

Causal Responsibility and Patent Infringement

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Abstract

This article argues for an increased role for principles of causal responsibility in the law of patent infringement, and its principal contribution is to suggest that notions of causation can help us better deal with longstanding problems in direct and indirect infringement cases. Currently, patent law maintains a rigid distinction between what I term “non-performers”—entities that do not themselves carry out steps of patent claims, and “performers”—entities that do. The former, with few exceptions, can be liable only on indirect infringement theories, while the latter, in contrast, are subject to liability for direct infringement. The article argues that this distinction should break down in cases where a non-performer’s level of involvement in ensuring that the steps of a patent claim are carried out, and its intent in reaching that goal, are so high that the non-performer can be said to have caused the performance of the steps. The article draws upon the innocent instrumentality doctrine in criminal law, and related doctrines and theories—including the distinction between causal and noncausal accomplices in criminal law—to support this approach. More generally, the article sets forth criteria for determining when the acts of a performer should be imputed to the non-performer in patent cases based on causation principles.

The causation approach has three significant implications for patent law. First, it would generally make it easier to establish infringement liability for manufacturers who provide products that are configured in such a way that their natural utilization by customers results in patent infringement. This is as it should be, for it is the manufacturers, rather than their customers, that are truly responsible for the infringement. Second, this approach provides a way to deal with the vexing problem of divided infringement, which generally entails the lack of any infringement liability in cases where the steps of a patent claim are carried out by two or more separate entities. Under the causation framework, which avoids the troubled and unsatisfactory “control or direction” test, the divided infringement problem may essentially reduce to the first scenario. If the manufacturer performs some of the steps of the claim, and causes the remaining steps to be performed by a customer, it would be liable for patent infringement. And finally, the causation approach would absolve customers of liability in certain scenarios. Where the entity that is accused of direct infringement is merely an innocent instrumentality of the manufacturer, it would not be liable in spite of the strict liability nature of the underlying tort.

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I. Introduction

Patent law, especially as it has been developed by the Court of Appeals for the Federal Circuit—the court charged with exclusive appellate jurisdiction over patent cases—has been described as a mass of rigid, formal rules that seem to sidestep important questions of patent policy.¹ The tension between the Federal Circuit and the Supreme Court, at least according to the prevailing accounts, has revealed itself in reversals in which the high court has repeatedly repudiated the Federal Circuit’s inflexible tests in favor of less restrictive approaches.² For example, in patentable subject matter cases, the Supreme Court instructed the Federal Circuit to look past the “draftsman’s art” and examine patent claims both as a whole and in terms of their constituent parts in order to determine whether they are directed to natural phenomena, laws of nature, or abstract ideas.³ And in interpreting the requirement that patent claims be nonobvious, the Supreme Court discarded the Federal Circuit’s “teaching-suggestion-motivation” test and adopted a more flexible approach that takes account of the common sense of a person of ordinary skill in the relevant field.⁴ The Court likewise rejected the Federal Circuit’s rigid tests for determining whether a patent case is exceptional⁵ and whether a patent licensee who seeks to challenge the validity of the underlying patent has standing to bring a declaratory judgment action.⁶

Yet in one area of patent law—the doctrine governing liability for patent infringement—formalism continues to carry the day. In determining whether infringement occurred, courts have rather simplistically drawn a bright line between direct and indirect (i.e., derivative) liability based on who performs the elements of a patent claim,⁷ without paying heed to notions of causal responsibility—notions that pervade criminal law and tort law.⁸ If an entity accused of infringement has not itself carried out the claim’s elements, the patentee—with rare exceptions—can pursue that entity only on the theory of indirect liability, which presents significant hurdles.⁹ Furthermore, in circumstances where the elements are divided between the defendant and a third party, the patentee may be left completely without a remedy.¹⁰ This approach often holds even when the accused entity, which I here term a “non-performer” or “non-performing party,” supplies a product that all but ensures the steps of the patent claim are carried out by the end-

¹ See, e.g., John R. Thomas, *Formalism at the Federal Circuit*, 52 AM. U. L. REV. 771, 774 (2003).

² See David O. Taylor, *Formalism and Antiformalism in Patent Law Adjudication: Rules and Standards*, 46 CONN. L. REV. 415 (2013). [To cite: Holbrook, Nard & Duffy, Pedraza-Farina]

³ Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1294 (2012).

⁴ KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398 (2007).

⁵ Octane Fitness LLC v. ICON Health & Fitness Inc., 134 S. Ct. 1749 (2014); Highmark Inc. v. Allcare Health Mgmt. Sys. Inc., 134 S. Ct. 1744 (2014).

⁶ MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007).

⁷ See Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111 (2014).

⁸ See generally H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW (2d ed. 1985); MICHAEL S. MOORE, CAUSATION AND RESPONSIBILITY: AN ESSAY IN LAW, MORALS, AND METAPHYSICS (2009).

⁹ See *infra* Part II.B.

¹⁰ See *infra* Part II.C.

user.¹¹ Conversely, the entity that itself carries out all of the claim's steps—herein termed a “performing party”—is exposed to direct infringement liability even if it was merely following the supplier's instructions. This Article contends that the current doctrine fails to account for an important principle widely used in criminal law and tort law,¹² and amply supported by theory,¹³ that calls for imputation to the non-performer the acts that it has carried out through the instrumentality of another. This Article seeks to correct this problem and contends that, based on causation principles, direct patent infringement can be pled in a significantly wider range of cases than the current law allows. The Article explains that this is the correct result as a matter of patent policy and is supportable by long-standing principles. Furthermore, the Article suggests that the performing party may perhaps be excused from liability based on these principles.

Specific examples will help illuminate the problems with current rules of non-performer liability. Consider three scenarios, all commonly encountered in patent infringement cases. In the first scenario, a manufacturer creates and sells a product (say, a router) that, if deployed by customers according to the manufacturer's instructions, will result in the customers' infringement of a patent related to wireless technology.¹⁴ The patentee sues the manufacturer on a theory that the manufacturer has induced the customers' infringement, as provided by 35 U.S.C. § 271(b), but loses because it cannot meet the stringent mens rea requirements needed to establish this form of indirect liability.¹⁵ For example, the patentee fails to show that the defendant was aware of the patent, or the defendant manages to negate the intent to induce infringement by putting forth evidence of its good faith belief that the patent is not infringed.¹⁶ The patentee, now realizing clearly that the standard for proving inducement of infringement is quite difficult to meet, ponders next steps and considers suing the customers for direct infringement under 35 U.S.C. § 271(a). In the second scenario, the patentee asserts a patent in its portfolio that is unrelated to the first—say, a patent on delivering entertainment content—against a different manufacturer. The manufacturer itself performs a part of the patent using the software product it creates and sells, and the customers—again, according to the manufacturer's instructions—perform the remaining steps. The patentee again loses, as the court holds that no

¹¹ See, e.g., Alice Juwon Ahn, *Finding Vicarious Liability in U.S. Patent Law: The “Control or Direction” Standard for Joint Infringement*, 24 BERKELEY TECH. L.J. 149, 171 (2009) (arguing that current law “lets companies evade liability when they perform all but the last of the patented steps and instruct customers to perform the last step” and discussing cases). See generally Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255 (2005).

¹² Paul H. Robinson, *Imputed Criminal Liability*, 93 YALE L.J. 609, 631-39 (1984); see *People v. Wallace*, 78 Cal. App. 2d 726 (1947) (considering the argument that “the insured had caused the fraudulent representations to be made to the court and the insurance company through the innocent agency of the beneficiary, and that his acts were intended for that purpose”). While the label “innocent agency” or “innocent instrumentality” seems preferred in criminal law, tort law addresses causation through a human agent under joint tortfeasance theories. See PAUL V. DAVIES, *ACCESSORY LIABILITY*, 181-82 (2015). [Cite: compare to mere customer standard in customer suit exception cases, see Love & Yoon]

¹³ See HART & HONORÉ, *supra* note __; MOORE, *supra* note __; see also Roderick Bagshaw, *Causing the Behaviour of Others and Other Causal Mixtures*, in *PERSPECTIVES ON CAUSATION* (Richard Goldberg ed., 2011).

¹⁴ This is a hypothetical example based on themes in patent litigation in recent years. For an actual example of an indirect patent infringement case, see *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (2015).

¹⁵ *Id.*

¹⁶ *Id.*; see also *Global-Tech Appliances, Inc. v. SEB, SA*, 131 S. Ct. 2060 (2011).

infringement has been committed because no single entity has carried out all of the claim's steps.¹⁷

Realizing that the second patent has no value because infringement under this so-called "single-entity rule" is impossible to prove under the circumstances, the patentee refocuses its efforts on the first patent. So in the third scenario, the patentee asserts the first patent against customers—say, small coffee shops—who use the routers that execute the steps of the patent's claims.¹⁸ The coffee shop owners are dumbfounded. They have paid the manufacturer for the routers that they use to provide wireless for their shops' patrons, and the last thing they thought they were responsible for doing was a patent clearance search in order to figure out whether using the routers would expose them to infringement liability. In this case, though, the patentee's claim has merit and the coffee shop owners settle. Upset by the outcome, the owners band together to lobby Congress in order to shield themselves from liability under similar circumstances in the future.¹⁹ For its part, the patent owner is reviled for shaking down small businesses.

Although all three results might seem peculiar to patent specialists and non-specialists alike, and have been criticized by numerous commentators and some judges, this is the law today. When a party accused of infringement does not itself perform all of the steps of the asserted patent claim, the patentee faces an uphill climb. The first scenario, involving indirect liability via inducement of patent infringement, is governed by the onerous rule that the patentee must show both that the non-performer specifically intended that the infringing acts be carried out and that it was at least willfully blind of the existence of the patent covering the activity labeled as infringing.²⁰ And when a patent claim's steps are split between the defendant and another party, as illustrated by the second scenario, no liability will lie unless the other party operates under the defendant's "control or direction"—such as where there is a contractual or agency relationship between the two parties (but *not* when the defendant provides directions to another party to perform a claimed steps).²¹ Unless these narrow circumstances are present in cases where the claim's steps are divided between two parties, courts hold that *no one* can be liable for direct *or* indirect infringement.²² Even where the manufacturer has performed all but one step and instructed the customer to perform the last, the unforgiving rule requiring a single entity to perform all the steps of the claim generally precludes liability.²³

¹⁷ See *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014).

¹⁸ For an example of this approach, see <http://patentexaminer.org/2011/09/innovatio-s-infringement-suit-rampage-expands-to-corporate-hotels>. In some cases, even if the manufacturer sought to intervene, it would be unable to do so for jurisdictional reasons. *See Cisco Sys., Inc. v. Alberta Telecommc'n's Res. Ctr.*, 538 Fed. Appx. 894 (2013).

¹⁹ Cf. Brian J. Love & James C. Yoon, *Expanding Patent Law's Customer Suit Exception*, 93 B.U. L. REV. 1605 (2013) (recounting all the reasons why the manufacturers are in much better position to defend these lawsuits).

²⁰ See *supra* note 16.

²¹ *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008); [Akamai.]

²² *Id.*

²³ See *supra* note 11.

This brings us to the third scenario. As it illustrates, direct infringement is significantly easier to prove than indirect infringement. It is a strict liability tort—all that the patentee must do is show that the defendant performed every single element of the patent claim, regardless of its state of mind.²⁴ Even where the defendant is nothing but a passive conduit who uses the product as directed by the manufacturer, it is liable for patent infringement. But it seems strange that the patent regime makes it easy to impose liability on an innocent user (the third scenario),²⁵ but creates onerous fault requirements to establish infringement by a manufacturer who provides the infringing technology (the first scenario). And many have derided the single-entity rule (which plays a role in the second scenario) as a “loophole” that renders useless patents in areas ranging from internet technology to biotechnology.²⁶ Although extensive judicial and scholarly resources have been expended on these issues, all three rules continue to generate controversy and are far from settled. The criticism of the underlying decisions continues unabated and numerous proposals for change, either through the development of the case law or by amendment of the Patent Act, have been suggested.²⁷

This Article seeks to contribute to the debate by arguing for a greater role of causation principles in illuminating these three lines of cases. The first thesis of the Article is as follows: in certain cases where a manufacturer is sued for patent infringement but the patent claims are actually executed by other entities—such as customers—courts may rely on causation theories to impose direct infringement liability on the manufacturer. It is important to make clear the difference between the causation approach and the extant rules. Under the proposed approach as it is applied to the first scenario, if the patentee proves that the manufacturer can be said to have caused the customer’s performance of all of the patented steps,²⁸ the customer’s acts are imputed to the manufacturer and the liability is direct rather than derivative.²⁹ Thus, in contrast with current law, the patentee need not rely on indirect infringement theories to impose liability on the manufacturer-defendant in such cases. As the Article will explain, this approach has important practical consequences—the standard for proving infringement by the non-performing entity,

²⁴ See, e.g., *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc); see also Roger D. Blair & Thomas F. Cotter, *Strict Liability and Its Alternatives in Patent Law*, 17 BERKELEY TECH. L.J. 799 (2002) (exploring in what sense patent infringement is a strict liability tort); Mark A. Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225, 235-36 (2005). But see Saurabh Vishnubhakat, *An Intentional Tort Theory of Patents*, FLORIDA L. REV. (forthcoming).

²⁵ To be sure, direct infringement theories under these circumstances have been advanced generally against commercial users rather than individual consumers who engage in personal use of the technology.

²⁶ See, e.g., Christopher M. Holman, *Caught Between a Rock and a Hard Place: How Limelight Compounds the Challenges Facing Biotechnology Innovators after Mayo and Myriad*, 33 BIOTECHNOLOGY L. REP. 135 (2014); W. Keith Robinson, *No “Direction” Home: An Alternative Approach to Joint Infringement*, 62 AM. U. L. REV. 59, 59 (2012).

²⁷ Induced infringement: Ted Sichelman, *Patent Revisionism at the Supreme Court?*, 45 LOY. U. CHI. L. J. 307 (2013); Ted Sichelman, *Minding Patent Infringement* (San Diego Legal Studies Paper No. 11-051, 2011), available at <http://papers.ssrn.com/abstract=1734380>. Divided infringement: Damon Gupta, *Virtually Uninfringeable: Valid Patents Lacking Protection Under the Single Entity Rule*, 94 J. PAT. & TRADEMARK OFF. SOC’Y 61 (2012); Robinson, *supra* note __. Direct infringement: Love & Yoon, *supra* note __.

²⁸ As will become clear, by “cause” here I mean something different than the but-for cause element required for tort or criminal liability.

²⁹ Cf. Sanford H. Kadish, *Complicity, Cause and Blame: A Study in the Interpretation of Doctrine*, 73 CAL. L. REV. 323, 370 (1985) (“In point of law, the act of the innocent agent is as much the act of the procurer as if he were present and did the act himself.”) (quoting 1 J. TURNER, RUSSELL ON CRIME 129 (12th ed. 1964)).

particularly as it relates to the defendant’s mens rea, becomes significantly less onerous. Because direct patent infringement is strict liability, all that is needed for the plaintiff to show is that the defendant had the mens rea inherent in establishing that it caused an act to take place—which typically means only specific intent that the act be carried out by a third party.

Under this approach, the second scenario—which has vexed the courts and commentators a great deal—may essentially reduce to the first. Again, assuming that the manufacturer’s level of involvement in attaining the customer’s performance of the “missing” patent steps—steps not carried out by the manufacturer—rises to the level of causation, direct liability can be imposed on the manufacturer for having performed all of the patented steps either actually by itself or by itself through imputation. The difference from the current law is more subtle than in the first scenario, but it still significant and worth explaining in detail at the outset. Under current law, *direct* liability can be imposed on a defendant that performs a part of the claim only where a third party performs the rest and the two are in a close relationship that satisfies the “direction or control” test. Even proponents of reform that would expand liability under these so-called “divided infringement” circumstances typically argue that patented steps can be imputed to the manufacturer when the interests of the two parties are somehow aligned in practice or by legal fiction—as when the two can be categorized as joint venturers or,³⁰ at the very least, joint tortfeasors (i.e., joint contributors to the tort).³¹

The proposed rule differs from these approaches in significant ways because it does not rely on agency or joint-tortfeasor doctrines as mechanisms for imputation. Instead, it relies on notions of causal responsibility.³² In criminal law and tort law, the acts of a third party can be imputed onto a defendant where the defendant has caused the third party to perform certain acts through subterfuge or coercion—in other words, where the interests of the causer and the performer are not aligned and can perhaps be even viewed as adverse. For example, the innocent instrumentality doctrine in criminal law holds liable for murder as a principal (not as an accomplice)³³ a person who has duped another into giving the victim a poisoned drink,³⁴ and would hold directly liable for theft a person who has forced another to drive off a victim’s car

³⁰ Akamai Techs., Inc. v. Limelight Networks, 692 F.3d 1301, 1349 (Fed. Cir. 2012) (en banc) (Linn, J., dissenting), *rev’d*, 134 S. Ct. 2111 (2014) (proposing the joint venture approach).

³¹ *Id.* at 1319 (Newman, J., dissenting) (proposing the joint tortfeasor approach).

³² Douglas Husak, a criminal law theorist, explains that there are three distinct routes of imputing a performer’s act to a non-performer: “[W]hen the parties are related through agency, when the alleged principal is an innocent instrumentality of the aider, or when the parties are co-perpetrators,” because all these cases “involve more than mere assistance.” Douglas Husak, *Abetting a Crime*, 33 LAW & PHIL. 41, 57 (2014). As do many other commentators, Husak argues against the concept of derivative liability, at least when there is no causal relationship between the accused party and the act performed upon the victim: “[T]he basic mistake in positive law is its treatment of complicity as a form of derivative liability.” *Id.* at 58.

³³ Kadish, *supra* note __, at 328. A part of the reason for this doctrine is that there is no underlying crime to “derive” secondary liability from.

³⁴ *Id.* at 370.

under gun point.³⁵ The root of imputation in such cases is not agency, but causation. As explained by a leading commentator, “[a]n actor who does not personally satisfy an objective element, such as conduct, but who directly causes the required element by other means should be treated as if he satisfied the element himself.”³⁶ Indeed, this principle is so entrenched that it has found its way into the Model Penal Code, which makes clear that the “means” for carrying out an act can be another person: “A person is legally accountable for the conduct of another person when: (a) acting with the kind of culpability that is sufficient for the commission of the offense, he causes an innocent or irresponsible person to engage in such conduct.”³⁷ Similar scenarios, where causation principles justify imputation of elements of a tort performed by another onto the defendant, occur in tort law.³⁸

To be sure—and this is a critical point—the level of involvement of the non-performing party in the performer’s act must be quite high to impose causation-based imputation of the performer’s acts onto the non-performer, and there must be appropriate mens rea.³⁹ Much more than but-for causation that is required for us to be able to say that a non-performer has caused the act of another—call it a causation-plus standard.⁴⁰ As phrased by one commentator, “there is a point at which an instigator becomes a principal offender and may be held liable for causing the *actus reus* of the offence even though the immediate actor is another person.”⁴¹ Or, as phrased by another, “[t]he stronger the accessory’s causal role and the weaker the perpetrators, the greater should be the inclination to label the actions as principal through innocent agency.”⁴² This Article contends that such scenarios occur with some frequency in patent litigation, and that they are encountered in many commercially important cases. And it argues that this standard can be implemented under the standards that patent law has already developed: if a manufacturer provides an article that lacks a substantial noninfringing use, instructs the customer to use it such a way as to perform steps of a patent claim, and intends for the customer to perform those steps—and the customer passively does so—then the causation standard is met and the customer’s acts can be imputed to the manufacturer.⁴³

³⁵ This is my own example. Kadish provides others. *See id.* (“One who passes a fraudulent document to another knowing that the latter will innocently place it in the mails is guilty of mail fraud.”) (citing *United States v. Kenofskey*, 243 U.S. 440 (1917); *Glenn v. United States*, 303 F.2d 536, 541 (5th Cir. 1962)).

³⁶ *Robinson, supra* note __, at 631.

³⁷ Model Penal Code 2.06(2)(a).

³⁸ *DAVIES, supra* note __.

³⁹ As Kadish explains, relying on the authority of Hart and Honoré that there is a mens rea requirement inherent in the concept of causing someone to act: “Actions, like results, can be caused, but only by acts intended to cause them. An element of intention (intending the other to act in a specified way) is essential if one person is to be said to ‘cause’ another to act but not when he is said to cause some event to happen. This is not an independent legal requirement of a certain state of mind in the accused person, but part of the meaning of ‘causing’ in the sense of providing a reason for the non-voluntary act of another.” Kadish, *supra* note __, at 396 (quoting H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW 327-28 (1959)) (alterations omitted).

⁴⁰ *See infra* notes __ and accompanying text. *See Robinson, supra* note __, at 631-32 (providing examples of non-performer liability where “the causal link is strong”).

⁴¹ David Lanham, *Accomplices, Principals and Causation*, 12 MELBOURNE UNIV. L.R. 490, 491 (1980).

⁴² K.J.M. SMITH, A MODERN TREATISE ON THE LAW OF CRIMINAL COMPLICITY 118 (1991).

⁴³ *See infra* Subparts IV.A and IV.B and accompanying text.

Although courts have not yet discovered this form of imputation in patent cases, it is hinted at in the literature. In an essay published ten years ago, Professor Mark Lemley argued that the standard for imposing inducement liability should best be envisioned in terms of a “sliding scale inquiry in which a more specific intent to infringe is required to find liability if the defendant’s conduct is otherwise less egregious.”⁴⁴ This Article takes Lemley’s approach to the next step, which is admittedly a discontinuous one in the context of modern patent doctrine, but well-established in other areas of law. This step is that, in the limited circumstances of a high level of participation and *means rea* by the non-performer, combined with passivity or lack of awareness by the performer, secondary liability—and non-liability due to divided infringement—takes a “quantum leap” into primary liability by way of imputation of a performer’s act onto the non-performer.⁴⁵

One way to illustrate the point is with cases where direct liability based on causation cannot be plausibly pleaded. Thus, in copyright and trademark law, indirect liability might be imposed on intermediaries like Google and eBay.⁴⁶ Such intermediaries provide general platforms that can be used in a number of different ways, some of which are infringing (such as sales of counterfeit merchandise on eBay).⁴⁷ Furthermore, in criminal law, accomplice liability might be imposed on those who encourage or materially assist the perpetrator of a crime. These instances of derivative liability cannot be converted into primary liability because of the active participation of the *performing* party in carrying out the offending acts and the correspondingly limited involvement by the non-performer.⁴⁸ Such cases can be contrasted with a commonly encountered scenario in patent law. In that scenario, a manufacturer provides a product having a specific feature that, if used by customers as directed, will result in the performance of steps of a specific patent. In these cases, participation of the non-performer in the performer’s acts is so active and the performer’s own role in carrying out those acts is correspondingly so passive that it might become fair to stay that the non-performer has caused the performer’s acts—and to impute the performer’s acts onto the non-performer.⁴⁹

⁴⁴ Lemley, *supra* note __, at 226.

⁴⁵ See *infra* notes __ (discussing the appropriateness of the direct versus indirect liability labels).

⁴⁶ Cf. Mark P. McKenna, *Probabilistic Knowledge of Third-Party Trademark Infringement*, 2011 STAN. TECH. L. REV. 10 (discussing the difference between secondary liability for another party’s acts and liability for one’s own negligence that caused or permitted the tortious conduct of another party); Alfred C. Yen, *Torts and the Construction of Inducement and Contributory Liability in Amazon and Visa*, 32 COLUM. J.L. & ARTS 513 (2009) (discussing indirect copyright infringement cases following *Grokster*).

⁴⁷ *Id.*; see Metro-Goldwyn-Mayer Studios Inc. v. *Grokster*, Ltd., 545 U.S. 913 (2005) (induced copyright infringement); *Perfect 10, Inc. v. Google, Inc.*, 508 F.3d 1146 (9th Cir. 2007) (other theories of secondary copyright infringement); *Tiffany (NJ) Inc. v. eBay Inc.*, 600 F.3d 93 (2d Cir. 2010) (contributory trademark infringement).

⁴⁸ See Felix Wu, *Secondary Copyright Remedies*; see also Stephanie Berg, *Remedying the Statutory Damages Remedy for Secondary Copyright Infringement Liability: Balancing Copyright and Innovation in the Digital Age*, 56 J. COPYRIGHT SOC’Y U.S.A. 265 (2009). [cite others: Bartholomew, Yen, etc.]. See *infra* notes __ (explaining this issue further).

⁴⁹ For a moment, we leave the liability of the performing party aside. See *infra* notes __ (discussing this issue).

Some authors analogize the performer in the “innocent instrumentality” cases to a puppet or a tool—like a hammer⁵⁰—but, as the poisoning case and others like it show, the level of control suggested by the puppet analogy is not necessary to impute the performer’s acts to the non-performer based on notions of causal responsibility.⁵¹ Consider: it may be argued in patent infringement cases that the end-user is free not to use the infringing feature provided by the manufacturer as part of, say, a software package—but the deliverer of the poisoned drink is likewise free to decline to deliver the drink to the intended victim of the person who made the drink.⁵² Yet, assuming mens rea sufficient for homicide, courts would impose criminal liability as a principal on the person who makes the poisoned drink by imputing the *actus reus* of the deliverer onto the poisoner.

This leads us to the next question—what about the deliverer?—which relates to the third scenario of a lawsuit against the coffee shop owner. In the criminal case, the deliverer is clearly innocent of any crime because he or she lacks the necessary mens rea.⁵³ But in the patent case, the situation is more complicated because patent infringement is a strict liability tort, so that innocence is no excuse. Does that mean that the coffee shop owner—the performer—should necessarily be liable for infringement as well? The second thesis of the paper is that, controversially, it generally should not be *as long as the manufacturer would be primarily liable on causation principles*. Although it might seem counterintuitive to hold the non-performer liable while excusing the performer, the result finds support in theory and precedent. As explained by Professor Sanford Kadish, “the greater liability of the secondary party can be supported . . . where some feature of the primary party’s action is not volitional in the full sense, so that the former can be said to have caused it by using latter as his instrument.”⁵⁴ And as already suggested, the coffee shop owner might be viewed as a manufacturer’s unwitting instrument that carries out the infringement. One possible consequence of the legal fiction of imputing the performer’s acts onto the non-performer is that the former lacks the *actus reus* of the offense because its performance is not fully voluntary, but rather caused by another.⁵⁵ In fact, the technically correct term here is not “imputation” but “substitution”—by legal fiction, the non-performer is formally substituted for the unwitting performer and the non-performer no

⁵⁰ See, e.g., Joshua Dressler, *Reforming Complicity Law: Trivial Assistance as a Lesser Offense*, 5 OHIO ST. J. CRIM. L. 427, 431 n.21 (2008).

⁵¹ See *supra* notes __ and accompanying text.

⁵² This analogy is complicated by the fact that direct infringement is strict liability but, as I argue later in the article, the chain of causation is not broken simply because of the legal status of the performer. In general, in the intermediary cases, the intermediary is not always actually innocent. See Kadish, *supra* note __, at 388 (“That Othello’s actions are not excused is not an obstacle to this analysis. The intervening action need only be less than wholly voluntary to permit tracing the causal inquiry through the intervening actor; it need not be so nonvoluntary as to be fully excused.”).

⁵³ Unless, perhaps he or she owes a duty of care to the victim or has reasons to believe that the drink-maker is up to no good.

⁵⁴ Kadish, *supra* note __, at 388.

⁵⁵ In general, a volitional act is required as *actus reus* to impose liability for any crime or a tort. See, e.g., *Martin v. State*, 31 Ala. App. 334 (1944). And this requirement applies to strict liability cases as any others. Cf. *Am. Broadcasting Companies, Inc. v. Aereo, Inc.*, 134 S. Ct. 2498, 2512-13 (2014) (Scalia, J., dissenting) (discussing the volitional act requirement for liability in copyright law).

longer has anything to do with the act.⁵⁶ Formally, the chain of causation runs directly from the non-performer to the act that constitutes the performance of a step of a patent claim: to use the analogy based on the domino effect, the non-performer pushes the first domino, the performer is the next-to-last domino, and the falling of the last domino is the act at issue.⁵⁷

The rest of this Article proceeds as follows. Part II explains in greater detail the law on indirect infringement, divided infringement, and direct infringement, and critiques the state of the law. Part III discusses examples of non-performer direct liability in criminal law and tort law and explains how principles of causal responsibility can be used to impose liability on non-performing parties via imputation of steps of patent claims to these non-performers. Part IV applies these concepts to patent law, focusing on examples in which a non-performer's activities might give rise to direct rather than derivative liability. Part V considers and answers four key objections—that the causation approach described herein is contrary to the patent statute, constitutes unsound policy, does not pay sufficient regard to the forms of patent claiming, and punishes nonculpable acts. Part VI concludes.

II. Infringement Doctrines in Need of Causation

A. Introduction to patent claims and forms of patent infringement liability

The Patent Act imposes direct infringement liability on “whoever without authority makes, uses, offers to sell, or sells any patented invention.”⁵⁸ In order to determine whether an invention is “patented” within the meaning of the infringement statute, courts analyze whether it is covered by one or more claims of the patents asserted in the litigation.⁵⁹ Claims are numbered sentences at the end of a patent, often long and oddly worded, that define the metes and bounds of the patentee’s rights. Generally, patent claims can refer to a physical object, such as an apparatus or a device, or an activity, such as a process or a method.⁶⁰ While claims directed to an object recite the object’s structural elements—for example, “a table comprising a top and legs”—claims directed to a process or a method recite steps of the activity using gerunds.⁶¹ Thus, an example of a method claim might be “a method of opening a door, comprising inserting a key into a latch, turning the key, twisting a door handle, and applying pressure to the door.”

⁵⁶ Personal communication with Professor Mark Kelman. Whether substitution is properly applied in patent cases, or whether the acts are attributable to both the performer and non-performer, is a topic I take up later in the article.

⁵⁷ An argument along similar lines has recently been made by Saurabh Vishnubhakat, though his approach differs from mine in that he views direct infringement as a kind of an intentional tort. In contrast, this Article explains that the end user in some patent cases might avoid liability for lack of a sufficient causal link (or a lack of a sufficient *actus reus*). See Vishnubhakat, *supra* note _.

⁵⁸ 35 U.S.C. § 271(a).

⁵⁹ *AbTox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997).

⁶⁰ 35 U.S.C. § 101.

⁶¹ Dmitry Karshtedt, *Limits on Hard-To-Reproduce Inventions: Process Elements and Biotechnology’s Compliance with the Enablement Requirement*, 3 HASTINGS SCI. & TECH. L.J. 109, 118 (2011).

When patent infringement is asserted against a manufacturer, apparatus claims can form the basis for direct liability under § 271(a) based on the manufacturer's making and selling of the object, such as a table, that the claims cover.⁶² The situation, however, is more complicated with method claims because direct liability does not arise until the claimed activity is performed, i.e., until someone “use[s]” the invention within the meaning of § 271(a). Concretely, the hypothetical claim to the method of opening a door is not infringed until someone opens the door—i.e., until the door becomes operational. Stated another way, the acts of making the door and selling it to a customer cannot give rise to liability until the customer operates the door.⁶³ And unless the manufacturer itself opens the door,⁶⁴ the manufacturer's liability—if any—can generally only be indirect, i.e., derivative from the customer's infringement, under current law.⁶⁵ To be sure, as the example in the following Subpart illustrates, indirect infringement of apparatus claims can also be asserted against manufacturers. But, given the difficulty of proving any form of liability for the infringement of method claims against manufacturers, it is the method claims that underlie most of the significant and interesting modern examples of cases where indirect infringement, particularly inducement of infringement under § 271(b), is asserted.⁶⁶ In addition, only method claims present the special problem of “divided infringement,”⁶⁷ which is discussed in Subpart D.

B. A brief history of patent infringement liability of non-performing parties

Liability by a non-performer is ubiquitous in civil and criminal law, and patent law is no exception. The origins, history, and purpose of such liability in patent law have been extensively recounted elsewhere,⁶⁸ but some background will be helpful to set the stage for further discussion. It is generally accepted that the first reported case imposing patent infringement liability on a non-performer was *Wallace v. Holmes*.⁶⁹ This case dealt with a patent on an “improved lamp” having a chimney and a novel, specially designed burner that helped keep the bottom of the chimney cool.⁷⁰ The defendant made and sold burners “in all material respects like that described in the patent,”⁷¹ but not the chimneys. The circuit court articulated several reasons why, even though the defendant's product did not meet every element of the patent claim, the defendant was nonetheless liable for infringement. The key fact was that the only use of the burner was in the infringing combination with the chimney. In view of this fact, the court

⁶² Dmitry Karshtedt, *Damages for Indirect Patent Infringement*, 91 WASH. U. L. REV. 911, 923-24 n.53 (2014) (discussing the “book of wisdom” concept in the context of patent damages).

⁶³ *Id.*

⁶⁴ And even if the manufacturer does itself open the door, the patent owner may wish to also hold the manufacturer liable for the acts of its customers in order to increase the damages base.

⁶⁵ Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111 (2014).

⁶⁶ Karshtedt, *supra* note __, at 923-24.

⁶⁷ [Cite to Akamai?]

⁶⁸ Charles W. Adams, *A Brief History of Indirect Liability for Patent Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 369 (2006); Timothy R. Holbrook, *The Intent Element of Induced Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 399 (2006); Lemley, *supra* note __.

⁶⁹ 29 F. Cas. 74 (C.C.D. Conn. 1871) (No. 17,100); Adams, *supra* note __, at 371-72 (discussing *Wallace*).

⁷⁰ *Wallace*, 29 F. Cas. at 79.

⁷¹ *Id.* at __ (statement of the facts).

determined that defendants were liable based on aiding and abetting infringement by end users: They sold the burners “with the certain knowledge that such burners are to be used, as they could only be used, by the addition of a chimney,”⁷² which resulted in “assisting . . . in a gross infringement of the complainant’s patent” by those who bought the burner and combined assembled it with the chimney.⁷³ In addition, even though the defendants “did not make an actual prearrangement with any particular person to supply the chimney to be added to the burner,” the court explained that “every sale they make is a proposal for the purchaser to do this.”⁷⁴ As a result, the court made a “certain inference” that the defendant acted “in actual concert” with others—unidentified chimney manufacturers—and therefore liable as a “joint infringer.”⁷⁵ The court also voiced a practical concern: Although the patentee could in theory go after the end users, this strategy could make them “helpless and remediless” because of “the small value of each separate lamp, and the trouble and expense of prosecution.”⁷⁶ Although language in *Wallace* might arguably be used to support assertions of both direct infringement on theories where the two manufacturers (of the burner and chimney) are joint tortfeasors⁷⁷ and of derivative infringement based on assistance of an end-user’s infringement, the case has been cited mainly for the latter proposition.⁷⁸ There is now wide consensus that *Wallace* ushered in the doctrine of derivative, or “contributory,” infringement.⁷⁹

Neither *Wallace* nor the several early cases that relied upon it used the term “contributory infringement,” however. For example, in *Bowker v. Dows*, the circuit court noted that “the manufacture and sale of the extract of [a certain chemical] would not, without more, be an infringement,”⁸⁰ but, relying on *Wallace*, found liable for infringement a defendant who “sells an extract containing [that chemical] to persons who intend to use it in the combination claimed in the patent, and it is advertised and sold for that very purpose.”⁸¹ The court made no suggestion that the theory of infringement was a derivative one, and further opined that it would be unfair in certain situations to impose liability only on performing parties and allowing non-performers go scot-free, underscoring the equitable rationale⁸² of theories of non-performer infringement:

⁷² *Id.* at 80.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.* Adams is incorrect to say that the *Wallace* court observed “that the defendants acted in concert with the users of the lamp to infringe the patent.” Adams, *supra* note __, at 373. The supposed concerted action is actually with the unidentified manufacturers of the chimney: “The defendants have not, perhaps, made an actual pre-arrangement with any particular person to supply the chimney to be added to the burner; but, every sale they make is a proposal to the purchaser to do this, and his purchase is a consent with the defendants that he will do it, or cause it to be done.” *Wallace*, 29 F. Cas. at 80.

⁷⁶ *Id.*

⁷⁷ The manufacturer of the chimney, though, might be relieved of liability because the chimney is a so-called “staple” article of commerce. See 35 U.S.C. § 271(c); Adams, *supra* note __, at 387.

⁷⁸ *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 187-89 (1980); Adams, *supra* note __, at 372; *see also* *Thomson-Houston Elec. Co. v. Ohio Brass Co.*, 80 F. 712 (6th Cir. 1897).

⁷⁹ See Adams, *supra* note __; Lemley, *supra* note __.

⁸⁰ 3 F. Cas. 1070 (No. 1,734) (C.C. Mass. 1878).

⁸¹ *Id.* at 1071.

⁸² Though these sorts of theories are not formally grounded in equity.

We do not think that the law requires us to hold those persons who actually use the combination (most of them, and perhaps all, without any purpose or knowledge of infringing), as the only persons liable, to the exoneration of the only person who makes and sells the extract for the express and avowed purpose of its use in the combination.⁸³

The first few Supreme Court cases to deal with the issue also made no suggestion that the non-performer's liability was always to be styled as derivative. *American Cotton-Tie Co. v. Simmons*, the first Supreme Court case to recognize patent infringement by a non-performer, cited *Bowker* and stated simply that “[b]ecause the defendants prepare and sell the arrow tie, composed of the buckle or link and the band, intending to have it used to bale cotton and to produce the results set forth in the Cook and the McComb patents, they infringe those patents.”⁸⁴ And *Morgan Envelope Co. v. Albany Perforated Wrapping Paper Co.*, an early Supreme Court case that found no patent infringement liability by a non-performer, summarized the state of the law as follows: “There are doubtless many cases to the effect that the manufacture and sale of a single element of a combination, with intent that it shall be united to the other elements, and so complete the combination, is an infringement.”⁸⁵ The Court did not qualify the word “infringement” with any adjective connoting derivative liability.

The label “contributory infringement” was attached to non-performer liability for the first time in a reported case in *Snyder v. Bunnell*, a circuit court case reported a few years after *Cotton-Tie* (but before *Morgan Envelope*), and the term eventually caught on.⁸⁶ Crucially, the courts that used this label made clear that they viewed the relationship between a direct and contributory infringer as that between “the principal and the accomplice,”⁸⁷ signifying derivative liability by the non-performer.⁸⁸ Indeed, with the advent of the “contributory” label, some courts began to draw a line between a performer, who could be liable for direct infringement, and a non-performer, who could be liable only for contributory infringement. One Court of Appeals decision, in attempting to determine whether defendants “are direct or contributory infringers,” explained that, “[t]o be direct infringers, the defendants must have used the plaintiff's process.”⁸⁹ After determining that “defendants do not use the machine” that performs the process, but “merely supply it for use”⁹⁰ by others, the court concluded that the defendants “are clearly not

⁸³ *Id.*; see also *Dawson Chem.*, 448 U.S. at 188 (“The court permitted the patentee to enforce his rights against the competitor who *brought about* the infringement, rather than requiring the patentee to undertake the almost insuperable task of finding and suing all the innocent purchasers who technically were responsible for completing the infringement.”) (discussing *Wallace*) (emphasis added).

⁸⁴ 106 U.S. 89, 95 (1882).

⁸⁵ 152 U.S. 425, 433 (1894).

⁸⁶ 29 F. 47, 48 (C.C.S.D.N.Y. 1886).

⁸⁷ *Thomson-Houston Elec. Co. v. Ohio Brass Co.*, 80 F. 712, 721 (6th Cir. 1897).

⁸⁸ Interestingly, the trend in criminal law itself has been to eliminate distinctions between principals and accomplices. See *infra* Part III.A.

⁸⁹ *B.B. Chemical v. Ellis*, 117 F.2d 829, 833 (5th Cir. 1941), *aff'd*, 314 U.S. 495.

⁹⁰ *Id.*

direct infringers of the plaintiff's process patent.”⁹¹ Nonetheless, the defendants could be liable as contributory infringers because “they manufacture[] and sell materials for use in an infringing operation with knowledge that they will be so used” and “induce their customers to use such infringing processes.”⁹²

Direct and indirect infringement were codified in the Patent Act of 1952. Section 271(a) is the direct infringement provision, and Sections 271(b) and (c) are drawn to non-performer theories of infringement. The Conference Committee report accompanying the 1952 Patent Act characterized Sections 271(b) and (c) as codifying the judicially recognized doctrine of contributory infringement, which “has been applied to enjoin those who sought to cause infringement by supplying someone else with the means and directions for infringing a patent.”⁹³ It explained that part (b) “recites in broad terms that one who aids and abets an infringement is likewise an infringer” and that part (c) concerns the specific circumstance of sale of a component that the report elsewhere calls “a special device constituting the heart of a patented machine.”⁹⁴ Although the report thus assumes that non-performer liability has been considered derivative (i.e., “parasitic”) upon infringement liability of the performer, *Wallace, Bowker*, and the early Supreme Court cases show that such a characterization of non-performer infringement is not inevitable.⁹⁵

To be sure, the Report provides very strong evidence that Congress generally thought that indirect or derivative liability provides the primary route for holding non-performers responsible for patent infringement, and my goal here is not to write a revisionist history of Section 271. Nonetheless, the early cases do suggest that non-performer liability for infringement has not always been subsumed under “derivative” label.⁹⁶ And this history means that Congress’s codification of the judge-made law infringement in 1952 should allow some room for imputation through causation, and perhaps for direct non-performer liability, in the interstices of the statute. Parts III and IV develop the idea of non-performer direct infringement liability further using background principles of criminal and tort law, and Part V directly deals with the charge that Sections 271(b) preempts such theories and also discusses policy reasons for relying on causation-based imputation. The next three subparts complete the background on the current state of indirect, “divided,” and direct infringement doctrines and consider the standard critiques of these doctrines.

C. Indirect infringement and its discontents

⁹¹ *Id.* at 834.

⁹² *Id.*

⁹³ S. Rep. 82-1979, S. Rep. No. 1979, 82nd Cong., 2nd Sess. 1952, 1952 U.S.C.C.A.N. 2394, 2402, 1952 WL 3180, at *2402.

⁹⁴ *Id.*

⁹⁵ In addition, the report mentions causing infringement, *id.*, a reference that might endorse imputation theories through causation. See *infra* notes _ and accompanying text.

⁹⁶ See *supra* notes _ and accompanying text.

Courts and commentators generally agree that “[t]he goal of secondary liability is to give patent owners effective protection in circumstances in which the actual infringer either is not the truly responsible party or is impractical to sue.”⁹⁷ But the requirements for establishing indirect infringement make it quite difficult for patentees pursuing indirect infringement theories to vindicate their rights. To be sure, there are good reasons for making non-performer liability difficult to establish.⁹⁸ An expansive conception of non-performer infringement might ensnare under the “aiding-and-abetting” rubric legitimate and socially valuable commercial activities, ranging from the provision of Internet search tools to supplying food and shelter to the infringers. As remarked by a court more than a hundred years ago, “[i]n a sense, a trespass is aided if the trespasser is fed during the trespass. Yet it can hardly be contended that an infringer’s cook is liable as a contributory infringer.”⁹⁹ The law often makes it difficult to impose infringement liability on a general service provider, whether on the Internet or in the brick-and-mortar world, without any showing that it intends to profit from an activity that is covered by some specific intellectual property right,¹⁰⁰ and rightly so.

Patent law takes these commands quite seriously—and perhaps, to use a bad pun, to a fault. Consider the level of proof needed to establish “active inducement” of infringement under § 271(b). The word “induce” has correctly been interpreted to require, at the very least, specific intent to cause acts that happen to result in the infringement.¹⁰¹ In addition, though, courts require that the defendant know of the existence of a patent that is adjudged to be directly infringed when those acts are performed, or at least be willfully blind to its existence.¹⁰² This is a very significant hurdle because “numerous potential infringers do not have actual knowledge of the patent at the time of suit.”¹⁰³ Unsurprisingly, there is significant controversy with regard to whether this rule correctly applies the Patent Act, and it has strong supporters and detractors. While Ted Sichelman argues that the rule resulted from the Supreme Court’s having “grossly misread” its own precedent and subverted congressional intent,¹⁰⁴ Mark Lemley argues that the rule is supported by the Patent Act’s legislative history and reflects indirect infringement’s roots

⁹⁷ Lemley, *supra* note __, at 228; *see also* Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 221 (1980) (“[T]he policy of stimulating invention that underlies the entire patent system runs . . . deep. And the doctrine of contributory infringement, which has been called ‘an expression both of law and morals,’ can be of crucial importance in ensuring that the endeavors and investments of the inventor do not go unrewarded.”); *see also* Holbrook, *supra* note __, at 400-01 (“[T]he indirect infringer may be more morally culpable than the direct infringers. Indeed, the inducers may be considerably more culpable in the patent infringement context because direct infringement is a strict liability offense.”) (footnotes omitted); [Cite cases and some args from Commil briefs?]

⁹⁸ Lemley, *supra* note __, at 228 * (“[T]he law must take equal care to avoid imposing liability on those who participate in the stream of lawful commerce merely because their products can be misused.”); Jason Rantanen, *An Objective View of Fault in Patent Infringement*, 60 AM. U. L. REV. 1575, 1591 (2011).

⁹⁹ *Tubular Rivet & Stud Co. v. O’Brien*, 93 F. 200, 202-03 (C.C.D. Mass. 1898) (cited in Lemley, *supra* note __, at 236).

¹⁰⁰ *Id.* But cf. McKenna, *supra* note __ (discussing expansion of indirect liability in trademark law); Yen, *supra* note __ (making similar conclusions for copyright law). *See generally* SECONDARY TRADEMARK INFRINGEMENT, <http://www.secondarytrademarkinfringement.com>.

¹⁰¹ *See DSU Medical Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc in relevant part).

¹⁰² *Global-Tech Appliances, Inc. v. SEB, SA*, 131 S. Ct. 2060 (2011).

¹⁰³ Sichelman, *Patent Law Revisionism*, *supra* note __, at 310.

¹⁰⁴ *Id.*

in accessory liability.¹⁰⁵ And as far as the policy behind the knowledge-of-the-patent rule is concerned, critiques have been numerous. In any event, the rule makes indirect infringement “exceedingly difficult to prove, . . . preclud[ing] pre-suit damages in the vast majority of cases in which the defendant had no knowledge of the patent (given the difficulty of showing ‘willful blindness’).”¹⁰⁶

What is more, the courts somehow link these requirements of knowledge of the patent and intent to cause acts that infringe and, *even in cases where the defendant is aware of the patent that is ultimately found to be directly infringed*, allow the defendant to negate the ill-defined “intent to infringe” by putting forward evidence of subjective good-faith belief of noninfringement.¹⁰⁷ In practice, this appears to elevate the mens rea with respect to the underlying patent right beyond mere knowledge or willful blindness, or even “bad purpose,” to a level of mens rea that is extremely rare in other areas of law, i.e., criminal law.¹⁰⁸ In maintaining this rule, the Court in *Commil v. Cisco* rejected the Solicitor General’s argument that the rule allowing for the “good-faith belief of noninfringement” defense may undermine Section 271(b)’s efficacy as a means of deterring and remedying infringement.”¹⁰⁹ After *Commil*, a noninfringement opinion of counsel could often provide a shield for those accused of inducement of infringement.

¹⁰⁵ Lemley, *supra* note __, at 236 (“Indirect infringement . . . has always required some element of knowledge. This requirement probably derives from the common law origin of indirect infringement in accessory liability, which requires that the defendant know that the behavior she aids is wrongful.”). *But see, e.g.*, Riley v. State, 60 P.3d 204, 220 (Alaska App. 2002) (“The standard interpretation of the phrase ‘intent to promote or facilitate the commission of the offense’ is that it requires proof of the accomplice’s intent to promote or facilitate another person’s *conduct* that constitutes the *actus reus* of the offense.”). Also, as I explain, however, the few examples of aiding and abetting strict liability crimes indicate that cast doubt on the claim that there is a knowledge-of-illegality requirement, which in any event seems to contradict the general maxim that ignorance of the law is no excuse. And in tort law, like the law of trespass, mistake of fact as to one’s legal rights is generally no excuse either. See RESTATEMENT (SECOND) OF TORTS § 158 comment j (1965) (Reporter’s Note); *see also* Murrell v. Goodwill, 106 So. 564, 565-66 (La. 1925) (“The defenses are that the timber was cut by parties other than defendant and that the cause of action therefor is prescribed. We think the first defense is untenable. Defendant, believing himself to be the owner of the land on which the timber stood, sold the timber to a third party, who cut it and removed it from the land. The responsibility for the trespass is therefore chargeable to the defendant, but, if not wholly so, at least as a cotrespasser.”); Castleberry v. Mack, 167 S.W.2d 489, 490 (Ark. 1943) (“It was, of course, an actionable wrong to cut Castleberry’s timber without authority from him to do so, and, if Mack Brothers induced that action, however innocent of wrong doing they may have been, they became joint tort-feasors, and are liable for the damage done.”); PETER CANE, THE ANATOMY OF TORT LAW 32 n.6 (“[A] person can be secondarily liable for tortious conduct only if they knew of the facts which made the conduct tortious (although, *of course*, they *need not have appreciated that it was tortious*.”) (emphasis added). *But cf.* Bigio v. Coca-Cola Co., 675 F.3d 163, 172 (2d Cir. 2012) (stating the elements of civil aiding-and-abetting liability under New York common law as “(1) the existence of an underlying tort; (2) the defendant’s knowledge of the underlying tort; and (3) that the defendant provided substantial assistance to advance the underlying tort’s commission.”) (alterations and citations omitted). Perhaps the rule for trespasses is different from the rule for other torts, however. *Cf. infra* note 188 and accompanying text.

¹⁰⁶ Sichelman, *Patent Law Revisionism*, *supra* note __, at 310.

¹⁰⁷ *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (2015). Notably, this defense is effectively unavailable in copyright law, where it may be difficult to form a good-faith belief that the underlying right is not infringed. Also, of course, the boundaries of the right and its validity seem much more certain in copyright law than in patent.

¹⁰⁸ *See infra* notes 312-316 and accompanying text.

¹⁰⁹ Brief for the United States as Amicus Curiae at 7, *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (No. 13-896), 2014 WL 5299431, at *7 (2014). [explain case history here]

Again, there might be good policy reasons to justify the high mens rea hurdles to show indirect infringement in certain circumstances. For example, where the technology accused of infringement has different kinds of uses, so that some are infringing and others are not,¹¹⁰ it may stand to reason to require knowledge of a specific intellectual property right underlying the infringing branch of the technology’s application. But as we will see, in many patent cases, this is not what is happening. Unlike the Googles of copyright law and the eBays of trademark law, many manufacturers accused of indirect patent infringement are not providers of a general service or platform. Instead, they supply specific software features, medical devices, or diagnostic kits that enable infringement of particular method patents—rather than facilitating generalized “piracy” mixed in with legitimate, non-infringing uses of the service.¹¹¹ Indeed, in many indirect patent infringement cases, the end-user has no choice but to infringe the patent merely when it follows the manufacturer’s directions.

Very well, then—one can argue that the Patent Act has a provision for exactly this kind of a thing. Section 271(c) provides that

Whoever offers to sell or sells within the United States . . . a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.¹¹²

Unlike § 271(b), this section focuses sharply on a scenario where a defendant provides a specialized product that ends up facilitating the infringement of a particular patent. According to courts, because the article supplied is a nonstaple “adapted for use in an infringement of” a patent, the patentee is relieved from having to prove that it specifically intended that the end-user perform the acts that result in infringement.¹¹³ Nonetheless, § 271(c), like § 271(b), also includes the knowledge-of-the-patent requirement.¹¹⁴ And, as with § 271(b), that requirement can prove to be an insuperable hurdle for the patentee. Perhaps the knowledge-of-the patent requirement is justifiable if the *actus reus* of the accused manufacturer is a mere sale of the specially adapted nonstaple article.¹¹⁵ But, as the next paragraph explains, the *actus reus* in indirect infringement cases is often much more than a mere sale.

¹¹⁰ For a patent law example, see *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261 (Fed. Cir. 1986).

¹¹¹ See *infra* notes __ and accompanying text.

¹¹² 35 U.S.C. § 271(c).

¹¹³ See, e.g. *Thomson-Houston Elec. Co. v. Ohio Brass Co.*, 80 F. 712, 721 (6th Cir. 1897). (“One is legally presumed to intend the natural consequences of his act. Hence the defendant, in offering the switch and trolley for sale to the general public, may be reasonably held to intend that they should be used in combinations in an electric railway covered by the claims of complainant’s patents.”).

¹¹⁴ *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488 (1964); *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005).

¹¹⁵ Cf. *Lemley, supra* note __ 227, 232.

Indeed, an important feature of many recent indirect infringement cases that the defendant has performed acts that would satisfy the requirements of both § 271(c) and § 271(b).¹¹⁶ Thus, the defendant sells in the United States “apparatus for use in practicing a patented process” that is “especially made or especially adapted for use” that is infringing,¹¹⁷ the article is “not a staple article or commodity of commerce suitable for substantial noninfringing use,” and the defendant provides instructions, and often engages advertising and marketing that encourage the end-user to utilize the article at issue in an infringing matter. Although all these actions might seem duplicative—who needs encouragement to infringe if an article is a nonstaple adapted for an infringing use?—there are surely cases where the nonstaple nature of the article and the instructions might cumulate to all but ensure infringement.¹¹⁸ For example, in *Lucent Technologies, Inc. v. Gateway, Inc.*, the infringing acts constituted picking appointment dates and times by clicking on Microsoft Outlook’s calendar display.¹¹⁹ This feature constitutes a part of the Outlook software package, which obviously has many other features. The only way the date-picker feature could be issued is to infringe the patent-in-suit, thereby satisfying the requirements of Section 271(c).¹²⁰ But because this feature is one of many, the end user might not be aware of it, and might not use it, unless the manufacturer also provides instructions encouraging the customer to take advantage of the feature. And this is exactly what the accused infringer did in *Lucent*.¹²¹

Thus, when the feature is optional and sold as part of a larger product, the instructions can help guarantee that the feature does not, so to speak, “sit on the shelf.” In addition, the feature might be highlighted for its role in the larger product package, helping increase the demand for the overall product. Yet even when the defendant takes all of these acts to drive the end user toward infringement, the knowledge-of-the-patent requirement, bolstered by the mens rea defense of belief of noninfringement, is not excused. Of course, the patent owner in theory has a remedy against the direct infringer. But, as numerous authorities have recognized, in many cases such a strategy is impractical if not impossible.¹²² As a result, infringement of many patents on important technologies will not be compensated during the time before the accused indirect infringer is faced with a demand letter or an infringement complaint, and become aware of the patent.¹²³

D. “Divided infringement” and its discontents

So-called “divided infringement” is another problematic area of patent law. As outlined in the Introduction, the divided infringement label describes a situation in which no party can be

¹¹⁶ See, e.g., *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1320-23 (Fed. Cir. 2009).

¹¹⁷ The “material” issue is often not litigated.

¹¹⁸ Indeed, this is why mere sales are usually not enough to prove inducement. Cf. Lemley, *supra* note __ 227, 232.

¹¹⁹ See *Lucent*, 580 F.3d at 1310-11; U.S. Patent No. 4,763,356 (filed Dec. 11, 1986) (issued Aug. 9, 1988), claims 19 & 21; see also Karshtedt, *supra* note __, at 918.

¹²⁰ *Id.* at 1321.

¹²¹ *Id.* at 1323.

¹²² See *supra* notes __ and accompanying text.

¹²³ See Sichelman, *Minding Patent Infringement*, *supra* note __.

liable for patent infringement because no single entity performs the steps of a patent. A detailed example using simple technology will help illustrate the problem.¹²⁴ A company owns a patent directed to methods for locating available real estate property using a zoom-enabled map on a computer. The patent contains a claim that reads, in full: “A method using a computer for locating available real estate properties comprising the steps of:

- (a) creating a database of the available real estate properties;
- (b) displaying a map of a desired geographic area;
- (c) *selecting a first area having boundaries within the geographic area*;
- (d) zooming in on the first area of the displayed map to about the boundaries of the first area to display a higher level of detail than the displayed map;
- (e) displaying the first zoomed area;
- (f) *selecting a second area having boundaries within the first zoomed area*;
- (g) displaying the second area and a plurality of points within the second area, each point representing the appropriate geographic location of an available real estate property; and
- (h) identifying available real estate properties within the database which are located within the second area.¹²⁵

The accused infringer operates an interactive website that allows users to search for real estate properties. Assume the website works in the following way.¹²⁶ On the landing page, it provides a search box in which the user can type in the state and county of interest. Once the user types in this parameter—for example, “California - Los Angeles County”—the website displays the map of the County. This is step (b).¹²⁷ Next to the map is the following statement: “Click on the map or the links below to search for homes and real estate in California.” The links include parts of Los Angeles County, such as “San Fernando Valley” or “Los Angeles – Westside to Downtown.” Once the user performs step (c) by choosing, for example, “Los Angeles – Westside to Downtown,” the website zooms into and displays this smaller area—steps (d) and (e)—and the process repeats itself. In other words, the website invites the user to “click on the map or the links below” to pick an area within “Los Angeles – Westside to Downtown,” like “Beverly Hills” or “West Hollywood.” Once the user does so, at step (f), the website displays the smaller area and identifies available real estate properties within it, steps (g) and (h).

To sum up, all of the claim’s steps are performed, but the performance is divided between two parties—the accused infringer, who operates the website’s host computer, and the user of the website, who performs the “selecting” steps (c) and (f).¹²⁸ On these facts, there is no infringement by the website’s operator because it “does not exercise direction or control over

¹²⁴ This example is based on *Move, Inc. v. Real Estate Alliance Ltd.*, 709 F.3d 1117 (Fed. Cir. 2013).

¹²⁵ *Id.* at 1119-20 (quoting U.S. Patent No. 5,032,928 claim 1 (filed Apr. 24, 1989))

¹²⁶ See Brief for Defendant/Counterclaim-Appellant Real Estate Alliance Ltd. at 16, 20, *Move, Inc. v. Real Estate Alliance Ltd.*, 709 F.3d 1117 (No. 12-1342) (Fed. Cir. 2013).

¹²⁷ It is conceded that the website has performed step (a).

¹²⁸ *Move*, 709 F.3d at 1122.

users of its websites,”¹²⁹ which is the applicable legal standard for this scenario. The operator escapes liability even though it has supplied a website that is configured specifically to perform the steps of the claimed method and instructs its users to perform the only two steps that the website itself does not perform. Of course, the website has no control over the users, and they have no obligation to do the selecting. For example, the hypothetical (and unlikely) users who are only interested in using the website to learn what areas Los Angeles County is divided into don’t need to “click on the map or the links below” to find available houses for sale. But those who came to the website to find available real estate properties in their area of interest—for example, Beverly Hills—would do well to click through until they reach “Beverly Hills” within “Los Angeles – Westside to Downtown.” That’s the whole point of the website. But the customer’s step does not get imputed to the manufacturer under current law, and no one can be liable for infringing the locating claim.

This outcome, which is the product of the “control or direction”¹³⁰ gloss on the single-entity rule, has been called as a “loophole” in patent law that renders some interactive Internet patents, and others, wholly without value.¹³¹ Some commentators have criticized the result on economic and policy grounds, and others have argued that the rule might harm innovation in areas beyond Internet-related patents. The contrary view is that divided infringement problems are of the patentees’ own making and can be fixed with careful claim drafting.¹³² In addition, it has been argued that the rigorous enforcement of the single-entity rule ensures that the notice function of patents is fulfilled.¹³³ The rule remains highly controversial and produces a result that is questionable at best. Indeed, it is not unusual for law to impose liability when the elements of a crime or a tort are split—consider, for example, innocent instrumentality cases where one party has the criminal mens rea and another, an unwitting innocent, performs the actus reus.¹³⁴ Yet patent law cases hold that, even in cases where an actor provides an instrumentality to another and intends for it to be used a certain way, the second person’s act is not attributable to the first unless the second person is somehow obligated to perform it.

E. Direct infringement and its discontents

This Subpart completes the discussion of the trinity of patent law’s problematic doctrines. Direct infringement, which is the fundamental form of patent infringement liability, has also come under criticism of late. The particular problem with direct infringement, somewhat oddly perhaps, has to do with the very existence of lawsuits against direct infringers. Perhaps the best

¹²⁹ *Id.* at 1122-23.

¹³⁰ The phrasing is confusing. “Direction” here does not mean following directions but rather acting under someone’s direction. *See supra* note 21 and accompanying text.

¹³¹ *See supra* note 26 and accompanying text.

¹³² *See, e.g.*, Lemley, *supra* note _.

¹³³ Brief of Amicus Curiae Electronic Frontier Foundation in Support of Petitioner, *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014), 2014 WL 880930, at 3-4.

¹³⁴ *See Kadish, supra* note _, at 370. *See generally* Robinson, *Imputed Criminal Liability*, *supra* note _ (discussing doctrines of imputation of elements of crimes).

way to summarize the perceived problem is to quote from a statement by the Electronic Frontier Foundation:

These trolls go after consumers who use widely available products to conduct their businesses efficiently and effectively. Most, if not all, did not develop, manufacture, or sell the allegedly infringing technology. Most, if not all, had no idea that any patent existed that might prohibit how they use those products.

Take for instance Innovatio, the troll who targets those who provide access to Wi-Fi networks in public spaces, like coffee shops and hotels. There's Lodsys, who targets app developers for using technologies to perform in-app upgrades—a feature that companies like Apple and Google provide to those developers.¹³⁵

As the quote indicates, critics see it as somehow deeply unfair that those who are alleged to have actually performed the patent claims must deal with accusations of infringement. The rhetoric in some quarters has reached feverish proportions, with patentees who are simply exercising statutory rights being accused of extortion, racketeering, or worse (but query if onerous requirements for indirect liability have something to do with this trend). It is difficult to imagine a situation in which there is such moral outrage when a there is a suit against someone who actually performed the offending act, though some do come to mind.¹³⁶ Consider, for example, the following scenario, based on Charles Dickens' novel *Oliver Twist*.¹³⁷ In that novel, an unsavory character named Fagin recruits children and trains them to be pickpockets, collecting the proceeds from the thefts.¹³⁸ It seems intuitive that the right person to sue is Fagin, not the children—even if children could be held responsible for torts¹³⁹ and were not judgment-proof. He, not the children, seems somehow truly responsible. He, after all, set the process that ultimately resulted in larceny into motion and the children probably didn't know any better.¹⁴⁰

If there is wide discontent with this basic aspect of patent law among the stakeholders and the public, it must be taken seriously. And many have, putting forward proposals such as more frequent use of stays of lawsuits against customers until the suit against the manufacturer is resolved,¹⁴¹ compulsory joinder of manufacturers,¹⁴² and even full immunity against certain end

¹³⁵ Electronic Frontier Foundation, <https://www.eff.org/deeplinks/2013/10/six-good-things-about-innovation-act-part-five-customer-suit-exception>; *see also* The Rackspace, <http://www.rackspace.com/blog/immunize-end-users-from-patent-trolls> (“End users” are you and me: small businesses, developers, students, professionals, and other ordinary Americans who use technology in our daily lives. We didn’t steal somebody’s idea.”); Electronic Frontier Foundation, <https://www.eff.org/deeplinks/2013/05/hey-patent-trolls-pick-someone-your-own-size>. *See generally* Love & Yoon, *supra* note _; Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C. L. REV. 1443, 1448 (2014).

¹³⁶ To be sure, the manufacturers have at times attempted to step in to defend their customers by attempting to intervene in the lawsuits or by providing indemnification.

¹³⁷ CHARLES DICKENS, OLIVER TWIST: OR THE PARISH BOY’S PROGRESS 81-82 (Lerner Publishing Group ed. 2015).

¹³⁸ *See* Peter Alldridge, *The Doctrine of Innocent Agency*, 2 CRIM. L.F. 45, 56-57 (1990); *Amici Curiae* Brief of Charles W. Adams and William Von Glahn in Support of Petitioner at 3, Stoneridge Inv. Partners, LLC v. Scientific Atlanta, Inc., 552 U.S. 148 (2008) (No. 06-43), 2007 WL 1701932, at *3; *see also* Karshtedt, *supra* note _, at 920.

¹³⁹ In some jurisdictions, young children can be responsible for torts! *See* Garratt v. Dailey, 279 P.2d 1091 (Wash. 1955).

¹⁴⁰ Interestingly, the entities calling for a stop to suits against end users have not questioned the stringent rules for establishing indirect liability in patent law.

¹⁴¹ Love & Yoon, *supra* note _; [others]

users.¹⁴³ A more radical proposal for change is the addition of a fault element to the proof of direct infringement,¹⁴⁴ though that proposal has encountered resistance.¹⁴⁵ For example, an important recent article has argued that the strict liability nature of direct infringement facilitates information diffusion because a requirement of copying might cause researchers to avoid receiving technological information.¹⁴⁶ In addition, the strict liability nature of direct infringement allows courts to sidestep difficulties of proof involved in issues of inadvertent copying.¹⁴⁷ These arguments, however, appear to apply primarily to technology developers rather than to distributors and, especially, passive users. But, at least in theory and increasingly in practice, users are exposed to patent infringement liability,¹⁴⁸ and a recent paper by Saurabh Vishnubhakat in effect proposes the recognition of a fault requirement for infringement liability for passive use of technology.¹⁴⁹

III. Causal Responsibility to the Rescue

A. Non-performer liability in criminal law and tort law

Patent law, at least in its modern form, appears to make sharp distinctions between performers and non-performers when establishing grounds for infringement liability. With few exceptions, performer liability is direct and non-performer liability is indirect. Not so in other areas of law, however. For various reasons, criminal law and tort law have developed doctrines imposing direct liability on non-performers, and blurred lines between performers and non-performers (and “direct” and “derivative” forms of liability) in other ways. Consider, for example, the innocent instrumentality doctrine.¹⁵⁰ This doctrine holds directly liable for a crime a party who has used an intermediary to perform a harmful act through duress or subterfuge, or by otherwise taking advantage of the intermediary.¹⁵¹ Paradigmatic examples of an application of this doctrine might involve direct liability for theft of someone who has forced another person to retrieve the property of a third person under threat of violence, or prompting children or

¹⁴² See, e.g., Edward Hsieh, Note, *Mandatory Joinder: An Indirect Method for Improving Patent Quality*, 77 S. CAL. L. REV. 683 (2004). On joinder generally, see David O. Taylor, *Patent Misjoinder*, 88 N.Y.U. L. REV. 652 (2013).

¹⁴³ The Rackspace, <http://www.rackspace.com/blog/immunize-end-users-from-patent-trolls>

¹⁴⁴ See, e.g., Samson Vermont, *Independent Invention as A Defense to Patent Infringement*, 105 MICH. L. REV. 475 (2006).

¹⁴⁵ See Robert P. Merges, *A Few Kind Words for Absolute Infringement Liability in Patent Law*, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2464756.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* This approach is similar to Mark Kelman’s view that strict liability can begin to look like fault-based liability over a long enough time frame, and that the “strict liability” nature of the crime in effect functions as a conclusive presumption of fault for certain types of crimes. See Mark A. Kelman, *Strict Liability: An Unorthodox View*, in 4 *ENCYCLOPEDIA OF CRIME AND JUSTICE* 1612 (Sanford H. Kadish ed. 1983); see also Mark Kelman, *Interpretive Construction in the Substantive Criminal Law*, 33 STAN. L. REV. 591 (1981).

¹⁴⁸ Roger D. Blair & Thomas F. Cotter, *An Economic Analysis of Seller and User Liability in Intellectual Property Law*, 68 U. CIN. L. REV. 1, 3 (1999).

¹⁴⁹ See Vishnubhakat, *supra* note _.

¹⁵⁰ See, e.g., *Bailey v. Commonwealth*, 329 S.E.2d 37, 40 (Va. 1985) (“[O]ne who effects a criminal act through an innocent or unwitting agent is a principal in the first degree.”).

¹⁵¹ *Id.*

incapacitated adults to perform certain acts, but there are other instances where it is thought to apply.¹⁵² For example, Professor Kadish discusses an example in which criminal liability is imposed on a poisoner who asks an innocent person to deliver a tainted drink to the intended victim.¹⁵³

The innocent instrumentality doctrine is a legal invention born out of necessity. The rigid rule that non-performer liability can only be indirect, or derivative upon,¹⁵⁴ the liability of the performer leads to an unsatisfying result in the poisoning case. The deliverer of the drink cannot be liable for the harm caused to the poisoned victim for he or she is without the necessary mens rea for the crime. And if the law were to stick to the rigid distinction between performers and non-performers, the person who made the poisoned concoction and gave it to the intermediary cannot be liable either because there is no underlying crime by the performer upon which to derive the performer's liability.¹⁵⁵ To be sure, at common law non-performer liability in criminal law has generally been grounded in accomplice liability—that is, liability that is formally dependent upon the primary liability of the performer-principal.¹⁵⁶ But the innocent instrumentality doctrine illustrates that the criminal law does not always follow rigid rule that non-performer liability can only be derivative. Indeed, an early version of the federal non-performer liability statute made this very clear, stating that “[w]hoever causes an act to be done, which if directly performed by him would be an offense against the United States *is also a principal* and punishable as such.”¹⁵⁷ And although this statute's text has been modified,¹⁵⁸ this section is still titled “Principals” and still thought to give rise to so-called causal imputation of acts of another to a non-performing party, who becomes liable as a principal based on this theory.¹⁵⁹ Similarly, direct non-performer liability appears in tort law,¹⁶⁰ and it exists side-by-side with indirect non-performer liability.¹⁶¹

¹⁵² Kadish, *supra* note __, at

¹⁵³ *Id.*

¹⁵⁴ Lanham, *supra* note __, at 493 (“[T]here comes a point at which the causal link between A's action and V's death is so strong that it would be scandalous to acquit A by insisting on an accessorial approach.”).

¹⁵⁵ *Id.* The patent law arguably sanctions some bizarre results by insisting in all cases that there should be a performer liable for infringement before a non-performer can be liable. *See Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2117 (2014).

¹⁵⁶ As we will see *infra*, however, the criminal law has moved away from the formalistic distinction between “principal” and “accomplice”—though the question of mens rea for non-performer liability remains extremely important. *See Baruch Weiss, What Were They Thinking?: The Mental States of the Aider and Abettor and the Causer Under Federal Law*, 70 FORDHAM L. REV. 1341 (2002).

¹⁵⁷ 18 U.S.C. § 2(b) (1948).

¹⁵⁸ 18 U.S.C. § 2(b) (2012) (“Whoever willfully causes an act to be done which if directly performed by him or another would be an offense against the United States, is punishable as a principal.”).

¹⁵⁹ Lanham, *supra* note __, at 503; *cf. Akamai Techs., Inc. v. Limelight Networks*, 692 F.3d 1301, 1345 (Fed. Cir. 2012) (en banc) (Linn, J., dissenting), *rev'd*, 134 S. Ct. 2111 (2014) (discussing “causation” liability under § 2(b)).

¹⁶⁰ DAVIES, *supra* note __, at 181-82; *cf. Akamai*, 692 F.3d at 1311-12 (per curiam) (discussing causation concepts in the patent infringement context).

¹⁶¹ *See, e.g., Bigio v. Coca-Cola Co.*, 675 F.3d 163, 171-72 (2d Cir. 2012) (labeling non-performer liability as “secondary”); *Halberstam v. Welch*, 705 F.2d 472, 476 (D.C. Cir. 1983) (using the “secondary defendant”/ “primary wrongdoer” nomenclature); *see also Restatement (Second) of Torts* § 876 (1965); *id.* § 877. Interestingly, these sections of the *Restatement* do not label the liability as derivative, so derivative liability is likely intended.

Interestingly enough, tort law generally does not seem to rely heavily on the direct/derivative distinction when assigning liability to performers versus non-performers.¹⁶² For example, the *Restatement Second of Torts* Section 158, a section that deals with intrusions to land and so provides perhaps the closest tort law analogy to patent infringement, states as follows: “[O]ne is subject to liability to another for trespass, irrespective of whether he thereby causes harm to any legally protected interest of the other, if he intentionally . . . enters land in the possession of the other, or causes a thing or a third person to do so.”¹⁶³ Remarkably, this section treats the actual performer of the intrusion—“a third person”—as equivalent to an inanimate object—“a thing.” In either the third person or the thing scenario, the effect of this provision is to make the causer of the intrusion by the third person or thing liable as though the causer himself or herself had intruded, and the performer/non-performer distinction is without great significance. And notably, a comment to this section makes very clear that duress or a legal obligation is not required in order to conclude that the defendant has caused a third party to enter the land:

If, by any act of his, the actor intentionally causes a third person to enter land, he is as fully liable as though he himself enters. Thus, if the actor has commanded *or requested* a third person to enter land in the possession of another, the actor is responsible for the third person’s entry if it be a trespass. *This is an application of the general principle that one who intentionally causes another to do an act is under the same liability as though he himself does the act in question.* So too, one who by physical duress causes a third person to go upon the land of another or who carries the third person there against his will is liable as a trespasser, although the third person may not be liable.¹⁶⁴

And even though other sections of the *Restatement*, such as Section 877, describe direction of the tortious conduct of another as a source of liability that is apparently distinct from direct liability—however “direct liability” is to be understood—tort cases rarely focus on the direct/derivative distinction. Instead, tort law seems to rely on the general term “joint tortfeasors” to describe performers and non-performers that are liable for the same tort¹⁶⁵—an umbrella term that was also used in early patent cases to describe what we know think of as direct and indirect infringers.¹⁶⁶ Thus, tort law often treats performers and non-performers simply as tortfeasors without making sharp distinctions between those who, so to speak, make direct contact with the

¹⁶² Securities law has been an odd and interesting exception. [Elaborate]

¹⁶³ RESTATEMENT (SECOND) OF TORTS § 158. “Intentionally” here is used not in the sense “not accidental,” but as product of a deliberate act. No awareness of any illegality is required, however. See *id.* § 166; *see also* CANE, *supra* note __, at 32. [Double check this]

¹⁶⁴ RESTATEMENT (SECOND) OF TORTS § 158 comment j.

¹⁶⁵ Relevant to patent law, such a category of tortfeasors would be labeled “joint independent tortfeasors” who cause an indivisible injury, rather than tortfeasors acting in concert. See William Prosser, *Joint Torts and Several Liability*, 25 CAL. L. REV. 413, 414-15, 418-19, 424, 439 (1937).

¹⁶⁶ See, e.g., Thomson-Houston Elec. Co. v. Ohio Brass Co., 80 F. 712, 721 (6th Cir. 1897); cf. Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 500 (1964) (describing a contributory infringer’s relationship to a direct infringer as that of a “joint-tortfeasor”); Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469 (Fed. Cir. 1990) (explaining “joint tortfeasance” theory of inducement of infringement).

victim versus those who bring this contact about through another or participate in the commission of the tort in other ways. Although the last few years have seen something of a renaissance of the concept of “civil aiding and abetting,”¹⁶⁷ there remains a great deal of conceptual disagreement as to whether such liability is to be styled as “direct” or “derivative.”¹⁶⁸ And for what it is worth, leading torts casebooks devote little to no space to “secondary,” “derivative,” or “indirect” liability.¹⁶⁹

Related observations can be made about criminal cases. Indeed, the modern trend is to eliminate the old common law rule that labels non-performer liability “accomplice liability” that is analytically different from the liability of the principal.¹⁷⁰ The approach in the state of Washington is instructive. The Washington Supreme Court discussed “the emptiness of any distinction between principal and accomplice liability” and noted that “a verdict may be sustained upon evidence that the defendant participated as an aider and abettor, even though he was not expressly accused of aiding and abetting and even though he was the only person charged in the information.”¹⁷¹ In other words, once is charged with a crime, one is on notice that both “primary” and “secondary” liability is on the table—for principal and accomplice liability are not viewed as “alternative means.”¹⁷² Nor is jury unanimity with respect to whether the accused is a principal or an accomplice required.¹⁷³ Specifically, “jurors are not required to determine which participant acted as a principal and which acted as an accomplice” and “need only conclude unanimously that both the principal(s) and the accomplices(s) participated in the crime, but need not be unanimous as to the manner of that participation.”¹⁷⁴ This general approach is reflected a federal statute—which resembles the Patent Act’s Section 271(b) —that treats both “aiders and abettors” of crimes and “causers” of the *actus reus* element of a crime as

¹⁶⁷ Eugene J. Schiltz, *Civil Liability for Aiding and Abetting: Should Lawyers Be “Privileged” To Assist Their Clients’ Wrongdoing?*, 29 PACE L. REV. 75, 76–85 (2008) (discussing the “flood of civil aiding and abetting cases in the last quarter century”).

¹⁶⁸ *Id.* (“[T]here is considerable disagreement as to whether substantial assistance and civil conspiracy are torts in and of themselves or just forms of vicarious liability.”) (citations omitted).

¹⁶⁹ [Cite]

¹⁷⁰ See Weiss, *supra* note __, at 1355-56 (2002) (“[I]t was Congress’s intent to eliminate the archaic, common-law distinctions between the aider and abettor and the principal, to eliminate the need to determine whether the defendant under consideration had acted as a principal or an aider and abettor, and in general, to make it easier to convict the aider and abettor. In conformity with that legislative agenda, in numerous contexts, the courts have routinely treated the principal and the aider and abettor as equivalent—even interchangeable.”); *see also* Louis Westerfield, *The Mens Rea Requirement of Accomplice Liability in American Criminal Law—Knowledge or Intent*, 51 MISS. L.J. 155, 156 (1980) (“Strict adherence to this [accomplice-principal] scheme of classification gave rise to technical rules of jurisdiction and procedure that often allowed an accomplice to go free despite overwhelming evidence of guilt.”).

¹⁷¹ *State v. McDonald*, 981 P.2d 443, 448 (Wash. 1999) (citations omitted).

¹⁷² *Id.* This approach is followed in federal cases. *See, e.g.*, *United States v. Michaels*, 796 F.2d 1112, 1118 (9th Cir. 1986); *United States v. Maselli*, 534 F.2d 1197, 1200 (6th Cir. 1976) (“18 U.S.C. § 2 is embodied in every federal indictment.”); *United States v. Lester*, 363 F.2d 68, 72-75 (6th Cir. 1966). Query whether a patent owner who forgets to include a § 271(b) theory in the complaint could pursue a 271(b) infringement theory at trial. My guess is that the owner’s lawyer will get laughed out of court. *Cf. In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323 (Fed. Cir. 2012).

¹⁷³ *State v. Hoffman*, 804 P.2d 577, 606 (Wash. 1991) (“[I]t is not necessary that jurors be unanimous as to the manner of an accomplice’s and a principal’s participation as long as all agree that they did participate in the crime.”).

¹⁷⁴ *State v. Haack*, 958 P.2d 1001, 1004 (Wash. App. 1997).

principals.¹⁷⁵ And federal criminal case law is clear on the elimination of the accomplice-principal distinction.¹⁷⁶ To be sure, the non-performer must have a close causal connection to the crime to be convicted (and have the appropriate mens rea), but the statute makes it clear that non-performers, like performers, can be principles in circumstances beyond those where the non-performer and performer are “joint-venturer” co-participants in a crime.

One interesting corollary of the modern approach is that “the law of accomplice liability allows the jury to reach a conviction by splitting the elements of [a crime] between accomplices.”¹⁷⁷ The state need only prove “to the satisfaction to all the jurors that at least one of the participants had the requisite intent and at least one but not necessarily the same participant committed the criminal act.” What is the justification for this rule? As the Washington Supreme Court explained, “it would be absurd to absolve multiple assassins of guilt, simply because death cannot be attributed to a single individual’s actions.”¹⁷⁸ The statute providing the grounds for liability for a crime “committed by the conduct of another person” does not require that the other person commit that crime—one can get convicted even when “he or she causes an innocent or irresponsible person to engage in such conduct,” or as an accomplice.¹⁷⁹ In its structure and purpose, this statute resembles both the federal criminal non-performer liability statute.¹⁸⁰

The criminal and tort law cases can teach us a few basic lessons about non-performer liability. The first is that when courts impose liability on the party they call “a principal,” they may be referring to a performer or a non-performer and they often refuse to draw sharp distinctions between the two. The second lesson is that, even in situations where courts do pay attention to the accomplice-principal distinction, the recognition of formally indirect (e.g., “accomplice”) liability for non-performers does not generally preempt the possibility of direct liability for non-performers under certain circumstances. The innocent instrumentality doctrine and others permit fact-finders to impute to the non-performer the *actus reus* of a crime or a tort performed by another even in jurisdictions that draw sharp lines between principals and accomplices. The overarching lesson is that courts in criminal and tort law cases often don’t attach talismanic significance to whether the entity accused of committing a crime or a tort is a performer or a non-performer. A tortfeasor is a tortfeasor, and a criminal is a criminal—so long as the accused person participates sufficiently in the offense and has the mens rea required for liability.

B. Causal underpinnings of direct non-performer liability

¹⁷⁵ 18 U.S.C. § 2 (2012).

¹⁷⁶ *United States v. Standefer*, 447 U.S. 10, 17-18 (1980).

¹⁷⁷ *State v. Walker*, 341 P.3d 976, 987 (Wash. 2015). To be sure, the perpetrators in *Walker* were acting in a concerted fashion rather than independently, but the case doesn’t seem to turn on this fact. *But cf. id.* at 988 (“*Walker* concedes that splitting the elements makes sense when there is evidence that both participants acted as principals. Such evidence was presented here, and the instructions were proper.”).

¹⁷⁸ *McDonald*, 981 P.2d at 450 (citations omitted).

¹⁷⁹ Washington Criminal Code § RCW 9A.08.020. [See also *Lenzi v. Miller*?]

¹⁸⁰ [Argue that the patent statute is similar? More support for this or omit and reference later discussion. The federal statute discusses inducement, but that concept seems to incorporate both causing and aiding and abetting.]

1. Degrees of causal influence of non-performers

On what grounds can a non-performer be held directly liable? What theories justify the common law innocent instrumentality doctrine, the federal statutory language that the “causer” is chargeable as a principal, and the *Restatement of Torts* language that equates third parties with inanimate objects for the purpose of establishing liability for trespass? The theory of non-performer direct liability begins with the recognition that there are many ways in which a non-performer can be involved in a crime or a tort. In some cases, on one end of the spectrum of actionable non-performer involvement, the non-performer provides aid to an actor who is committed to carrying out a crime or a tort. The non-performer’s involvement, to be sure, facilitates the commission of the performer’s harmful acts in some way, perhaps through encouragement or even material support. But the non-performer is not absolved of liability even where the harm would have eventuated without his involvement. For this reason, some criminal law theorists have characterized accomplice liability as “noncausal” for this reason.¹⁸¹ Although the non-performer contributed in some way to commission of the crime, it can hardly be said that the non-performer “caused” the harm if the performer would have likely committed the crime no matter what.¹⁸² The strength of causal link to the acts of the performer might have important implications for how the law should treat the non-performer. As explained by Joshua Dressler, “moral intuition suggests that not all accomplices are alike.” Dressler argues that, while we might want to treat noncausal accomplices somewhat more leniently than we do now, “[l]eniency toward accomplices causally tied to the wrongdoing, or actually in control of the events that transpire, seems counter-intuitive.”¹⁸³

For a concrete example of noncausal non-performer liability, consider the classic case of *State ex rel. Martin v. Tally*, in which the Supreme Court of Alabama allowed a murder case to proceed to trial on an aiding-and-abetting theory.¹⁸⁴ Tally, a judge, learned that a telegram had been sent to the victim, one Ross, warning him that the Skelton brothers (who were related to Tally) are intending to kill Ross. Tally then had a subsequent telegram sent to the telegraph operator, a friend of Tally’s who also happened to be the mayor of the town where Ross ended up as he fled from the Skeltons. Tally’s telegram said: “Do not let the party warned get away.

¹⁸¹ See, e.g., Joshua Dressler, *Reassessing the Theoretical Underpinnings of Accomplice Liability: New Solutions to an Old Problem*, 37 HASTINGS L.J. 91, 120, 124-26 (1986); see also Mark Bartholomew, *Cops, Robbers, and Search Engines: The Questionable Role of Criminal Law in Contributory Infringement Doctrine*, 2009 BYUL. REV. 783, 840-42; Husak, *supra* note __, at 60-62 (arguing that holding minor accomplices and principals equally liable violates the principle of fair labeling). Dressler’s “noncausal” characterization has been contested. See Michael S. Moore, *Causing, Aiding, and the Superfluity of Accomplice Liability*, 156 U. PA. L. REV. 395, 402-20 (2007).

¹⁸² Cf. Bartholomew, *supra* note __, at 840 (“An objection might be made that a causation standard for contributory liability’s material contribution requirement would exempt some parties that we intuitively believe should be liable. One can envision a scenario where the defendant tries to encourage the direct infringer’s illegal activity, but the direct infringer misses the defendant’s cues or already has its mind made up and does not need any additional egging on to commit the act of infringement. The defendant might argue in such a situation that its relationship to the ultimate act of infringement is in no way causal, and, therefore, it has not made a material contribution.”).

¹⁸³ Dressler, *supra* note __, at 118-19.

¹⁸⁴ 15 So. 722 (Ala. 1894).

Say nothing.”¹⁸⁵ This message apparently caused a delay in the delivery of the warning telegram to Ross, who was killed by the Skeltons in due course. On appeal, Tally argued that Ross would have been murdered whether or not he would have received the warning telegram in a timely manner. In other words, as the court framed it, the question was whether it is “essential to [Tally’s] guilt that his act [of interfering with the warning telegram] should have contributed to the effectuation of [the Skeltons’] design—to the death of Ross?”¹⁸⁶ The court answered the question as follows: “The assistance given . . . need not contribute to the criminal result in the sense that but for it the result would not have ensued. It is quite sufficient if it facilitated a result that would have transpired without it.”¹⁸⁷ The court further explained:

It is quite enough if the aid merely rendered it easier for the principal actor to accomplish the end intended by him and the aider and abettor, though in all human probability the end would have been attained without it. If the aid in homicide can be shown to have put the deceased at a disadvantage, to have deprived him of a single chance of life which but for it he would have had, he who furnishes such aid is guilty, though it cannot be known or shown that the dead man, in the absence thereof, would have availed himself of that chance . . .¹⁸⁸

This form of liability, then, can be described as an example of liability without causation¹⁸⁹ because responsibility is imposed on a defendant even where the defendant’s role was not essential in occasioning the harm. Although the debate over the propriety of this sort of liability is beyond the scope of this article, suffice it to say that this feature of the law has troubled criminal law scholars and prompted calls for reform.¹⁹⁰ For example, Joshua Dressler has proposed different

¹⁸⁵ *Id.* at 734.

¹⁸⁶ *Id.* at 732.

¹⁸⁷ *Id.* at 738.

¹⁸⁸ *Id.* at 738-39. Modern approach is the same. *See, e.g.*, *State v. Carothers*, 525 P.2d 731, 736 (Wash. 1974) (“The legislature has said that anyone who participates in the commission of a crime is guilty of the crime and should be charged as a principal, regardless of the degree or nature of his participation. Whether he holds the gun, holds the victim, keeps a lookout, stands by ready to help the assailant, or aids in some other way, he is a participant.”), *disapproved of on other grounds*, *State v. Harris*, 685 P.2d 584, 586-87 (Wash. 1984). [This is the approach that is also discussed in the casebooks.] Smith, however, provides examples of American cases that do require but-for causation between the acts of an accomplice and the harm to the victim. *See K.J.M. Smith, Complicity and Causation*, 1986 CRIM. L. REV. 633, 666. For an example of a but-for causation requirement for indirect liability in tort law, see *Bigio v. Coca-Cola Co.*, 675 F.3d 163, 173 (2d Cir. 2012) (stating the elements of secondary civil liability in Georgia: “(1) through improper action or wrongful conduct and without privilege, the defendant acted to procure a breach of the primary wrongdoer’s duty to the plaintiff; (2) with knowledge that the primary wrongdoer owed the plaintiff a duty, the defendant acted purposely and with malice and the intent to injure; (3) the defendant’s wrongful conduct procured a breach of the primary wrongdoer’s duty; and (4) the defendant’s tortious conduct proximately caused damage to the plaintiff.”) (quoting *Insight Tech., Inc. v. FreightCheck, LLC*, 633 S.E.2d 373, 379 (Ga. Ct. App. 2006) (emphasis added) (alterations omitted)). However, “Georgia courts have used a differently-worded test for determining liability for aiding and abetting trespass: “[o]ne who procures or assists in the commission of a trespass or does any act which ordinarily induces its commission is liable therefor as the actual perpetrator.” *Id.* (citing *Walls v. Moreland Altobelli Accocs., Inc.*, 659 S.E.2d 418, 421 (Ga. 2008)).

¹⁸⁹ *Bartholomew*, *supra* note __, at 841; *see also* *supra* note 181 and accompanying text. To be sure, the courts require at least a possibility that the accomplice’s act matter to the final outcome—this is what the *Tally* court means when it refers to “a single chance of life.” *Cf. Moore*, *supra* note __, at 432-40 (discussing the notion of “chance-raising” accomplices).

¹⁹⁰ *See especially* Dressler, *supra* note __; *see also* Husak, *supra* note __. *Cf. Bartholomew*, *supra* note __, at 842 (arguing that

degrees of punishment for “causal” versus “noncausal” accomplices.¹⁹¹ What seems clear about accomplice liability in *Tally* (or its analog in tort law¹⁹²)—is that the proper grounds for such liability is truly “aiding” the conduct that results in harm rather than “causing” such conduct.

On the other end of the spectrum from the “noncausal” non-performer participation we saw in *Tally*, one finds cases where the non-performer acts as a kind of a puppeteer, with the performer taking the role of the puppet.¹⁹³ These sorts of cases, already discussed at some length above, might involve the performer acting under duress from the non-performer. Here, though tempered by the philosophical question whether we can ever really cause the actions of others,¹⁹⁴ the non-performer participation can intuitively be described as “causal” without great difficulty—and it is intuitively clear that the non-performer’s role is significantly greater than that of a but-for causer. Although the mechanism for carrying out an act is another person, the puppeteer can be fairly said to have caused that person’s act because the performer did not really have much choice in the matter.¹⁹⁵ Even critics of accomplice liability in criminal law, like Douglas Husak, “concede that the act of one individual can be attributed to another” in this sort of a case.¹⁹⁶ Husak’s intuition for why this is appropriate is that such cases involve “more than mere assistance.”¹⁹⁷ In addition to the innocent instrumentality scenario, Husak identifies two others where act attribution is appropriate. One is “when the parties are related through agency” and the other is “then the parties are co-perpetrators”—i.e., joint venturers in the crime.¹⁹⁸ As I suggested above,¹⁹⁹ patent law has been willing to recognize the agency theory of attribution, and it has at least suggested that the co-perpetrator theory of attribution might be viable. But it has missed causal theories, such as those reflected in the innocent instrumentality doctrine, altogether.²⁰⁰

Husak’s “more than mere assistance” observation is notable, for it implies a causal contribution to the performer’s acts than can be contrasted with the participation of so-called

“as with criminal accomplice liability, liability for inducement infringement [in copyright law] punishes people for their outward expressions of commitment to unworthy values”).

¹⁹¹ Dressler, *supra* note __, at 137-40.

¹⁹² *Halberstam v. Welch*, 705 F.2d 472, 476 (D.C. Cir. 1983) (discussing a case where a “court found that a student who had only aided the throwers by retrieving and handing erasers to them was still liable for the injury, because he had substantially encouraged the wrongful activity that resulted in the injury” and further held that “[i]t did not matter that the defendant may not even have given any particular aid to the boy who threw the eraser that hit the plaintiff”) (citing *Keel v. Hainline*, 331 P.2d 397 (Okl. 1958)).

¹⁹³ The puppet analogy goes only so far, however. The intermediary can also be a freely acting but unwitting individual. See *supra* notes 50-51 and accompanying text.

¹⁹⁴ On that issue, see the following Subpart.

¹⁹⁵ Consider, for example, the situation where the performer acts under duress.

¹⁹⁶ Husak, *supra* note __, at 57.

¹⁹⁷ *Id.*

¹⁹⁸ *Id.*

¹⁹⁹ See *supra* notes __ and accompanying text.

²⁰⁰ It has been argued that causal theories and innocent agency theories are conceptually distinct, though at least “[t]here is some overlap between innocent agency and causation.” *Lanham, supra* note __, at 491 n.4. For a further exploration of the connection between innocent agency and causation, see Peter Alldridge, *Common Sense, Innocent Agency, and Causation*, 3 CRIM. L.F. 299 (1992); Alldridge, *supra* note 138; Glanville Williams, *Innocent Agency and Causation*, 3 CRIM. L.F. 289 (1992).

noncausal accomplices such as Tally. Indeed, even if Tally did contribute causally to the crime—in other words, even if Ross had been able to escape but for Tally’s intervention—it would be odd to say that Tally caused the Skeltons to kill Ross. The Skeltons resolved to pursue and kill Ross because he became involved with and then abandoned their sister,²⁰¹ and there was no indication that they would not have formed this plan but for Tally’s involvement. Tally merely attempted to facilitate what the Skeltons already sought to do. While the puppeteer can be viewed as a “causer” of the criminal *actus reus*, Tally is at most an “aider.”²⁰²

It is intuitive to recognize, then, that a non-performer can contribute to a performer’s act in different ways.²⁰³ But what precisely, besides the easy “puppeteering” case, must the non-performer do to “cause” the conduct of another? Or is it even coherent to say that one person has caused another’s voluntary act? And, if the answer to the second question is yes, what is the legal significance of concluding that a non-performer has caused the act of a performer? To answer these questions, we can start with the concept of but-for cause. With some exceptions for unusual cases,²⁰⁴ but-for causation is a pre-requisite element of direct liability for crimes and torts, and could be viewed as the minimal requirement for assigning causal responsibility for an act.²⁰⁵ It seems apparent, however, that there must be more than but-for causation for us to be able to say that one person has caused the act of another. A provider of a firearm can be validly be viewed as a but-for cause of a shooting committed with that firearm, but most commentators probably will not go so far as to say that the provider caused the shooting. The case where the non-performer has instigated a murder that the performer would not have committed but for the instigation, though more difficult,²⁰⁶ is also an uneasy candidate for saying that the instigator has caused the act—especially where the performer has planned out the murder. The concept of but-for cause is thus a useful starting point, but it does not tell a complete story about the sort of causation I am contemplating here. As the following Subpart explains, if we are to say that a non-performer has caused the act of the performer, such that the act of the latter could be imputed to the former, the

²⁰¹ State ex rel. Martin v. Tally, 15 So. 722, 724 (Ala. 1894).

²⁰² The *Restatement of Torts* also gets at the distinction between aiding and causing. See *RESTATEMENT (SECOND) OF TORTS* § 876 (1965); *id.* § 877; see also Adams, *supra* note __, at 639–43 (explaining that section 876(b) of the Restatement provides the basis for “aiding and abetting” liability for “substantial assistance” to the primary tortfeasor, while section 877(a) imposes “inducement” liability on one who “orders or induces” tortious conduct). [my paper]

²⁰³ This basic point was also made by Lemley in an article on indirect patent infringement liability. See Lemley, *supra* note __, at 244 (Table 1).

²⁰⁴ Sindell v. Abbott Labs., 607 P.2d 924 (Cal. 1980) (4-3); Summers v. Tice, 199 P.2d 1 (Ca. 1948); see Richard Delgado, *Beyond Sindell: Relaxation of Cause-in-Fact Rules for Indeterminate Plaintiffs*, 70 CALIF. L. REV. 881 (1982).

²⁰⁵ The but-for causation requirement seems to be derived from notions of fundamental fairness. Cf. Sindell, 607 P.2d at 940 (“Although seeming to acknowledge that imposition of liability upon defendants who probably did not cause plaintiffs’ injuries is unfair, the majority justifies this inequity on the ground that ‘each manufacturer’s liability for an injury would be approximately equivalent to the damages caused by the DES it manufactured.’”) (Richardson, J., dissenting) (quoting *id.* at 938 (majority opinion)). This position has been contested, however, and the debate regarding the value and meaning of but-for causation is beyond the scope of this paper. For one view, see Guido Calabresi, *Concerning Cause and the Law of Torts: An Essay for Harry Kalven, Jr.*, 43 U. CHI. L. REV. 69 (1975). For a discussion of Calabresi’s article and “causal minimalism” he and other law and economics scholars have appeared to espouse, see HART & HONORÉ, *supra* note __, at lxxi-lxxiii. See also Richard W. Wright, *Actual Causation vs. Probabilistic Linkage: The Bane of Economic Analysis*, 14 J. LEGAL STUD. 435 (1985).

²⁰⁶ See Kadish, *supra* note __, at 388 (discussing the Iago-Othello hypothetical).

non-performer must do significantly more than supply a but-for cause for the action of another—call it a causation-plus standard.

2. Causing the acts of others

The literature on causation in law has probed extensively the general question of what it means for one to cause something so as to justify the assignment of legal responsibility to that person, as well as the specific question of what it means to cause the acts of another. Concepts surrounding causation are generally rich and complicated, and this literature cannot be easily summarized—and such an exercise, indeed, would be beyond the scope of this article. But the scholarly work and the cases do provide useful parameters that could help us understand notions of causal responsibility for what others have done, and perhaps develop some insights into causation in patent law.

I begin with the classic account of causation in the law by Hart and Honoré. These authors start out with the seemingly blanket proposition that “a free and deliberate human action is never regarded as itself caused.”²⁰⁷ These authors explain: “A deliberate human act is . . . often something *through* which we do not trace the cause of a later event.”²⁰⁸ They argue that the language of “cause” is more appropriate for effects of human action on inanimate objects rather than other human beings. Instead, in the field of interpersonal transactions, Hart and Honoré contend that “the concept of reasons for action” is more suitable than the concept of “causes of events.”²⁰⁹ And yet even these commentators, who are less comfortable than most with deploying the concept of cause in interpersonal transactions, concede that “[m]any important causal idioms are appropriate for description both of . . . relationships between human actions and ordinary causal sequences.”²¹⁰ They identify four inquiries that are relevant in the question whether another person did something because of, or as a result of, the first person’s words or actions.

- (i) in all of them the second actor knows of and understand the significance of what the first actor has said or done; (ii) the first actor’s words or deeds are at least a part of the second actor’s reasons for acting; (iii) the second actor forms the intention to do the act in question only after the first actor’s intervention; (iv) [the first actor] intends the second actor to do the act in question.²¹¹

Although Hart and Honoré do not take the step of concluding that these criteria, if met, justify the conclusion that an actor has caused the act of another—perhaps because of their general aversion to using causal language to describe interpersonal interactions—they come

²⁰⁷ See Joel Feinberg, *Causing Voluntary Actions*, in *DOING AND DESERVING* 152, 152 (1970) (quoting H.L.A. Hart & Tony Honoré, *Causation in The Law*, 72 L.Q. REV. 80 (1956)) (alterations omitted).

²⁰⁸ HART & HONORÉ, *supra* note_, at 44.

²⁰⁹ *Id.* at 51.

²¹⁰ *Id.* at 52.

²¹¹ *Id.* at 53.

close. They conclude that the chain of causation can at least be “traced through” from the non-performer to the effects of the performer’s act in cases where the level of the non-performer’s involvement is high, i.e., when it meets all of these four criteria.²¹² Hart and Honoré do believe in an unqualified way that a person could be said to have caused another’s acts under limited circumstances—for example, when those acts are performed under threat, when following a duty (e.g., a firefighter putting out a fire), done pursuant to a natural reaction to a stimulus, and so on.²¹³ As already discussed, these are the easy cases of causing the acts of another.

Other commentators are more receptive than Hart and Honoré to the notion that one person can cause an act of another, so that the performer’s can be imputed to the non-performer under the ancient principle of “qui facit per alium facit per se.”²¹⁴ For example, in a well-known article on imputation of elements of a crime, Paul Robinson argues that “[i]n cases where the causal link is strong, it is natural to think that the actor actually did satisfy the element himself; a spectrum of cases along which the strength of the causal relation varies with the actor’s degree of control over the other person or, in other words, with the other person’s degree of independent action.”²¹⁵ David Lanham’s approach is similar—he argues that “there is a point at which an instigator becomes a principal offender and may be held liable for causing the actus reus of the offence even though the immediate actor is another person.”²¹⁶ Focusing on cases both in the United States and in Commonwealth jurisdictions, Lanham provides numerous examples of cases where courts decided that this point was reached. On one end of the scale, the non-performing defendant is not even a but-for cause of the performer’s act; on the other, the defendant is something like a puppeteer.²¹⁷

In another important article, the late criminal law scholar Sanford Kadish explained the role what might be called the causation-plus approach to imputation of a performer’s act onto the non-performer.²¹⁸ Although he is uncomfortable with the legal fiction that the acts of the performer are actually the acts of the non-performer—unless the performer is truly an automaton

²¹² *Id.* at 63; *see also id.* at 57-58. [Not an intervening cause – made him act as he did - rework]

²¹³ *Id.* at 58. Another set of circumstances that Hart and Honoré identify as allowing for tracing are cases where the non-performing defendant provides an opportunity for a mischief by a performer. *See id.* at 59-61. These cases, though conceptually related to cases where an act of performer is imputed to the non-performer through causation, are perhaps better viewed as “negligence” cases. *See McKenna, supra note __, at 1; see also Karshtedt, supra note __, at 968* (discussing enabling torts like the tort of negligent entrustment). This Article brackets the discussion of enabling torts that penalize those who for negligently expose victims to harmful actions of others. Causers are responsible for patent infringement, not negligence: “In terms of the relative allocation of responsibility between the primary tortfeasor and the enabler, indirect patent infringement seems much worse than negligent entrustment because the directly infringing end user is typically clueless and blameless.” *Karshtedt, supra note __, at 968.*

²¹⁴ *See* Francis Bowes Sayre, *Criminal Responsibility for the Acts of Another*, 43 HARV. L. REV. 689, 689 (1930). In English, this phrase means “he who acts through another does the act himself.” The full statement of the maxim is, “qui facit per alium, est perinde ac si facit per se ipsum,” which is Latin for “whoever acts through another acts as if he were doing it himself.”

²¹⁵ Robinson, *supra note __, at 631.*

²¹⁶ Lanham, *supra note __, at 493.*

²¹⁷ For more on the concept of “scalar causation” (from a scholar who, however, rejects the concept of “noncausal” accomplices, see Moore, *supra note __, at 421*).

²¹⁸ Kadish, *supra note __, at 370.*

of some sort—Sanford Kadish does believe that, at least, “[i]t is quite natural to conceive of the secondary actor as causing the actions of the primary actor” in certain circumstances where the performer’s “conduct may be thought of as the product of the secondary actor’s manipulation.”²¹⁹ The examples he provides where the non-performer causes the *actus reus* of a crime are cases where “one who induces a child below the age of discretion to take money from his father’s till is guilty of larceny, one who deliberately induces another to administer deadly poison to a third person in the belief that it is medicine is guilty of murder, and one who passes a fraudulent document to another knowing that the latter will innocently place it in the mails is guilty of mail fraud.”²²⁰ And still another theorist, Joel Feinberg, explains why it is coherent to speak of causing another’s voluntary actions and concludes that there is “compatibility of voluntariness with causal determination.”²²¹ Starting from Hart and Honoré’s approach to causation, Feinberg ultimately arrives at the principle that “the more expectable human behavior is [in response to an action we call a cause], whether voluntary or not, the less likely it is to ‘negative causal connection.’”²²²

Still another group of commentators, most notably Michael Moore, recognize in an explicit way the basic idea that causation is “scalar.”²²³ That is, they argue that a non-performer’s involvement in causing something to happen varies along a continuous spectrum, and should not be viewed as an on-off switch where a certain degree of involvement renders noncausal participation causal.²²⁴ There are smaller causes that raise the possibility of an act’s occurrence—perhaps, Tally’s intervention, which deprived the victim of “a single chance of life.”²²⁵ There are larger causes—the necessary or but-for causes—without which the performer’s act would not have occurred.²²⁶ And then, at the high end of the scale, there are substantial causal contributions.²²⁷ In this category, Moore places the “innocent instrumentality” cases and the cases of multiple simultaneous participants (e.g., two knife attackers going after a single victim),²²⁸ but he recognizes that the set of “substantial causers” is significantly larger than that. Like Feinberg,²²⁹ Moore thinks that the doctrine of intervening causation (or, in Feinberg’s words, the voluntary intervention principle), obscures the critical role of certain non-performers in bringing about performer’s acts. Moore explains:

²¹⁹ *Id.* at 370-71.

²²⁰ *Id.*

²²¹ Feinberg, *supra* note __, at 186 (concluding that there is a “compatibility of voluntariness with causal determination”).

²²² *Id.* at 166.

²²³ Moore, *supra* note __, at 421.

²²⁴ This view is best represented by Dressler, *supra* note __, though he does not make it particularly clear at which point the switch goes “on” for the performer and non-performer to be exposed to equal liability.

²²⁵ Moore, *supra* note __, at 437-38.

²²⁶ *Id.* at 424-32. Nonetheless, argues Moore, “it is very implausible to identify the causal relation as counterfactual dependence.” *Id.* at 403.

²²⁷ *Id.* at 420-24.

²²⁸ *Id.* at 422.

²²⁹ Feinberg, *supra* note __, at 156-58.

[O]ne who picks the victim of the murder, orders a subordinate to do it, pays him well for it, locates the victim for the hit-man, brings the gun and ammunition, and drives the hit man to the location of the killing, substantially causes the death of the victim. We should thus say plainly that one way to be an accomplice is by causing the harm through the action of another. Substantially aiding another to cause some harm is to substantially cause the harm oneself, whatever the pretensions of the intervening causation fiction.²³⁰

Moore ultimately concludes that accomplice/principal distinctions that some courts have continued to draw between the various kinds of substantial causers do not make sense. Although Moore recognizes that “on average, accomplices are less substantial causers than are the principals they aid,”²³¹ this is not true in many cases,²³² like the example in the block quote above. Referring to the innocent instrumentality cases, Moore is bothered that “under current doctrines the very same defendant will be treated as an accomplice or a principal depending not on anything relevant to the degree of his causal contribution but only to the relative innocence of his co-causer.”²³³ As the title of his article, “Causing, Aiding, and the Superfluity of Accomplice Liability,” suggests, Moore’s radical proposal is to do away with accomplice liability altogether and replace it with the principle that I will take the liberty of calling “to each according to his causal contribution.”²³⁴ Thus, although Moore rejects the causal/noncausal accomplice distinction proposed by Dressler and others, he gets to roughly the same place as these other commentators in terms of punishment. A significant causal contributor to the harm, whether he or she is a performer or a non-performer, must face significant responsibility (e.g., by being treated as a principal). A lesser-causal (or noncausal) participant, in contrast, would face lesser responsibility. A similar proposal to eliminate complicity or derivative liability and hold individuals responsible their own conduct, rather than the conduct of others, has recently been put forward by Douglas Husak.²³⁵

Stepping back from the illustrative proposals to reform criminal law in line with the principles of causal responsibility, it may now be helpful to summarize the aspects of the causation literature that are relevant to the problem of non-performer patent infringement that I am considering. First, the dominant view of the authorities on causation is that it is coherent to speak of causing the acts of others—and not just in “puppeteering” or automaton cases. Voluntary acts, too, can be caused. Second, more than mere but-for causation is required for us to be able to conclude that a voluntary act has been caused. As the commentators explain, the

²³⁰ *Id.* at 422-23.

²³¹ *Id.* at 423.

²³² *Id.* Query whether this is often true in patent cases. *See supra* note 97 and accompanying text.

²³³ *Id.* at 423; *cf.* Kadish, *supra* note __, at 374 (“If a defendant may be fairly held liable when he aids or encourages a *guilty* principal to commit the crime . . . , there is no moral or policy reason why he should not be similarly treated if he causes the prohibited actions of an *unwitting* primary actor.”)

²³⁴ *Id.* at 448-52.

²³⁵ Husak, *supra* note __, at 59-66; *see also* Weiss, *supra* note __, at 1486-90 (proposing a similar approach). [cite Sarch for a different approach?]

causal link must be strong—or, the non-performer must be a substantial causer rather than a mere but-for causer. Although what this means in practice is not always clear, the examples provided and the literature provide some parameters. One, the non-performer must possess the intent to use the performer to carry out the desired act—and perhaps this sort of intent is inherent in the idea of causing voluntary action.²³⁶ Two, in cases other than where the performer has acted under orders or under duress, the non-performer must have some type of informational advantage over the performer. The examples discussed by the commentators are rife with examples of deceit, manipulation, and other scenarios where the unwitting and passive nature of the intermediary party is contrasted with the non-performer’s aim to use the intermediary as the instrument who would perform the act as expected. Three, perhaps most importantly, the non-performer provides a tool (e.g., a fraudulent document) that makes it possible for the performer to carry out an element of a crime or a tort (e.g., the placing of a fraudulent document in the stream of interstate commerce) that the non-performer intends for it to carry out. Finally, the substantial causal contribution carries with it causal responsibility, so that we treat such the substantial causal contributor *as if* he or she performed the act. As a result, in contrast to situations where causation serves as an element of derivative liability²³⁷—that is, an element required to establish joint liability of the non-performer²³⁸—causation here provides a mechanism of attributing *actions of* performers (who may or may not themselves be liable)²³⁹ to non-performers.

C. Examples of causal imputation in the case law

The first subpart of this section addressed in a general way how courts approach direct liability for non-performers in areas outside of patent law. The second subpart explained causal underpinnings of such liability from a theoretical perspective. This subpart returns to case law and provides further examples where courts have explicitly adopted causal approaches in holding non-performers liable. Specifically, focusing on criminal law cases, this subpart illustrates causation-plus imputation mechanisms in action.

Kadish is surely correct that “the doctrine of causation through an innocent agent has been widely applied in a great variety of situations.”²⁴⁰ For example, the Supreme Court of Illinois ruled that “[p]laintiff in error is no less guilty because he used an innocent party to gain the confidence of his victim and thereby carried out his swindling scheme. On the contrary, his crime is all the more culpable.”²⁴¹ The court used Hart and Honoré’s preferred nomenclature of “reason” rather than “cause,” noting that “[t]he record sustains the charge that the money was

²³⁶ See *supra* note 39 and accompanying text. Kadish explains that the Model Penal Code surprisingly departed from this approach. Kadish, *supra* note __, at 397-98.

²³⁷ *Insight Tech., Inc. v. FreightCheck, LLC*, 633 S.E.2d 373, 379 (Ga. Ct. App. 2006)

²³⁸ And as an element of liability, causation includes proximate and but-for causation.

²³⁹ The performer will not be liable if the principle of *substitution* applies, leading to the conclusion that the performer has not acted volitionally or has not caused the harm, *see supra* note 56 and accompanying text, or if it lacks the necessary mens rea. But in some cases, both the performer and non-performer will be liable as “co-causers.” This point is explored further in Subpart V.C.

²⁴⁰ Kadish, *supra* note __, at 372 (citing Model Penal Code comment at 15 n.5 (Tent. Draft No. 1, 1953)).

²⁴¹ *People v. Mutchler* 140 N.E. 820, 822 (Ill. 1923).

secured from the bank by reason of the confidence it had in the representations made by plaintiff in error, through the same were made through an innocent third party.”²⁴² But whatever the language used, it is clear that the Illinois court relied on principles of causal responsibility. Among other authorities, the *Mutchler* court quoted the Supreme Court of West Virginia’s decision in *State v. Bailey*, which explained that “[i]f the party who actually did the act was innocent of intentional wrong, and the act on his part was by procurement of another, it imputes the criminal intent to that other and makes him the guilty party, although he was not in any sense an accomplice, co-conspirator, or aider and abettor of the actor.”²⁴³ *Bailey* in turn quoted from a treatise explaining that the law holds liable one “from whose sole and unaided will comes a criminal transaction . . . whatever physical agencies he employs, and whether he is present or absent when the thing is done.”²⁴⁴ Even if the physical agency is “an animate object like a human being,” the law punishes “him whose will set the force in motion.”²⁴⁵ References to procuring, to the non-performer’s sole and unaided will, to the innocent agency of the performer unmistakably convey the idea of substantial causation. In *Mutchler* and *Bailey*, it was thus the notion of causing the act of another who lacks criminal intent—rather than a theory of derivative or group criminality—that justified the imputation of the performer’s act to the non-performer, resulting in imposition of liability.

Cases that implicitly or explicitly rely on substantial causation of an act of another to impute the *actus reus* of a crime onto a non-performer are, of course, not limited to state court decisions. To be sure, some of the federal examples differ from the state court cases in that they apply laws that explicitly specify “causing” as the *actus reus* sufficient for liability.²⁴⁶ Nonetheless, these cases nicely illustrate the conceptual difference between causation and other mechanisms, such as an agency relationship or some other legal obligation. Thus, in *United States v. Kenofskey*, the defendant, an insurance agent, submitted a false claim to the home office of his company, and his supervisor signed the documents “without knowledge of their fraudulent character” and put them in the mail in due course.²⁴⁷ The district court sustained the demurrer to the indictment charging Kenofskey with a scheme to defraud by means of interstate mail,²⁴⁸ reasoning that

The depositing of the letter in the mail for the purpose of executing the scheme is the crime. The defendant did not mail the letter, and the local superintendent of the insurance company was not his agent. . . . [The defendant] is sought to be held on the theory that, as he knew the claim would be mailed to the home office, in

²⁴² *Id.*

²⁴³ *Id.* at 823 (citing 60 S.E. 785, 787 (W.Va. 1908)).

²⁴⁴ 60 S.E. at 787 (quoting Bish. New Crim. Law, § 649).

²⁴⁵ *Id.*

²⁴⁶ 18 U.S.C. § 2 explicitly incorporates “causing” theories into every federal criminal statute since 1948.

²⁴⁷ 243 U.S. 440, 441 (1917).

²⁴⁸ 235 F. 1019 (E.D. La. 1916). The mail fraud statute the court applied is now codified at 18 U.S.C. § 1341.

the usual course of the business, for approval before payment, he knowingly caused it to be deposited. This theory is too far-fetched to be tenable.²⁴⁹

In a brief opinion, the Supreme Court unanimously reversed, rejecting the district court's position that some type of an agency relationship with the performer is required to hold the non-performer liable on a causation theory. Relying on the statutory language,²⁵⁰ the Court first noted that "[c]ause is a word of very broad import and its meaning is generally known."²⁵¹ Implying that "cause" in the mail fraud statute must mean something more than but-for cause, the Court explained that the word "is used in the section in its well-known sense of bringing about, and in such sense it is applicable to the conduct of Kenofskey."²⁵² Notably, the Court was comfortable with the use of cause-and-effect language even though the mailing was made by another human being. It stated that Kenofskey "deliberately calculated the effect of giving the false proofs to his superior officer; and the effect followed, demonstrating the efficacy of his selection of means."²⁵³ And that superior officer was "the means by which [Kenofskey] offended against the provisions of the statute."²⁵⁴ The reference to a deliberate calculation that elicited the act of another fits comfortably with the causation-plus theories discussed by Robinson, Kadish, Weiss, and other commentators. To be sure, as Lanham suggests, Kenofskey probably represents a relatively "wide" view of cause.²⁵⁵ But Lanham still concludes that the Court's causation conclusion is justified because the defendant "clearly went much further than assisting [the superior officer]"²⁵⁶ in getting him to deposit the fraudulent claim in the mail. Although Lanham's ultimate characterization of *Kenofskey* as a "trickery" case is debatable,²⁵⁷ it is difficult to argue that, however one gets there, the defendant substantially caused the placement of the fraudulent document in the mail and was properly held liable for the offense.

A subsequent Supreme Court case, *United States v. Giles*, reinforces these points and includes other interesting revelations, which make it quite instructive and worth lingering over.²⁵⁸ Notably, the statute at issue in *Giles* did not include the word "cause" and merely held liable anyone "who makes any false entry in any book, report, or statement of the association, with intent . . . to injure or defraud the association or any other."²⁵⁹ Of further interest is that the same statutory section also included a provision for the liability of "every person who with like

²⁴⁹ 243 U.S. at 441 (quoting 235 F. at 1020).

²⁵⁰ "Whoever, having devised . . . any scheme or artifice to defraud . . . shall, for the purpose of executing such scheme or artifice or attempting so to do, place, or cause to be placed, any letter, . . . package, writing, . . . in any postoffice, . . . to be sent or delivered by the postoffice establishment of the United States, . . . ' shall be punished, etc." *Id.* at 442 (alterations in original) (quoting the 1913 version of the federal criminal fraud statute).

²⁵¹ *Id.* at 443.

²⁵² *Id.*

²⁵³ *Id.*

²⁵⁴ *Id.*

²⁵⁵ Lanham, *supra* note ___, at 508.

²⁵⁶ *Id.* at 511. Of course, I agree with Lanham and other commentators that mere assistance should not be enough for causal imputation, and case bears this point out.

²⁵⁷ *Id.*

²⁵⁸ 300 U.S. 41 (1937).

²⁵⁹ Rev. Stat. § 5209 (1918).

intent aids or abets any officer, clerk, or agent in any violation of this section”²⁶⁰—but, as we will see, that theory was not possible. Instead, the accused bank teller in *Giles* was charged with “mak[ing] and caus[ing] to be made” a false entry in a book.²⁶¹ The prosecution’s theory was that the teller did so by “withholding selected deposit slips for three or four days before permitting them to reach the bookkeeping department,” so that the ledger “show[ed] false balances” as a result.²⁶² Unaware of the scheme, the bookkeepers could not be liable as principals, eliminating the aiding and abetting theory. Nonetheless, *Giles* was convicted of making false entries as a principal.

The Fifth Circuit, over a dissent, threw out the conviction. *Giles* “concede[d] that the offense of making a false entry may be committed through an innocent agent,”²⁶³ but nonetheless argued—and the majority agreed—“that such agency results only if the person charged has in an affirmative way authorized and directed the making of the entry.”²⁶⁴ The court noted that the statute at issue did not include the word “cause,” which in its view made the “causing” allegation “material and injurious” because “[a] charge that one has caused a false entry to be made is very much broader than the charge that he made it.”²⁶⁵ Finally, the court observed that “the record conclusively shows that defendant neither made the false entries nor did anything that could be considered as a direction to the bookkeeper to make them”²⁶⁶ and reversed with instructions to acquit.

The dissent took on both the majority’s statutory interpretation that focused on absence of the word “cause” in the statute and its ultimate conclusion that *Giles* did not “make” a false entry. The dissenting judge explained that the ““caused to be made” language that the prosecutor used to charge *Giles* “is broader than the statute if allowed to include cases of accident, neglect, or other unintended causations, but if limited to intentional causation it does not exceed the statute”—making clear that, in his view, causal imputation is, as it were, implicit in any statute.²⁶⁷ Acknowledging that criminal statutes are to be construed narrowly, the dissenting judge nonetheless concluded that “strict construction of a criminal law ought not to be pressed so far” as to excuse *Giles* from liability.²⁶⁸ He explained that “[o]ne may do a criminal deed directly with his own hands,” “contrive indirect mechanical means, as a trap or a spring gun,” make use of “[t]he acts of an animal or an irresponsible human such as a child or a lunatic” and, finally of “an innocent human who does not know a crime is going forward.”²⁶⁹ Presaging the intuitions of scholars in support of imputation of a performer’s acts to a non-performer through

²⁶⁰ *Id.*

²⁶¹ 300 U.S. at 46 (quoting *Giles v. United States*, 84 F.2d 943, 944 (5th Cir. 1936)); *see also* 300 U.S. at 45 n.2.

²⁶² 300 U.S. at 44.

²⁶³ 84 F.2d at 945.

²⁶⁴ *Id.*

²⁶⁵ *Id.* at 946.

²⁶⁶ *Id.*

²⁶⁷ *Id.* (Sibley, J., dissenting).

²⁶⁸ *Id.* at 947.

²⁶⁹ *Id.* at 946-47. To be sure, the bookkeepers had a duty to make entries based on the deposit slips, but under a causation theory, that fact means that their behavior is expected (and therefore did not break the causal chain). *Id.* at 947.

substantial causation, the dissent maintained that “[o]ne who by his act diverts the natural course of events, or starts a new train of them, in a manner likely and with a design to produce a criminal deed and succeeds, commits that deed”²⁷⁰ and concluded that the standard was met in this case because “false entries are deliberately produced, although through an ignorantly innocent agent” by “the bank employee who concocts the plan and achieves the result.”²⁷¹ Waxing poetic, the dissenting judge concluded that “[t]his teller intentionally poisoned the well of information from which he knew the bookkeeper would drink” and should thus “be held answerable as for his own act for the tragedy to truth which resulted exactly according to his purpose.”²⁷²

The Supreme Court granted the government’s petition for writ of certiorari, unanimously reversed the Fifth Circuit, and reinstated the conviction in a short opinion. The Court reasoned that “[t]o hold the statute broad enough to include deliberate action from which a false entry by an innocent intermediary necessarily follows gives to the words employed their fair meaning and is in accord with the evident intent of Congress” and that “[t]o hold that it applies only when the accused personally writes the false entry or affirmatively directs another so to do would emasculate the statute.”²⁷³ To be sure, the Court alluded to the fact that it was a part of the bookkeepers’ routine duties to make entries based on the slips provided to them by the tellers.²⁷⁴ But it couched the ultimate holding in the language of substantial causation, concluding that “false entries on the ledger were the intended and necessary result of respondent’s deliberate action in withholding the deposit tickets.”²⁷⁵ Discussing one of the effects of *Giles*, Lanham explains that, according to a revisor’s note, Congress included the causation provision in the federal aiding and abetting statute in 1948 in order to make it unnecessary to include language such as “causes or procures” in many criminal statutes.²⁷⁶ He explains that the note thus “removes all doubt that one who causes the commission of an indispensable element of the offence by an innocent agent or instrumentality is guilty as a principal.”²⁷⁷ Although Lanham contends that the causing provision arguably created new liability,²⁷⁸ he notes that “there is a tendency in later decisions to treat section 18(2)(b) as a declaration of the old position rather than an enactment of a new head of liability.”²⁷⁹

Finally, lest the reader believe that causation cases are limited to those where acts of employees affect the acts of other employees within the same company, court of appeals cases

²⁷⁰ *Id.*

²⁷¹ *Id.*

²⁷² *Id.*

²⁷³ 300 U.S. at 48-49.

²⁷⁴ *See id.* at 49.

²⁷⁵ *Id.*

²⁷⁶ Lanham, *supra* note __, at 502.

²⁷⁷ *Id.*; *see also* Andrew White, Case Note, *The Scope of Accomplice Liability under Section 18 USC section 2 (b)*, 31 CASE W. RES. L. REV. 386, 393 n.63 (1980) (quoting H.R. Rep. No. 304, 80th Cong., 1st Sess. A5).

²⁷⁸ *Id.*; *see also* Kadish, *supra* note __, at 382-83 (discussing the effect of “action-causing” theories of liability); SMITH, *supra* note __, at 124-27 (similar).

²⁷⁹ Lanham, *supra* note __, at 502.

make clear that the causation rationale extends beyond such cases. For example, the Eighth Circuit in *Nigro v. United States*, though not citing either *Kenofskey* or *Giles*, affirmed a conviction of a physician for illegally selling narcotics to an addict in violation of the Harrison Anti-Narcotic Act.²⁸⁰ Nigro argued that, because he only issued prescriptions and it was the pharmacists who made the “sales” constituting the *actus reus* of the offense, he could only be liable, if at all, for aiding and abetting the sales by pharmacists.²⁸¹ But there was “no proof that at the time the sales alleged in the indictment were made the druggists had guilty knowledge of the fictitious character of the prescriptions,” and so their sales were not criminal.²⁸² Thus, Nigro argued, “there was no crime . . . to aid and abet” and the conviction should be thrown out.²⁸³ The Eighth Circuit disagreed, concluding that Nigro “participated in the prohibited sale by issuing the fictitious prescriptions” even though there was no evidence of cooperation or collusion between him and the pharmacists and even though the pharmacists were innocent.²⁸⁴ The court found the opposite result unsatisfying: “If the physician’s guilt is made to depend upon collusion between him and the druggists or upon the druggist’s knowledge of the illegal character of the prescription, the crime of the physician depends entirely upon the whim of the addict.”²⁸⁵ According to Lanham, this result can be best justified on the principle of causation elucidated in *Giles*.²⁸⁶ That is, the doctor “is regarded as the true principal by virtue of having caused the *actus reus*.”²⁸⁷ After the adoption of the explicit causation provision in 1948 under 18 U.S.C. § 2(b), numerous such cases followed.²⁸⁸

To be sure, and as previously suggested, causation of the sort contemplated in Section 2(b) cannot be but-for causation. As Lanham explains, some post-1948 cases erroneously abandoned the requirement that the non-performer have intent that the specific act at issue be performed, and appeared to slip to the knowledge standard.²⁸⁹ Lanham rejects these approaches and argues that courts should maintain stringent intent and act requirements so as not to unduly expand the scope of causation as a head of liability for acts of another.²⁹⁰ At the same time, Lanham believes that the mens rea requirement for substantial causation should probably not extend to the issue of legality the performer’s act, and illustrates why with the following example:

²⁸⁰ 117 F.2d 624 (8th Cir. 1941).

²⁸¹ *Id.* at 630.

²⁸² *Id.*

²⁸³ *Id.*

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 631.

²⁸⁶ Lanham, *supra* note __, at 502.

²⁸⁷ *Id.* at 501

²⁸⁸ *Id.* at 502-06.

²⁸⁹ Lanham, *supra* note __, at 509. *But cf.* SMITH, *supra* note __, at 126 (arguing that “nothing inherent in innocent agency doctrine requires its limitation to intended or purposive use or manipulation of an agent, although the strong tendency in offences of recklessness and negligence has been to invoke general causal notions rather than innocent agency”).

²⁹⁰ Lanham, *supra* note __, at 510-12.

Suppose for example that A forces B at gunpoint to sell a copy of a newspaper to C, B's sworn enemy. It could hardly be denied that A caused the publication of the newspaper. If the publication of such a newspaper is an offence of strict liability, A would still be able to plead lack of *mens rea* if [the state must prove that the defendant] . . . contemplates or desires that the law will be broken.²⁹¹

Lanham views this result (A's ability to plead lack of *mens rea* here) as somewhat counterintuitive. Instead, he approvingly cites a scenario based on an Australian case where A, an owner of a trailer, instructed B to drive the trailer without insurance—a strict liability offense.²⁹² Assuming the court correctly concluded that A was the causer (i.e., on the principles of substantial causation discussed in this Part), Lanham argues that A was properly convicted even though he did not know that the trailer was uninsured. Lanham calls this result “a perfectly tenable application of the strict liability principle.”²⁹³ To be sure, and as always the case in criminal law, there must be “strong justification” for imposing strict liability.²⁹⁴ But once this justification is present, there is “no reason why strict liability should not be imposed on the real causer of the harm.”²⁹⁵ And this is all the more so where “statutory direction to do or not to do certain things is aimed more directly at the ‘accessory’ in control of the activity than at the ‘principal’ whose hand does the forbidden act.”²⁹⁶

²⁹¹ *Id.* at 512.

²⁹² *Id.* (citing *Lenzi v. Miller*, [1965] S.A.S.R. 1).

²⁹³ *Id.* There are other authorities in support of this principle. *See, e.g.*, *Johnson v. Youden* [1950] K.B. 544 (“Before a person can be convicted of aiding and abetting the commission of an offence he must at least know the essential matters which constitute that offence. . . . He need not actually know that an offence has been committed, because he may not know that the facts constitute an offence and ignorance of the law is not a defence. *If a person knows all the facts and is assisting another person to do certain things, and it turns out that the doing of those things constitutes an offence, the person who is assisting is guilty of aiding and abetting that offence.*”) (emphasis added); *Giorgianni* (1985) 156 C.L.R. 473 (approving the causation analysis in *Lenzi*). But *cf.* *State v. Bowman*, 656 S.E.2d 638, 650 (N.C. App. 2008) (in a charge for aiding and abetting statutory rape, a strict liability crime, the state must prove that the defendant “acted with knowledge that the girls were under the age of sixteen”). These cases can probably be reconciled based on the defendant’s actus reus, which in *Bowman* consisted merely driving the victim to the house of the primary perpetrator. *Id.* at 642 [Compare with actus reus in *Johnson-Lenzi-Giorgianni*]. *See supra* note 105 (discussing the principle that mistake of fact or law is no excuse in trespass cases and others); *see also CANE, supra* note __, at 32 n.6 (“[A] person can be secondarily liable for tortious conduct only if they knew of the facts which made the conduct tortious (although, *of course*, they need not have appreciated that it was tortious.”) (emphasis added); Audrey Rogers, *Accomplice Liability for Unintentional Crimes: Remaining Within the Constraints of Intent*, 31 LOY. L.A. L. REV. 1351, 1385 (1998) (“Allowing accomplice liability for unintentional crimes does not, however, involve an extension of accomplice doctrine, but merely merits a refocusing of its intent requirements away from the results produced by the principal and toward the conduct producing the result.”).

²⁹⁴ Lanham, *supra* note __, at 515.

²⁹⁵ *Id.*

²⁹⁶ *Id.* To be sure, this formulation by Lanham seems to require that the performer’s act is also forbidden. But Lanham’s article and others provide numerous examples, already discussed in this article (i.e., an innocent person’s delivery of a poison), where the performer’s act is not criminal, but the act is still imputed to the non-performer on causation-type principles. Cf. *Kadish, supra* note __, at 374 (“If a defendant may be fairly held liable when he aids or encourages a *guilty* principal to commit the crime . . . , there is no moral or policy reason why he should not be similarly treated if he causes the prohibited actions of an *unwitting* primary actor.”).

At a high level, what is the purpose of causation theories? One explanation that was hinted at earlier,²⁹⁷ surely, is to avoid non-intuitive or even upsetting results that eventuate when non-performer liability is treated exclusively as derivative. An interesting and much-discussed English example is *Thornton v. Mitchell*.²⁹⁸ In that case, a bus conductor indicated to the bus driver it was safe to back up. The bus driver did so, running down and killing a person in the process.²⁹⁹ The driver was acquitted because he was following the conductor's instructions and was therefore not negligent. The conductor was also acquitted because there was no underlying crime to aid and abet—an unsatisfying result that could have been avoided based on causation principles.³⁰⁰ Fortunately, an English court adopted a contrary approach in *Regina v. Cogan & Leak*, in which the defendant forced his wife to have sex with another man who mistakenly believed the woman was consenting.³⁰¹ On similar facts, the Supreme Court of North Carolina reached the same result, though over a dissent.³⁰² Lanham's view is that "the cases are right on the ground that A has caused the *actus reus* of the crime"—a position that finds support in Hart and Honoré.³⁰³ Lanham summarizes his analysis of these cases as follows: "when in reality the so-called accessory is so central a figure that he can be held to have caused the prohibited act or event, he should no longer be treated as an accessory with liability dependent on that of the immediate actor but as the principal offender in his own right."³⁰⁴

IV. Applications to Patent Law

What can patent law learn from causation theory and from cases in other areas of law that apply causation principles to hold non-performers liable? Quite a bit, I believe. Some thorny problems and unintuitive results become tractable under the substantial causation (i.e., causation-plus) approach. As I argued in earlier work, there is a pervasive sense in many patent cases, particularly those where patentees attempt to hold manufacturers liable for the acts of their customers, that the manufacturer "who provides the enabling technology is the real tortfeasor,

²⁹⁷ See *supra* notes _- and accompanying text.

²⁹⁸ [1940] 1 All ER 339.

²⁹⁹ *Id.*

³⁰⁰ *Id.* A classic example of element splitting if there was one! Alldrdige, however, appears to defend the result in *Thornton* based on the principle of legality. Alldridge, *The Doctrine of Innocent Agency*, *supra* note _, at 55-56, 73-74. [Check this to make sure.]

³⁰¹ R. v. Cogan, 1976 Q.B. 217 (C.A.). Even Alldridge appears to approve of this result. Alldridge, *The Doctrine of Innocent Agency*, *supra* note _, at 69 ("No element of fiction is required [to convict] because the claim is not being made that Fagin or Leak actually performed the prohibited acts but, rather, that they *caused* them.") (emphasis added). For a discussion of Fagin from *Oliver Twist*, see *supra* notes 137-140 and accompanying text.

³⁰² *State v. Dowell*, 11 S.E. 525, 525 (N.C. 1890) (holding that the law in some cases "couples the act of the instrument with the felonious intent of the instigator"); *see also* *People v. Hernandez*, 18 Cal. App. 3d 651, 656 (1971) (convicting a woman who forced a man to rape another woman on an "innocent conduit" theory) (discussed in Kadish, *supra* note _, at 375).

³⁰³ HART & HONORÉ, *supra* note _, at 379, 381 (citing R. v. Bourne (1952) 36 CAR 125 and approving the action-causing theory at least in some circumstances).

³⁰⁴ Lanham, *supra* note _, at 515; *see also* *supra* note 296 and accompanying text (discussing the "prohibited act" language).

while the primary actor is something of a passive instrumentality.”³⁰⁵ I also noted that “the facts of many induced patent infringement cases reveal a tight causal link between the acts of the inducer and harm to the plaintiff”³⁰⁶ and explained that, in certain cases, the performance of elements of patent claims by customers who “perfectly reasonable and expected”³⁰⁷—while the primary actors are often “clueless and blameless.”³⁰⁸ Although this article appears to be the first to propose applying theories of imputation under innocent-agency and action-causing theories, I would note that the fact that a doctrine has been “on the shelf” for a long time should not be a deterrent to using it. Indeed, the chair of the Securities and Exchange Commission proposed reviving the innocent instrumentality doctrine in the white-collar crime arena,³⁰⁹ where it has long been ignored, and it has been recently argued in the international criminal law field that various “perpetration by means” theories of liability are consistent with the principle of legality.³¹⁰ Making use of causation theories and the teachings from other areas of law, this Part develops these ideas further and expands the intuitions in my previous paper beyond “inducement of infringement” scenarios and to non-performer actions more generally.

A. Indirect infringement cases

As I discussed above, proof of patent infringement by inducement presents high mens rea hurdles.³¹¹ Particularly significant is the requirement that not only did the defendant specifically intend for the performer to carry out acts that happen to be infringing, but also that it know of the patent. In addition, the defendant can negate the showing of mens rea by introducing evidence that it believed that the patent is not infringed—even if the court ultimately concludes otherwise. This “heightened form” of “bad purpose” approach appears to correspond to what Baruch Weiss considers to be “the most rigorous mental state imposed by the criminal law,”³¹² and, according to Weiss, it is likely aberrant³¹³—in part, no doubt, because it completely disregards the maxim that ignorance of the law is no excuse.³¹⁴ Perhaps, this level of mens rea is sometimes justifiable, especially when the defendant provides some general product or service used by the performer,

³⁰⁵ Karshtedt, *supra* note __, at 918.

³⁰⁶ *Id.* at 928.

³⁰⁷ *Id.* at 967.

³⁰⁸ *Id.* at 968.

³⁰⁹ http://dealbook.nytimes.com/2014/05/27/s-e-c-vows-more-use-of-a-little-used-tool/?_r=0. The securities arena is particularly rife with attempts to recharacterize indirect liability as direct, for the Supreme Court eliminated aiding and abetting liability for section 10(b) violations. *See* Patricia Blanchini, Note, *The Statement Someone Else Makes May Be Your Own: Primary Liability Under Section 10(b) After Central Bank*, 71 ST. JOHN’S L. REV. 767 (1997); Jill E. Fisch, *The Scope of Private Securities Litigation: In Search of Liability Standards for Secondary Defendants*, 99 COLUM. L. REV. 1293 (1999).

³¹⁰ <http://arno.uvt.nl/show.cgi?fid=132813>.

³¹¹ *See supra* notes __ and accompanying text.

³¹² Weiss, *supra* note __ at 1454-55 (discussing a case where a court, relying on “willfully” in 18 U.S.C. § 2(b), concluded that it was not “adequate to simply charge the jury that to find intent it could consider whether defendant knew that he was doing ‘something unlawful’ or that he was doing ‘something wrong’” in some general way; instead, “the defendant also had to be aware of the precise reporting requirements at issue, and must have specifically sought to frustrate them”) (citing *United States v. Curran*, 20 F.3d 560, 567-70 (3d Cir. 1994)). According to Weiss, much more common version of the “bad purpose” approach is one that simply reflects some generalized awareness of wrongdoing. *Id.* at 1393-96.

³¹³ *Id.*

³¹⁴ *See supra* notes 105 & 293 and accompanying text.

or assists the performer in some small way. And indeed, Weiss agrees that certain the bad purpose requirements are sometimes helpful for protecting a marginal participant in a wrongdoing.³¹⁵ But the heightened bad-purpose requirement applies to *all* non-performer cases in patent law, without regard to the extent of the non-performer's participation.³¹⁶ The causation framework, in contrast, is intended to usher in a significantly more flexible approach.

Although this extreme form of the “mens rea of illegality” rule is now firmly entrenched in patent law, causation principles might relieve the plaintiff from having to meet it in certain scenarios. Some non-performer cases, in which defendants are now only charged with indirect infringement, can be recharacterized as direct infringement cases under substantial causation principles elucidated in criminal and tort law cases discussed in the previous Part. What would be some features of such cases? Recall that general characteristics of substantial causation cases include a non-performer provision of a critical tool that enables another entity's performance specific acts, intent that those acts be carried out (or at least substantial certainty that those acts would occur³¹⁷), encouragement to carry out the act, and some form of information asymmetry between the non-performer and non-performer that makes the non-performer “the central figure.” In addition, to borrow from Hart and Honoré, the non-performer in some way provides the performer with reasons for acting. And finally, the performer's role is in some way passive in that the performer carries out acts as expected by the non-performer.³¹⁸

Consider, under this framework, the facts in the *Lucent* case.³¹⁹ The manufacturer in that case produces the technology—the Outlook software. It provides both the tool that is specially adapted to perform certain steps and provides instructions that help ensure that the tool is used to carry out these steps—which turn out to be covered by a patent. The performance of these specific steps is both expected and intended. The customers, often individual users, more likely than not know nothing about the underlying technology—introducing information asymmetry in the scenario—and the manufacturer undoubtedly gives them a reason for acting. Having bought the software, it is natural that the end user would carry out the steps as instructed. The manufacturer's involvement exhibits the required intent and the heightened *actus reus*. In fact,

³¹⁵ *Id.* at 1481-83.

³¹⁶ As I explain in the next Subpart, a different rule applies to the special case of divided infringement.

³¹⁷ On the substantial certainty requirement for as a route to proving the intent element of an intentional tort and its role in secondary liability in copyright law, see Yen, *supra* note _; see also McKenna, *supra* note _ (discussing similar issues in trademark). For a leading tort case on this issue, see *Garratt v. Dailey*, 279 P.2d 1091 (Wash. 1955).

³¹⁸ See *supra* notes _ and accompanying text. Cf. Mark Bartholomew & Patrick F. McArdle, *Causing Infringement*, 64 VAND. L. REV. 675, 713 (2011) (discussing a copyright case where “the court relied on ‘an additional step in the causal chain’ to find for the defendant credit card company, explaining that there was no causation because, even though the credit card company made infringing websites profitable, there still had to be a decision by the websites and their users to engage in the infringing conduct in the first place” and other cases “emphasiz[ing] that a sufficient degree of separation between the defendant and the direct infringer immunizes the defendant from causal responsibility”) (quoting *Perfect 10, Inc. v. Visa Int'l Serv. Ass'n*, 494 F.3d 788, 796-97 (9th Cir. 2007), and citing *Baden Sports, Inc. v. Kabushiki Kaisha Molten*, No. C06-210MJP, 2007 WL 2058673, at *8 (W.D. Wash. July 16, 2007) and *Demetriades v. Kaufmann*, 690 F. Supp. 289, 294 (S.D.N.Y. 1988)).

³¹⁹ See *supra* notes 118-123 and accompanying text. See *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009).

the *actus reus* here is a “double” *actus reus*—the manufacturer provides a nonstaple article that is adapted to infringe *and* takes affirmative steps through marketing and instructions that help ensure that the specific steps are carried out.³²⁰ And the manufacturer certainly gives the customer reasons to perform the acts—they have paid for the software and are just seeking to use it as the manufacturer tells them to. In addition, the customers do not get to modify the product in any way, and do not incorporate it into some larger products like commercial developers might³²¹—they are just regular computer users. Under the analysis in the previous Part, it is not difficult to conclude that the manufacturer has caused the acts of the user and should be liable directly and not derivatively, thereby bypassing the knowledge of the patent requirements of Section 271(b) mandated by the Supreme Court. At the very least, direct liability on these facts could be a jury question. And, as I discuss in the next Part, if the direct liability label on these facts is objectionable, the conduct at issue could be labeled a form of “inducement” that requires a lower mens rea than some other forms of inducement—reminiscent of Mark Lemley’s mens rea/*actus reus* sliding scale.³²²

Another example of the double *actus reus* might include pharmaceutical method of use cases. In a typical scenario, the accused infringer provides a drug with instructions how to doctors on how to use the drug to perform some treatment.³²³ The doctor’s acts of administering the drug as a treatment to a patient constitute acts covered by a patent claim, and drug manufacturer is sued on an indirect liability theory. I submit that on these facts one could conclude, as in *Lucent*, that the manufacturer has caused the doctor’s acts and those acts should thus be imputed to the non-performing manufacturer. Although the manufacturer is not ordering the doctor to do anything, it intends for the method of treatment claims to be carried out and helps ensure, by proving the drug and the label, that the doctor perform the acts exactly as intended. Also, assuming the doctor simply performs the treatment as instructed on the label, the information asymmetry requirement is satisfied. Of course, had the facts been different—for example, had the manufacturer merely sold the drug without providing any instructions, or had the drug been usable in another treatment method—the result would be different. A mere provision of an instrumentality to another, without the instructions, is not enough to rise to the

³²⁰ *Id.* at 1320-25.

³²¹ See Love & Yoon, *supra* note __, at 1618 (discussing the importance of this fact in the context of the authors’ proposal for reviving the customer suit exception).

³²² Indeed, I suggest another approach *infra*. That is, Section 271(b) can be viewed as polymorphic, i.e., allowing for a sliding-scale mens rea approach depending on the level of *actus reus*, as described in Mark Lemley’s article. See Lemley, *supra* note __, at 244 (Table 1). Also, it may be worth noting labels “direct” and “indirect” and the fact that they are not used in tort law. See last paragraph of Subpart III.A. [Also, personal communication with Professor Robert Rabin.] For a discussion of the concept of policy polymorphism in statutes, see Jonathan Siegel, *The Polymorphic Principle and the Judicial Role in Statutory Interpretation*, 84 TEX. L. REV. 339 (2005). See also Mike Dorf, DORF ON LAW, *Constitutional Polymorphism*, <http://www.dorfonlaw.org/2010/07/constitutional-polymorphism.html> (mentioning Siegel’s article and arguing that “polymorphism”—the practice of giving a single word or phrase in a single statute different meanings in different contexts—is both well established and normatively appropriate (in certain circumstances)).

³²³ See, e.g., *AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042 (Fed. Cir. 2010); see also *Forest Labs., Inc. v. Ivax Pharm., Inc.*, 501 F.3d 1263, 1272 (Fed. Cir. 2007). But see *Warner Lambert Co. v. Apotex Corp.*, 316 F.3d 1348 (2003) (providing an example where a drug has multiple uses). Moreover, drugs often have significant “off-label” noninfringing uses in some cases. [Elaborate and cite Commil briefs; Takeda case]

level of causation. This because without the label (to be sure, an atypical situation), the doctor himself or herself would need to take steps to figure out what the drug is good for, removing the element of passivity that characterizes causation scenarios. Likewise, the existence of a noninfringing use would also have the effect of defeating the causation theory. This is because the doctor now has a choice as to what do to with the drug—and the choice entails more than merely letting the drug sit on the shelf.

This approach also ensures that the causation theories do not swallow all non-performer liability in patent law. There are numerous patent infringement cases in which a defendant was charged with inducement under Section 271(b) where the accused device has substantial noninfringing uses.³²⁴ And there are likewise numerous Section 271(c) cases where the accused infringer does nothing more than selling.³²⁵ These cases will not be affected by the proposed approach. Nor, incidentally, will non-performer theories of liability in copyright and trademark law be affected by this approach. As Felix Wu has astutely observed, accused instrumentalities in copyright law (and in trademark law, I would add) have substantial noninfringing uses basically by hypothesis.³²⁶ Copyright law exists to protect content, not technology, and devices that might enable copyright infringement are agnostic as to whether the content they help find, copy, display, or download is copyrighted or not. Same with trademark law—it makes no difference to the eBay platform whether the item it helps sell is counterfeit or not. Not so in patent law, which protects the underlying technology, and the manufacturer that makes the technology has the choice of whether to design its product in a way that is infringing or noninfringing. In contrast to copyright and trademark law, the manufacturer in “double actus reus” cases is not dependent on the whim of the customer. And when the manufacturer makes a tool that only has an infringing use tells the customer how to use that tool in an infringing manner, that ought to be enough for liability on causation principles. The fact that the performer might in theory be liable because direct infringement is not an obstacle. As argued by Glanville Williams, “[i]f a person can act through a completely innocent agent, there is no reason why he should not act through a semi-innocent agent. It is wholly unreasonable that the partial guilt of the agent should operate as a defence to the instigator.”³²⁷

B. Divided infringement cases

The causation approach provides a solution to the problem of divided infringement that is quite similar to the approach to other non-performer cases. As before, the test for attribution is whether one party has caused the act of another. As in Subpart A, we can ask whether the device, when used as intended, is only capable of performing the infringing steps, or whether it has substantial noninfringing uses. And we can also ask whether the manufacturer intends for the user to perform the steps of the patent claim and encourages the user to do so. Under this

³²⁴ See, e.g., *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261 (Fed. Cir. 1986).

³²⁵ See, e.g., *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 187-89 (1980).

³²⁶ Felix Wu’s Conference presentation of *Secondary Trademark Remedies*.

³²⁷ Kadish, *supra* note __, at 387 (quoting GLANVILLE WILLIAMS, TEXTBOOK ON CRIMINAL LAW 374 (2d ed. 1983)).

approach, one can conclude that the owner of the server in *Move, Inc. v. Real Estate Alliance, Ltd.*, the real estate search website case discussed above, causes the customer to select the geographic area within a the map in the case.³²⁸ This is what the website is designed to do, and the “click here” instruction encouraged the customer to perform the step that is a part of the claim (while the server performs the rest).³²⁹ The customer’s role is passive—the customer does what the website tells it to do. The clicking step is attributed to the server’s owner on causation principles, which means that the website owner has performed all the steps either by itself or through causation. The server’s owner is thus liable as a direct infringer, though I suppose the 271(b) label is also possible because “inducement,” however one is to define it, is another way to commit direct infringement.³³⁰

Of course, facts in divided infringement cases vary widely and, in some, there will be an insufficient causal link to attribute the conduct of the user to the manufacturer. Interesting scenarios are presented by the method of treatment patents involving a laboratory-developed diagnostic tests. As explained by Chris Holman, a typical set of facts in lawsuit for infringement of such patents might include the following: “a physician might order a diagnostic test, but an independent laboratory performs that test and provides the physician with the results, and he or she uses the information to inform treatment decisions.”³³¹ Holman contends that, under current law, “[i]n the absence of an agency relationship between the physician and laboratory, which often will not exist in practice, it will be difficult to hold any party liable for infringement under the current interpretation of divided infringement law.”³³² It might be argued that, under causation theories, the laboratory test step might be imputed to the physician, who would then be deemed to perform all of the steps of the patent claim.³³³

Nonetheless, the situation in this sort of a case is complicated by the fact that, formally speaking, there is no item or component that lacks a substantial noninfringing use. The sample a doctor provides to a testing laboratory is just a sample containing biological material that can be, in theory, tested for a number of biomarkers. In addition, the role of the laboratory can be far from passive. As described in one brief, “the typical personalized medicine paradigm is as follows: A diagnostic testing laboratory markets a test to a physician, encouraging the doctor to order the test (the step(s) of measuring biomarkers).”³³⁴ On these facts, which exhibit the absence

³²⁸ 709 F.3d 1117 (Fed. Cir. 2013).

³²⁹ See *supra* notes 124-130 and accompanying text.

³³⁰ Hewlett-Packard Co. v. Bauch & Lomb, Inc., 909 F.2d 1464, 1469 (Fed. Cir. 1990).

³³¹ Holman, *supra* note 26, at 137; see also Erik P. Harmon, Note, *Promoting the Progress of Personalized Medicine: Redefining Infringement Liability for Divided Performance of Patented Methods*, 42 HOFSTRA L. REV. 967 (2014).

³³² *Id.*

³³³ Causation theories have been discussed in divided infringement cases, but without much detail or discussion of what it means to cause the act of another. See, e.g., Brief of Amici Curiae Myriad Genetics, Inc. and Genomic Health, Inc. in Support of Respondent, 2014 WL 1478062, at * 20, Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111 (2014) (No. 12-786) (“Whenever a first party performing one or more steps of a method claim knowingly causes one or more other parties to perform the rest of the steps of the same method claim . . . , equity requires that the first party . . . be found liable for patent infringement.”). [See also Akamai letter brief on remand.]

³³⁴ *Id.* at *16.

of a “double” actus reus³³⁵ (because the article is incapable of substantial noninfringing uses) and active participation of both parties, causal imputation cannot lie. Indeed, passivity of the party that has been purportedly caused to act is a crucial requirement for causation, and it cannot be satisfied when one of the parties—be it a customer or a testing lab—initiates the performance of the steps covered by the patent and the manufacturer or doctor also takes an active role. Perhaps, accused infringers in cases like this can be pursued on joint tortfeasor or joint venture theories,³³⁶ but causation is not an appropriate route to liability here. In contrast, where the tester is performing ministerial acts ordered by the physician, perhaps the physician may even be liable under the current, restrictive test that requires a contractual or agency relationship for attribution.³³⁷ And causation theories should be possible if the plaintiff can show that the only reason that the sample was created was to run a patented test (rather than to run a battery of multiple tests, which might satisfy the double actus reus requirement.

C. Direct infringement cases

The causation approach might also have something to say about the liability of certain kinds of direct infringers. The basic intuition here is that entities should not be responsible for harms that they do not cause.³³⁸ Thus, if we were to conclude that the causal role of some performers in patent infringement cases is exceedingly small, then perhaps they should not be responsible for the infringements. The thinking behind this approach is quite similar to that set forth in a recent article authored by Saurabh Vishnubhakat.³³⁹ Vishnubhakat’s argument is that when parties do not intend to perform acts that constitute patent infringement, they are not liable under 271(a).³⁴⁰ For example, he contends that where “a smart phone manufacturer’s distributor may well be unaware that the goods she is selling include chipsets” that are covered by a certain patent and concludes that the distributor under these circumstances “would lack the tortious intent to sell such a chipset and would not be liable for infringing a patent that covered such chipsets.”³⁴¹ According to Vishnubhakat, his result is justified because the manufacturer, not the distributor, is “well positioned at lowest cost to avoid infringement.”³⁴² Vishnubhakat makes the same conclusion about various end users of patented technology³⁴³—exemplified in this article

³³⁵ See *supra* notes __ and accompanying text.

³³⁶ Akamai Techs., Inc. v. Limelight Networks, 692 F.3d 1301, 1349 (Fed. Cir. 2012) (en banc) (Linn, J., dissenting), *rev’d*, 134 S. Ct. 2111 (2014) (proposing the adoption of a joint venture approach).

³³⁷ Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318 (Fed. Cir. 2008); [Akamai.]

³³⁸ See, e.g., Patrick R. Goold, *Corrective Justice and Copyright Infringement*, 16 VAND. J. ENT. & TECH. L. 251, 265 (2014); *see also supra* note 205 and accompanying text. To be sure, even innocent intermediaries satisfy the requirement of actual causation. But the authorities and cases have recognized that more than actual causation is generally required to hold someone responsible for the harm—hence the requirement of proximate cause. *See* Mark F. Grady, *Proximate Cause Decoded*, 50 UCLA L. REV. 293 (2002); Leon Green, *Causal Relation in Legal Liability—In Tort*, 36 YALE L.J. 513 (1927); James Angell McLaughlin, *Proximate Cause*, 39 HARV. L. REV. 149 (1925); Richard W. Wright, *The Grounds and Extent of Legal Responsibility*, 40 SAN DIEGO L. REV. 1425 (2003).

³³⁹ Vishnubhakat, *supra* note __.

³⁴⁰ *See generally id.*

³⁴¹ *Id.* at 42.

³⁴² *Id.*

³⁴³ *Id.* at 42-44.

by the customers in *Lucent* that consume the technology that is supplied to them. Vishnubhakat, to be sure, does not explicitly take account of causation principles, and argues that only mutuality of purpose will suffice to impose liability on actors in divided infringement cases.³⁴⁴ But his approach to exonerating unwitting direct infringement harkens back to causation principles.

How can the causation approach bolster Vishnubhakat's conclusions? According to Hart and Honoré and others, actions that are "unreflective," i.e., not deliberate, might not be "causal" enough to justify the assignment of legal responsibility.³⁴⁵ Hart and Honoré apply this view to acts that are a result of impulse, performed under compulsion, and so on, but some of their remarks allow for a more capacious understanding of conduct that is noncausal. They note that even in situations where conduct is voluntary, "the degree of appreciation of circumstances needed before an act can count as 'informed' offers some scope for judicial discretion" and further explain that causal inquiries sometimes require asking "what conduct is regarded from a moral or legal point of view as reasonable in the circumstances."³⁴⁶ Suggesting that causation can be a powerful lever for imposing or relieving actors from liability, Hart and Honoré conclude that treatment of behaviors as causal or noncausal "raises questions of legal policy."³⁴⁷

In practice, however, it is difficult to find examples where a defendant was relieved of responsibility in a strict liability case for playing an insufficiently causal role. In the innocent instrumentality cases, the performer is by hypothesis relieved of liability on the basis of lack of mens rea. But causation can in theory provide another route to the same result. This approach derives from the recognition that causation is scalar and that minor causal contributors, even if they have actually performed the act, can be subject to lesser liability than major causal contributors who are non-performers.³⁴⁸ This approach is supported by Kadish's analysis of the classic Iago-Othello hypothetical. Kadish argues that this scenario, where "the instigator with cool deliberation provokes another person to kill in hot blood," provides an example where "a secondary actor's liability surely should exceed that of the primary actor."³⁴⁹ And "[o]ne way to justify a higher liability for Iago is through the doctrine of causation."³⁵⁰ Causation doctrine makes use of the fact that Othello's actions, performed in a jealous rage, were not "fully voluntary"³⁵¹—while Iago acted in a calculating, deliberate manner. Thus, according to Kadish,

³⁴⁴ *Id.* at 49-52.

³⁴⁵ HART & HONORÉ, *supra* note __, at 148-49.

³⁴⁶ *Id.* at 142.

³⁴⁷ HART & HONORÉ, *supra* note __, at 142; *cf. id.* at liv-lv ("[T]here is no shortage of ways in which the law, at least in common law countries, can respond to changing conceptions of social and legal policy. . . . But causal judgments, though the law may have to systematize them, are not specifically legal. They appeal to a notion which is part of everyday life and which ordinary people, including jurymen, can handle with a minimum of guidance."). Wright has criticized Hart and Honoré's reliance on causation in this context, arguing that their approach is "neither policy-neutral nor causal"). Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1745-50 (1985). But, as the language cited in this footnote indicates, Hand and Honoré do recognize that conclusions based on causation do sometimes reflect policy judgments.

³⁴⁸ See *supra* notes 223-235 and accompanying text.

³⁴⁹ Kadish, *supra* note __, at 340.

³⁵⁰ *Id.*

³⁵¹ *Id.* at 387-88.

“regard[ing] the secondary party as causing the death of the victim” explains the “sound result” in cases where the non-performer is subject to greater liability than the performer.³⁵² Kadish explains that, according to Hart and Honoré, “it quite consistent with the law of causation to trace the causal inquiry through an intervening actor to the end result in those cases where the action of the intervening actor is not wholly voluntary.”³⁵³ This argument “rests on the premise that volition”—like causation—“does not have the nature of an on/off switch, but rather exists along a spectrum.”³⁵⁴ Courts have the power to use causation as a lever that would label some non-performers substantial causers, which would lower mens rea requirements, and to label some performers such minor causal contributors that they should not be liable at all.

Indeed, if causation can justify lesser liability for Othello, it can certainly justify no liability for the performer (while the non-performer is held liable) in some patent cases given the minor causal role that passive end users play in carrying out the claimed steps.³⁵⁵ Thus, just like Vishnubhakat’s intentional tort approach, causation can serve as a policy lever that would relieve performing parties, like customers, from liability. Notably, the makers of the technology, who are in the best position to avoid the infringement, will continue to be liable—whether under the causation principles discussed here or under Vishnubhakat’s intentional tort approach.³⁵⁶ However it is reached, this result is one of the consequences of moving away from the talismanic performer-nonperformer/direct-indirect distinctions (which criminal law, by the way, has mostly abandoned)³⁵⁷ and focusing on the entity that is truly responsible for the infringement.³⁵⁸ Furthermore, this approach reflects a strong sense in many quarters that coffee shops and hotels should not be liable for the infringement of Wi-Fi patents.³⁵⁹ And in cases where both performers and non-performers are responsible, both can be held liable on causation principles—for there can be more than one substantial causer to an act—or on the theory that the actions of both were fully voluntary.³⁶⁰

V. Objections

At least four possible objections against the adopting causation approach to the responsibility for the acts of others in patent law might be advanced. First, that it is contrary to the patent statute; second, that it constitutes unsound policy; third, does not pay sufficient regard

³⁵² *Id.* at 387.

³⁵³ *Id.* at 377-78 (citing H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW 327-28 (1959)

³⁵⁴ SANFORD H. KADISH ET AL., CRIMINAL LAW AND ITS PROCESSES: CASES AND MATERIALS (8th ed. 2007) (citing SANFORD H. KADISH, BLAME AND PUNISHMENT 183-84 (1987)); *cf.* Feinberg, *supra* note __, at 186 (concluding that there is a “compatibility of voluntariness with causal determination”).

³⁵⁵ *See supra* Subpart II.C.

³⁵⁶ *See supra* notes 148-150 and accompanying text.

³⁵⁷ *See supra* Subpart III.A.

³⁵⁸ Lemley, *supra* note __, at 228.

³⁵⁹ *See supra* note 134-140 and accompanying text.

³⁶⁰ [Hart & Honore]

to the forms of patent claiming; and fourth, that it punishes actions that are not culpable. I address and answer each one in turn.

A. Is the proposed approach inconsistent with the Patent Act?

The first objection is that the 1952 Act was meant to segment rigorously performer and non-performer liability for patent infringement. Under this view, performer infringement can only be “direct” and would fall under Section 271(a), and non-performer infringement can only be indirect and would fall under 271(b) or (c). Those objecting on this ground might point to the language in the Conference Report that “Paragraphs (b), (c), and (d) relate to the subject referred to as contributory infringement,” which “has been applied to enjoin those who sought to cause infringement by supplying someone else with the means and directions for infringing a patent.”³⁶¹ They might also refer to the language, which describes the purpose 271(b), that “[o]ne who actively induces infringement as by aiding and abetting the same is liable as an infringer.”³⁶² These objectors would then conclude that direct non-performer liability would be sheer heresy.

These objections miss the larger point of the Article that a formalistic focus on direct/indirect labels is counterproductive because these silos probably do not reflect the flexible common law doctrine that was codified in Section 271. Indeed, the fact that courts have at least allowed imputation of acts of others to an entity to hold it directly liable based on the “control or direction” standard³⁶³ (a test that, if anything, is considered too restrictive)—means no one can seriously argue that direct infringement can lie only when the party *itself* has performed all the patent claim steps. The question, then, is not whether non-performer liability can be direct—it obviously can be—but what sorts of mechanisms we can properly use to impute the acts of others onto non-performers.

Indeed, as I mentioned above, I am happy to ground the liability of non-performers (or partial performers) in 271(b) if that is what one would prefer. As stated in a leading case, active inducement is a “type of direct infringement,”³⁶⁴ just like aiding and abetting and causation theories in criminal law give the prosecution another route to proving that the defendant is a principal,³⁶⁵ so the labels really do not matter. What matters is that the Patent Act of 1952 sought to overrule a series of bizarre Supreme Court decisions that rendered patents unenforceable on a “misuse” theory when patentees asserted infringement theories against non-performers³⁶⁶ and, as the Conference Report suggests, to codify the universe of common law concepts that justify

³⁶¹ S. Rep. 82-1979, S. Rep. No. 1979, 82nd Cong., 2nd Sess. 1952, 1952 U.S.C.C.A.N. 2394, 2402, 1952 WL 3180, at *2402.

³⁶² *Id.* at 2421.

³⁶³ *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008); [Akamai.]

³⁶⁴ *Hewlett-Packard Co. v. Bauch & Lomb, Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990).

³⁶⁵ See *supra* notes __ and accompanying text.

³⁶⁶ See, e.g., *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661 (1944). See Sichelman, *Minding Patent Infringement*, *supra* note __, at *25 (“Following the Court’s decision in *Mercoid*, as part of the Patent Act of 1952, Congress decided to reinstate the law of indirect infringement by codifying precedent as it existed prior to *Mercoid*.”).

attribution of conduct of one party to another.³⁶⁷ These concepts include assistance (i.e., aiding and abetting), inducement, and causation, which are all explicitly mentioned in the Conference Report, and the infringement statute therefore must allow for attribution under all of these concepts. And nothing in the proposed approach renders Section 271(b) (or section 271(c)) superfluous.³⁶⁸ These sections make clear that non-performer liability exists in patent law—and 271(b) codifies such liability in a general way while 271(c) captures a recurring set of factual circumstances giving rise to such liability. These sections would continue to play these very same roles under my proposed approach.

In contrast, trying to parse the words “actively induces infringement of a patent” in Section 271(b) to glean what sorts of attribution theories are allowed might be counterproductive.³⁶⁹ Judge Linn’s observation in his *Akamai* dissent that, unlike the federal criminal “aiding and abetting” (i.e., non-performer liability) statute, its patent infringement analog does not explicitly include a causation theory, proves too much.³⁷⁰ For one thing, a literal reading of Section 271(b) would exclude aiding and abetting theories—for aiding and abetting a distinct concept from inducement—and that just can’t be the correct reading.³⁷¹ And few would seriously argue that the Section 271(b) lacks a mens rea requirement³⁷²—even though, unlike 18 U.S.C. § 2(b), it lacks the word “willfully.” The selective textualist approach that some opinions have adopted in reading Section 271(b) is simply untenable. Indeed, the Conference Report adds that “[p]aragraph (b) recites in broad terms that one who aids and abets an infringement is likewise an infringer,” suggesting that a range of theories is captured by this statute (and the word chosen, “induce,” calls causation concepts to mind in any case).³⁷³ As long as established theories of attribution are proven, infringement should lie, whether we formally house it in Section (a) or (b). Finally, the fact that an explicit mens rea requirement is not mentioned in the statute opens the door for different mens rea requirements for different levels of non-performer involvement, i.e., for different levels of *actus reus*.

The talismanic distinction the courts have drawn between Section 271(a) and (b) can be contrasted with the courts’ treatment of its criminal law cousin, 18 U.S.C. § 2. The cases hold that aiding and abetting and causation theories under this statute are implied in every indictment

³⁶⁷ See generally CHISUM ON PATENTS § 17.04[3]; Giles S. Rich, *Infringement Under Section 271 of the Patent Act of 1952*, 21 GEO. WASH. L. REV. 521 (1953).

³⁶⁸ Cf. Lemley, *supra* note __, at 237.

³⁶⁹ 35 U.S.C. § 271(b).

³⁷⁰ *Akamai Techs., Inc. v. Limelight Networks*, 692 F.3d 1301, 1344 (Fed. Cir. 2012) (en banc) (Linn, J., dissenting), *rev’d*, 134 S. Ct. 2111 (2014). In addition, even before the causation mechanism in the federal aiding abetting statute was adopted, the Supreme Court recognized that causation theories of attribution were implicit in criminal statutes—in spite of the rule of lenity! See the discussion of the *Giles* case *supra* notes 258-279 and accompanying text.

³⁷¹ Karshtedt, *supra* note __, at 915 n.10.

³⁷² One commentator has: Soonbok Lee, Note, *Induced Infringement as a Strict Liability Claim: Abolishment of the Specific Intent Requirement*, 4 HASTINGS SCI. & TECH. L.J. 381 (2012) (arguing that proximate causation principles, rather than intent, should underlie induced infringement). One issue with this argument is that there is a mens rea of intent inherent in “inducing,” or causing, someone to act.

³⁷³ 1952 WL 3180, at *2402 (emphasis added).

and need not even be charged.³⁷⁴ To be sure, I would not suggest that we go so far as to imply 271(b) and (c) theories in all patent infringement complaints. These sections are meant to be indicative of non-performer liability; and proper pleadings would give notice that such liability is in play and help ensure that the facts that would justify attribution mechanisms, whatever they might be, are in the complaint. But, along with Mark Lemley, I think that it is perfectly appropriate to require different levels of mens rea for different kinds of conduct when imposing liability on non-performers.³⁷⁵ And when a manufacturer supplies a tool that only has an infringing use and instructs the customer to use it in an infringing way, causation theories justify dispensing with the knowledge of the patent requirement, which is already questionable to begin with.³⁷⁶

B. Does the proposed approach represent unsound policy?

One might argue that the route to liability I advocate unfairly captures the conduct not covered by patents and, in general, ensnares legitimate commercial activity.³⁷⁷ It is important to remember, however, I am not talking about imposing liability on restaurant owners who feed patent infringers, or even on providers of dual-use technology.³⁷⁸ Instead, I am suggesting opening up theories of liability against the makers of devices whose expected and intended use is to perform elements of a patent claim. Criminal law, which resembles patent law in its focus on proving elements to establish liability, has developed sophisticated theories to determine when elements of a crime can be imputed to a party.³⁷⁹ A classic example is the doctrine holding that “the requisite culpable state of mind may properly be imputed to an actor if he would have had the culpable state of mind but for his voluntary intoxication.”³⁸⁰ According to Paul Robinson, “the most persuasive rationale” for this doctrine is “a causal theory—an actor causes his own criminal conduct by becoming intoxicated or at least creates a situation that risks such criminal conduct.”³⁸¹ Similar concepts apply to causing of elements of a crime, particularly *actus reus*, through others. Indeed, causal theories justify the ancient principle of *qui facit per alium facit per se*, which allows imputation of an *actus reus* through doctrines like innocent agency to impose liability on non-performers.³⁸²

³⁷⁴ See *supra* note 172 and accompanying cases.

³⁷⁵ See Lemley, *supra* note __, at 244 (Table 1).

³⁷⁶ See *supra* notes 105 & 293 and accompanying text. See generally Sichelman, *supra* note __.

³⁷⁷ Cf. Lemley, *supra* note __, at 228 * (“[T]he law must take equal care to avoid imposing liability on those who participate in the stream of lawful commerce merely because their products can be misused.”); Rantanen, *An Objective View of Fault in Patent Infringement*, 60 AM. U. L. REV. 1575, 1591 (2011).

³⁷⁸ See *supra* notes 99- 100 & 109-110 and accompanying text.

³⁷⁹ I don’t necessarily suggest that concepts of fault should be analyzed in the same way in patent law as in criminal law. Cf. Rantanen, *supra* note __; Jacob Sherkow, *Patent Infringement as Criminal Conduct*, 19 MICH. TELECOMM. & TECH. L. REV. 1, 26 (2012). But the two fields can learn from one another about how to treat concepts of attribution at the very least, and in any case the courts in patent cases have already extensively relied on concepts borrowed from criminal law. See, e.g., *Global-Tech Appliances, Inc. v. SEB, SA*, 131 S. Ct. 2060 (2011).

³⁸⁰ Robinson, *supra* note __, at 612.

³⁸¹ *Id.* at 660.

³⁸² See *supra* notes __ and accompanying text.

There is simply no good policy reason for patent law not to do the same when the stringent requirements to prove that a non-performer has caused the act of another have been met.³⁸³ Indeed, it seems that patent law has borrowed criminal concepts of accessory liability that rigidly separate accomplices and principles, but these doctrines have long become outdated in the criminal law itself because they have proven unworkable, often allowing obviously guilty parties to escape liability.³⁸⁴ And tort law decisions rarely speak of “derivative” liability, preferring the concept of joint tortfeasance—a concept that appears routinely in early patent cases.³⁸⁵ As this Article has shown, non-performer liability is a flexible, evolving area of law where criminal law courts, in particular, have adjusted to new factual circumstances through common law development—and all that in spite of the rule that courts cannot create new crimes!³⁸⁶ It is time for courts in patent cases to do the same. The Supreme Court held in *Akamai* held that there was no liability because “performance of all the claimed steps cannot be attributed to a single person.”³⁸⁷ Causation provides an attribution mechanism in divided infringement cases that the Court never had a chance to consider.

C. Does the proposed approach disregard differences between patent claim types?

Finally, one might object on the ground that my proposed approach in effect extends the coverage of method claims, which cover steps rather than devices. This objection maintains that the patent owner should live with the consequence of the choice to claim his or her invention in method form.³⁸⁸ And, in particular, it is thought that the problems encountered in divided infringement cases could have been avoided with better claim drafting.³⁸⁹ Those objecting on this ground might also maintain that this extension is inimical to the notice function of patents.³⁹⁰

Nonetheless, method claims, like apparatus claims and other claim forms, are explicitly authorized in the statute, and it would be odd to have the law of infringement where such claims are frequently left without an effective remedy.³⁹¹ In addition, method claims, including claims that might present divided infringement problems, might sometimes be the only choice for protecting some inventions.³⁹² Moreover, what I am proposing is not an extension of the scope of patent claims. Causation theories are inherent routes to liability in areas of law that generally

³⁸³ See *supra* Part IV.

³⁸⁴ Rollin Perkins, *Parties to Crime*, 89 U. PA. L. REV. 581, 609-14 (1941).

³⁸⁵ See *supra* Part II.B.

³⁸⁶ [Cite]

³⁸⁷ Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111, 2118 (2014).

³⁸⁸ See Lemley, *supra* note _.

³⁸⁹ *Id.*

³⁹⁰ [Akamai amicus briefs?]

³⁹¹ See, e.g., Stacie L. Greskowiak, Note, *Joint Infringement after BMC: The Demise of Process Patents*, 41 LOY. U. CHI. L.J. 351 (2010). Cf. generally Christopher T. Abernethy, *Cruel Hand of Bilski: Culminating the Short-sighted Crusade for the Marginalization of the ‘Process’ Patent* (May 2009) (unpublished comment), available at <http://papers.ssrn.com/abstract=1420205> (describing challenges to the patent eligibility of method claims directed to certain subject matter).

³⁹² Stephen W. Moore, Note, *A Last Step Rule for Direct Infringement of Process Claims: Clarifying Indirect Infringement and Narrowing Joint Infringement*, 61 CLEV. ST. L. REV. 827, 848 (2013); see also Ben Aiken, *Eliminating the Single-Entity Rule in Joint Infringement Cases: Liability for the Last Step*, 101 VA. L. REV. 193, 195 (2015).

allow the imposition of responsibility on non-performers. As experience with criminal law teaches, causation theories were seen as inherent in the criminal statutes before 1948—even in the face of the rule of lenity and the rule that courts cannot create new crimes—and became explicit in 1948 with adoption of 18 U.S.C. § 2(b).³⁹³ Patent law took a similar path, starting with common-law theories of non-performer liability and culminating in an “inducement” statute, which, as the accompanying Conference Report explicitly mentions, should incorporate the concepts of causation. Furthermore, it seems odd that the distinction between method and apparatus claims has more or less been ignored for the purpose of patent eligibility, but we insist on placing hyperformalistic limits on method claims that ignore the principles of causal responsibility.³⁹⁴ Likewise, causal responsibility is the answer to the purported notice problem: it does not violate the principle of notice to say that we are responsible for the acts that we cause.

D. Does the proposed approach punish non-culpable acts?

Another concern, already discussed earlier, is that the proposed approach targets seemingly nonculpable acts. In contrast to the provision of a poisoned drink of a fraudulent document, the manufacturer in these patent cases does not engage in *malum in se*—it simply puts a product into the stream of commerce. This critique, however, misses the mark on a number of levels. First, the causation approach naturally follows from the strict liability nature of patent infringement. In a regime of liability without fault, causation is the determinative inquiry. Of course, to impute the acts of performers onto non-performers, there is a kind of a mens rea element that must be proven—intent that another perform the acts. This aspect of causation inquiry, however, does not convert patent infringement into a fault-based tort, but simply establishes a causal tie between the non-performer and the actions of the performer. In the Federal Circuit’s recent iteration of the *Akamai* decision, the majority made the odd assertion that the inclusion a mens rea element to connect the actions of two or more entities somehow contradicts the strict liability nature of direct infringement—with the even odder result that heightened fault requirements point in the direction of liability.³⁹⁵ Clearly, however, the mens rea element plays a different role in this analysis and does not make the tort fault-based.

Second, the very claim non-performer liability is a kind of an intentional tort that, like other intentional torts, must be *malum in se* is seriously flawed. Indeed, intentional torts like battery do not always require culpable intent. Well-intentioned but unwanted touching is still a battery—just as nonculpable sales and uses of claimed inventions are still infringements. And in addition, the very characterization of non-performer liability as grounded in intentional tort principles is inaccurate when causal principles are at play. There is no justification for the need to prove the culpable mens rea of one who by happenstance performs an action not by itself but through another.

³⁹³ See *supra* notes — and accompanying text.

³⁹⁴ See *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

³⁹⁵ [cite]

Third, the critique misses large swaths of so-called “regulatory crimes,” which often fall into the category of *malum prohibitum* (rather than *malum in se*) and involve liability without fault. Consider, for example, the criminal liability of corporate officers whose companies place adulterated drugs into the stream of commerce.³⁹⁶ Here, criminal liability is imposed for a clearly nonculpable act of running a company. And although strict criminal liability is highly controversial for numerous reasons, strict liability in tort—while often criticized—is widely accepted. That patent infringement strict liability is undisputed, and the imposition of liability for nonculpable acts is fully consistent with this regime.

VI. Conclusion

Imputation of acts of performers to non-performers based on notions of causation and innocent (or semi-innocent) agency are long-standing routes of assigning responsibility to non-performers. These approaches provide routes to liability in circumstances where strict adherence to notions of liability styled as “derivative,” “secondary,” or “indirect” leads to unsatisfying results. Indeed, problems with the direct/indirect labels may be one of the reasons why criminal law has moved away from a formalistic distinction between principals and accomplices. This trend has manifested itself in cases where liability was found where the defendant substantially contributed to the *actus reus* of a crime and in courts’ rejections arguments based on “element-splitting” criminal cases. Yet patent law continues to rely on the direct/derivative distinction to a fault, erecting high hurdles to hold non-performers liable and ignoring the notions of causation. As long as we have a law of patent infringement that explicitly recognizes non-performer theories of liability, we should not jettison imputation theories based causation and innocent agency. These theories are consistent with intuitive notions of responsibility and, indeed, with the explicit observation that, in many patent infringement cases, the non-performer is more responsible for the acts that are covered by steps of the patent claims that the performer.

³⁹⁶ *United States v. park.*