

Should Courts Award Pain and Suffering Damages in Patent Infringement Cases?

Ronen Avraham[†]

Table of Contents

I. Introduction	215
II. The role of solo inventors in the world's technological progress	219
III. The current doctrine related to non-economic harm in patent infringement cases	219
A. The United States	219
B. The European Union	221
IV. Why the law should recognize pain and suffering harm	223
A. The law and economics of non-emotional harm	223
B. The property bodily-harm spectrum	224
C. Cognizable non-economic harm in property and contract cases	226
1. Property Cases	226
2. Contract Cases	227
V. Section 284 enhanced damages as a doctrinal hook	229
VI. Conclusion	230

I. Introduction

After inventing the intermittent windshield wiper, Robert Kearns tried to interest the “Big Three” automakers in licensing this technology.¹ After rejecting his proposal, these companies all began using his patent without his permission and installing intermittent wipers on their cars.² When Kearns filed suit against Ford in 1978 for patent infringement, he did not have a lawyer. Although he had no legal background, he represented himself with help from his family. In response, Ford did what many companies do in patent cases: it began stalling in the hopes that Kearns

[†] Senior Lecturer, University of Texas School of Law. I thank John Golden, Sam Bray, Melissa Wasserman, Sean Williams, and participants of the 2016 University of Texas Drawing Board Lunch Forum as well as of the 2017 PatDam2 Conference at the University of Texas School of Law for their very helpful comments. I thank Adam Livingston and Benjamin Brown for their excellent research assistance. I also thank S. Horowitz Institute for Intellectual Property in memory of Dr. Amnon Goldenberg, at Tel Aviv University, Faculty of Law for financial support. Please do not cite, quote, or distribute.

¹ Bruce Berman, *Kearns' Son Still Fuming Over Wiper Blade Fight*, IP CLOSEUP (July 26, 2011), <https://ipcloseup.com/2011/07/26/kearns-son-still-fuming-over-wiper-blade-fight/>.

² *Id.*

would run out of money.³ The lawsuit against Ford became Kearns' life—he poured all of his time and every penny he had into it even though the case would not go to trial until 1990, twelve years after the suit was filed.⁴ He was not interested in money, but in getting his justice. Eventually Kerns settled with Ford for \$10.2 million, yet the fight with Ford and other companies over their infringement took a toll on his mental health, leading to a nervous breakdown and strained relationships with his family.⁵ Kearns' story of a solo inventor being robbed of his invention by a large corporation and then suffering mental distress, even if less prevalent now simply because solo inventors are less common than they once were, is by no means unique.⁶

It can cost the average individual inventor far more than their wealth to successfully defend a patent, which they may often have to do before they receive any monetary benefit from their invention.⁷ By contrast, a large corporation may only have to pay a small fraction of their annual revenue to litigate a patent's validity, and so only might need to weigh the inventor's ability to fund legal representation when determining a royalty rate to offer.⁸ These circumstances frustrate the patent system, and one can see how they could cause someone like Robert Kearns to lose their sanity.

The emotional harm to the solo inventor might be caused by two different wrongs—the original infringement, especially if intentional or reckless, and the nasty litigation tactics that might follow the infringement. The harm from the latter has recently been recognized as an independent harm by the North Carolina legislature.⁹ The harm from the former wrong has largely been forgotten and is not considered a legitimate component of the “damages adequate to compensate for the infringement” that courts are required to award under § 284 of the United States Patent Act.¹⁰

³ John Seabrook, *The Flash Of Genius*, THE NEW YORKER, Jan. 11, 1993, at 38, <http://www.newyorker.com/magazine/1993/01/11/the-flash-of-genius> [hereinafter *The Flash of Genius*].

⁴ *Id.*

⁵ *Id.*

⁶ Consider as another example twenty-one year old Philo Farnsworth, who invented and patented the television in 1927. Farnsworth turned down an offer by Radio Corporation of America (RCA) in favor of a partnership with another radio company. RCA did not take the rejection lightly and began a lengthy series of court cases against Farnsworth in an attempt to invalidate his patents. Finally, a dozen years later RCA agreed to pay royalties on Farnsworth's patents, but at that point the struggle had taken a toll on Farnsworth and he suffered from a nervous breakdown. Erik Gregersen, *Philo Farnsworth: American Inventor*, ENCYCLOPAEDIA BRITANNICA (Apr. 10, 2015), <https://www.britannica.com/biography/Philo-Farnsworth>.

⁷ Jeff A. Ronspies, Comment, *Does David Need a New Sling?*, 4 J. MARSHALL REV. INTELL. PROP. L. 184, 185–186 (2004).

⁸ *Id.*

⁹ Since 2013, several states have enacted laws regulating Abusive Patent Assertions. The North Carolina Legislature uniquely stated that it intended to also protect *inventors* from delayed litigation and abuse. Abusive Patent Assertions act, N.C. Gen. Stat. §§ 75-140–45 (2014).

¹⁰ 35 U.S.C.A. § 284 (West 2017).

In this article, I argue that courts *should* award damages to solo inventors for non-economic harm resulting from patent infringement. Indeed, while 91.6% of patent infringement cases brought by non-practicing entities (NPEs) are brought by patent assertion entities that buy up patents originally issued to others, a non-negligible portion (5%) of cases are still brought by solo inventors who invested their toil, tears, and sweat into their inventions.¹¹ Nikola Tesla, the great inventor, described the solo inventor as “the lone worker who follows the fleeting inspiration of a moment and finally does something that has not been done before.”¹² And yet, despite being designed to protect the solo inventor,¹³ patent law jurisprudence in the United States does not recognize the emotional harm inflicted upon these solo inventors as cognizable in court.

I also argue that there is room for cognizable non-economic harm in patent-infringement cases, at least for solo inventors like Kearns. Pain and suffering harm should be considered part of the “adequate compensation” that § 284 of the Patent Act requires awarding victims of patent infringement. First, I argue that pain and suffering should be considered as part of the total harm caused by infringement. Building on my previous work on pain and suffering damages in torts, I show that from an economic perspective, which is the dominant theory of patent law in the U.S., non-economic harm should be compensated in order to incentivize would-be infringers to internalize the full social harm of their conduct. Moreover, undercompensating solo inventors for their emotional harm from infringement will dilute their incentives to *commercialize* their invention, even if not their incentives to invent.

A common critique against awarding pain and suffering damages is that it is hard to quantify and therefore should be ignored. I expose the analytical problems with this argument and demonstrate various ways by which emotional harm is routinely quantified by courts around the world.

Second, drawing from Hegel’s personality theory as refined by Radin, I join others who have applied this theory to patent law. I argue that, on a spectrum between bodily harm, where courts routinely award pain and suffering damages, and property harm, where they routinely do not, patent infringement falls closer to bodily harm. This is because much of the person’s intellect and personhood is involved in the invention process, and infringing on that person’s intellectual property rights might foreseeably lead to mental harm.

Whereas courts routinely award pain and suffering damages for bodily injuries, such damages are not usually awarded for mere property losses. The word

¹¹ 2015 *Patent Dispute Report*, UNIFIED PATENTS (Dec. 31, 2015), <https://www.unifiedpatents.com/news/2016/5/30/2015-patent-dispute-report>.

¹² See Seabrook, *supra* note 3 (quoting Nikola Tesla).

¹³ Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 709 (2012) (“[P]atent law betrays its individual-inventor bias at various points, from the requirement that patents always issue to individuals rather than to companies to the traditional rule that the first to invent, not the first to file, is entitled to the patent.”).

“intellectual” in the phrase “intellectual property” suggests that the intellect, the personhood, and the soul of the inventor are involved in the property infringed and yet are not given any legal weight when it comes to compensation. In short, patent infringements are treated as a mere property loss. In the third part of this paper, I show that even if one rejects the personality theory in patent law, courts can still draw inspiration from some classes of property and contract cases where pain and suffering damages *are* awarded. I argue that similar rationales that lead courts to award pain and suffering damages in those contract and property cases are relevant and even apply more strongly in intellectual property cases, even if we assume that on the spectrum between bodily harm and property harm infringements of patents lie closer to property harm.

Fourth, I argue that even if courts believe that non-economic harm is *not* cognizable and therefore damages for it should not be part of the § 284 “adequate compensation” requirement, there is still a way to compensate solo inventors for their non-economic loss via the enhanced damages option presented in another part of § 284 of the Patent Act. Section 284 of Patent Act allows courts to award “enhanced damages,” which are three times the amount of the actual damages.¹⁴ In the past, courts have awarded enhanced damages for “expense and trouble,”¹⁵ which could be interpreted as including non-economic harm. Modern courts, however, award enhanced damages to deter intentional infringement, similar to the role of punitive damages in tort law. They do not take into account the non-economic or emotional damage that inventors like Kearns may suffer, however—at least not explicitly. Yet, as I will show, the enhanced damages clause can serve as a doctrinal hook for courts to account for the pain and suffering solo inventors experience as a result of infringement and subsequent litigation, for non-economic damages are an important element in assessing the magnitude of the punitive damages defendants should bear.

The rest of the article is organized as follows: in Part II, I will briefly present the role of solo inventors in the world’s technological progress. In Part III, I will present the current doctrine relating to non-economic harm in patent infringement cases both in the U.S. and Europe. In Part IV, which is the crux of this article, I will explain why the law should recognize pain and suffering harm in patent infringement cases as part of § 284’s “adequate compensation” clause. Part IV.A discusses this argument from a law and economics perspective, while Part IV.B presents Radin’s personhood theory perspective. Part IV.C then argues that patent infringement cases often present similar rationales to some classes of contract and property cases where courts do award damages for non-economic harm. Finally, in Part V, I discuss how courts can use the § 284 “enhanced damages” clause, which is analogous to punitive damages, as a doctrinal hook for awarding pain and suffering damages. Part VI concludes.

¹⁴ 35 U.S.C.A. § 284 (West 2017).

¹⁵ *See, e.g., Clark v. Wooster*, 119 U.S. 322, 326 (1886) (recognizing that, when calculating damages for patent infringement, it may be appropriate to account for plaintiff’s inconvenience).

II. The role of solo inventors in the world's technological progress

The solo inventor is the heart of American ingenuity, or at least this is the myth around which patent law was designed.¹⁶ Ever since this country's founding, individual men and women have devoted their lives to innovation and advancement, propelling the United States to the cutting edge of global technology. It has historically been these individuals, and not large corporations, who have achieved the most groundbreaking inventive success—often without reaping any of the benefits.¹⁷

For example, Eli Whitney, America's first famous inventor, revolutionized the cotton gin and thereby introduced the idea of mechanized farming.¹⁸ Thomas Edison held a record number of patents (1,093), and galvanized innovations such as the phonograph, incandescent light bulb, and motion picture camera.¹⁹ Alexander Graham Bell was the first to design and patent a practical method for transmitting the human voice via electric current—the telephone.²⁰ These technological giants represent only a few of the innovators who changed the course of history with their individual inventive efforts.²¹

The expansive role of solo inventors, additionally, persists into the future, as studies show that individuals and small firms generate a growing amount of the country's research and development.²² In 2015, as was the case in the twenty years before it, solo inventors filed over 19,000 patent applications.²³

III. The current doctrine related to non-economic harm in patent infringement cases

A. The United States

35 U.S.C. § 284 provides that “the court may increase the damages up to three times the amount found or assessed.”²⁴ However, treble damages are “almost

¹⁶ Lemley, *supra* note 13, at 709.

¹⁷ See, e.g., Eugene Kim, *The Guy Who Invented USB Didn't Make a Dime off of It—But Here's Why He's OK With That*, BUSINESS INSIDER (Nov. 15, 2015, 12:02 PM), <http://www.businessinsider.com/ajay-bhatt-usb-creator-interview-2015-11> (presenting the story of Ajay Bhatt, the inventor of the USB, who gained no profit from his invention).

¹⁸ Lemley, *supra* note 13, at 718.

¹⁹ *Thomas Edison*, HISTORY.COM, <http://www.history.com/topics/inventions/thomas-edison>.

²⁰ *Alexander Graham Bell*, HISTORY.COM, <http://www.history.com/topics/inventions/alexander-graham-bell>.

²¹ See Donald Grant Kelly, *America's Inventors Have Arrived (And We Thought They Were "Invisible.")*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 601, 606 (1998) (“From 1998 through the year 2000, U.S. independent inventors and small business concerns will file nearly 200,000 patent applications.”).

²² Robert M. Hunt & Leonard I. Nakamura, *The Democratization of U.S. Research and Development after 1980* (Sept. 2010) (unpublished manuscript) (on file with author).

²³ *Independent Inventors by State by Year*, U.S. PATENT AND TRADEMARK OFFICE, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/inv_utl.htm, (last visited May 7, 2017).

²⁴ 35 U.S.C.A. § 284 (West 2017).

impossible to obtain.”²⁵ A study from 1999 to 2000 found that only 2.1% of patent cases resolved willfulness, and that only eight percent of those that resolved willfulness actually increased the damages award.²⁶ The Act itself does not provide a standard for applying enhanced damages, but the Federal Circuit has articulated that it shall apply “where the infringement is willful.”²⁷ But that has not always been the case. In the late 19th century, the Supreme Court explicitly stated that increased damages could serve a compensatory purpose. In *Clark v. Wooster*, the Court, when discussing royalty damages, held that “[t]here may be damages beyond this, such as the expense and trouble the plaintiff has been put to by the defendant; and any special inconvenience he has suffered from the wrongful acts of the defendant”²⁸

However, the current rule is that enhanced damages are not compensatory but rather punish a defendant’s culpability.²⁹ Yet, at times the Federal Circuit has presented other rationales for awarding enhanced damages, even stating that they provide the “secondary benefit of quantifying the equities as between patentee and infringer.”³⁰ This reasoning was also used in cases where the court was evaluating a willful infringement test.³¹

Most recently, however, in *Halo Electronics Inc. v. Pulse Electronics Inc.*, the Supreme Court ruled that courts should be awarded more discretion in awarding enhanced damages.³² There is no language in the statute that provides an “explicit

²⁵ EDWARD F. O’CONNOR, *INTELLECTUAL PROPERTY LAW & LITIGATION: PRACTICAL & IRREVERENT INSIGHTS* § 2.29 (2009).

²⁶ *Id.*

²⁷ *E.g.*, *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826 (Fed. Cir. 1992) (“While no statutory standard dictates the circumstances under which the district court may exercise its discretion, this court has approved such awards where the infringer acted in wanton disregard of the patentee’s **patent** rights, that is, where the infringement is willful.” (emphasis added)).

²⁸ *Clark v. Wooster*, 199 U.S. 322, 326 (1886).

²⁹ *Beatrice Foods Co. v. New Eng. Printing & Lithography Co.*, 923 F.2d 1576, 1579 (Fed. Cir. 1991) (reversing a district court that found damages “compensatorily trebled,” emphasizing that enhanced damages “may be awarded only as a penalty for the infringers increased culpability”).

³⁰ *SRI Int’l, Inc. v. Advanced Tech. Labs., Inc.*, 127 F.3d 1462, 1468 (citing *S.C. Johnson & Son, Inc. v. Cater-Wallace, Inc.*, 781 F.2d 198, 201 (Fed. Cir. 1986)).

³¹ *Id.* In *Read Corp. v. Portec Inc.*, the Federal Circuit laid out a nine-step test for determining willful infringement that both accounts for mental state and uses equitable factors to calculate damage enhancement. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826–27 (Fed. Cir. 1992). Factors such as defendant’s financial size, litigation misconduct, and concealment arguably do not delve into the defendant’s state of mind, but they were included in the Federal Circuit’s test. *Id.* at 826–27. Other factors considered by the 9th Circuit include: infringer intent, whether the infringer investigated the scope of the patent in question, the strength of the case for willful infringement, the duration of the defendant’s misconduct, remedial action by defendant, defendant’s motivation for harm, and whether the defendant attempted to conceal their misconduct.

³² *Halo Elecs. Inc. v. Pulse Elecs. Inc.*, 136 S.Ct. 1923, 1932 (2016). *Halo* was a reaction to *In re Seagate Tech.*, 497 F.3d 1360, 1371 (Fed. Cir. 2007). In *In re Seagate*, the court set forth a two-part test for willful infringement, holding that a patentee must show that the infringer acted “despite an objectively high likelihood that its actions constituted infringement of a valid patent” (which has been interpreted as a standard of objective recklessness), and that the risk was “either

limit or condition on when enhanced damages are appropriate,” Chief Justice Roberts wrote, adding that it was not clear why an objective reckless standard was required.³³ The Court also stated that “Section 284 permits district courts to exercise their discretion [to award enhanced damages] in a manner free from . . . inelastic constraints”³⁴ The Court, however, also noted that “such punishment should be generally reserved for egregious cases typified by willful misconduct”.³⁵

While *Halo* has altered the test for enhanced damages in a way that is still evolving, early cases show that, post-*Halo*, enhanced damages are easier to obtain yet still often awarded as punitive sanctions only.³⁶ Indeed, some commentators believe that *Halo* will have a significant impact on how often enhanced damages will be awarded and will consequently change how patent companies approach infringement.³⁷ Chances are, however, that they will remain primarily punitive.

B. The European Union

While U.S. law seems to move towards more easily awarding enhanced damages, it does not seem to allow it as a way of recognizing the inventor’s emotional harm. In contrast, Europe protects moral rights beyond purely-economic rights. The exact definition of moral rights differs among countries, however, and includes the right of integrity (the right that the work not be mutilated or distorted), the right of attribution (the right to be acknowledged and prevent others from naming anyone else as the creator), and the right of disclosure (the right to decide when and in what form the work will be presented to the public).³⁸ Examples of non-economic damages include injury to the rightholder’s reputation, emotional

known to the accused infringer or so obvious that it should have been known to the accused infringer.” This test seems to refocus the willful infringement standard, while also accounting for the “reasonableness of the [possible infringer’s] actions taken in the particular circumstances.” *Id.*

³³ *Halo Elecs. Inc.*, 136 S.Ct. at 1930. The court in *Halo*, mentioned the concern that the requirement for clear and convincing evidence to show objective recklessness could increase the chances that NPEs, mainly “trolls,” would be awarded enhanced damages. *Id.* at 1934. Justice Roberts wrote that such fears “cannot justify imposing an artificial construct . . . on the discretion conferred under Section 284.” *Id.* at 1935.

³⁴ *Id.* at 1933–34.

³⁵ *Id.* at 1934.

³⁶ See, e.g., *Stryker Corp. v. Zimmer, Inc.*, 837 F.3d 1268, 1279 (Fed. Cir. 2016) (remanding the question of enhanced damages to the district court); *Imperium IP Holdings (Cayman), Ltd. v. Samsung Elecs. Co., Ltd.*, 203 F.Supp.3d 755, 763 (E.D. Tex. Aug. 24, 2016) (“[A]n analysis focused on ‘egregious infringement behavior’ is the touchstone for determining an award of enhanced damage rather than a more rigid, mechanical assessment.”). See *Finjan, Inc. v. Blue Coat Sys., Inc.*, 2016 WL 3880774, *17 (N.D. Cal. 2016) (using the *Read* test to find that the defendant did not act egregiously); see also *Trustees of Boston Univ. v. Everlight Elecs. Co., Ltd.*, 212 F. Supp. 3d 254, 257 (D. Mass. 2016) (instructing that the *Read* factors are helpful, but that the main question is of egregious conduct by the defendant).

³⁷ Yen-Shyang Tseng, *Willful Patent Infringement And Enhanced Damages After Halo Electronics*, Inc. v. Pulse Electronics, Inc., ORANGE COUNTY LAW., Dec. 2016, at 38.

³⁸ Monica E. Antezana, *The European Union Internet Copyright Directive As Even More Than it Envisions: Toward a Supra-EU Harmonization of Copyright Policy and Theory*, 26 B.C. INT’L & COMP. L. REV. 415, 422–23 (2003).

distress, and suffering caused by an infringement.³⁹ Whereas in general the distinction between economic and moral harm is preserved, some experts consider economic harm to also include moral or non-economic damage.⁴⁰

Copyright legislation of the European Union includes ten directives, the most relevant of which is Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights. According to article 13, the judicial authorities should take into account “elements other than economic factors, such as the moral prejudice caused to the rightholder by the infringement.”⁴¹

Because damage to reputation is difficult to quantify, “many national courts opt for awarding the rightholder ‘lump sum’ damages in some cases (e.g. Denmark, Greece, Netherlands), as foreseen by the IPRED. Some appear to make a lump-sum calculation designed to approximate lost profits (e.g. Luxembourg) or ‘moral’ damages (e.g. Belgium).”⁴² Yet, “[a]s a general rule, moral damages are rarely awarded for IPR infringements or, when awarded, tend to be nominal (e.g. Estonia).”⁴³ In addition, “[i]n some countries, moral damages are available only in cases of intentional or negligent infringements” (e.g. Finland).⁴⁴ Conversely, in Slovenia moral damages may be granted even if no material damages have been suffered.⁴⁵ A more expansive recognition of moral rights can be found also in the laws of Germany and the Netherlands.⁴⁶

However, very few cases address compensation for moral damages stemming from patent infringements.⁴⁷ In one recent case from the Court of Appeal of Madrid, a patent owner sought damages under article 66 (“moral damages . . . even if the existence of an economic damage has not been proven”) and article 68 (“loss of prestige of the patented invention”) of the Spanish Patent Act.⁴⁸ On appeal, the court reversed a judgment for moral damages in the amount of €20,000, concluding that the patent owner had not proven the facts alleged (which may include distress,

³⁹ EUROPEAN OBSERVATORY ON COUNTERFEITING AND PIRACY, *Executive Summary*, in DAMAGES IN INTELLECTUAL PROPERTY RIGHTS, at 4 [hereinafter DAMAGES IN INTELLECTUAL PROPERTY RIGHTS].

⁴⁰ *Id.* at 3.

⁴¹ Directive 2004/48/EC, of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, 2004 O.J.(L 157). For more information regarding European adjudication of patent infringement, see Article 68(3) of the Unified Patent Court Agreement. This article asserts that the Unified Patent Court will consider: (1) negative economic consequences of an infringement; (2) unjust enrichment by the infringer; and (3) non-economic factors such as moral prejudice.

⁴² *Analysis, Recommendations and Best Practices*, in DAMAGES IN INTELLECTUAL PROPERTY RIGHTS, *supra* note 39, at 3.

⁴³ *Id.*

⁴⁴ DAMAGES IN INTELLECTUAL PROPERTY RIGHTS, *supra* note 39, at 4.

⁴⁵ *Id.*

⁴⁶ Antezana, *supra* note 38, at 431–33.

⁴⁷ Thomas F. Cotter, *Damages for Moral Prejudice in Spain and Elsewhere*, COMPARATIVE PATENT REMEDIES (June 20, 2016), <http://comparativepatentremedies.blogspot.com/2016/06/damages-for-moral-prejudice-in-spain.html>.

⁴⁸ *Id.*

shock, sorrow, fear, or anxiety).⁴⁹ On the other hand, the court affirmed a judgment in the amount of €12,500 for loss of prestige (the infringing products were of lower quality and presented in simple cardboard boxes).⁵⁰

In sum, many European countries recognize de-jure non-economic harm stemming from infringements of intellectual property. Yet, relatively few actually award significant awards for non-economic harm in patent infringement cases.

IV. Why the law should recognize pain and suffering harm

In this section I advance three arguments, one based on economic analysis of law, one on personality theory, and one of analogies to current jurisprudence in similar cases.

A. The law and economics of non-emotional harm

The main purposes of tort law are to compensate victims and deter tortfeasors—and pain and suffering damages are an essential instrument of both.⁵¹ The law, ideally, should disincentivize tortfeasors by forcing them to internalize the full extent of the harm they create, including the non-economic harm they create.⁵² The legal system, however, under-deters wrongdoing.⁵³ Plaintiffs are often precluded from accessing the judicial system due to a number of logistical barriers, including a dearth of lawyers due to the risk or even unprofitability associated with some types of suits, difficulty identifying wrongdoing, and daunting litigation costs.⁵⁴ In addition, even when they do award pain and suffering damages, courts often deflate these by disallowing certain types of evidence or arguments.⁵⁵

Tortfeasors, consequently, often escape suit or avoid paying significant damages, reducing the expected costs of their malfeasance and increasing the incidence of tortious conduct, including patent infringement.⁵⁶ Higher levels of infringement, in turn, deter innovation by disincentivizing solo inventors from commercializing their products, if not from actually exerting the effort to invent. Inventors will not invest time and money in creating or at least commercializing new technologies if their intellectual property is not sufficiently protected.

One way to correct this imbalance, however, is the implementation of pain and suffering damages, which will restore the expected costs of infringement to its real social harm. This would reduce the profitability of infringement, bolster patent security, and encourage inventors to innovate and commercialize their invention.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ See Ronen Avraham, *Does the Theory of Insurance Support Awarding Pain and Suffering Damages in Torts?*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INSURANCE LAW 94, 97–98 (arguing that tort law, without pain and suffering damages, under-deters tortfeasors).

⁵² *Id.* at 96.

⁵³ *Id.* at 97.

⁵⁴ *Id.*

⁵⁵ *Id.* at 98.

⁵⁶ *Id.*

A common critique against awarding pain and suffering damages is that they are hard to quantify and therefore should be ignored. In a recent work, I exposed several analytical problems with this argument.⁵⁷ First, opponents claim that studies show that pain and suffering awards vary widely and therefore horizontal inequity is violated. But what looks like wide variation to the econometrician might simply reflect the fact that judges and jurors tailor their judgements to the unique circumstances of each case, which are unobservable to the econometrician. Such tailoring may actually be desirable.⁵⁸ Every person experiences pain differently, and the law, consequently, must afford a wide latitude for these determinations.⁵⁹ Pain and suffering damages, additionally, are not any more difficult to quantify than economic damages.⁶⁰ In the context of bodily injuries, lost wages, future medical expenses, and other “traditional” awards are often fraught with speculation and gross miscalculations.⁶¹ In the context of patent infringement cases, economic loss is often measured by a “reasonable royalty,” which has been a subject of great controversy regarding the proper way to estimate it.⁶² Additionally, concerns regarding fictitious and exaggerated claims can be assuaged by courts’ keen ability to determine the veracity of alleged pain and suffering.⁶³ Finally, courts may also use several proven methods to quantify these damages that have been developed over decades of common law adjudication.⁶⁴

B. The property bodily-harm spectrum

Refining Hegel’s personality theory, Margaret Radin made the case in “Property and Personhood” that at least some conventional property rights in society ought to be recognized and preserved as personal.⁶⁵ “The premise underlying the personhood perspective is that to achieve proper self-development—to be a person—an individual needs some control over resources in the external environment.”⁶⁶ If an object is bound with the holder, such that its loss causes pain

⁵⁷ Ronen Avraham, *Estimated Pain-and-Suffering Damages*, in 2 THE OXFORD HANDBOOK OF LAW AND ECONOMICS 98 (2017).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² See Wesley Kobylak, Annotation, *Factors to be Considered in Determining a “Reasonable Royalty” for Purposes of Calculating Damages for Patent Infringement Under 35 U.S.C.A. § 284*, 66 A.L.R. Fed. 186, § 2(a) (1984) (describing the legal fiction that is the “reasonable royalty”).

⁶³ *Id.* Further, courts have been adjudicating these cases for centuries, and now have the benefit of medical technology that can better evaluate both physical and emotional pain. Avraham, *supra* note 51, at 98.

⁶⁴ These include: (1) the “Golden Rule” jury instruction, which asks jurors to place themselves in the shoes of the plaintiff and estimate the amount of money which would satisfy them had they endured the plaintiff’s injuries; (2) a per diem approach, in which a jury calculates the value of pain and suffering by the day, minute, or hour, and then multiplies this by the victim’s remaining life expectancy; and (3) multiplying medical costs by some factor to estimate pain and suffering. And more. Avraham, *supra* note 51, 100–03.

⁶⁵ Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 1014 (1982).

⁶⁶ *Id.* at 957.

that cannot be relieved by the object's replacement, then the object has a significant relationship with that person's personhood.⁶⁷ For example, a wedding ring that is stolen from a wearer is much harder to replace than one stolen from a jeweler due to its sentimental value.⁶⁸

One view is that what is important in personhood is the ability to express one's character through property, such as connecting property to memories or to plan to use property in future projects.⁶⁹ The expectation of continuing control over property seems to be one strong reason that someone would tie their personhood to property.

Radin argues that where we can ascertain that a property right is personal, that right should be protected to some extent from cancellation by conflicting fungible property claims of other people.⁷⁰ This is especially true when the claimants' opportunities to become fully-developed persons would be destroyed or seriously lessened without the claimed protection of the property as personal.⁷¹

While Radin's theory has been subject to various criticisms, it has been applied to intellectual property—particularly patents.⁷² In Kearns' case, the money he received from his settlement with Ford offered little solace because it did not recognize that his intellectual property was a part of his personhood, nor that his plan to use the property in the future meant that his development as a person depended on the realization of that expectation. In other words, the settlement ignored Kearns' expected use of his property as part of his identity as a person, and that losing this right could inflict emotional harm, perhaps no less than the emotional distress caused by a lost wedding ring.⁷³

Put differently, infringing on a solo inventor's intellectual property is analogous to injuring the solo inventor's body. Courts routinely award pain and

⁶⁷ *Id.* at 959.

⁶⁸ *Id.*

⁶⁹ *Id.* at 968 (“If an object you now control is bound up in your future plans or your anticipation of your future self, and it is partly these plans for your own continuity that make you a person, then your personhood depends on the realization of these expectations.”).

⁷⁰ *Id.* at 1014–15.

⁷¹ Radin, *supra* note 65, at 1014–15.

⁷² Ofer Tur-Sinai, *Beyond Incentives: Expanding the Theoretical Framework for Patent Law Analysis*, 45 AKRON L. REV. 243, 274–81 (2012) (discussing criticisms of Radin's theory as well as applications to patent law by various scholars).

⁷³ Another area where a person may be compensated the fair market value of property taken, but this might not reflect the value of the property to them, is eminent domain cases. Compensation based on fair market value systematically undercompensates condemnees because their property often holds a higher value to them than it does to the market. Brian Angelo Lee, *Just Undercompensation: The Idiosyncratic Premium in Eminent Domain*, 113 COLUM. L. REV. 593, 595 (2013). Market prices are determined by other people—buyers and sellers who have created the market by participating in transactions—and thus will not reflect an individual owner's sentimental value. Tur-Sinai, *supra* note 72, at 275. Similarly, Farnsworth rejected RCA's offer to buy his patent because he was *not* looking to sell his patent rights. Eventually, though, he was forced to accept royalties at market value even though they did not meet his personal valuation of his patent.

suffering damages in bodily injury cases where the pain and suffering harm exists in addition to the physical harm. If Radin is correct, courts should award pain and suffering damages in patent infringement cases as well.

C. Cognizable non-economic harm in property and contract cases

As the previous section has demonstrated, there are good reasons to consider patent infringement cases, at least in solo inventor cases, as similar to bodily injury cases. In this section, I show that pain and suffering damages are also sometimes awarded in mere property and contract cases. I argue that similar rationales to those applied in such cases apply also to patent infringement cases.

1. Property Cases

Even if one rejects my analysis in previous sections and believes that patent infringements are closer to the property end of the spectrum, Kearns' emotional harm may still be cognizable under U.S. law. Generally emotional damages are not recoverable as an element of property damage.⁷⁴ Yet, a solo inventor's harm is very similar to the distress a plaintiff may suffer from the defective construction of her dream home.⁷⁵ In *Salka v. Dean Homes Inc.*, repairs on the plaintiff's home took seven years to complete, during which time the plaintiff was forced to live in a rental apartment and was subject to distress and inconvenience.⁷⁶ Most courts would not allow recovery for non-economic damages stemming from the homebuilders' negligence because they would not recognize a duty owed to the plaintiff to avoid inflicting emotional distress.⁷⁷ In *Salka*, however, the court found a preexisting relationship between the parties that created a duty owed to the plaintiff, and found that the emotional distress claim was foreseeable. In the *Salka* example, it is easy to see how distress naturally flowed from negligent behavior in building the house—homes are a natural part of family life and as integral to personhood as property can be.⁷⁸ But if foreseeability is the test, then emotional trauma is also arguably foreseeable when a corporation forces an inventor to litigate their patent for years, despite their inferior legal resources.

In another case addressing damage to a plaintiff's home, *Rodrigues v. State*, the Hawaii Supreme Court upheld an award for \$2,500 in emotional damages by recognizing an independent legal protection from the negligent infliction of serious mental distress.⁷⁹ The Rodrigues' dream home that had just been completed was flooded, causing extensive damage that could have been prevented if the State had

⁷⁴ Barry A. Lindahl, *Emotional Injury as Element of Tort Damages*, 4 MODERN TORT LAW: LIABILITY AND LITIGATION § 32:2 (2d ed. 2017).

⁷⁵ See *Salka v. Dean Homes of Beverly Hills, Inc.*, 22 Cal. Rptr. 2d 902, 906 (Cal. Ct. App. 1993), *overruled by* *Salka v. Dean Homes*, 864 P.2d 1037 (1993).

⁷⁶ *Id.*

⁷⁷ Leslie Benton Sandor & Carol Berry, *Recovery for Negligent Infliction of Emotional Distress Attendant to Economic Loss: A Reassessment*, 37 ARIZ. L. REV. 1247, 1249 (1995).

⁷⁸ *Id.* at 1250.

⁷⁹ *Rodrigues v. State*, 472 P.2d 509, 520 (Haw. 1970).

done timely maintenance of a nearby culvert that was clogged with sand.⁸⁰ The court was not persuaded by the normal considerations that preclude recovery for negligent infliction of emotional distress—the primary concern was that courts will be flooded by fraudulent claims and that defendants may be exposed to unlimited liability for all emotional disturbances.⁸¹ The court reasoned that courts and juries may look to “the quality and genuineness of proof and rely to an extent on the contemporary sophistication of the medical profession” in order to weed out false claims and find proof of serious mental distress.⁸² Also, by limiting emotional damages to serious mental distress which is not trivial or transient, and by applying a “reasonable man” standard, courts can limit defendant liability.⁸³ The court consequently proposed a standard for negligent infliction of serious mental distress similar to that adopted by the Restatement.⁸⁴

Other courts have also allocated emotional distress damages for the negligent loss of property. In *Jarchow v. Transamerica Title Ins. Co.*, the plaintiffs were awarded \$50,000 each for emotional distress for the negligent failure of a title insurer to list a prior-recorded deed in a preliminary title report.⁸⁵ The court held that “[i]t was entirely foreseeable that plaintiffs would suffer mental anguish and distress when they were appraised of the defendant’s negligence since they relied on the preliminary report before purchasing the property.”⁸⁶ Also, in *Windeler v. Scheers Jewelers*, the defendant negligently lost jewelry entrusted to it by the plaintiff, who had emphasized the jewelry’s sentimental value.⁸⁷ Upon learning of the loss, the plaintiff suffered arguably-foreseeable emotional distress.⁸⁸ The appellate court held that the jury could properly award the plaintiff \$4,000 in money damages to compensate for emotional distress.⁸⁹

Foreseeability is also the organizing principle in contract cases, as the next section demonstrates.

2. Contract Cases

The Restatement (Second) of Contracts states the general rule that: “Recovery for emotional disturbance will be excluded unless the breach also caused bodily harm or the contract or the breach is of such a kind that serious emotional disturbance as a particularly likely result.”⁹⁰

⁸⁰ *Id.* at 513.

⁸¹ *Id.* at 519.

⁸² *Id.* at 519–20.

⁸³ *Id.* at 520.

⁸⁴ *Id.*

⁸⁵ *Jarchow v. Transamerica Title Ins. Co.*, 48 Cal. App. 3d 917, 917 (Cal. Ct. App. 1986), *overruled* by *Soto v. Royal Globe Ins. Corp.*, 184 Cal. App. 3d 420.

⁸⁶ *Id.* at 939.

⁸⁷ *Windeler v. Scheers Jewelers*, 8 Cal. App. 3d 844, 844 (Cal. Ct. App. 1970).

⁸⁸ *Id.* at 849.

⁸⁹ *Id.* at 854.

⁹⁰ RESTATEMENT (SECOND) OF CONTRACTS § 353 (1981).

One example is *Sullivan v. O'Connor*, wherein the plaintiff brought suit for failed plastic surgery of her nose, claiming that she suffered both bodily and emotional harm.⁹¹ The court distinguished this case from contract cases for goods and merchandise by reasoning that the psychological injury was more foreseeable as a probable consequence of the breach, because psychological injury is a more foreseeable result of a negligent operation.⁹²

Sullivan might be an unusual example because it involved bodily injuries. Other situations where courts have allowed pain and suffering damages for breach of contract have been in cases that involve expulsions of guests from hotels, or expulsions of passengers from trains, or refusal of admittance to ticket holders in places of public resort or entertainment.⁹³ While these cases may have a personal element, they hardly seem to involve severe emotional distress. An exception might be in breaches of contracts for funeral arrangements, as severe emotional distress is probably more likely than in the other cases.⁹⁴

Perhaps more to the point is a case when an insurance claim is denied. Often in such cases the insured will feel the need to sue the insurer not just for economic damages, but also for the tort of wrongful denial of coverage. Some courts have found that when a breach of contract is wanton or reckless, an action for distress damages may be appropriate. In *Giampapa v. American Family Mutual Insurance Co.*, the Colorado Supreme Court held that non-economic damages were available in such a case.⁹⁵ Here, the insured suffered severe injuries from an automobile accident, and despite purchasing a “deluxe” insurance policy, the insurance company failed to pay some medical bills, paid others late, and refused to pay for in-home therapy equipment that the insured’s physicians had recommended, resulting in substantial side effects.⁹⁶ The jury found that the insurance company willfully and wantonly breached its contract with Giampapa and awarded him \$125,000 solely for mental anguish.⁹⁷

So far I have assumed that complete compensation implies damages for non-economic harm. The next section assumes that court will not recognize non-economic harm in patent law as a separate cognizable harm. It therefore explores the use of § 284 which, as we saw above, was interpreted as a tool to impose *punitive* damages, as a doctrinal hook to award *pain and suffering* damages.

⁹¹ *Sullivan v. O'Connor*, 296 N.E.2d 183, 184 (Mass. 1973).

⁹² *Id.* at 188–89.

⁹³ CHARLES T. MCCORMICK, *CASES AND MATERIALS ON THE LAW OF DAMAGES* 593 (1935).

⁹⁴ *Hirst v. Elgin Metal Casket Co.*, 438 F. Supp., 906, 908 (D.Mont. 1977); *Yochim v. Mount Hope Cemetery Ass’n*, 623 N.Y.S.2d 80, 83 (N.Y. Ct. Cl. 1994); *Lamm v. Shingleton*, 55 S.E.2d 810, 813-14 (N.C. 1949).

⁹⁵ *Giampapa v. Am. Family Mut. Ins. Co.*, 64 P.3d. 230, 234 (Colo. 2003).

⁹⁶ *Id.* at 234–35.

⁹⁷ *Id.* at 236.

V. Section 284 enhanced damages as a doctrinal hook

Punitive, or “exemplary,” damages in tort law are assessed against a defendant for flagrantly violating a plaintiff’s rights. They may be awarded for conduct that is outrageous due to malice or reckless indifference to the rights of others.⁹⁸ Courts award these damages to punish the defendant for their outrageous conduct, as well as to deter other defendants from similar conduct in the future.⁹⁹ In this section I show that despite the focus on defendant’s egregious behavior, courts do consider plaintiff’s pain and suffering when they award punitive damages.

When courts award punitive damages in tort cases they consider various factors. Determinative factors for punitive damage awards vary among states, but they can generally be reduced to three main considerations: 1) the character of the defendant’s act; 2) the nature and extent of the plaintiff’s injuries; and 3) the defendant’s wealth.¹⁰⁰ As the second consideration above indicates, the jury is often instructed to consider the nature and extent of the plaintiff’s injury so that there is a relationship between the damages and the injury.¹⁰¹ The nature of the plaintiff’s injury of course includes the emotional component. In fact, one of the most famous punitive damages cases of all times deals with emotional distress. In *State Farm Mutual Auto. Ins. v. Campbell*, the Supreme Court held that punitive damages were warranted to punish State Farm’s misconduct.¹⁰² Representing the Campbells (State Farm’s insureds) against a tort lawsuit, State Farm insisted on taking the case to trial despite indicators that the Campbells were at fault for the subject incident, and refused to settle with the plaintiff in the underlying lawsuit for the \$50,000 policy limit despite the possibility that a jury award would be significantly higher.¹⁰³ State Farm assured the Campbells that their assets were safe, but at trial the jury determined that Curtis Campbell was entirely at fault for the incident and issued a \$185,849 judgement for the plaintiff.¹⁰⁴ State Farm refused to cover the \$135,849 in excess liability, and the Campbells sued State Farm for bad faith, fraud, and the intentional infliction of emotional distress.¹⁰⁵ The trial court awarded the Campbells \$1 million for emotional distress and an additional \$145 million in punitive damages.¹⁰⁶ Other courts followed suit.¹⁰⁷

⁹⁸ See generally RESTATEMENT (SECOND) OF TORTS § 908 cmt. b (1977).

⁹⁹ *Id.* at § 908(1).

¹⁰⁰ See *id.* at § 908(2) & cmts. b-e.

¹⁰¹ See *TXO Prod. Corp. v. Alliance Res. Corp.*, 509 U.S. 443, 460 (1993) (citing *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 21 (1991)) (noting that in calculating punitive damages, juries may consider harm that may have resulted from defendant’s actions as well as harm that actually occurred, but requiring reasonable relationship between harm and punitive damage award).

¹⁰² *State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 413 (2003).

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at 413-14.

¹⁰⁶ *Id.* at 415.

¹⁰⁷ See, e.g., *Spinks v. Equity Residential Briarwood Apartments*, 90 Cal. Rptr. 3d 453, 493 (Cal. Ct. App. 2009) (“Punitive damages likewise are recoverable . . . for the infliction of emotional distress.”).

The conclusion is simple. Even under current courts' interpretation of § 284, which as we saw above analogizes enhanced damages to punitive damages, court can still take into account the pain and suffering solo inventors suffer when they award punitive damages under § 284's enhanced damages.

VI. Conclusion

In sum, the current system of compensating patent infringements is inefficient and inadequate in protecting the interests of solo inventors. These individuals, considered to be the lifeblood of American innovation, are vulnerable due to frail legal protections that do not shield them from the intrusions of large, corporate infringers.¹⁰⁸ Courts may, however, rectify this imbalance in various ways, the easiest one is by reading § 284 of the Patent Act to include emotional distress damages as a relevant factor for the recovery for patent infringement.¹⁰⁹ Enhancing damages in this way would both compensate inventors for the fiscal and emotional toll of patent litigation, as well as better deter would-be infringers from violating the tenets of patent law.

¹⁰⁸ See *supra* subpart 3a (discussing how the current tort law regime under-deters tortfeasors).

¹⁰⁹ See 35 U.S.C.A. § 284 (West 2017) (providing that courts shall award damages "adequate to compensate for the infringement," allowing judges to consider a variety of recoveries including emotional distress damages).