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PUTTING THE EQUITY BACK INTO INTELLECTUAL PROPERTY REMEDIES

Henry E. Smith*

Within the realm of remedies, intellectual property remedies have presented particular difficulties, and in intellectual property law, controversy has focused on remedies. Concerns about holdup in intellectual property have even begun to lead to innovations in the law of remedies itself. Many of the difficulties and controversies raging now center around remedies that are “equitable.” In this Essay I argue that recovering a major function of equity—as meta-law—helps us understand these problems and to offer potential solutions. Meta-law is a higher order intervention when regular law fails, in contexts of high complexity and uncertainty, often stemming from polycentricity, conflicting rights, or opportunism. These problems are rife in intellectual property settings. An attention to meta-law can focus on potential two-sided opportunism in scenarios of possible injunctions, and a more traditional equitable framework can help frame when presumptions for injunctions are appropriate and when they should be overcome. Equity as meta-law allows us to avoid flattening the law of intellectual property remedies.

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INTRODUCTION

Nowhere is the question of remedies more front and center than in intellectual property. In recent years intellectual property cases have even exerted some influence on the law of remedies more generally. At the same time, equity and the traditions of equity are invoked in the very process of

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cutting back on injunctions and making them into a rare form of “supracompensatory” remedies. And nowhere is the mysterious role, if any, of equity more needed and less apparent than in intellectual property remedies. We have an equity deficit.

It is not as if uses of the word “equity” are lacking. Certain remedies are labeled “equitable,” as are certain defenses. The United States Supreme Court points to the “tradition[s] of equity” as a source of law for intellectual property remedies, among other things.¹ And people seem to think that equity means discretion.² Beyond that there be monsters—to the extent anyone is paying attention.

And yet equity shapes the law of intellectual property remedies in a more thoroughgoing way. I will claim that once we understand some of the true functions of equity, it probably should play a much greater and more explicit role in our law,³ and especially in intellectual property remedies.

One such function is meta-law. A theme of equity with deep roots in the Western tradition is its role in correcting the law when it failed because of its generality. Intellectual property and its associated remedies strive for simplicity and generality but fail in characteristic ways. These involve complexity and uncertainty that stem from interactions among parties, their activities, and the resources they employ to develop information. Of particular relevance is the possibility that informed parties, of which there is no lack in situations involving intellectual property, will bend the system to purposes for which it was not designed. This problem of opportunism is hard to specify in advance because such efforts invite further game playing. Announcing the line past which something will be treated as constructive fraud will allow the well informed to engage in “compliant non-compliance.”⁴ Moreover, opportunism itself is multiparty, and multidimensional solutions to one party’s opportunism often invite another’s. Removing the leverage one party can obtain through an injunction can lead the other party to abuse a system based on (inevitably) imperfectly determined damages.

These problems are especially difficult to deal with head on, and I will argue that they are especially suited for treatment on another level—that of meta-law.⁵ Certain problems of great uncertainty and complexity call for an ex post intervention that ranges over the law and employs more context than the law usually does, in a process of adjustment. These problems include multipolar relations, conflicting rights, and opportunism. Each of these

1 eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 390–91 (2006); Samuel L. Bray, *The Supreme Court and the New Equity*, 68 VAND. L. REV. 1000–02 (2015).

2 See, e.g., Andrew Kull, *Ponzi, Property, and Luck*, 100 IOWA L. REV. 291, 292–93, 300 (2014).

3 See Henry E. Smith, *Equity as Meta-Law*, 130 YALE L.J. (forthcoming 2021) [hereinafter Smith, *Equity as Meta-Law* (manuscript at 2)] (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3734662); Henry E. Smith, *Equity as Second-Order Law: The Problem of Opportunism* (Harvard L. Sch. Pub. L. Working Paper, Paper No. 15-13, 2015).

4 John Braithwaite, *Rules and Principles: A Theory of Legal Certainty*, 27 AUSTRALIAN J. LEGAL PHIL. 47, 55–56 (2002).

5 See Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 3).

involves complex interaction, whether among multiple parties, among multiple presumptive rights, or among an unspecified set of other elements of the legal system. Even opportunism results from hard-to-foresee exploitation of the weaknesses thrown up by the law.

Existing approaches to intellectual property remedies suffer from under-exploiting the potential of equitable meta-law. Frameworks for thinking about remedies, especially property rules versus liability rules,⁶ treat remedies along a spectrum of strength rather than as multidimensional and finely adjusted, as in traditional equity. The caselaw has partially followed this flattening of remedies. From the standard for injunctions to the underutilization of doctrines like estoppel, the law tries to do at one messy level what could be handled more effectively using equity as a second-order modulation of the law.

This Essay will excavate the remnants of equitable meta-law in the area of intellectual property remedies. It will show how current approaches are lacking and how a reconstruction of equitable meta-law could solve some of these perennial problems without introducing new ones. Part I will show how the law of intellectual property remedies has been flattened in many respects. In Part II, I show how popular frameworks for thinking about remedies if anything go even further in this direction, leaving many loose threads. Part III then shows how bringing out the theme of meta-law among the equitable aspects of intellectual property law could help the law of intellectual property remedies more effectively address some common complaints about its current state. The Essay concludes with some thoughts about how to overcome the current impasse in intellectual property remedies.

I. INTELLECTUAL PROPERTY REMEDIES FLATTENED

Commentators and many courts have flattened the law of remedies. Indeed, they have flattened the law in general and in remedies in particular. The consequences for intellectual property are especially serious.

What is flattened law? Implicit in much commentary about the law is the “heap” conception. Law is a heap of rules, each of which can be evaluated in isolation, because each contributes additively to the fitness of law (its efficiency, fairness, promotion of autonomy). This assumption traces back to legal realism and beyond and can be seen in proto form in Holmes’s aphoristic admonition that “a body of law is more rational and more civilized when every rule it contains is referred articulately and definitely to an end which it subserves, and when the grounds for desiring that end are stated or are ready to be stated in words.”⁷ The legal realists assumed something along these lines in holding up legal doctrine to the light of policy and especially in assuming that property is not just a bundle of rights but metaphorically a

6 Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972).

7 O.W. Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).

“bundle of sticks.”⁸ Sticks hardly interact with each other, and a bundle of noninteracting sticks can be optimized stick by stick. If we optimize one stick, we are improving the bundle and getting toward overall optimization. Making a stick better is overall improving because there is no room for a negative effect produced in tandem with other sticks. As an outgrowth of legal realism, much of law and economics adopts this atomizing reductive view of law as a heap when it analyzes “legal rules” for their efficiency.

In keeping with the realist legacy, alternatives to the heap picture face some suspicion. The realists were expert at tarring alternatives as formalist and deductive, and claiming that such approaches could not handle the complexity of modern law and society (and that only realism could).⁹ While it is true that some approaches to “system” in the writings of the nineteenth century were rather formalist, a closer look reveals a variety of notions of system.¹⁰ In particular, it is decidedly not the case that all such notions were of logical or deductive systems. Thus, pace Holmes’s aphorism “[t]he life of the law has not been logic: it has been experience,”¹¹ we are not necessarily in the realm of logic but of experience when we regard law as a system.

What kind of system is the law? That I leave for another day, but a glance at the modern notion of system from complex systems theory is illuminating.¹² In complex systems theory, a system is a collection of interconnected elements, and a complex system is one in which the elements are so interconnected that they give rise to emergent properties.¹³ These properties hold of the system as a whole and cannot be traced to the individual contributions of elements taken individually. The connections between elements need not be deductive or logical. Thus, for instance, in the bundle of rights, the reason to cluster attributes together is that they are complemen-

8 See, e.g., Thomas C. Grey, *The Disintegration of Property*, in NOMOS XXII: PROPERTY 69 (J. Roland Pennock & John W. Chapman eds., 1980); Walton H. Hamilton & Irene Till, *Property*, in 11 ENCYCLOPAEDIA OF THE SOCIAL SCIENCES 528, 528 (Edwin R.A. Seligman & Alvin Johnson eds., 1937); see also Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 YALE L.J. 357, 357–58 (2001).

9 See, e.g., THURMAN W. ARNOLD, *THE FOLKLORE OF CAPITALISM* 114–16 (1937); JAMES E. HERGET, *AMERICAN JURISPRUDENCE, 1870–1970: A HISTORY* 146–48 (1990); G. EDWARD WHITE, *The Evolution of Reasoned Elaboration: Jurisprudential Criticism and Social Change*, in PATTERNS OF AMERICAN LEGAL THOUGHT 136, 136–39 (1978). See generally RICHARD A. POSNER, *REFLECTIONS ON JUDGING* (2013) (arguing from complexity against formalism and for a new judicial realism).

10 See Mathias Reimann, *Nineteenth Century German Legal Science*, 31 B.C. L. REV. 837 (1990).

11 OLIVER WENDELL HOLMES, JR., *THE COMMON LAW* 1 (Dover Publications 1991) (1881); see also Thomas C. Grey, *Langdell’s Orthodoxy*, 45 U. PITT. L. REV. 1, 3 (1983) (calling this statement “the central slogan of legal modernism”).

12 See Henry E. Smith, *Systems Theory: Emergent Private Law*, in THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW 139, 140, 154 (Andrew S. Gold, John C.P. Goldberg, Daniel B. Kelly, Emily Sherwin & Henry E. Smith eds., 2021).

13 MELANIE MITCHELL, *COMPLEXITY: A GUIDED TOUR* 13 (2009); HERBERT A. SIMON, *THE SCIENCES OF THE ARTIFICIAL* 195 (2d ed. 1981); Ludwig von Bertalanffy, *An Outline of General System Theory*, 1 BRIT. J. FOR PHIL. SCIENCE 134, 141 (1950).

tary; they are more valuable taken together. One reason would be that using one attribute affects the use value of another attribute. Given the patterns of use, we might find that attributes cluster into modules (there is a community structure that can be found using familiar algorithms) and these might correspond to legal things.¹⁴ (We might want to adjust the interface between such things and other things by suppressing unimportant connections and crystallizing others.) Likewise, notions of possession, definitions of legal thing, and tort causes of action can interact to produce an effect not reducible to single “rules.”¹⁵ Thus, with aerial trespass, instead of looking for rules for aircraft, rules for drones, rules for overhanging eaves, etc., we see an interplay between a partially specified notion of legal thinghood (surface boundaries extended upward and downward indefinitely, but not infinitely, under *ad coelum*) along with definitions of possession (for buildings and activities) and rights to possess (for building upward and a lesser form of protection), safeguarded by trespass and supplemented by nuisance.¹⁶ The owner’s protection is emergent out of this complex interplay of devices.

Complexity comes in degrees. Despite the popular emphasis on chaos and the too-easy assumptions of simplicity, many systems fall somewhere in between the extremes of chaos and simplicity. If every attribute of every resource were maximally connected to every other, any change in one could set off massive ripple effects in terms of the value of the whole (unified) resource, which can result in genuine chaos. At the other pole (of simplicity) where attributes are not connected at all, the fitness landscape is correspondingly simple, with one maximum. However, interconnection may be less than maximal, and the interconnections may not be evenly distributed, a phenomenon known as “organized complexity.”¹⁷ And correspondingly, a fitness landscape for organized complexity is jagged but shows local peaks and valleys.¹⁸ In organized complexity, spontaneous evolution may be enough for local maximization. Reaching some maxima may require larger

14 Ted Sichelman & Henry E. Smith, Modeling Legal Modularity 2 (2017) (unpublished manuscript) (https://extranet.sioe.org/uploads/sioe2017/sichelman_smith.pdf); see also Ted M. Sichelman, *Quantifying Legal Entropy*, in THE PHYSICS OF THE LAW: LEGAL SYSTEMS THROUGH THE PRISM OF COMPLEXITY SCIENCE (forthcoming). On network algorithms, see, for example, M.E.J. Newman & M. Girvan, *Finding and Evaluating Community Structure in Networks*, 69 PHYSICAL REV. E 026113-1 (2004).

15 Henry E. Smith, Property as a Complex System 16–19 (Oct. 1, 2020) (unpublished manuscript) (on file with author); see also Spencer Williams, *Contracts as Systems*, DEL. J. CORP. L. (forthcoming 2021) (manuscript at 12, 16) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3687773).

16 RESTATEMENT (FOURTH) OF PROP.: INTERFERENCES WITH, AND LIMITS ON, OWNERSHIP & POSSESSION § 1.2A (Am. L. Inst., Council Draft No. 2, Nov. 27, 2019) (describing trespass by overflight); RESTATEMENT (FOURTH) OF PROP.: THE BASICS OF PROP. § 1.1 (AM. L. INST., Council Draft No. 1, Sept. 13, 2019) (defining possession); *id.* § 1.8 (describing rights to possession).

17 Warren Weaver, *Science and Complexity*, 36 AM. SCIENTIST 536, 539 (1948).

18 Lee Alston & Bernardo Mueller, *Towards a More Evolutionary Theory of Property Rights*, 100 IOWA L. REV. 2255, 2266–67 (2015); Smith, *supra* note 12, at 143–44.

changes.¹⁹ In any case, when it comes to entitlements, they are neither atomistic nor additive. Instead, attributes are likely to cluster into components or modules in which interaction is more intensive within the module than at the interface between the modules. To leave this out of the picture is to flatten the law in this respect.

This flattening is quite apparent in the law of remedies. Damages involve assigning a monetary value to liability. Damages may reflect some combination of compensation, deterrence, and other, e.g., expressive, purposes.²⁰ To the extent that damages are awarded by juries without special verdicts, they are the output of a black box. The determination of damages may be complex, but the complexity is not directly visible to the legal system.

Equitable remedies are a more mixed picture. The most salient equitable remedy is the injunction, an order issued by a court to perform or refrain from some action(s). Violation of an injunction can lead to being found in contempt and jailed or fined. Injunctions are not as of right but are within the discretion of the court. Traditionally, there was a complex and interactive set of rules of thumb for considering an injunction.²¹ This set of rules of thumb had certain features in common across areas of law but would take on different shades depending on the question at hand. Thus, the inquiry for an injunction in a trespass case would differ from that in a nuisance case, and both would differ from the considerations involved in intellectual property injunctions.

The traditional rules of thumb had to do with inadequacy of the legal remedy. Inadequacy of the legal remedy is a complex congeries of considerations of difficulty of valuation, inconveniences of repeated litigation, potential undermining of the right, and so on.²² The trigger for equity here would be the inadequacy of the legal remedy (which could stem from a variety of factors). Although this has been regarded as a vacuous “rule” because one can find examples of almost any kind of situation leading to an injunction,²³ there is more to say in favor of this trigger for equity.²⁴ As I have argued elsewhere, inadequacy of the legal remedy (or alternatively irreparable

19 Yun-chien Chang & Henry E. Smith, *An Economic Analysis of Civil Versus Common Law Property*, 88 NOTRE DAME L. REV. 1, 52 (2012); Yun-chien Chang & Henry E. Smith, *Convergence and Divergence in Systems of Property Law: Theoretical and Empirical Analyses*, 92 S. CAL. L. REV. 785, 790 (2019).

20 See, e.g., Felipe Jiménez, *Rethinking Contract Remedies* (U.S.C. Ctr. for L. & Soc. Sci., Paper No. CLASS20-19, 2020), <https://ssrn.com/abstract=3721546>.

21 Mark P. Gergen, John M. Golden & Henry E. Smith, *The Supreme Court's Accidental Revolution? The Test for Permanent Injunctions*, 112 COLUM. L. REV. 203, 233 (2012).

22 See, e.g., Samuel L. Bray, *The System of Equitable Remedies*, 63 UCLA L. REV. 530, 544–50 (2016).

23 See, e.g., DOUGLAS LAYCOCK, *THE DEATH OF THE IRREPARABLE INJURY RULE* 5 (1991); Douglas Laycock, *The Death of the Irreparable Injury Rule*, 103 HARV. L. REV. 687, 688–701 (1990).

24 See Gene R. Shreve, *The Premature Burial of the Irreparable Injury Rule*, 70 TEX. L. REV. 1063, 1064–65 (1992) (reviewing LAYCOCK, *supra* note 23); Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 55).

injury) is best regarded as a trigger for a complex equitable analysis. It shows that we have entered meta-law, where a different, more interactive and open-ended style of analysis is exceptionally called for.²⁵ Also relevant to an injunction would be disproportionate hardship—does the injunction visit far more harm on the enjoined party than the small benefit it affords the movant? A range of third-party effects are also relevant, sometimes traveling under the heading of public policy. And key to the availability of an injunction or a defense would be the good faith and absence of unclean hands on the part of anyone seeking to benefit from any equitable remedy or defense.

This approach to injunctions is, I will argue, well suited for intellectual property if its meta-law aspect is well understood. Nevertheless, there are initial challenges in applying injunctions in intellectual property, especially if meta-law is not foregrounded. For one thing, injunctions afford the movant a great deal of leverage, not keyed to how much might be “deserved” in any given case. For this, traditional equity employed the undue hardship defense, but this defense itself has been much misunderstood in recent times, being treated as an exception in favor of liability rules and a balancing in the sense of equipoise (would the injunction do more harm than good).²⁶

A major challenge to the use of traditional considerations in evaluating injunctions is how to implement the requirement of good faith. What constitutes good faith varies by context and presents some challenges specific to intellectual property. For boundary encroachments in real property, good faith means with knowledge of the rights violation. Disproportionate hardship can be invoked for minor encroachments made in good faith mistake.²⁷ Good faith plays a much lesser role in nuisance because the point is reconciling conflicting rights, but even there maliciousness can be a factor in pointing toward an injunction.²⁸

In intellectual property, we might expect injunctions for knowing violations, but often the contention is that a violator did not know of a patent or

25 See Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 3).

26 See Douglas Laycock, *The Neglected Defense of Undue Hardship (and the Doctrinal Train Wreck in Boomer v. Atlantic Cement)*, J. TORT L., no. 3, art. 3, Dec. 2011, at 1, 1.

27 See *Renaissance Dev. Corp. v. Universal Props. Grp., Inc.*, 821 A.2d 233, 238 (R.I. 2003) (noting that “in situations . . . ‘where the [defendant’s] encroachment was intentional . . . the courts . . . have issued the mandatory injunction without regard to the relative convenience or hardship involved’” (quoting *Ariola v. Nigro*, 156 N.E.2d 536, 540 (Ill. 1959)); *Culbertson v. Bd. of Cnty. Comm’rs*, 2001 UT 108, ¶ 56, 44 P.3d 642, 658 (“[W]here the encroachment is deliberate and constitutes a willful and intentional taking of another’s land, equity may require its restoration, without regard for the relative inconveniences or hardships which may result . . .” (quoting *Papanikolas Bros. Enters. v. Sugarhouse Shopping Ctr. Assocs.*, 535 P.2d 1256, 1259 (Utah 1975)); *Whitlock v. Hilander Foods, Inc.*, 720 N.E.2d 302, 307 (Ill. App. Ct. 1999) (“One who knows of a claim to land that he proposes to use as his own proceeds at his peril if he goes forward in the face of protest or warnings from the owner and places a structure on the land.”).

28 See, e.g., *Sundowner, Inc. v. King*, 509 P.2d 785, 787 (Idaho 1973) (enjoining as a spite fence a large sign erected solely to annoy neighbor); Stewart E. Sterk, *Neighbors in American Land Law*, 87 COLUM. L. REV. 55, 62–63 (1987) (setting forth different approaches to “spite fences”).

reasonably thought the plaintiff's patent was invalid or did not cover the accused activity.²⁹ To the extent that notice is difficult or ineffective, the standard for good faith in injunctions must be correspondingly more accommodating and the disproportionate hardship defense easier to invoke than in building encroachments.

In recent times, the complexity of this picture of injunctions has been partially obscured, and partly in response to problems originating in intellectual property cases. Most notably, as part of its ostensible interest in equity, the U.S. Supreme Court in a patent case restated the test for injunctions. Despite invoking the "traditional principles of equity" and calling the test "well-established,"³⁰ the Court's four-part test was cribbed from the standard for preliminary injunctions, doubling up on irreparable harm. (Although the test was largely unheard of by remedies scholars,³¹ there were a few scattered antecedents in state and lower federal caselaw.³²) To obtain an injunction a movant must show:

- (1) [T]hat it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff

29 See, e.g., Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 2–3 (2013).

30 eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391, 394 (2006).

31 Doug Rendleman, *The Trial Judge's Equitable Discretion Following eBay v. MercExchange*, 27 REV. LITIGATION 63, 76 n.71 (2007) ("Remedies specialists had never heard of [*eBay's*] four-point test."); see also DOUGLAS LAYCOCK, MODERN AMERICAN REMEDIES: CASES AND MATERIALS 426 (4th ed. 2010) (stating "there was no 'traditional' four-part test" for permanent injunctions).

32 The following standard has been used in Kansas for both preliminary and permanent injunctions:

- (1) [T]here is a reasonable probability of irreparable future injury to the movant; (2) an action at law will not provide an adequate remedy; (3) the threatened injury to the movant outweighs whatever damage the proposed injunction may cause the opposing party; and (4) the injunction, if issued, would not be adverse to the public interest.

Sampel v. Balbernie, 889 P.2d 804, 807 (Kan. Ct. App. 1995) (about injunctive relief). *Sampel* was cited in *Empire Manufacturing Co. v. Empire Candle, Inc.*, 41 P.3d 798, 808 (Kan. 2002), a case on preliminary injunctions (but did not acknowledge the difference). More recently, the Kansas Court of Appeals used the test in a permanent injunction case. *Kiekel v. Four Colonies Homes Ass'n*, 162 P.3d 57, 63 (Kan. Ct. App. 2007). Nevertheless, the Kansas Court of Appeals has shown itself open to presumptions of irreparable injury. *Per-simmon Hill First Homes Ass'n v. Lonsdale*, 75 P.3d 278, 283 (Kan. Ct. App. 2003). Picking up on an earlier (mistaken) statement by the U.S. Supreme Court that the standards for temporary injunctions and permanent injunctions were "essentially the same," *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 546 n.12 (1987) ("The standard for a preliminary injunction is essentially the same as for a permanent injunction with the exception that the plaintiff must show a likelihood of success on the merits rather than actual success."), some lower federal courts employed a four-factor test with a trivial "success on the merits" prong rather than doubling up on irreparable harm as in *eBay*. See Gergen et al., *supra* note 21, at 208–10.

and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.³³

The decision was 9–0, accompanied by concurrences pointing in opposite directions in terms of the availability of injunctions.³⁴ As Mark Gergen, John Golden, and I have argued, this test is problematic for quite a number of reasons.³⁵ It is not the traditional test,³⁶ and for a reason. Perhaps in order to avoid presumptions in favor of injunctions, the test borrows from preliminary injunctions, where there is no reason to presume in the movant’s favor. However, after a rights violation, the situation is different. Likewise “balance of hardships between the plaintiff and defendant” sounds like equipoise, which is more appropriate for preliminary injunctions. For permanent injunctions, it is not: the idea is to identify situations in which injunctions are usually called for and then use disproportionate or undue hardship—a gross imbalance of the hardship—as a safety-valve-style defense.³⁷ The test also says nothing of the court’s ability to delay an injunction and condition it in various ways, as well as to craft it to protect the right by going beyond the terms of the right. Finally and most glaringly, the test says nothing about good faith. This is especially damaging as the test has been used outside of intellectual property.³⁸ In addition to the predicted effect of lowering the likelihood of obtaining an injunction in patent cases, especially by nonpracticing entities, it is not clear that the test captures what really goes on in injunction cases or is sanding away the useful details of that body of law.³⁹

33 *eBay*, 547 U.S. at 391.

34 *Id.* at 388, 395 (Roberts, C.J., concurring) (indicating courts should be wary of abandoning traditional practice of “grant[ing] injunctive relief upon a finding of infringement in the vast majority of patent cases”); *id.* at 397 (Kennedy, J., concurring) (“The potential vagueness and suspect validity of some of these [business-method] patents may affect the calculus under the four-factor test.”).

35 See Gergen et al., *supra* note 21, at 205–06.

36 See LAYCOCK, *supra* note 31, at 426 (stating “there was no ‘traditional’ four-part test” for permanent injunctions); Rendleman, *supra* note 31, at 76 n.71 (“Remedies specialists had never heard of [*eBay*’s] four-point test.”).

37 Herbert F. Schwartz, *Injunctive Relief in Patent Infringement Suits*, 112 U. PA. L. REV. 1025, 1045–46 (1964) (suggesting a “[g]rossly [d]isparate [h]ardship” standard). The recent trademark legislation provides for a rebuttable presumption for those seeking an injunction after a finding of a rights violation or a showing of likelihood of success on the merits. Trademark Modernization Act of 2020, Pub. L. No. 116-260, § 226, 134 Stat. 1182 (2020) (codified at 15 U.S.C. § 1116(a)) (“A plaintiff seeking any such injunction shall be entitled to a rebuttable presumption of irreparable harm upon a finding of a violation identified in this subsection in the case of a motion for a permanent injunction or upon a finding of likelihood of success on the merits for a violation identified in this subsection in the case of a motion for a preliminary injunction or temporary restraining order.”).

38 See *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 144, 156–58 (2010) (applying the *eBay* four-factor test in a NEPA case, using no presumptions).

39 Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949, 2002 (2016); see also Elizabeth A. Rowe, *eBay, Permanent Injunctions, and Trade Secrets*, 77 WASH. & LEE L. REV. 553, 557 (2020) (finding that *eBay* test is not literally applied in trade secret cases).

Those details are associated with discretion, but the move away from traditional equitable standards is fraught with irony. In our system, the replacement for equity has not been more rules but even more discretion, whether as some diffuse generalized equity, vague standards, or multifactor balancing tests that afford decisionmakers great leeway.⁴⁰ It is true that we could come up with some rules, such as nonpracticing entities never get injunctions. However, their likely overinclusiveness invites discretion on the micro level, so that even patterns of fewer injunctions do not show that judges are not empowered with discretion under tests like that in *eBay*.⁴¹

The law of intellectual property is not unique in having been flattened. While developments in intellectual property remedies have been driven in part over concerns about hold-up, a lack of appreciation for the meta-law character of much of traditional equity, extending back at least to the realist era if not beyond, has allowed the law of intellectual property remedies to partake of the flattening of private law.

II. FLATTENED FRAMEWORKS FOR REMEDIES

The law of intellectual property remedies is in a state of flux, especially with respect to the issuance of injunctions. When it comes to the commentary and frameworks for thinking about remedies, this flattening of the law is even more pronounced.

Flattening of the law is also characteristic of the framework of property rules and liability rules, initiated by Guido Calabresi and Douglas Melamed, especially as interpreted in the vast subsequent literature.⁴² A property rule is a remedy that is robust with a view to forcing the would-be taker of an entitlement to obtain the consent of its current holder. A liability rule allows a taker to violate or acquire the entitlement on condition of paying officially determined damages. These damages can be set at market compensation or some other amount (for example at 150% in an attempt to reflect subjective value).

It has often been remarked that injunctions are not well captured by property rules.⁴³ For all the reasons stated above, the conditionality and dis-

40 See Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 73–75). The targeted and guided nature of this version of equity goes some way toward mitigating the perverse effects of expensive law tailored on small litigants. See Glynn S. Lunney, Jr., *Two-Tiered Trademarks*, 56 Hous. L. Rev. 295, 296–97 (2018) (arguing that tailored law even if more accurate in one case systematically disadvantages small litigants and distorts the law).

41 See, e.g., Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 9–10 (2012) (documenting decline in injunction rates); Christopher J. Clugston & Wonjoon Kim, *The Unintended Consequences of the Injunction Law After eBay v. MercExchange: An Empirical Study of the Effects on Injunctions in Patent Law*, 99 J. PAT. & TRADEMARK OFF. SOC'Y 249, 261–63 (2017) (showing decline in rate of injunctive relief not just for nonpracticing entities but in certain industries).

42 See, e.g., IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* 5 (2005) (citing Calabresi & Melamed, *supra* note 6).

43 Bray, *supra* note 22, at 563, 570, 570 n.214; Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 71–72).

cretion involved in injunctions makes them more than a larger hammer compared to compensatory damages (liability rules). Injunctions are not just or mainly a supracompensatory remedy. In the next Part, I will show how injunctions diverge from damages along another dimension not unrelated to conditionality and discretion: equitable meta-law.

Interestingly, the literature on liability rules makes some room for other dimensions of law in remedies, but mostly not in the places the law actually does—and not in the most effective ways either. Realizing that market damages or even average-harm damages can be improved upon, the academic literature is replete with complicated liability rules mimicking complex options, dual-chooser mechanisms, and even auctions.⁴⁴ The idea is that some framework beyond one decisionmaker picking a monetary amount along one dimension can improve the system of damages. There is a theoretical case to be made for some of these schemes, in the sense that hypothetical auctions tend to look good outside of any institutional context.⁴⁵ In real life, auctions are expensive and often vulnerable to manipulation.

Moreover, the complex liability rule literature would be hard to implement, and the gap between it and the law is likely to remain large. The law does not exhibit the preference for liability rules one would expect on these theories, and liability rules are likely to be too complicated and under-protective in a wide variety of situations.⁴⁶ Complex liability rules would require a lot of knowledge on the part of actors, if not judges and juries. More seriously, complex liability rules would have to be quite complex to avoid problems of manipulation. For example, an average-expected-harm rule would be vulnerable to savvy takers who could target assets that are likely to be undervalued by a court.⁴⁷

Perhaps most seriously, the liability rule literature, while promoting complexity in remedies and even entitlements, does not come to grips with

44 AYRES, *supra* note 42, at 54–72; Ronen Avraham, *Modular Liability Rules*, 24 INT'L REV. L. & ECON. 269, 270 (2004); Ian Ayres & J.M. Balkin, *Legal Entitlements as Auctions: Property Rules, Liability Rules, and Beyond*, 106 YALE L.J. 703, 711 (1996).

45 Something similar can be said of self-assessment and the Harberger tax proposed for property in ERIC A. POSNER & E. GLEN WEYL, *RADICAL MARKETS: UPROOTING CAPITALISM AND DEMOCRACY FOR A JUST SOCIETY* 30–79 (2018); Eric A. Posner & E. Glen Weyl, *Property Is Only Another Name for Monopoly*, 9 J. LEGAL ANALYSIS 54 (2017). See David K. Levine, *Radical Markets by Eric Posner and E. Glen Weyl: A Review Essay*, 58 J. ECON. LITERATURE 471, 476 (2020) (book review); Juan Ramón Rallo, *Property Is Only Another Name for Decentralized Creation of Knowledge*, 47 EUR. J.L. & ECON. 43, 54 (2019); Smith, *supra* note 15, at 13; Leah Marie Theriault, *Things Without Stability of Possession: Hohfeld & the Harberger Tax* (2020) (unpublished manuscript) (on file with author); Katrina M. Wyman, *In Defense of the Fee Simple*, 93 NOTRE DAME L. REV. 1, 26–33 (2017).

46 Richard A. Epstein, *A Clear View of The Cathedral: The Dominance of Property Rules*, 106 YALE L.J. 2091, 2093–96 (1997); Carol M. Rose, *The Shadow of The Cathedral*, 106 YALE L.J. 2175, 2194–97 (1997); Henry E. Smith, *Property and Property Rules*, 79 N.Y.U. L. REV. 1719, 1722–23 (2004).

47 Smith, *supra* note 46, at 1764–68, 1774–85.

the true complexity problems in property.⁴⁸ If we think about resources as made up of valued attributes, there is a question of which go with which. Theoretically, we could imagine a world where entitlements corresponded to atomic attributes, the smallest aspect of a resource that has value. The problem is that some attributes are highly intertwined spatially and in terms of value with other attributes. Think water and soil or the right to farm and the right to air and light. What we treat as things is in part determined by what constitutes a convenient and somewhat separable unit of such valued attributes. However we define legal things, they can be somewhat malleable: if we tax some attributes we can expect reconfigurations.⁴⁹ A simple example is a per unit tax on lightbulbs leading to substitution toward longer lasting light bulbs.⁵⁰ Another example is how parcels tend to be configured into thin strips along rivers in order to maximize (misuse) riparian rights that attach to any riparian parcel regardless of the length of its border with the watercourse.⁵¹ Valued attributes do not contribute in additive fashion to clusters of such attributes.⁵² Instead, through everyday notions of things and through legal definitions of real property parcels and intangible rights, we find legal things corresponding to clusters of attributes that have some internal synergy and far less (even if still significant) connection to the rest of the world.

In a flattened world, liability rules look better than they otherwise would. Liability rules are, however, not the default remedy in property, and holdout problems may be outweighed by other concerns like undercompensation.⁵³ The need for injunctions goes beyond the benefits of the robustness of property rules: injunctions allow the system of remedies to respond in a strategic fashion to the strategic behavior of primary actors.

III. EQUITY AS A SOLUTION

In this Part, I propose a way out of these dilemmas of intellectual property remedies. Current frameworks and to some extent the law itself have mostly flattened the law of remedies, although not completely. Fragments of an older approach to equity are still present and can be reformulated into a

48 Henry E. Smith, *Complexity and the Cathedral: Making Law and Economics More Calabresian*, 48 EUR. J.L. & ECON. 43, 48–53 (2019).

49 See Yoram Barzel, *An Alternative Approach to the Analysis of Taxation*, 84 J. POL. ECON. 1177, 1178 (1976); see also Henry E. Smith, *Ambiguous Quality Changes from Taxes and Legal Rules*, 67 U. CHI. L. REV. 647, 683–96, 706 (2000).

50 See Barzel, *supra* note 49, at 1186.

51 Dean Lueck, *The Rule of First Possession and the Design of the Law*, 38 J.L. & ECON. 393, 407 n.46 (1995) (citing JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY (3d ed. 1993)).

52 Smith, *supra* note 15, at 9.

53 See, e.g., Epstein, *supra* note 46, at 2094; Lee Anne Fennell, *Revealing Options*, 118 HARV. L. REV. 1399, 1403–04 (2005); Michael Heller & Rick Hills, *Land Assembly Districts*, 121 HARV. L. REV. 1465, 1474–75 (2008); Nicole Stelle Garnett, *Unbundling Homeownership: Regional Reforms from the Inside Out*, 119 YALE L.J. 1904, 1917–18 (2010) (reviewing LEE ANNE FENNEL, THE UNBOUNDED HOME: PROPERTY VALUES BEYOND PROPERTY LINES (2009)).

potentially better solution to the problems of remedies in intellectual property. Those fragments go under the heading of “equity,” and the missing aspect of the discussion on remedies is equity in one of its most important functions—as meta-law.

Although equity is often associated with remedies, a narrow focus on the remedial aspect of equity can obscure its role in promoting the correct valuation of assets. As meta-law, equity aims at keeping processes—other processes—from going too far astray. Equity itself works synergistically with these other processes to promote correct valuation as an emergent property. The most familiar equitable remedy, the injunction, is governed by proxies, presumptions, and rules of thumb that help it serve as meta-law—to alter the framework in which other processes, legal and economic, unfold. That synergistic effect is achieved by equity acting in tandem with the law of substantive rights. Equity ranges over the law and will modify the application of rights themselves.

A. *Equity as the Meta-Law of Valuation*

Although equity was originally a product of courts with separate jurisdiction and the scope of that jurisdiction arose in part by happenstance, there are discernable themes to equity—themes that are relevant even today. In other work I have argued that equity acts as law about law, or meta-law.⁵⁴ This view of equity can be traced back to Aristotle, for whom equity is “a rectification of law where law is defective because of its generality.”⁵⁵ Law seeks to be general and relatively simple, but at the cost of some inaccuracy in terms of efficiency and justice. Equity steps in to modify the result the law provides. Equity refers to the law, acts on the legal result, and sometimes molds the law, but not vice versa: the law can operate (sometimes badly) without equity’s intervention.⁵⁶

Overlooking the separateness of equity and misunderstanding its specialized function make it look worse than it is. Equity is often criticized for being too vague and *ex post* (the Chancellor’s foot),⁵⁷ but as meta-law it has built-

54 See generally Smith, *Equity as Meta-Law*, *supra* note 3.

55 ARISTOTLE, *THE NICOMACHEAN ETHICS* bk. V, at 317 (G.P. Goold ed., H. Rackham trans., Harvard Univ. Press rev. ed. 1934); see also ARISTOTLE, *ART OF RHETORIC* bk. I, at 140–45 (John Henry Freese transl., Gisela Striker rev., Harvard Univ. Press rev. ed. 2020) (discussing equity).

56 F.W. MAITLAND, *EQUITY: A COURSE OF LECTURES* 19 (A.H. Chaytor & W.J. Whittaker eds., 2d ed. 1936) (stating that, if equity had been abolished, “in some respects our law would have been barbarous, unjust, absurd,” but abolishing the common law “would have meant anarchy,” because “[a]t every point equity presupposed the existence of common law. . . . Equity without common law would have been a castle in the air, an impossibility.”).

57 Selden’s quip has become shorthand for this critique of equity:

Equity is a Roguish thing: for Law we have a measure, know what to trust to; Equity is according to the Conscience of him that is Chancellor, and as that is larger or narrower, so is Equity. ’Tis all one as if they should make the Standard for the measure we call a Foot, a Chancellor’s Foot; what an uncertain Measure

in constraints. Equity is not always applicable but is triggered only by certain proxies for problems of great complexity and uncertainty. Equity is not general, but comes into play only when certain proxies for complexity and uncertainty are present. These proxies relate to deception, bad faith, and skewed results (disproportionate hardship), and they vary by area of law (building encroachments versus nuisance, for example). What equity does not do is try to define such problems as opportunism *ex ante* or even *ex post* in any articulated fashion. Instead it looks for indicia of the problem at the first level (law) and kicks the problem up to equity (meta level), at which the situation is subjected to a more searching analysis in terms of a more open-ended set of contextual factors that are couched in terms of morality and fairness. Equity often sets the presumption against the one appearing to take advantage of another's vulnerability. Criticisms of equity that look to these moral formulations and presumptions and read them as "rules" or "directives" at the primary level of law miss the mark.

Consistent with the lessons of complex systems theory, going to a meta-system is costly but especially suited for certain kinds of problems.⁵⁸ These involve uncertainty and complexity and are inherently difficult to deal with *ex ante* and on the same level that they occur. Among such problems are multipolar (or polycentric) situations, conflicting rights, and opportunism. Polycentric scenarios involve multiple interacting elements and are almost by definition complex.⁵⁹ Lon Fuller gives the example of dividing a collection of paintings under a will between two museums, given that the value of a painting to a museum depends on which others it has.⁶⁰ In situations of conflicting rights, each party has a presumptive right, but the two sets of rights come into conflict and need to be reconciled. On one interpretation,

would be this. One Chancellor has a long Foot, another a short Foot, a Third an indifferent Foot: 'Tis the same thing in the Chancellor's Conscience.

JOHN SELDEN, *Equity*, in *TABLE-TALK: BEING THE DISCOURSES OF JOHN SELDEN, ESQ.* 43, 43-44 (J.M. Dent & Co., 3d ed. 1906) (1689).

58 See LUDWIG VON BERTALANFFY, *GENERAL SYSTEM THEORY: FOUNDATIONS, DEVELOPMENT, APPLICATIONS* 27-29, 74, 213-14 (1968) (discussing hierarchy in systems); JOHN H. HOLLAND, *HIDDEN ORDER: HOW ADAPTATION BUILDS COMPLEXITY* 11-12 (1995) (discussing aggregation and meta-agents); A.Y. Aulin-Ahmavaara, *The Law of Requisite Hierarchy*, 8 *KYBERNETES* 259, 261-62 (1979) (discussing required property of higher-order control mechanisms); Francis Heylighen & Cliff Joslyn, *Cybernetics and Second-Order Cybernetics*, in 4 *ENCYCLOPEDIA OF PHYSICAL SCIENCE & TECHNOLOGY* 155 (R.A. Meyers ed., 3d ed. 2001) (discussing motivations for moving to higher orders in cybernetics and the notion of systems of systems).

59 See Lon L. Fuller, *The Forms and Limits of Adjudication*, 92 *HARV. L. REV.* 353, 395 (1978).

60 Fuller, *supra* note 59, at 394; see also MICHAEL POLANYI, *THE LOGIC OF LIBERTY: REFLECTIONS AND REJOINDERS* 171 (1951). This kind of problem increases exponentially as the size of the problem increases. See KEITH DEVLIN, *THE MILLENNIUM PROBLEMS: THE SEVEN GREATEST UNSOLVED MATHEMATICAL PUZZLES OF OUR TIME* 105-30 (2002); RAYMOND GREENLAW & H. JAMES HOOVER, *FUNDAMENTALS OF THE THEORY OF COMPUTATION: PRINCIPLES AND PRACTICE* 287-313 (1998).

this is what the law of nuisance accomplishes.⁶¹ Finally, opportunism is a pervasive problem familiar to traditional equity. Despite the broad definitions of opportunism that attempt to include all residual bad behavior—perhaps most famously the notion of opportunism in the work of Oliver Williamson⁶²—traditional equity took a more structured and thus constrained approach. Its triggers (variants on good faith, including violation of custom, and disproportionate hardship) were classed under “constructive fraud,” which is activity that is not technically fraud or not provably so, but contains a high danger of behavior that amounts to fraud and would be treated as fraud if it were more directly definable.⁶³ It is the compliant non-compliance well known in the regulatory and tax literatures.⁶⁴ Elsewhere I have formulated opportunism for purposes of equity as “undesirable behavior that cannot be cost-effectively defined, detected, and deterred by explicit ex ante rulemaking. Opportunism is residual behavior that would be contracted away if ex ante transaction costs were lower.”⁶⁵

By functioning as meta-law, equity and law can together do better than law or equity could on its own.⁶⁶ Law can be simpler, more formal, and more general than it could if it had to deal directly with all of the misuse and opportunism as well as multipolar and conflicting rights situations. By the same token, equity can be more targeted and contextually sensitive than it could be if it had to apply across the board; if it were more general it could not retain these features. Analyzing the hybrid of law and equity (first- and second-order) at the margins of each “rule” gives a distorted picture. If law and equity work in tandem, the marginal effect is a marginal system effect. And if specialization of function is beneficial, then combining law and equity

61 John C.P. Goldberg & Henry E. Smith, *Wrongful Fusion: Equity and Tort*, in *EQUITY AND LAW: FUSION AND FISSION* 309, 315 (John C.P. Goldberg, Henry E. Smith & P.G. Turner eds., 2019); Henry E. Smith, *Fusing the Equitable Function in Private Law*, in *PRIVATE LAW IN THE 21ST CENTURY* 173, 190–91 (Kit Barker, Karen Fairweather & Ross Grantham eds., 2017); Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 19–20).

62 OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING* 47 (1985); *see also* Oliver E. Williamson, *Opportunism and Its Critics*, 14 *MANAGERIAL & DECISION ECON.* 97, 97–98 (1993) (defending the usefulness of the notion of opportunism against social-science critics).

63 JOSEPH STORY, *1 COMMENTARIES ON EQUITY JURISPRUDENCE, AS ADMINISTERED IN ENGLAND AND AMERICA* § 258, at 261 (Boston, Hilliard, Gray & Co. 1836); Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 21–25); *see also* Richard A. Epstein, *Unconscionability: A Critical Reappraisal*, 18 *J.L. & ECON.* 293, 301–05 (1975); Arthur Allen Leff, *Unconscionability and the Code—The Emperor’s New Clause*, 115 *U. PA. L. REV.* 485, 539 (1967).

64 On regulatory compliance, *see* Braithwaite, *supra* note 4, at 55–56. On tax, *see* David A. Weisbach, *An Economic Analysis of Anti-Tax-Avoidance Doctrines*, 4 *AM. L. & ECON. REV.* 88, 93–95 (2002); David A. Weisbach, *Formalism in the Tax Law*, 66 *U. CHI. L. REV.* 860, 860–63 (1999).

65 Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 24).

66 *Id.* (manuscript at 41–52).

pushes out the production frontier for legal institutions in a way that is totally uncaptured on a conventionally reductive rule-by-rule analysis.⁶⁷

B. *Injunctions and Meta-Law*

The law of intellectual property remedies raises acute problems of complexity and uncertainty of a kind that equity responds to. Equity typically looks at both sides (or all sides) of an interaction, with a view to their interdependence.⁶⁸ In intellectual property remedies, this is especially necessary. Attempts to limit the leverage of patent holders' holdup can open the door to more holdout on the part of potential violators and those who could benefit from a license. Conversely, preventing violations adds to the patentee's leverage, which can be misused to extort a reward out of proportion to the contribution of the patent. This is especially serious where the violation is not in bad faith, in the sense that it is an understandable mistake—it would not be close to cost-effective to avoid it through more diligent search.⁶⁹

The law of injunctions fits into a larger complex system, as part of meta-law. It guides both the law of damages and the transacting process, but only indirectly. By “indirectly” I mean that the results of equitable intervention are emergent, not that equity does not “operate” directly on the rest of the law. Indeed, the contrast between the directness of its operation and the indirectness of the effects it achieves is one of the sources of misunderstanding about equity's role. Again, equity and law specialize, so that damages and injunctions, and rights and remedies, can work in tandem. It is not a tradeoff on a single spectrum but a dynamic process of increasing the production frontier.

One such misunderstanding is to regard injunctions as merely a stronger version of damages. An injunction is not an “off switch” for infringement, but as John Golden argues, a “gateway” to contempt, and, as such, injunctions respond to many conflicting possible responses including importantly

67 Models of specialization that stress economies of specialization (endogenous specialization) rather than economies of scale are most apt here. See, e.g., Xiaokai Yang, *Endogenous vs. Exogenous Comparative Advantage and Economies of Specialization vs. Economies of Scale*, 60 J. ECONOMICS 29, 29–32 (1994); Xiaokai Yang & Siang Ng, *Specialization and Division of Labour: A Survey*, in INCREASING RETURNS AND ECONOMIC ANALYSIS 3, 4–6 (Kenneth J. Arrow, Yew-Kwang Ng & Xiaokai Yang eds., 1998); see also Allyn A. Young, *Increasing Returns and Economic Progress*, 38 ECON. J. 527, 538–39 (1928).

68 See, e.g., Colleen V. Chien, *Holding Up and Holding Out*, 21 MICH. TELECOMM. & TECH. L. REV. 1, 6, 34 (2014); Joseph Scott Miller, *Standard Setting, Patents, and Access Lock-In: RAND Licensing and the Theory of the Firm*, 40 IND. L. REV. 351 (2007); Henry E. Smith, *Property as Platform: Coordinating Standards for Technological Innovation*, 9 J. COMPETITION L. & ECON. 1057 (2013).

69 This problem becomes worse to the extent that duty holders are not effectively provided with notice of intellectual property rights. See JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 150–52 (2008); Herbert Hovenkamp, *Response, Notice and Patent Remedies*, 88 TEX. L. REV. SEE ALSO 221, 224 (2011).

the possibility of designing around.⁷⁰ In this, patent injunctions are like other injunctions, for as Doug Rendleman says, an adjudged infringer “may dissemble, may claim that the injunction is vague and impossible or difficult to understand, may seek delay, may search for loopholes, and may change as little as possible to ‘obey.’”⁷¹ Golden points out that the formulation of an injunction and claim scope have similar effects on incentives. They achieve these effects differently, though. As Golden notes, injunction doctrine sometimes serves as a “safety valve[]” like equity.⁷² More generally, the way that the law of injunctions addresses incentives, as identified by Golden, can be seen as acting through its modulating effect on law as meta-law.⁷³

Of particular interest is the important role played by “colorable differences” injunctions, in which a court will enjoin not only infringing products but also those that are no more than colorably different.⁷⁴ The notion of “colorable” has roots in equity as a response to potential opportunism.⁷⁵ Here the opportunism is of someone expert who can exploit the inadequacies of ex ante delineation. Tracy Thomas notes that prophylactic injunctions are especially warranted when rights are difficult to specify ex ante (leaving the underlying right untouched),⁷⁶ and under some circumstances one can, as Rafal Zakrzewski argues, see equitable remedies as modifying the rights structure itself.⁷⁷

Much of the discussion in patent remedies centers on holdup and to a lesser extent on holdout.⁷⁸ There is a pervasive sense in which equity addresses the problem of holdup and holdout in intellectual property. The problem with the one-dimensional approach to remedies is that any solution to holdup is likely to make holdout worse and vice versa. A dose of meta-law

70 John M. Golden, *Injunctions As More (or Less) Than “Off Switches”: Patent-Infringement Injunctions’ Scope*, 90 TEX. L. REV. 1399, 1409–10, 1413 (2012).

71 DOUG RENDLEMAN, *COMPLEX LITIGATION: INJUNCTIONS, STRUCTURAL REMEDIES, AND CONTEMPT* 425 (2010).

72 Golden, *supra* note 70, at 1465.

73 *See id.* at 1461–62, 1465.

74 *See* TiVo Inc. v. EchoStar Corp., 646 F.3d 869, 881–83 (Fed. Cir. 2011) (en banc). The author did consulting work for TiVo in this case.

75 Even Edward Coke, no friend of equity, saw “discretion [as] a science or understanding to discern between falsity and truth, between wrong and right, between shadows and substance, between equity and colourable glosses and pretences, and not to do according to their wills and private affections.” *Rooke’s Case* (1598) 77 Eng. Rep. 209, 210 (CP).

76 Tracy A. Thomas, *The Prophylactic Remedy: Normative Principles and Definitional Parameters of Broad Injunctive Relief*, 52 BUFF. L. REV. 301, 372 (2004); *see also* Golden, *supra* note 70, at 1431.

77 RAFAL ZAKRZEWSKI, *REMEDIES RECLASSIFIED 3* (reprt. 2009); *see also* YING KHAI LIEW, *RATIONALISING CONSTRUCTIVE TRUSTS* 254–56 (2017).

78 *See, e.g.*, Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2008–10 (2007); *see also, e.g.*, Thomas F. Cotter, Erik Hovenkamp & Norman Siebrasse, *Demystifying Patent Holdup*, 76 WASH. & LEE L. REV. 1501, 1517–28 (2019); Carl Shapiro & Mark A. Lemley, *The Role of Antitrust in Preventing Patent Holdup*, 168 U. PA. L. REV. 2019, 2032–34, 2047–48 (2020). *But see, e.g.*, Jonathan M. Barnett, *Has the Academy Led Patent Law Astray?*, 32 BERKELEY TECH. L.J. 1313, 1344–46, 1351 (2017).

has the potential to free us from this dilemma. Thus, an injunction can be conditioned on equitable behavior on the part of the patentee. In the traditional framework, disproportionate hardship is a defense.⁷⁹

The problems of polycentricity, conflicting rights, and opportunism are endemic in intellectual property, especially when it comes to remedies. The question of how one patent contributes to an overall product, especially in connection with a collection of other patents, is polycentric. Apportioning value for damages purposes has been a notorious problem in this area.⁸⁰ Conflicting rights arise in situations of blocking, and the law—through equity—modulates the respective rights of earlier and later inventors through the doctrine of equivalents (and occasionally the reverse doctrine of equivalents). Finally, opportunism is the unforeseeable taking advantage of law contrary to its purpose (related to abuse of right in civilian legal systems).⁸¹ The problems of misuse of patent leverage on the one hand and bad faith refusals to license on reasonable terms on the other are examples of parties using the full extent of the advantages the law affords them even in situations in which the law is not aiming for such results.

C. Remedies and Meta-Law

The role of equitable meta-law in intellectual property is not solely a matter of remedies. Equitable remedies in intellectual property are integrated with equity as meta-law more widely.⁸² Especially after the merger of law and equity, the association of equity with remedies has led to an overly narrow view of equity as primarily or solely remedial, a view that misses a great deal.⁸³ This narrow identification of equity with remedies is particularly a problem in intellectual property, where equitable meta-law has been misunderstood as a bad attempt at defining primary property rights. Instead, equitable remedies work with the rest of meta-law to achieve systems results, including better valuation of intellectual assets.

79 See Laycock, *supra* note 26, at 1–2.

80 See, e.g., *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014); Thomas F. Cotter, John M. Golden, Oskar Liivak, Brian J. Love, Norman V. Siebrasse, Masabumi Suzuki & David O. Taylor, *Reasonable Royalties*, in *PATENT REMEDIES AND COMPLEX PRODUCTS: TOWARD A GLOBAL CONSENSUS* 6, 19–20 (C. Bradford Biddle, Jorge L. Contreras, Brian J. Love & Norman V. Siebrasse eds., 2019); John M. Golden, *Judicial Policing of Patent Damages Experts*, 98 *TEX. L. REV.* 1307, 1319 (2020).

81 On abuse of right, see, e.g., Anna di Robilant, *Abuse of Rights: The Continental Drug and the Common Law*, 61 *HASTINGS L.J.* 687, 688–95 (2010); Larissa Katz, *Spite and Extortion: A Jurisdictional Principle of Abuse of Property Right*, 122 *YALE L.J.* 1444, 1448–52 (2013); Joseph M. Perillo, *Abuse of Rights: A Pervasive Legal Concept*, 27 *PAC. L.J.* 37, 38–47 (1995); A.N. Yiannopoulos, *Civil Liability for Abuse of Right: Something Old, Something New . . .*, 54 *LA. L. REV.* 1173, 1192–93 (1994).

82 See Bray, *supra* note 22, at 578–80.

83 Paul B. Miller, *Equity as Supplemental Law*, in *PHILOSOPHICAL FOUNDATIONS OF THE LAW OF EQUITY* 92, 93 (Dennis Klimchuk, Irit Samet & Henry E. Smith eds., 2020); Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 78).

An important and emblematic example of the confusion of equity in intellectual property grows out of the law of misappropriation. The United States Supreme Court's decision in *International News Service v. Associated Press*⁸⁴ is applauded or (more often) deplored as creating a fountainhead of intellectual property rights, in hot news or more widely in time-sensitive information.⁸⁵ As I have argued elsewhere, this interpretation overlooks the Court's repeated insistence that the case was one of equity.⁸⁶ Equity can have a limited role in protecting commercial custom within a defined group (here competitors), reflected in quasi-property not being in rem.⁸⁷

A similar systematic problem of law versus equity arises in trademark and unfair competition. These areas of law have a similar origin to misappropriation in equitable enforcement of commercial morality. Here the process of propertization went further, to much controversy.⁸⁸ Nevertheless, because the activity here involves deception and even opportunism, it is inherently difficult to capture bad behavior using first-order law only. Not surprisingly, this has led to a proliferation of standards and to reliance on unfair competition as a backup source of liability.⁸⁹ Understandably, and especially so after the merger of law and equity, thoughtful commentators have asked why we don't have one single overarching body of law to deal with trademarks and calibrate it *ex ante* (specifying pockets of nonliability if those seem to make sense). Or if equity is in the picture, it is sometimes suggested to bring back equity in the sense of discretion. I propose that unfair competition has a role to play in trademarks if and only if it can serve as a (limited) meta-law backup to trademark law itself (which, being more specialized and working in tandem with equity, could perhaps then be simpler and narrower). The need for meta-law is even greater if trademark is a more use-based and contextualized property right than is commonly thought.⁹⁰

Equity polices interdependent behavior in other ways relevant to intellectual property. To the extent that unfair surprise can happen with stan-

84 248 U.S. 215 (1918).

85 Shyamkrishna Balganes, "Hot News": *The Enduring Myth of Property in News*, 111 COLUM. L. REV. 419, 430 (2011).

86 Smith, *Equity as Meta-Law*, *supra* note 3 (manuscript at 35–36).

87 *Id.* The opinion in *INS v. AP* does not discuss custom in any detail but it can be interpreted along these lines. See, e.g., Balganes, *supra* note 85, at 448–51; Richard A. Epstein, *International News Service v. Associated Press: Custom and Law as Sources of Property Rights in News*, 78 VA. L. REV. 85, 116–17 (1992). But see Jennifer E. Rothman, *The Questionable Use of Custom in Intellectual Property*, 93 VA. L. REV. 1899 (2007).

88 See, e.g., Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 YALE L.J. 1687, 1693–94 (1999); see also Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839, 1873–74 (2007).

89 See Robert G. Bone, *Rights and Remedies in Trademark Law: The Curious Distinction Between Trademark Infringement and Unfair Competition*, 98 TEX. L. REV. 1187 (2020); Mark P. McKenna, *Property and Equity in Trademark Law*, 23 MARQ. INTELL. PROP. L. REV. 117, 134 (2019).

90 Adam Mossoff, *Trademark as a Property Right*, 107 KY. L.J. 1, 4–6 (2018).

standard-essential patents, estoppel can be a solution.⁹¹ If a patentee is not forthcoming about a patent and allows standard setters to adopt a standard the patent covers, estoppel can apply to prevent enforcement of the right in that context. The characteristic of equity is that it will look at behavior on both sides and in relation to each other.

CONCLUSION

Intellectual property remedies are—or should be—multidimensional. The law once relied heavily on equity to go to a second order, as meta-law, in order to solve problems of great complexity and uncertainty. Such problems are endemic to intellectual property, and remedies for intellectual property suffer from the tendency for equity to be flattened out of the law. It is time to resurrect the pieces of equity that remain and reassemble them into a more robust meta-law.

91 Smith, *supra* note 68, at 1085–86.