S. territory. Alternatively, extraterritorial harms might be viewed as outside the scope of the risk of the infringement of a U.S. patent. If decisions such as the Supreme Court's *Microsoft* case — which was part of a centuries-long tradition of applying a presumption against the extra territorial reach of U.S. patent law — mean what they say, a reasoned application of proximate cause would cut off liability activities which occur off U.S. shores.

Similarly, this mechanism can also be used to address *Power Integrations I*, in which the patentee claimed entitlement to damages based on worldwide sales under section 271(a).⁵²² To the extent that reliance on this infringement subsection is sustainable, proximate cause can cut off liability for foreign sales. As a practical matter, the patentee's ability to obtain patents overseas under the TRIPS Agreement provides an ample remedy for offshore activity. As in the above example, reliance on either the lack of a cognizable harm, or the scope of the risk doctrine, are sufficient to terminate liability in that instance.

B. *Social Value: Internalizing the Benefits of Innovation*

The negligence system's goal is to impose a just level of compensation that creates incentives to engage in an optimal level of risk.⁵²³ Recovery is not intended to maximize recovery for all plaintiffs regardless of the strength or justness of the claim. In the negligence context, it has been recognized that proximate cause operates as an important doctrine because “unless liability is limited in some way, people will avoid the activities in which their own breach of duty is predictably likely or especially costly, even if these activities are

⁵¹⁹ *Id.* at 2130.

⁵²⁰ *Id.* at 2138 (“Those overseas events were merely incidental to the infringement.”).

⁵²¹ *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 444, 454-55 (2007); *Brown v. Duchesne*, 60 U.S. 183, 195 (1857).

⁵²² *Power Integrations I*, 711 F.3d 1348, 1370-71 (Fed. Cir. 2013).

⁵²³ *See Grady, supra* note 230, at 316, 321.

valuable to them and to the community.”⁵²⁴ Similarly, proximate cause for statutory torts is used to accomplish a number of goals associated with the relevant cause of action.

Currently, patent law awards damages aimed to award the full value of the infringed technology.⁵²⁵ By focusing on compensation and deterrence, the patent system does not account for any net social benefit in the infringement analysis, whether explicitly or implicitly. In patent litigation, liability is imposed under standards akin to strict liability against those who have no actual notice of infringement.⁵²⁶ A defendant’s *mens rea* is not an element, at least not for a direct infringement claim.⁵²⁷ Because of high search costs and fuzzy claim boundaries, even the most careful innovator may incur infringement liability.⁵²⁸ In other words, even the most careful innovators may find that they are systematically subject to patent infringement liability.

As a practical matter, some infringing conduct has both negative (infringing) impacts as well as positive (non-infringing) components. Particularly for multi-component products, the infringing portion may be minor or an insignificant to the overall operation of the device. In such cases, the heavy transaction costs and damages figures may discourage innovators from including features with positive social impact. In some cases, proximate cause may be implemented toward a closer alignment between the law’s purpose and the availability of monetary relief, particularly in close cases. In particular, this may occur where the plaintiff’s contribution to the defendant’s implementation is minimal and the social benefits of the defendant’s infringement is significant and its social value predominates in the infringing implementation.

Beyond this, the implementation of proximate cause creates a policy space for fact-finders to consider the broader social benefits of the defendant’s conduct. In other words, although an individual plaintiff may be harmed by the defendant’s conduct, this activity might give rise to positive externalities that render full liability unjust.⁵²⁹ At present, the violation of the patentee’s rights is the beginning and the end of the damages inquiry. The fact that a defendant’s

⁵²⁴ Grady, *supra* note 230, at 294.

⁵²⁵ *WesternGeco III*, 138 S. Ct. 2129, 2137 (2018) (“[T]he ‘overriding purpose’ of §284 is to ‘affor[d] patent owners complete compensation’ for infringements.”) (citing *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983)).

⁵²⁶ Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1424 (2009) (referring to patent infringement as a “strict liability offense.”) (quotations and citations omitted). *See also id.* at 1457 (concluding that “copying is . . . rare in patent litigation.”).

⁵²⁷ *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015) (observing that under §271(a), “a defendant’s mental state is irrelevant. Direct infringement is a strict-liability offense.”).

⁵²⁸ JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 138-140 (2008).

⁵²⁹ *See* Mario J. Rizzo, *A Theory of Economic Loss in the Law of Torts*, 11 J. LEGAL STUD. 281, 286 (1982); Gilead & Green, *supra* note 230, at 1535.

conduct infringes the patent has been considered sufficiently blameworthy to crowd out all other considerations. Yet proximate cause theorists, including Gilead and Green, have recognized the importance of relying on proximate cause standards to allow defendants to internalize the social *value* of their conduct where the standards permit.⁵³⁰ Patent law can directly borrow the proximate cause principle for prevention of injustices that threaten to harm the social good. In such circumstances, it might be said that the harm to the plaintiff is too insubstantial to be a cause of the harm.

There are some available models to frame the examination of social value in patent law. For example, to the extent that a defendant has added inventive elements to an infringing design, literature examining the social value of patents provides useful insight into the social benefits of intangibles.⁵³¹ In this vein, an infringing implementation that evidences an overwhelming level of inventive activity compared to an infringing aspect will be in a materially different position than copyists who add little to nothing. According to this literature, the positive externalities of this activity might also include examples that further social goals, including innovations that reduce the use of hazardous chemicals, provide environmental benefits or assist the economically disadvantaged.⁵³² Each of these examples includes implementations that have both a private benefit to the producer (as these products and services are sold for profit), as well as a public benefit that does not inure solely to the originator but to the public as a whole.

As has been recognized in the negligence context, the patentee's individual harm may be at variance with the social value of the claimed invention in the patent context.⁵³³ Although a patentee may be harmed by a defendant's patent infringement, even a patentee may obtain some benefits through the infringement. For example, the defendant's sales of an infringing product may further adoption of a particular industry standard that the plaintiff seeks to spread. In that instance, the infringement may deliver a mix of harms and benefits. Proximate cause provides a doctrinal platform for the consideration of these factors. In such instances, it may be appropriate to use proximate cause to terminate liability using one of the many tools of proximate cause. For example, to the extent that the factual scenario mirrors those of the *WesternGeco* opinion, liability for overseas conduct might be terminated. Where the plaintiff's benefits from the infringement outweighs his or her harms, such damages might be considered to be beyond the nature of the statutory cause of action.⁵³⁴ In other

⁵³⁰ Gilead & Green, *supra* note 230, at 1536.

⁵³¹ WILLIAM D. NORDHAUS, INVENTION, GROWTH, AND WELFARE: A THEORETICAL TREATMENT OF TECHNOLOGICAL CHANGE 82 (1969); SUZANNE SCOTCHMER, INNOVATION AND INCENTIVES §2.3 (2004).

⁵³² Robert C. Padgett & Rosamaria C. Moura-Leite, *Innovation with High Social Benefits and Corporate Financial Performance*, 7 J. TECH. MGMT. & INNOVATION 59, 61-62 (2012).

⁵³³ John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 544 (2010).

⁵³⁴ See *Lexmark Int'l v. Static Control Components, Inc.*, 572 U.S. 118, 132-33 (2014).

words, a patentee whose business interests are furthered more than harmed by the defendant's infringement might not establish a patent harm. This becomes an application of the policy that defines the scope of the relevant interest and stake in light of the law's purposes. Just as some harms are not considered "antitrust harms" where violations of those laws are at issue, in the patent context the courts should reserve the ability to define whether a patentee's asserted harm fits within the scope and purpose of the statute.

Such results might be particularly appropriate where the plaintiff's contribution to the infringing device or process is minimal and the infringing implementation represents a significant innovative improvement. This may occur where the patent infringement is limited to a small portion of a multi-feature product. Under the current law, a patentee who seeks monetary damages against a defendant's multi-feature product is limited to the value of the portion of the infringing device that incorporates the patented features.⁵³⁵ In other words, it has long been the law that the patentee:

[M]ust in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.⁵³⁶

Although a simple product might incorporate only a few features, some incorporate thousands.⁵³⁷ For example, the average cell phone includes multiple hardware and software components that perform numerous complex tasks.⁵³⁸ A patentee's right may extend to a remarkably small component within a much larger feature set. At the same time, the infringing implementation might

⁵³⁵ *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326 (Fed. Cir. 2014) ("No matter what the form of the royalty, a patentee must take care to seek only those damages attributable to the infringing features.").

⁵³⁶ *Garretson v. Clark*, 111 U.S. 120, 121 (1884).

⁵³⁷ See, e.g., RPX Corp., Registration Statement (S-1) (Sept. 2, 2011) at 55, <http://www.sec.gov/Archives/edgar/data/1509432/000119312511012087/ds1.htm> [<https://perma.cc/N56N-CNJ6>] ("Based on our research, we believe there are more than 250,000 active patents relevant to today's smartphones"). See also Amy L. Landers, *Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law*, 46 SANTA CLARA L. REV. 307, 341 (2006) ("[S]oftware and computers are examples of 'system' products – they comprise thousands, even hundreds of thousands, of individually functioning components and features all assembled in a package for a customer.").

⁵³⁸ Steve Lohr, *Apple-Samsung Patent Battle Shifts to Trial*, N.Y. TIMES (July 29, 2012), <https://www.nytimes.com/2012/07/30/technology/apple-samsung-trial-highlights-patent-wars.html> ("Because a smartphone combines many communications and computing technologies, as many as 250,000 patents may touch the device, according to estimates by RPX, a patent licensing company.").

evidence significant social benefit that, under the current state of the law, is not considered. This state of affairs might be an impediment for innovative companies to create products, even though doing so creates significant social benefits. In such cases, a patentee's claim that it would have garnered a significant royalty might be trimmed, perhaps to nominal figure, given the purpose of the patent laws.

Proximate cause can serve as a policy lever where the infringing product or process generates a substantial social benefit, particularly where patentee has minimal technological contribution. The patent system should consider treating non-willful infringers that create implementations which generate social goods, including public goods, in light of its goals. Integrating proximate cause into the liability analysis can serve to direct the outcome of individual cases. In cases at the margins, there is room for policy to operate to more tightly align monetary damages with the purpose of the law. Just as the legal system forces defendants to internalize the costs of their conduct, proximate cause might allow some defendants to internalize the benefits as well. Moreover, this aspect of proximate cause can push patent law toward accomplishing social good, as the system was ultimately intended to do.

C. *Apportionment and the Multiple Plaintiff Problem*

As previously described, a patentee is entitled to recover damages for the use of the claimed invention. Yet some devices incorporate multiple features, which raises the possibility that multiple patentees will claim infringement for different functions or portions of the same accused device or process. In theory, each plaintiff would seek and obtain their individual share of recovery. Yet there is no central coordinating oversight mechanism that assures a fair result under those conditions. As a practical matter, each patentee will time their lawsuit for their own convenience and financial advantage. There is no requirement that all patentees claiming the right to recover against the same apparatus or process file suit such that they are all before the court at the same time. This circumstance raises the problem that a defendant must pay overlapping amounts toward multiple plaintiffs through rounds of liability trials.

Further, patent royalty damages are not capped by the courts.⁵³⁹ Any single jury is entitled to determine the value of the invention as embodied by the infringing implementation, without regard for any earlier or later judgement awarded to other patentees who filed suit with patents of their own.⁵⁴⁰ Assuming that the defendant has finite resources, patentees who sue earlier are more likely to recover the amount of the judgment compared to those who sue later after the defendant's funds are exhausted.

Conditions created by the admissibility standards suggest that each of these awards may lead to overcompensation on the plaintiffs' side. As a practical

⁵³⁹ See 35 U.S.C. § 284 (2012).

⁵⁴⁰ See *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995) (“The determination of the amount of damages based on a reasonable royalty is an issue of fact.”).

matter, the courts do not demand precision. Although in theory, the plaintiff's recovery would be limited to the value of the technology, as a practical matter the courts admit that they "have long acknowledged that any reasonable royalty analysis necessarily involves an element of approximation and uncertainty."⁵⁴¹ The patentee's proffered royalty is approximate at best and skewed to maximize recovery.⁵⁴² The courts permit a broad range of evidence to be considered. For example, in one case a patentee was permitted to submit comparable licenses relevant to value of the patented technology as evidence of the appropriate royalty base despite the fact that at least one post-dated the relevant time period by two years, did not involve the patents-in-suit and failed to disaggregate non-patent related services from the technology at issue.⁵⁴³ More generally, the controlling test for determining the reasonable royalty amount has been criticized as delivering inaccurate results.⁵⁴⁴

Juries, when presented with these damage estimates, are not well-equipped to fix damages figures with exactness.⁵⁴⁵ For infringement allegations that focus on infringing portions of multicomponent products, patentees are not required to isolate the feature that incorporates the patent with precision; rather, this estimate may be approximate.⁵⁴⁶ As the Federal Circuit has explained "we have never required absolute precision in this task; on the contrary, it is well-understood that this process may involve some degree of approximation and uncertainty."⁵⁴⁷ Each patentee, acting rationally to maximize their recovery in a lawsuit, would err on the side of over-inclusivity. In other words, if ten patentees seek recovery for infringement of ten different components of a single multi-

⁵⁴¹ *Id.*

⁵⁴² See *VirnetX, Inc. v. Apple, Inc.*, 925 F. Supp. 2d 816, 836, 840 (E.D. Tex. 2013).

⁵⁴³ *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012). Beyond the broad admissibility standard, there are myriad reasons to consider patent licenses as unreliable sources of information for patent damages. See Erik Hovenkamp & Jonathan S. Masur, *How Patent Damages Skew Licensing Markets*, 36 REV. LITIG. 379, 384 (2017) (stating "licensing terms are actually less reliable as a proxy for harm than they would be if the licensing-based damages standard did not exist.").

⁵⁴⁴ See Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 628 (2010) ("Simply handing the question of reasonable royalty to the jury, without more, is not a recipe for precision in damages analysis. But the fifteen-factor test may actually be worse because it overloads the jury with factors to consider that may be irrelevant, overlapping, or even contradictory.").

⁵⁴⁵ *Id.* See also Bernard Chao & Roderick O'Dorisio, *Saliency, Anchors & Frames: A Multicomponent Damages Experiment*, MICH. TECH. L. REV. (forthcoming 2019) (manuscript at 4) (on file with author) ("Juries still issue what appears to be disproportionately high patent damage awards despite both Supreme Court and Federal Circuit decisions aimed at constraining these awards to the value of the patented feature.").

⁵⁴⁶ *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1329 (Fed. Cir. 2014) ("[A] patentee must be reasonable (though may be approximate) when seeking to identify a patent-practicing unit, tangible or intangible, with a close relation to the patented feature.").

⁵⁴⁷ *Id.* at 1328.

function product, in the aggregate these patentees are quite likely to recover more than the total value of the infringed technology in the aggregate.

To the extent that overcompensation occurs in these circumstances, attempting to award damages on a seriatim basis resembles a pie, where every slice is slightly larger than it should be. As one source recognized for multicomponent products, “[i]n many situations, patentees are overcompensated — and socially valuable, but potentially infringing, commercialization is over deterred — as a result.”⁵⁴⁸ Although in theory, better apportionment rules could eliminate this issue, a solution has not been forthcoming. As Shavell’s work establishes in the tort context, correction at the proximate cause stage is needed to properly balance the purposes of patent law and to foster new invention.⁵⁴⁹ By imposing a heavy burden on those who have infringed, particularly where such infringement is not willful, patent law’s purpose of fostering new innovation cannot be met. A policy space that incorporates proximate cause is needed. Just as the *Pittsburg Reduction* court placed liability on the most culpable actor, proximate cause can be used in a similar manner to maximize incentives to avoid patent infringement.

Beyond all of this, a plaintiff may establish a higher royalty based on sales of the full value of the infringing product under the entire market value rule.⁵⁵⁰ This plaintiff’s royalty is based on a percentage of the price of the entire product.⁵⁵¹ When this rule is applied, a patentee may recover based on the value of an entire apparatus or system that contains several features or components “where the patented feature creates the basis for customer demand or substantially creates the value of the component parts.”⁵⁵² Essentially, this rule operates as an exception to the rule that the patentee’s recovery is limited to the contribution of the patented component in a multi-component implementation. As one court explains, “[t]he entire market value rule indeed permits damages on technology beyond the scope of the claimed invention.”⁵⁵³ Logically, “if a patentee wins an entire market value rule case, no other patentee should be able to recover any damages based on the sale of the same product.”⁵⁵⁴ Yet there are currently no mechanisms in patent law which prevents this circumstance from occurring.⁵⁵⁵

⁵⁴⁸ Brian J. Love & James C. Yoon, *Expanding Patent Law’s Consumer Suit Exception*, 93 B. U. L. REV. 1605, 1634 (2013).

⁵⁴⁹ Shavell, *supra* note 210, at 489.

⁵⁵⁰ *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67–68 (Fed. Cir. 2012) (discussing the application of the entire market value rule, stating “in any case involving multi-component products, patentees may not calculate damages based on sales of the entire product, as opposed to the smallest salable patent-practicing unit, without showing that the demand for the entire product is attributable to the patented feature.”).

⁵⁵¹ See *VirnetX*, 767 F.3d at 1329 (describing the application of the rule).

⁵⁵² *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1257 (Fed. Cir. 2013).

⁵⁵³ *VirnetX*, 767 F.3d at 1327 (citations omitted).

⁵⁵⁴ Lemley, *supra* note 127, at 664.

⁵⁵⁵ *Id.*

For multi-component products, the totality of these circumstances can create the potential for overlapping liability that will weigh heavily on a single defendant. This might exhaust the defendant's resources or, at a minimum, result in an outsized total liability. These possibilities raise some of the same apportionment and line-drawing problems identified by the *Associated General Contractors* Court as significant reasons to find that proximate cause is not met. As that court identified, proximate cause can be used to alleviate "the danger of complex apportionment of damages on the other."⁵⁵⁶

As *Associated General Contractors* suggests, proximate cause may assist to resolve the multiple plaintiff problem. Given the potential for overlap in recovery, particularly if each award is inflated, an infringer is subject to multiple rounds of liability pays more than the conduct warrants. The current admissibility standards tolerate approximation and estimation. If one feature warrants application of the entire market value rule, all earlier awards on individual component parts are not reduced by that finding. A defendant's total liability should be subject to more careful apportionment principles, particularly if the defendant's implementation evidences the creation of social benefits. Just as negligence law does not ask for the elimination of *all* risk but rather *optimal* risk, the patent system should not create circumstances that unduly burden innovators, particularly those that infringe without notice of the patent in suit. Yet complex calculations that guard against the possibility of future judgements are, as a practical matter, extremely difficult — if not impossible — to make. These concerns highlight a special role for proximate cause where liability for multifunctional products are the subject of liability actions brought by multiple parties who are not before the court at the same time.

As a practical matter, proximate cause can be used to terminate liability in particular kinds of cases to minimize these concerns. For example, in some instances a defendant's conduct with respect to a particular infringement feature may be indirect compared to others who might bear direct responsibility for the infringement. In others, the infringement may concern a *de minimis* feature which imposes onerous liability considering the nature of the infringing implementation. For this component, other policy concerns of patent law can be integrated into the analysis. In appropriate cases, this can integrate consideration of the social value of the infringing implementation.

D. Consumer Lawsuits

Sources have documented a practice wherein patentees sue all parties who might be engaging in infringement. This practice is possible because the patent system defines infringement as "mak[ing], us[ing], offer[ing] to sell, or sell[ing] any patented invention, within the United States or import[ing] into the United States any patented invention."⁵⁵⁷ Additionally, relief for other forms of activity

⁵⁵⁶ *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 543-44 (1983).

⁵⁵⁷ 35 U.S.C. § 271(a) (2012).

are authorized, including for the indirect infringement of the claim.⁵⁵⁸ In a typical supply chain, one entity is responsible for “making” an infringing device, “selling” and “offering to sell” is done by a retailer, and consumers who purchase the product “use” the patented invention in the products or services that they purchase. These are treated as separate acts of infringement.⁵⁵⁹ On that basis, some patentees assert claims against anyone who engages in any of this activity, despite the fact that all lawsuits relate to the making, selling and use of the same device.

Patentees who seek to maximize the revenue obtainable from patent lawsuits and associated settlements have used the rules to file lawsuits against small companies, retailers and consumers who use the patented technology in addition to, or instead of, deeper-pocketed manufacturers.⁵⁶⁰ These consumer suits maximize the patent holder’s revenue by collecting nuisance settlement amounts from more resource-constrained parties who would rather pay quickly than pay for the full cost of defense.⁵⁶¹ From the patentee’s perspective “serial nuisance filings against resellers or users quickly become more profitable than litigating on the merits against the original manufacturer.”⁵⁶² These settlements lead to revenue without the risk of invalidity challenges that manufacturers have the incentives to raise in court challenges that proceed through summary judgment and trial.⁵⁶³

Suits against consumers raise a plethora of thorny damages issues, including the potential overlapping and duplicative recovery. As described in the prior section, there is no assurance that the patentee’s recovery will necessarily reflect an accurate value of the patented technology. This is even more extreme for consumer suits because one of the primary reasons that patentees pursue small entities and customers is to obtain fast, early settlements that reflect a discount on the cost of litigation rather than the value of the technology.⁵⁶⁴ Even if some cases go to trial, as Brian Love and James Yoon point out, these suits are subject to distortive effects that skew monetary recovery upward.⁵⁶⁵

Ideally, the patent system would develop rules to grapple with the total number of damage awards that a patentee obtains to ensure that there is not an aggregate level of overcompensation and to minimize double and overlapping recovery. At present, the patent system’s “current case law fails to achieve a socially optimal balance between patentees’ rights to enforce their patents and

⁵⁵⁸ See *id.* § 271(b), (c), (f), (g).

⁵⁵⁹ *Ziptroxix, Inc., v. Omnivision Tech, Inc.*, 71 F.Supp.3d 1090, 1094-95 (N.D.Cal. 2014).

⁵⁶⁰ See Love & Yoon, *supra* note 548, at 1611.

⁵⁶¹ See *id.* at 1622.

⁵⁶² *Id.* at 1613.

⁵⁶³ *Id.* at 1621 n.67.

⁵⁶⁴ See *id.* at 1625.

⁵⁶⁵ *Id.* at 1634 (noting that seeking recovery against “larger device allows patentees to ask for larger damages amounts without appearing unreasonable”).

society's interest in policing and properly valuing patented inventions."⁵⁶⁶ Instead, the system has not attempted to do so in favor of allowing patentees to engage in strategic behavior to maximize more than the value of their patent while minimizing the possibility of invalidation.⁵⁶⁷

Using proximate cause and the doctrine of intervening cause, this element can do some doctrinal work to minimize these distortions while continuing to compensate the plaintiff for legitimate harms. Many of the policies discussed by the Supreme Court's *Lexmark* opinion support denying liability determinations to end-user infringers where the more culpable parties are available, including the directness of the plaintiff's asserted injury, the policy of keeping the scope of trials within judicially manageable limits, and avoiding the risks of duplicative recoveries and complex apportionment.⁵⁶⁸ A plaintiff is capable of obtaining full compensation from manufacturing and sellers may be found to have obtained sufficient compensation for all harm suffered by the infringement. In this circumstance, the making and selling of the infringing good can be determined to be the proximate cause of the injury and the consumer's uses more remote (and therefore not compensable) causes of the patentee's harms.⁵⁶⁹ As a policy matter, this allows the court to avoid duplicative and overlapping liability. Although such a determination is highly fact-dependent, as all proximate cause matters are, proximate cause can provide the policy levers necessary to allow patentees to protect their patent rights while policing society's interest in ensuring proper valuation of inventions.

E. *On Infringement as a Background Risk of Innovation*

One could argue that proximate cause might be used to sift out particular types of infringement from liability. This includes the concept leverages proximate cause's function that separates liability based on a defendant's conduct from background risks. This is based on the concept that, under some circumstances, the process of innovation might inevitably result in patent infringement. Research suggests that infringers are rarely intentional in their infringement of another's patent.⁵⁷⁰ Other sources maintain that creativity and problem solving, particularly those confronting the most complex problems, includes mental

⁵⁶⁶ *Id.* at 1635.

⁵⁶⁷ *See id.* at 1626 (“[W]ithout a strong customer suit exception, strategic strike suit filers have little to fear if they unexpectedly file a large number of suits against customer defendants.”).

⁵⁶⁸ *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 133-36 (2014).

⁵⁶⁹ *See* Dmitry Karshedt, *Causal Responsibility and Patent Infringement*, 70 VAND. L. REV. 565, 624-25 (2017) (recognizing that manufacturers may be better positioned to avoid infringement, and therefore cheaper cost avoiders compared to consumers).

⁵⁷⁰ Cotropia & Lemley, *supra* note 526, at 1457 (concluding that “copying is . . . rare in patent litigation.”).

processing that operates below the level of consciousness.⁵⁷¹ Inventors, innovators and creators of all kinds use information in their memory, and in some cases without recalling the source of that information.⁵⁷² This central point bears emphasis—that is, creative work (including the groundbreaking type) depends on accessing the mind’s subconscious and their memory.⁵⁷³ In result, this individual may incorporate information that, without realizing is, is patented by another. That is to say, the creative act of idea generation incorporates this risk. In other words, all forms of creativity and innovation integrate the use of another’s information as a background risk. Without reliance on the raw material of information that—at least in part—is generated by others, no creative products can be generated.⁵⁷⁴

In patent law, this risk is complicated by the difficulty of searching and finding whether a new invention might infringe another’s patent.⁵⁷⁵ Many patent claims use language that lacks clarity and “can be downright incomprehensible under common sense notions of language.”⁵⁷⁶ Authoritative interpretation must be undertaken after trial and appeal.⁵⁷⁷ It has been argued that patent claims are

⁵⁷¹ See generally Ap Dijksterhuis and Madelijn Strick, *A Case for Thinking without Consciousness*, 11 PERSPECTIVES ON PSYCHOLOGICAL SCIENCE 117, 119 (2016) (when problem solving “many important processes related to complex decision making do not seem to require consciousness”); Liane Gabora, *Revenge of the “Neurds”*: *Characterizing Creative Thought in Terms of the Structure and Dynamics of Memory* 22 CREATIVITY RESEARCH J. 1 (2010) (creative individuals are frequently attuned to “stimuli that are perceived but of which one is not conscious of having perceived”).

⁵⁷² *Id.* at 5 (“an associative memory contains information that was never explicitly stored there, but that is implicitly present nonetheless due to the ingenious way one’s history of experiences is encoded. It is proposed that this information is accessed in associative thought. . . enabling one to go beyond what one knows”).

⁵⁷³ Mathias Benedek and Andreas Fink, *Toward a Neurocognitive Framework of Creative Cognition: the Role of Memory, Attention, and Cognitive Control*, 27 CURRENT OPINION IN BEHAVIORAL SCIENCES 116, 117 (2018) (explaining “new ideas do not come ex nihilo, but are thought to arise from meaningful variations and recombination of available knowledge, and combinations of more unrelated concepts hold the promise of particularly creative ideas”) (footnotes omitted).

⁵⁷⁴ This has particular relevance for copyright claims brought under the theory of subconscious copying. *Bright Tunes v. Harrisongs Music, Ltd.* 420 F. Supp. 177 (S.D.N.Y. 1976).

⁵⁷⁵ Mark Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 20 (2008).

⁵⁷⁶ Robin Feldman, *Plain Language Patents* 17 TEX. INTELL. PROP. L.J. 289, 293 (2009); see also Harry Surde, *Efficient Uncertainty In Patent Interpretation*, 68 WASH. & LEE L. REV. 1737, 1751 (2011) (“In other words, the legally authoritative meanings of most of the words of the claim are not definitively knowable *ex ante*, but rather, exist in a probabilistic range of possible scopes.”).

⁵⁷⁷ Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 12 FED. CIRCUIT B.J. 1-2, n.4 (2002) (outlining the complexity and expense of obtaining definitive rulings in patent cases).

“inherently indeterminate” and “patent attorneys seize on such indeterminacy to excuse infringement or to expand their client’s exclusive rights.”⁵⁷⁸ Attempting to search for potentially infringing patents is expensive for patents in fields outside the pharmaceutical and chemical arts.⁵⁷⁹ This circumstance becomes more complicated for plaintiffs who hold patent portfolios.⁵⁸⁰ The uncertainty of attempting to understand the coverage for a single patent claim is exponentially more difficult for a portfolio as “the range of each patent cannot be determined without a large investment of time and effort, and any pre-litigation predictions about the scope of a patent may prove incredibly wrong.”⁵⁸¹ For innovation surrounding an industry standard covered by one or more patents, patent infringement is unavoidable.

Although there may be instances where inventors, innovators and other infringe without conscious choice, it must be acknowledged that the current patent system is unlikely to accept the argument that patent infringement operates as a background risk in many industries. The nature of the patent right, particularly for direct infringement, contemplates that it will be successfully asserted against valuable innovative activity. This is true regardless of the level of innovative activity generated, as the Federal Circuit’s jurisprudence concerning common law experimental use demonstrates.⁵⁸² Further, patent law has not yet delved deeply into examining the roots of the process of invention in setting policy. Absent some form of exception, the current rules of permitting patents to be asserted against innovators in traditional patent cases is likely to remain the norm. Nonetheless, this concept might be considered in an appropriate case and therefore warrants discussion here.

CONCLUSION

The Supreme Court’s *WesternGeco* opinion serves as a useful prompt to consider the nature of the causation inquiry for both aspects of proximate cause — that is, cause in fact and proximate cause. Although much of the patent system has not considered these as viable elements of a claim for patent infringement,

⁵⁷⁸ Dan L. Burk & Mark A. Lemley, *Fence Posts Or Sign Posts? Rethinking Patent Claim Construction?*, 157 U. PA. L. REV. 1743, 1745 (2009).

⁵⁷⁹ See Christina Mulligan and Timothy B. Lee, *Scaling the Patent System*, NYU ANNUAL SURVEY OF AM. L. 289, 297 (2012).

⁵⁸⁰ Cf. Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. OF PENN. L. REV. 1, 5 (2005) (noting that firms will take a portfolio approach to patents).

⁵⁸¹ Robin Feldman, Tom Ewing & Sara Jeruss, *The AIA 500 Expanded: The Effects of Patent Monetization Entities*, UCLA J. OF L. & TECH. 1, 25 (2013).

⁵⁸² See, e.g., *Applera Corp. v. MJ Research, Inc.*, 311 F. Supp. 2d 293, 296 (D. Conn. 2004) (“The Federal Circuit repeatedly cautions that the judicially created experimental use defense under which defendants here attempt to take refuge continues to exist only in ‘very limited’ and ‘very narrow’ form, and is ‘strictly limited.’”); *Madey v. Duke Univ.*, 307 F.3d 1351, 1362 (Fed. Cir. 2002) (stating that any “use in keeping with the legitimate business of the alleged infringer does not qualify for the experimental use defense”).

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it is evident that both can undertake important roles to ensure that the system operates in a just manner. At present, there are instances where applying the elements of patent law to particular cases can result in judgments that threaten to chill valuable innovative activity, as well as activity that is beyond the scope of United States law. This result should not be surprising, given that this requirement serves a vital function across other areas of the law that are designed for civil recovery.