

VALUING CONTROL

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ABSTRACT

Control over property, whether tangible or intangible, is valuable in and of itself. Previous scholars have not fully recognized or explored that straightforward premise, which has profound implications for the economic analysis of property rights. A party to a property dispute, when comparing liability-rule protection for an entitlement resting with her and liability-rule protection for an entitlement resting with the other party, may actually prefer the latter rule. This Article presents a novel economic model that determines the conditions under which that is the case. The model suggests new opportunities for policy makers to resolve disputes and to develop better information about property disputes through policy experiments. The Article makes suggestions for implementing this new approach and suggests applications in the areas of copyright, trademark, patent, and privacy law.

A note to readers [7/3/2014]: I have recently received a round of comments from some of the generous readers who are thanked in the starred footnote. Meanwhile, the Michigan Law Review editors are working on their first substantive edit of the piece. I am waiting to receive MLR's edit until I incorporate the latest round of comments from colleagues.

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INTRODUCTION

Control over property—the power to make a decision about whether a particular use of the property may occur or not—is valuable in and of itself. Process matters, not just the outcome. Although that is a straightforward premise, its implications for the economic analysis of property rights have not been fully explored. This Article takes the premise that control is valuable for its own sake, not just as a means to obtain favorable outcomes, and follows through to model the full implications of that premise. A key result of this analysis is that policy makers should, as a practical matter, look to a wider set of property regimes than they do currently.¹ Policy makers should seek to understand the value that parties to a property dispute place on decision-making authority. In the right circumstances this would create opportunities to reach more efficient and perhaps more fair compromises between disputants.

The value of control over property is one part of individuals’ subjective valuation of property. The notion of subjective and idiosyncratic valuation is familiar in the context of real property.² People often place subjective values on their homes. The specific performance remedy in real property is designed to protect an owner’s subjective value.³ And when a taking

¹ By “property regimes” I mean to refer to the choice between property rules and liability rules. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972) (providing the foundational analysis of the distinction).

² See, e.g., Daphna Lewinsohn-Zamir, *Identifying Intense Preferences*, 94 CORNELL L. REV. 1391, 1394–95 (2009) (using subjective valuations of land as a leading example of the general phenomenon of subjective valuation).

³ See Timothy J. Muris, *The Costs of Freely Granting Specific Performance*, 1982 DUKE L.J. 1053, 1054–55 (acknowledging, in the course of criticizing the remedy, that the

transpires, controversy can result, partly because many people believe that “just compensation” for a taking does not adequately cover a homeowner’s subjective valuation.⁴ Users of property, as opposed to owners, may also have subjective valuations. For instance, the holder of a dominant estate might place idiosyncratic value on an easement.⁵

My point of emphasis in this Article is that part of the subjective value of property derives from having decision-making authority over particular uses of that property.⁶ Many property regimes afford either owners or users the power to decide whether a transfer will take place. As Lee Anne Fennell has observed, “there is arguably a deeper value associated with autonomy that is different in kind” from the other components of subjective value, namely the value of enjoyment and the surplus value obtainable in trade.⁷ In this Article, I incorporate this separate value of autonomy into the economic analysis of property disputes. This provides useful insights about parties’ preferences over property regimes that policy makers can use in resolving controversies over property.

Subjective value—and the value of control, or decision-making authority, as part of that—is also highly relevant to intellectual property.⁸ There are a number of examples in which a desire for control over intellectual property supersedes openness to negotiating compensation. A musician may wish to prevent a politician whom she does not support from

goal of specific performance is “protecting subjective value”).

⁴ See *Kelo v. City of New London*, 545 U.S. 469 (2005); see also Ilya Somin, *The Limits of Backlash: Assessing the Political Response to Kelo*, 93 MINN. L. REV. 2100, 2108 (2009) (discussing the “widespread outrage” at the decision).

⁵ See, e.g., Sally Brown Richardson, *Nonuse and Easements: Creating a Pliability Regime of Eminent Domain*, 78 TENN. L. REV. 1, 13 (2010) (discussing an example in which the holders of a servient and dominant estate both have a “personal value” of an easement).

⁶ See Janice Nadler & Shari Seidman Diamond, *Eminent Domain and the Psychology of Property Rights: Proposed Use, Subjective Attachment, and Taker Identity*, 5 J. EMPIRICAL LEGAL STUD. 713, 723 (2008) (discussing the psychological value of exercising decision-making authority over real property).

⁷ Lee Anne Fennell, *Taking Eminent Domain Apart*, 2004 MICH. ST. L. REV. 957, 967.

⁸ The economic and expressive differences between tangible goods and intangible goods may require special attention, but for the most part my analysis will apply to both. On the perils of making an easy equivalence between real and intellectual property, see JAMES BOYLE, *THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND* 83–121 (2008) (using a vivid allegory to explore the limitations of analogies to real property in intellectual property law).

playing his song at a public rally.⁹ A small-business owner may want to block the use of his company's brand name, even if used in a totally different geographic region.¹⁰ A photographer may object to a visual artist incorporating his photographs into collages that the photographer perceives as denigrating the solemnity of his work about a religious community.¹¹ An inventor may seek the satisfaction of being the sole practitioner of his invention.¹² A novelist may act to squelch attempts to use characters from her books in unauthorized sequels.¹³ A person may wish to prevent the unauthorized use of her image on a billboard.¹⁴

There is an equal and opposite list that tells of the users' interests with respect to intellectual property: a politician who wants to use a song to express a point about his political or social views;¹⁵ a small-business owner who had his heart set on a name close to the name another business already used;¹⁶ a visual artist who feels that a photograph is instrumental within a

⁹ See Matthew J. Cursio, Note, *Born to Be Used in the U.S.A.: An Alternative Avenue for Evaluating Politicians' Unauthorized Use of Original Musical Performances on the Campaign Trail*, 18 VILL. SPORTS & ENT. L.J. 317, 318 (2011) (relating the story of Bruce Springsteen's objection to President Reagan's reelection campaign using his song "Born in the U.S.A.").

¹⁰ See Robin Young, *Competing for the Most Creative Beer Names*, HERE & NOW (Jul. 10, 2013), <http://hereandnow.wbur.org/2013/07/10/creative-beer-names> (describing Sixpoint Brewery in Brooklyn's assertion of trademark rights in the name Righteous for a rye IPA).

¹¹ See *Cariou v. Prince*, 714 F.3d 694, 699 (2d Cir. 2013) (describing the views of the plaintiff, photographer Patrick Cariou, in favor of classical art and against pop art in reference to his photographs of Rastafarians).

¹² Cf. David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 442 (2014) ("The patent system is one of the few tools that small businesses have available to compete against larger, more established players in the market.").

¹³ See, e.g., Anne Rice, *Anne's Messages to Fans*, ANNERICE.COM, <http://www.annerice.com/ReaderInteraction-MessagesToFans.html> (last visited Mar. 8, 2014) ("I do not allow fan fiction. The characters are copyrighted. It upsets me terribly to even think about fan fiction with my characters.").

¹⁴ See *Jim Henson Productions, Inc. v. John T. Brady & Assocs.*, 867 F.Supp. 175, 188 (S.D.N.Y. 1994) ("The privacy-based action is designed for individuals who have not placed themselves in the public eye. It shields such people from the embarrassment of having their faces plastered on billboards and cereal boxes without their permission.").

¹⁵ See Cursio, *supra* note 9, at 318 & n.8 (explaining President Reagan's motivation for using Springsteen's song).

¹⁶ See Young, *supra* note 10 (describing the disappointment of the owner of Renegade Brewing in Denver at giving up the name Rye-teous for a rye IPA).

collage;¹⁷ an entrepreneur whose product has one small aspect that infringes an existing patent;¹⁸ a writer may want to continue her favorite character's story and take it in a radical or critical new direction;¹⁹ and a graphic designer who finds the perfect subject to create a billboard design.²⁰ Thus, users also place value on control, from their perspective meaning freedom to engage in a particular use.

In any property or intellectual-property dispute, one side's claim to control may be more appealing than the other's—or even constitutionally required.²¹ What I want to emphasize is that control is at stake in property disputes, and not just to secure enjoyment or gains from trade. Control over uses of property, whether from the owner's or user's perspective, provides an opportunity to exercise autonomy that is valuable in and of itself.

From this point of departure, the law and economics of property rules and liability rules can be analyzed in a new way. Doing so highlights an interesting possibility with a potential impact on policy. Historically, liability-rule protection for owners (Calabresi and Melamed's "Rule Two") has been common while liability-rule protection for users ("Rule Four") has been thought quite unusual.²² Identifying the value of control raises the possibility that owners might actually prefer Rule Four to Rule Two.

¹⁷ See *Cariou v. Prince*, 714 F.3d at 707 (describing artist Richard Prince's motivation to use Cariou's photographs in collages that comment on musical culture).

¹⁸ See Ted Sichelman, *Purging Patent Law of "Private Law" Remedies*, 92 TEX. L. REV. 517, 544–46 (2014) (discussing the problem of patents covering components of complex products).

¹⁹ See Anupam Chander & Madhavi Sunder, *Everyone's a Superhero: A Cultural Theory of "Mary Sue" Fan Fiction as Fair Use*, 95 CALIF. L. REV. 597, 599–600 (2007) (describing fan fiction authorship as an empowering way to combat stereotypes and social hierarchy); Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L.J. 651, 657–58 (1997) (describing how authors of fan fiction assert their right to create and deny that authors can control interpretations, sequels, and retellings).

²⁰ Cf. *Mannion v. Coors Brewing Co.*, 377 F.Supp.2d 444, 447–48 (S.D.N.Y. 2005) (describing the creative process behind a billboard inspired by a particular photograph of celebrity basketball player Kevin Garnett).

²¹ For example, fan fiction and appropriation art will often qualify as fair uses. A vibrant fair use doctrine may be constitutionally necessary to avoid conflict between copyright and free speech. See generally Neil Weinstock Netanel, *First Amendment Constraints on Copyright After Golan v. Holder*, 60 UCLA L. REV. 1082 (2013).

²² See Calabresi & Melamed, *supra* note 1, at 1115–16 (numbering the rules); see also James E. Krier & Stewart J. Schwab, *Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440, 444 (1995) (discussing the rarity of Rule Four).

Conversely, users might prefer Rule Two to Rule Four. In other words, parties to property disputes might well prefer for the *other* party to be entitled to a use—if entitlements will only be protected by liability rules.²³ The parties' preferences across rules depend on the value they place on control in and of itself.

This possibility of a flip in parties' preferences from what one would normally expect makes Rule Four more worthy of practical consideration as a policy tool.²⁴ It also presents an opportunity. If policy makers can identify circumstances in which the two parties have the same preference between Rule Two and Rule Four, then the shared preference could be the best compromise among the parties. And for some disputes, this will also be the best solution for society.

Part I explains control as a separate value from enjoyment or compensation from trade. Part II contains an original economic analysis of property rules and liability rules that incorporates the value of control. Part III outlines some considerations relevant to the implementation of Rule Four, including critiques, possible responses, and the possibility of using liability rules for experimental policy analysis. Part IV discusses four specific areas in which policy makers could apply Rule Four more widely: copyright, trademark, patent, and privacy law. Part V concludes the Article with a discussion of avenues for future research.

I. CONTROL AS A DISTINCT VALUE

This Part first explains the value of control and distinguishes it from the value of deriving enjoyment from or receiving compensation for a particular use of property. Next, I briefly summarize Calabresi and Melamed's framework that contrasted property rules and liability rules as methods for protecting entitlements. The central insight of that famous article for my purposes here is the decoupling of compensation and control that a liability rule effects. In the third and final section, I discuss the relative infrequency with which Rule Four has been used.

²³ If considering all the possible property regimes, not just the ones featuring liability rules, most parties will favor having the entitlement and having it protected with a property-rule.

²⁴ One would expect parties to prefer having an entitlement to a particular use of property than not having it. *See* Calabresi & Melamed, *supra* note 1, at 1090 (discussing the choice of entitlement as prior to the choice of how to protect that entitlement).

A. *Property Disputes Are About Both Compensation and Control*

A person can value owning property for two kinds of reasons. The first kind is based on outcomes, whether in the form of enjoyment of the use or receiving financial benefits from sale or licensing.²⁵ For shorthand, I will refer to all these outcome-based goods under the umbrella term “compensation.”²⁶ The second kind of value is procedural, relating to the ability to make autonomous decisions about how others use the intangible work in question. I have been referring to this kind of good as “control.”

For some people, in some situations, these two kinds of reasons to value property collapse into one: the point of controlling use of the property is to earn compensation. Having the right to restrict or delay how and when others use the property can generate artificial scarcity that garners more compensation for a rights holder in the long run. But money is not always the underlying motivation for valuing control. Some individuals value control over uses of property for the sake of control itself. For example, in the context of real property, owners value decision-making power over how others may make use of their land.²⁷

With respect to intangible property, it is commonplace for creators to view creative works as an extension of their personalities or identities, and to place subjective and idiosyncratic value on controlling uses of their works for such reasons.²⁸ When the owner is not the original creator—that

²⁵ The economic argument that connects property rights to compensation is that exclusive rights give the rights holder an enforcement tool against would-be infringers that deters enough infringement to allow the rights holder to earn an economic profit. *See generally* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347 (1967). In theory, this amount of profit works as an incentive for parties organized by the rights holder to expend whatever labor and capital is required to create, market, and distribute the work. *Id.*

²⁶ The idea of using compensation as an umbrella term is that compensation, here meaning outcome-based value, can be taken in kind as enjoyment or taken as the surplus from trades (sales or licenses).

²⁷ *See* Jeffrey J. Rachlinski & Forest Jourden, *Remedies and the Psychology of Ownership*, 51 VAND. L. REV. 1541, 1545 (1998) (“In losing the right to an injunctive remedy, the plaintiffs [in *Boomer v. Atlantic Cement Co.*, 257 N.E.2d 870 (N.Y. 1970)] lost something more than leverage in their negotiations with Atlantic Cement, and lost something distinct from an attachment to their homes; they lost the power to refuse to sell their rights to the quiet enjoyment of their property.”).

²⁸ There is an extensive literature on moral rights and the Lockean, Hegelian, or Kantian justifications for them. *See, e.g.*, Kim Treiger-Bar-Am, *Kant on Copyright: Rights*

is, the owner is an intermediary like a publisher, studio, or record label—control can be a separate value from compensation for managers and employees.²⁹ Moreover, in some situations in which an intermediary owns the intellectual property, the creator retains a contractual right to veto licenses of certain types.³⁰

People also value the right or privilege to use property (or an aspect of property) owned by others—and for the same two kinds of reasons, compensation and control. Some users aim to produce something new of their own while making use of other people’s property, some engage primarily in consumption, and some have mixed motivations. Consider the perspective of productive users first. For a neighbor whose activities arguably generate a nuisance on another person’s land, both money and the right to practice one’s profession in a certain location are at stake.³¹ For downstream creators,³² whether authors or inventors, using existing works facilitates the creation of new works.³³ These new works might be offered to the public to allow the author or inventor to earn compensation. But the downstream creator may also value, independent of financial considerations, the creative freedom to make use of existing works as a form of personal autonomy.³⁴

of Transformative Authorship, 25 CARDOZO ARTS & ENT. L.J. 1059, 1075–76 (2008) (discussing Kant’s view of autonomy as related to choice); Roberta Rosenthal Kwall, *Inspiration and Innovation: The Intrinsic Dimension of the Artistic Soul*, 81 NOTRE DAME L. REV. 1945, 1975–77 (2006) (describing autonomy as one aspect of the civil-law tradition of protecting creators’ moral rights); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 330–50 (1988) (discussing the Hegelian, personality-based view of intellectual property).

²⁹ Cf. BRUCE HARING, BEYOND THE CHARTS: MP3 AND THE DIGITAL MUSIC REVOLUTION 85 (2000) (quoting a record industry representative, RIAA CEO Hilary Rosen, speaking in terms of control).

³⁰ See KEMBREW MCLEOD & PETER DICOLA, CREATIVE LICENSE: THE LAW AND CULTURE OF DIGITAL SAMPLING 171, 232 (2011) (providing an example of the right to veto sample licenses and discussing the general phenomenon within the recording industry).

³¹ *Sturges v. Bridgman*, 11 Ch. D. 852 (1879); see also Laura Underkuffler, *Teaching Property Stories*, 55 J. Legal Educ. 152, 154 (2005) (“Neither Sturges nor Bridgman wished to move his business.”) (citing A.W. Brian Simpson, *The Story of Sturges v. Bridgman: The Resolution of Land Use Disputes Between Neighbors*, in PROPERTY STORIES 9 (Gerald Korngold & Andrew P. Morriss eds., 1st ed. 2004)).

³² In this terminology, the upstream creator is the creator of the preexisting work and the downstream creator is the creator of a derivative work, such as a remix or mash-up.

³³ See MCLEOD & DICOLA, *supra* note 30, at 7–8.

³⁴ “[I]ndividual autonomy includes the freedom to interact in an active way with

Those who use property owned by others primarily as consumers also value their use in terms of compensation and control. The context of intangible property provides many examples of consumers and how they value creative works. For readers, listeners, viewers, consumers, and all other types of users, rights or privileges to use existing works without payment or a license can save them money. An example would be the right or privilege to record a television show and watch it later;³⁵ compared to a world in which this right or privilege did not exist, the viewer avoids the need to purchase a copy. Yet control over one's own reading, listening, viewing, consumption, and other uses—outside the strictures of licensing and permissions—is a separate reason to value user rights.³⁶

On an abstract level, then, we can think of both owners and users of property as having a bifurcated notion of value: they value compensation and control in distinct ways. Another way to see the importance of this distinction is to observe how private and public law reflect it. In many government allocations, property owners receive some compensation and some control as a result of their entitlements. Moreover, in many property transactions, property owners receive some compensation but retain some control over their work. Thus, to describe the world, it will prove useful to divide goods into the two categories of compensation and control.

The examples from the Introduction about disputes over intangible goods illustrate this point further.³⁷ Each owner and user in those situations may have pecuniary interests, whether in earning money from their own creations or in avoiding licensing fees. But my hope is that these examples evoke recognition that it is useful to think of the value of control separately. Both property owners and users often desire control for its own sake. And

existing cultural materials, to recreate and reshape them, and to express one's own voice through a dialogue with those of others." Oren Bracha, *Standing Copyright Law on Its Head? The Googlization of Everything and the Many Faces of Property*, 85 TEX. L. REV. 1799, 1847 (2007).

³⁵ See *Sony v. Universal Studios*, 464 U.S. 417, 447–56 (1984) (holding that unauthorized "time-shifting" is fair use).

³⁶ See Jessica Litman, *Lawful Personal Use*, 85 TEX. L. REV. 1871, 1908 (2007) (describing personal uses of copyrighted works as "historical liberties"); Julie E. Cohen, *The Place of the User in Copyright Law*, 74 FORDHAM L. REV. 347, 370–72 (2005) ("[T]he range of practices subsumed under the label 'copying'—including but not limited to duplication, imitation, performance, and allusion—are critically important means of expressing one's beliefs, values, and affiliations.").

³⁷ See *supra* text accompanying notes 9–20.

many of them believe that the law does in fact vindicate their interest in control on their behalf. Scholars and policy makers must therefore tangle with two crucial facts about owners and users of property: the normative desire (seeing control as a good) and the descriptive position (thinking they have control). Given the competing interests of owners and users, the law must decide which claims of control are legitimate and which claims are problematic. In such situations, even an offer of financial compensation may not satisfy a particular party.

The fact that both owners and users of property place a separate value on control does not imply that their valuations will be symmetric or that society should treat them as equivalent. Rather, my claim is that the preferences of each party to a property dispute can be usefully understood as placing value on having autonomy for its own sake. In sum, the first premise of this Article's argument is that it is useful to view the value of particular uses of property in terms of two separate dimensions: compensation and control.

B. *Decoupling Compensation from Control*

After modeling valuations in terms of compensation and control, and beginning to conceive of disputes between owners and users of property, the next step in the argument is to consider the assignment, design, and enforcement of entitlements.³⁸ Calabresi and Melamed identified three broad ways of protecting entitlements: property rules, liability rules, and inalienability.³⁹ Their article focused on the first two methods of protecting entitlements, often leaving inalienability aside. Property rule protection, in brief, means that the entitlement holder has control over the resource and may demand his or her own price, or even refuse to sell.⁴⁰ Liability rule protection, by contrast, means that the entitlement holder has only a right to government-determined compensation if others use the good to which he or

³⁸ An entitlement is a right to enjoy a resource or good, such as a particular use of property, and a right to prevent others from doing so. *See* Calabresi & Melamed, *supra* note 1, at 1090 (describing entitlements in terms of “access to goods, services, and life itself”); *see also* Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713, 723 (1996) (discussing “the entitlement to be free from harm”).

³⁹ *See generally* Calabresi & Melamed, *supra* note 1.

⁴⁰ *Id.* at 1092.

she is entitled.⁴¹

The Calabresi and Melamed article has spawned a vast literature—some of it expanding the framework, some of it revising it, and some of it critiquing it. Sometimes the subtlety and tentative nature of Calabresi and Melamed’s reflections get lost in the focus on the abstract economics of comparing property rules and liability rules. But I believe the framework will be helpful in identifying an entire category of legal options that intellectual property law has largely ignored.

Focusing on property rules and liability rules, Calabresi and Melamed developed four broad types of property regimes or, in their terminology, rules.⁴² Descriptively, one sees that Rule One—injunctive relief for the property owner—and Rule Three—an exception, limitation, or defense for the user—are frequently employed in both property law and intellectual property law.⁴³ These two property rules put compensation and control in the same hands, either both in the hands of the intellectual property owner or both in the hands of the intellectual property user.

Meanwhile, Rule Two—liability-rule protection, meaning money damages alone, for the property owner—arises in many contexts as well, whether in a statutory, *ex ante* way or in a judicial, *ex post* way.⁴⁴ Rule Two gives the property owner a right to compensation for a particular use of her property, but denies her the decision-making authority to block uses. Quite the contrary: the user has the option to make a governmentally defined use of the property so long as she pays the statutorily or judicially chosen price. Rule Two decouples compensation and control. The fact that Rule Two denies the property owner control is a significant reason why intellectual property owners vehemently oppose compulsory licenses,⁴⁵ and why statutory licenses are sometimes imposed in recognition of bad behavior by property owners.⁴⁶

⁴¹ *Id.*

⁴² *Id.* at 1115–16.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ See Robert Stephen Lee, *An Economic Analysis of Compulsory Licensing in Copyright Law*, 5 W. NEW. ENG. L. REV. 203, 208–09 (1982) (describing the music publishers’ long history of opposing compulsory licensing).

⁴⁶ See, e.g., Peter DiCola & Matthew Sag, *An Information-Gathering Approach to Copyright Policy*, 34 CARDOZO L. REV. 173, 198–203 (2012).

On the other hand, Rule Four means something unusual in property law—liability rule protection for the user. Like Rule Two, Rule Four decouples compensation and control. But it has been employed much less frequently than Rule Two in real property.⁴⁷ It is absent from intellectual property law.⁴⁸ This presents a longstanding puzzle as to why Rule Four has gone missing.

C. *Disfavoring Rule Four—Leaving an Arrow in the Quiver*

Under Rule Four, the user would have the baseline entitlement, but the intellectual property owner would have an option to pay the user a statutorily or judicially determined price to block the use.⁴⁹ In simpler terms, the user would receive compensation but the owner would have control. In this way, Rule Four is the inversion of Rule Two. Just as Calabresi and Melamed invited readers to notice the absence of Rule Four in the common law,⁵⁰ I am urging scholars and policy makers to notice that intellectual property law in particular has not employed Rule Four at all. And the question becomes, why not?

Despite the counter-intuitive nature of Rule Four, and all the problems that it would carry,⁵¹ I think it should have some practical appeal, for the following reason. If compensation and control are separately valued goods, and if property owners vary in their preferences, then there will be some

⁴⁷ See *supra* note 22 and accompanying text.

⁴⁸ See Dan L. Burk, *Intellectual Property in the Cathedral*, in ACCESS TO INFORMATION AND KNOWLEDGE: 21ST CENTURY CHALLENGES IN INTELLECTUAL PROPERTY AND KNOWLEDGE GOVERNANCE 95 (Dana Beldiman ed., 2013) (“There has been little consideration as to how such a rule might play out in intellectual property, rather than real property.”); cf. MCLEOD & DiCOLA, *supra* note 30, at 261–66 (performing the thought experiment of applying Rule Four in the context of sample licensing in the music industry but acknowledging the unfamiliarity of the rule).

⁴⁹ See Calabresi & Melamed, *supra* note 1, at 1116–18; see also Dotan Oliar, *The Copyright-Innovation Tradeoff: Property Rules, Liability Rules, and Intentional Infliction of Harm*, 64 STAN. L. REV. 951, 989–93 (2012) (discussing how Rule Four would operate and the incentives it would give the parties to a copyright dispute).

⁵⁰ *Id.* at 1116 (“Missing is a fourth rule . . .”). This was soon to be remedied by the nearly contemporaneous decision in *Spur Industries, Inc. v. Del E. Webb Development Co.*, 108 Ariz. 178 (1972). For a discussion of this intellectual history, see Ian Ayres & Paul Goldbart, *Optimal Delegation and Decoupling in the Design of Liability Rules*, 100 MICH. L. REV. 1, 4 (2001) (“As fate would have it, the fourth box would not stay empty long.”).

⁵¹ See *infra* Section III.B (discussing in some detail the various drawbacks of Rule Four).

instances in which most property owners actually prefer Rule Four to Rule Two. Such owners would be those who value control relatively highly. Similarly, there may also be disputes in which most of the corresponding property users prefer Rule Four to Rule Two. Such users would be those who value compensation relatively highly. The converse is also true; there can be situations in which both parties prefer Rule Two to Rule Four.

Now suppose that in some circumstances, the two property rules are either undesirable or unworkable. When that occurs, and then the parties agree in their preference over the two liability rules—the two policy options that remain on the table—policy makers should strongly consider adopting the jointly preferred liability rule as the property regime.⁵² Other factors could lead policy makers to choose a different regime.⁵³ But policy makers should take advantage of situations in which those on one side of the property dispute tend to value control relatively highly and those on the other side tend to value compensation relatively highly. Such situations are opportunities to reach an acceptable compromise among the parties and to benefit society by resolving disputes more fairly and efficiently.

Much of the law-and-economics literature about property disputes has centered on the comparison between property rules and liability rules from the perspective of social efficiency.⁵⁴ My focus in this Article is instead on the comparison between the two liability rules, from the perspective of the parties, which provides a possible path to social efficiency. Without empirical evidence, policy makers cannot know how often parties to a type of property dispute have the same preference with respect to the two liability rules.⁵⁵ And it may be seldom that the property rules are considered more or less off the table. Thus, I do not mean to contend that Rule Four should apply often. Instead, my argument is that policy makers should seek targeted opportunities to deploy it. The absence of Rule Four from intellectual property law has limited the policy space unnecessarily. Moreover, this absence has clouded scholars' and policy makers' collective

⁵² See *infra* Section II.B.6.

⁵³ One reason that could tip the scales the other way is externalities on third parties to the dispute. See *infra* Section III.A.1.

⁵⁴ See generally Calabresi & Melamed, *supra* note 1, Kaplow & Shavell, *supra* note 38; Krier & Schwab, *supra* note 22.

⁵⁵ See *infra* Section III.C (suggesting how policy makers can use experiments to begin collecting such information).

understanding of the values of compensation and control.

II. THE VALUE OF CONTROL IN PROPERTY DISPUTES

This Part briefly recounts the standard, law-and-economics account of property rules and liability rules; presents my own approach, which models the value of compensation and control as distinct; and addresses critiques of my model.

A. *Standard Law and Economics*

This Section presents the standard law-and-economics model of property disputes, sparked by Calabresi and Melamed's famous article.

1. Modeling Property Disputes

The objects of study in this Article are disputes over particular uses of property—an easement, an invention, an expressive work, or a brand name, for example. For simplicity in explaining my model, I will refer to a single owner of tangible property or single originator of an intangible good as the “owner.” This individual or entity may or may not end up receiving property rights over the use in question—in other words, “owner” is shorthand for “owner whose rights may or may not extend to the disputed use.” On the other side of the dispute, I will refer to a potential user of that good simply as the “user,” rather than the “potential user” or the “person who wants to use the property in a particular way.”

The first step is to acknowledge the possibility of conflicting interests between these two parties. The owner might want to prevent some or all uses of their property by others. Alternatively, the owner might be willing to license certain uses of the property, but in that event might seek to obtain favorable terms, such as a larger licensing fees or restrictions on the scope of use. For example, some copyright owners simply refuse to license digital samples of their works; the musician Steve Miller famously rejects any licensing entreaties.⁵⁶ Others are willing to license, but insist on a certain licensing fee.⁵⁷ Thus, there can be conflict over whether a use is allowed as well as conflict over the nature of a potential agreement to allow the use.

In some situations, of course, there will be no conflict. A particular

⁵⁶ See MCLEOD & DICOLA, *supra* note 30, at 119.

⁵⁷ See *id.* at 158–63.

owner may want people to use their property in a particular way and a particular user may want to use the property in just that way. For example, a copyright owner may donate a work to the public domain or adopt some variety of Creative Commons license.⁵⁸ Such actions by the copyright owner allow uses of an intangible good without individual negotiations.

Ronald Coase famously argued that the harms from nuisance, a property tort, are reciprocal.⁵⁹ In Coase's view, the victims of (what the law classifies as) a nuisance might experience harm, but the perpetrator of the alleged nuisance would also experience harm from being forced to forgo the activity that results in a nuisance. That the harm is reciprocal does not mean the harm is symmetric; certainly one side may experience more harm than the other. But Coase's point was to argue that activities classified as nuisances may well be efficient to allow—and, in a utilitarian sense, more ethical to allow than to disallow. One may question whether disputes over uses of intellectual property in particular are properly viewed as situations in which one side or the other side will be legitimately harmed. I take up that objection below.⁶⁰ This section proceeds from the assumption that the potential for harm when a prospective user wishes to use tangible or intangible property is properly viewed as reciprocal.

One way to approach the problem of property disputes is to work backwards from the desired resolution to see what incentives the law should give each party in order to best encourage them to reach the socially desirable outcome.⁶¹ The ideal outcome varies from situation to situation. Sometimes, it would be ideal for owners and users to negotiate a license. Other times, we want the user to engage in the use without negotiation. Still other times, we want the user to be deterred from engaging in a use without negotiation. We also want the law to be flexible enough so that parties pushed toward one outcome can get to the efficient outcome when the policy is mistaken or simply inappropriate in that particular instance. In other words, it is important to set the default rules properly. We want to allocate property rights to encourage an agreement, but we also must be

⁵⁸ See, e.g., R. Polk Wagner, *Information Wants to Be Free: Intellectual Property and the Mythologies of Control*, 103 COLUM. L. REV. 995, 1032–33 (2003).

⁵⁹ R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

⁶⁰ See *infra* Section II.C.1.

⁶¹ See, e.g., ROBERT GIBBONS, *GAME THEORY FOR APPLIED ECONOMISTS* 57–61 (1994) (explaining the methodology of backward induction).

prepared to live with the default rule if parties do not.

2. Achieving Efficiency

In microeconomics, there are two basic ways to achieve an efficient equilibrium: in a centralized, government-run fashion and in a decentralized, market-driven fashion.⁶² This subsection briefly considers both approaches as applied to property disputes.

a) Omniscient Social Planner

Start with the simplest case and the strongest assumptions. Assume the government decides the result of the dispute as an omniscient social planner. There is perfect information, no externalities, no transaction costs, and no value on control independent of money.

Suppose the property owner expects a future profit stream of 100 if the disputed use does not occur. And assume that the owner expects that the profit stream drops to 50 if the use does occur.⁶³

Now suppose that the user's product will not exist if the dispute does not go its way. If the user can generate 60 in expected profits by engaging in the disputed use, then the use is socially efficient. If the user can only generate 40 in expected profits, it is not. An omniscient social planner would know these figures and choose the efficient result accordingly.

The assumption of no externalities means that we can focus only on the profits of each party as an isolated dyad. Among other things, this means that there is no difference in consumer surplus between the outcomes (the owner's products exist, the user's proposed product does not) and (the owner's products exist, the user's product does, too). The reason is that the consumer surplus that would be experienced by the potential customers of each party is external to the party's decisions.⁶⁴

⁶² See, e.g., ANDREU MAS-COLELL ET AL., MICROECONOMIC THEORY 307–09 (1995) (contrasting the concepts of market equilibrium and the social optimum).

⁶³ This does not deal with situations in which the drop renders the owner's investment in the property unprofitable over all, *i.e.*, whether the fixed costs are covered. Suppose these profit numbers do reflect sunk costs. By assumption then, the property owner in the example would still create the work. But if that profit stream were instead negative, the owner would not. See Jerry R. Green & Suzanne Scotchmer, *On the Division of Profit in Sequential Innovation*, 26 RAND J. ECON. 20 (1995) (modeling this type of inefficiency). For purposes of this Article, I leave this complication aside.

⁶⁴ See Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257

Using the decision rule “maximize wealth” requires that the government have perfect information. Notice that the version of efficiency this rule achieves is Kaldor-Hicks efficiency; it maximizes the size of the pie.⁶⁵ But the distribution of wealth differs across outcomes. Thus, maximizing wealth is not Pareto efficient; it does not guarantee each party a slice that is at least as large as what she started with.⁶⁶ By assumption, the owner is harmed by allowing the contested use, and the user is harmed by non-use. The outcomes for the owner are either 100 or 50. The outcomes for the user are either 0 or 60. But the outcome is always socially efficient in a Kaldor-Hicks way.

b) Private transactions

Now suppose the government can simply assign the property right to one side or the other and leave it to private bargaining. Assume there is perfect information for the parties, no transaction costs, no externalities, and no idiosyncratic value on control.

This is Coase’s famous result and I need not belabor it. The assignment of rights affects the distribution of wealth, but the parties will bargain to the Kaldor-Hicks efficient result if there are no transaction costs.⁶⁷ For example, suppose the entitlement goes to the IP user but the use is only worth 40. The owner will pay between 40 and 50 to block the use. How the parties split the surplus depends on one’s assumptions about the bargaining process, but with no transaction costs the deal happens.

3. Transaction Costs

a) Bargaining cost

Now add a simple transaction cost, to the effect that it takes time, effort, and resources to engage in bargaining. There is still no private information, externalities, or idiosyncratic value of control.

(2007) (explaining that consumer surplus is external to disputes between intellectual property owners and users). Note that consumer surplus is *not* an externality—is very much internal—to the sales transactions between owners and their consumers or between users and their consumers.

⁶⁵ See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 14–17 (5th ed. 1998) (defining Kaldor-Hicks efficiency as maximizing wealth across parties).

⁶⁶ See *id.* at 14 (“A Pareto-superior transaction (or “Pareto improvement”) is one that makes at least one person better off and no one worse off.”).

⁶⁷ See generally Coase, *supra* note 59.

Under these circumstances the worry arises that bargaining will not happen. It matters a lot who gets the initial entitlement, since it is more likely (*i.e.*, more than 0% likely) to stay there, even when it would be efficient for the resource to change hands. Adding transaction costs to the model means liability rules may have appeal in certain contexts.

Calabresi and Melamed's analysis, especially as later explicated by Krier and Schwab, suggests that dealing with this problem requires a comparison of which institution will be better at assessing the relative valuations—the government or “the market” (*i.e.*, the two private parties, the owner and the user).⁶⁸ This kind of comparative institutional analysis is a central tool of law and economics.

b) Private information

Now suppose that the parties know their own expected valuations under each outcome, but the valuations are not common knowledge. Moreover, the government does not know the parties' valuations. There are still no externalities, and no idiosyncratic value on control. Private information is a specific kind of transaction cost, with implications that can alter which property regime is optimal.

Previous authors treated the private information issue more as a problem of costly information: one could expend resources (administratively or privately) to acquire the information. But there is also a strategic problem with private information: each party would have strong incentive to overstate their own valuations in any negotiation.⁶⁹ Ayres and Talley take a more game-theoretical perspective than the prior literature, asking what institutions can be used to induce parties to truthfully reveal information.⁷⁰ With private information, there is uncertainty for the parties and the government. To capture the parties' and the government's information and beliefs, all policy makers can do is posit a distribution of the valuations. In other words, policy makers will specify a range of possible valuations

⁶⁸ A major transaction cost these authors were concerned with is having multiple parties on one side of the dispute, generating coordination problems, holdout problems, and so on. See Calabresi & Melamed, *supra* note 1; Krier & Schwab, *supra* note 22. Those issues are not the focus of this Article.

⁶⁹ For an introduction to mechanism design, which deals with problems of truthful revelation of information, see MAS-COLELL ET AL., *supra* note 62, at 857–83.

⁷⁰ Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement To Facilitate Coasean Trade*, 104 YALE L.J. 1027, 1039–47 (1995).

and place probabilities on each one.

It is helpful to reframe the parties' valuations in terms of the contested resource. We said before, with certainty, that the owner values non-use at 50 (100 minus 50). Now, suppose that the owner knows its own valuation, but others can only perceive that there is a distribution from 0 to 100, with equal probability on each value. (This is known as a uniform distribution.)

We said before that the user's valuation was either 40 or 60, but was known with certainty in either case. Now, we switch that to a distribution as well—also from 0 to 100, with equal probability on each value.

Making these assumptions, Ayres and Talley showed that untailored liability rules could be efficient, because they induce the entitlement holder (though not the non-holder) to reveal whether their valuation is more or less than the government-determined amount of damages.⁷¹ With other kinds of transaction costs, the authors acknowledge, property rules could still be efficient. But the private-information problem opens up the possibility for liability rules to be useful in a way that property rules are not.

Once there is private information (and resulting uncertainty about parties' valuations), there is no guarantee that policy will achieve the efficient result in every instance. Bargaining is still possible if the initial allocation is wrong, but it might not succeed.

4. Externalities

In the basic economic analysis of nuisance, there is a negative externality with a reciprocal nature. The baker's machinery disrupts the neighboring psychologist's sessions; the psychologist's need for quiet disrupts the baking process.⁷² As Coase's analysis makes clear, the possibility of bargaining between the parties represents an opportunity for the externality to be internalized by a market transaction.⁷³ Under the right circumstances, in other words, each party will decide what to do while cognizant of the external cost his or her behavior exacts upon the other party.

But there can be other kinds of externalities as well—if one looks

⁷¹ *Id.*

⁷² *Sturges v. Bridgman*, 11 Ch. D. 852 (1879).

⁷³ See Coase, *supra* note 59, at 9.

outside of the two parties. For example, the baker's customers and the psychologist's clients could each be affected by the resolution of the nuisance dispute mentioned above. This is a perfectly common state of affairs with respect to intellectual property disputes as well.⁷⁴

The model of property disputes can be modified to allow for externalities. Going back to the numerical example above, the owner faces a potential drop in profits from 100 to 50 if the user's proposed use actually transpires. That loss of 50 does not take into account the lost consumer surplus that the owner's customers would have experienced absent the disputed use. For example, clients who stay home rather than engage the psychologist—being deterred by the noise, but unable to find a suitable substitute—would lose the consumer surplus they would have gained from paying the psychologist for his services. Even if the owner and the user bargain, their decision-making will not take into account the positive externality that the owner's customers would experience in the form of consumer surplus. Similarly, the potential customers of the user's products face the same problem; the positive externality they experience from the user's products would not be internalized.⁷⁵

Of course, there does not need to be a market transaction for value to exist, and thus the owner's and the user's customers are not the only people potentially harmed by the resolution of the dispute. People value many things that they do not purchase, such as natural phenomena, wildlife, and so on. Intangible goods in particular may hold value because of their role in innovation, human knowledge, and cultural progress. Either the owner's property or the user's activity may have larger externalities of this sort. Calabresi and Melamed noted that this type of externality might capture some of what people consider the justice or fairness aspects of property disputes.⁷⁶

If policymakers have good information (perhaps a big if) about the nature and relative weight of the externalities on either side of a dispute, it could affect the initial entitlement and mode of protecting that entitlement. For example, in *Boomer v. Atlantic Cement Co.*, the court was cognizant

⁷⁴ See Frischmann & Lemley, *supra* note 64.

⁷⁵ Also, to the extent that enforcement is imperfect, there will be social value lost for those who enjoy the leakage, *i.e.*, the free uses.

⁷⁶ Calabresi & Melamed, *supra* note 1, at 1102–05.

that the employees of Atlantic Cement, their families, and the local region benefited from the plant's existence.⁷⁷ A decision that shut the plant down, in terms of the two-party, reciprocal-harm model, would have been a negative externality for the community.⁷⁸ In short, externalities can tip the scales for policy makers in choosing the property regime.

At this point it is useful to take stock. This section began with a situation of reciprocal harm. With no transaction costs, no private information, and no externalities, both social planning and private bargaining achieve the efficient result. Any of Calabresi and Melamed's four rules would produce the same outcome in terms of who does what activity and who refrains. The only difference is in the distribution of wealth. Adding transaction costs to the mix produces a situation in which the legal rule can matter a great deal. Considering private information and externalities can also generate a preference for one rule or another depending on the factual situation.

B. Incorporating the Value of Control

Any model, even—or perhaps especially—one developed over five decades by lawyers and economists, is a simplification of reality. The trick of theoretical work is to simplify in the most elegant, parsimonious, and useful way possible.⁷⁹ Some dimensions of real-world situations are salient for what we want to achieve with a model, while other dimensions are extraneous. A key argument of this Article is that the standard law-and-economics model leaves out an important feature of property disputes in the real world: the subjective value of control for its own sake. Adding this dimension to the model will provide better theoretical insight into property disputes. More importantly, it will reveal a wider set of policy options and generate useful prescriptions for policy makers.

This section augments the standard law-and-economics model of property disputes with a formal representation of the value of control. To

⁷⁷ 257 N.E.2d 870, 873 (1970).

⁷⁸ There could, of course, be negative externalities on the other side, stemming from the result that the plaintiffs received only damages. Those families and other might choose to move away, for example. Implicitly, the court may have felt that these negative externalities would be less, in total, than the negative externalities from shutting down the plant.

⁷⁹ See, e.g., POSNER, *supra* note 65, at 17–19.

the standard law-and-economics model of property disputes, this section adds the idea of a two-dimensional space for goods, (a) compensation and (b) control in and of itself.

1. Utility over Compensation and Control

Parties to disputes over property, including intellectual property, may care about control over a resource in and of itself. This value that individuals place on control is separate and distinct from the consequences that control (or a lack of it) may have on monetary rewards.⁸⁰ One might wonder whether the value of control could simply be folded into monetary value. Economic analysis assumes (and sometimes asserts⁸¹) that all goods are commensurable. This section will show that it is possible to account for the value of control in numerical examples like the one we have been working with about the property owner and the potential user. Economic analysis is not the only way to develop a theory of property disputes that recognizes the separate value of autonomy. But in this Article my aim is to show that the economics of law can accommodate a recognition of autonomy's value.

This section takes a utility-function approach to illustrate how the preferences of individuals could reflect the value of compensation and the value of control.⁸² But some caveats are in order. Utility functions are, of course, abstractions. They need not reflect individuals' conscious decision-making processes.⁸³ The point of these models is to capture a way in which individuals might behave as if they were adhering to the prescriptions of a mathematical function. Another caveat is that utility functions leave out countless features of reality. This is done for the sake of narrowing our focus to a few key features, with the hope that we can better understand the interactions among a few variables. Finally, the utility-function approach embeds both a utilitarian philosophy and a rational-choice psychology.⁸⁴

⁸⁰ One interesting issue is initial control versus then handing over control. Do people care about having had control in anticipation, in retrospect, or both?

⁸¹ See Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961 (2001) (defending a solely utilitarian approach to legal policies).

⁸² See HAL R. VARIAN, MICROECONOMIC ANALYSIS 94–98 (3d ed. 1992) (providing a textbook treatment of utility functions).

⁸³ See MAS-COLELL ET AL., *supra* note 62, at 11–14 (explaining the theory of revealed preference).

⁸⁴ See DANIEL M. HAUSMAN & MICHAEL S. MCPHERSON, ECONOMIC ANALYSIS,

There are good reasons to question or even reject both of these.⁸⁵ But even critics of utilitarianism generally think that utility is at least relevant to the ethical frameworks they favor.⁸⁶ And some psychologists remain interested in the rational choice model as a starting point from which to measure the deviations that arise in actual human behavior. This section offers a model centered on a utility function and demonstrates that, despite the limits of utilitarianism, utility functions can tell us something interesting and keenly relevant to property disputes.

Owners have preferences about what they will receive in return for selling a copy of their work or granting a license. In keeping with the core distinction of this paper, I will model compensation and control as two separate goods over which parties to property disputes have preferences.

The first good, which I have been calling compensation, just means enjoyment or money.⁸⁷ It is a flexible good that provides utility in terms of consumption and savings. One can think about compensation in terms of the total amount of enjoyment and money that property will generate over an infinite time horizon, or alternatively over some finite period of time. But one can also think about the benefits that are generated from licensing a specific use by another party.

The second good, control, refers to the ability to dictate whether a particular use occurs or not. Control might generate positive utility and a lack of control might generate negative utility.⁸⁸ As with compensation, one can think of control in terms over a long period of time, or in terms of specific uses. Quantifying control can be handled in two ways as well. Control could be discrete: either one has control or one does not. But control could also be modeled as a continuous variable, as a matter of degree. For instance, an owner might have control over 70% of the possible uses of the property in question, which would differ from having control

MORAL PHILOSOPHY, AND PUBLIC POLICY 45–55 (2d ed. 2006).

⁸⁵ *See id.* at 55–59, 112.

⁸⁶ *See generally* ELIZABETH ANDERSON, VALUE IN ETHICS AND ECONOMICS (1993) (developing an expressive theory of value that both critiques and takes careful account of economic concerns).

⁸⁷ *See supra* text accompanying notes 25–26.

⁸⁸ The value of control need not be positive. For some individuals or in some circumstances, having decision-making authority could be unwanted and burdensome and the lack of such authority could provide joy. In this Article, however, I will assume that the value of control is positive.

over 60% or 80%. To the extent the owner gets increasing utility from control, then she prefers having 80% control to 70%, and prefers 70% to 60%.

Some readers might object at this point by pointing out that compensation and control are commensurable. In other words, at the right price, a rights holder might accept any use by any other person. Parties who value control may nonetheless have a level of compensation that would lead them to accept the use that offends them. This argument may well be correct. But the commensurability of any two goods—whether in utility terms, or in monetary terms—does not imply that one cannot consider the joint demand for apples and oranges.⁸⁹ Furthermore, even if compensation and control are commensurable, the law of property and intellectual property operates along both dimensions. The four rules of Calabresi and Melamed each endow either the owner or the user with compensation and control.⁹⁰

So far I have identified two goods, the amounts of which can vary. The set of possible combinations of amounts of compensation and control can be depicted in a two-dimensional space, with compensation on the y-axis and control on the x-axis. Each (compensation, control) pair might be a lifetime allocation of entitlements or the outcome of a single transaction. One way to think about a hypothetical owner or user's preferences within this space of outcomes is to ask: How much compensation and how much control are necessary to give that party a certain level of utility? An individual might view many combinations as providing her with equal utility. These combinations trace out what economists call an "indifference curve," because the individual is indifferent between any two combinations that fall among the same indifference curve.⁹¹

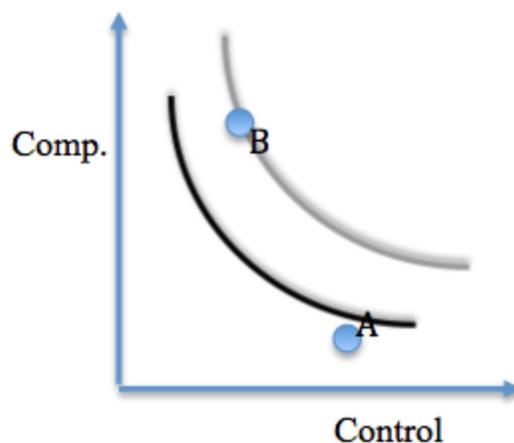
Figure 1 is an example of a pair of indifference curves. Imagine that Points A and B represent two different allocations of the two goods (compensation and control) that the legal system could instantiate.

⁸⁹ See, e.g., VARIAN, *supra* note 82, at 97–101 (demonstrating that utility functions can model the substitution between two commensurable goods).

⁹⁰ See *supra* Sections I.B & I.C.

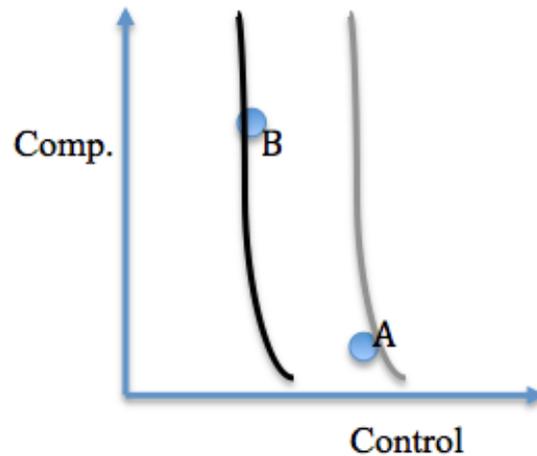
⁹¹ See, e.g., VARIAN, *supra* note 82, at 100.

FIGURE 1: INDIFFERENCE CURVES IN COMPENSATION-CONTROL SPACE



In Figure 1, the lighter indifference curve provides the individual with a higher level of utility than the darker indifference curve. The model provides information about preferences across certain (compensation, control) pairs. Comparing Point A in Figure 1 to Point B, one can see that Point A provides a relatively greater level of control but less compensation. Because Point B resides on a higher indifference curve (i.e., an indifference curve corresponding to a higher level of utility for the IP owner), we can say based on Figure 1 that the IP owner in question prefers Point B to Point A. This corresponds to the idea that this individual would prefer Rule Two to Rule Four—she prefers a statutory license protecting her entitlement to a reverse statutory license protecting an entitlement held by the other party in the property dispute.

**FIGURE 2: DIFFERENTLY SHAPED INDIFFERENCE CURVES
FLIP THE PREFERENCE**



In Figure 2, by contrast, the preference flips. The intellectual property owner with this shape of indifference curve prefers Point A to Point B. This owner prefers a higher level of control and a lower level of compensation (in relative terms) to a lower level of control and a higher level of compensation, at least in this region of the graph. This could be lined up with the notion of preferring Rule Four to Rule Two—preferring a “reverse liability rule” to being subject to a statutory license.

Finally, it is worth noting that points A and B could, in principle, exist on the same indifference curve. In that event, the IP owner would have no preference between Rule 2 and Rule 4.

We can also model users as having utility functions over compensation and control. Here, the compensation dimension is capturing how much the user has to pay. The control dimension is analogous to that of the IP owners. Users’ preferences over Point A and Point B could go either way, depending on their utility functions and the shape of the corresponding indifference curves.

The utility-function analysis provides a new perspective on the standard framework for thinking about property rights and entitlements. We cannot say a priori that owners or users always have preferences that look like the

preferences in Figure 1. On the contrary, it is quite possible that some actors in the system might have preferences as depicted in Figure 2. If that is the case, then some owners of property would actually prefer Rule Four to Rule Two, and some users of property would prefer Rule Two to Rule Four. Somewhat surprisingly, some actors in bilateral settings may prefer not to have the entitlement. Instead, they would prefer the other party to have the entitlement so long as they have an option to buy the entitlement for a statutorily or judicially mandated price. The remainder of this section proves this proposition based on the assumption that control has independent value to individuals.

2. Disaggregating Harm

Based on individuals having utility over both compensation and control, we can now augment the standard analysis of two-person property disputes. The first step is to disaggregate the harm that each party experiences. We can distinguish between two categories of harm: harm based on the outcome versus harm based on the process.

Harm based on outcome is entirely familiar to the standard law-and-economics analysis.⁹² It represents financial harm to each party's own projects that results from the opposing use. For example, this could include the harm to a property's market value that occurs because of a neighboring nuisance. Harm based on outcome also encompasses the satisfaction a party loses when unable to engage in their preferred use. For instance, a would-be user of a new technology may experience a subjective, personal loss if they cannot practice a patented invention. Finally, harm based on outcome includes the personal dissatisfaction that a party experiences when the opposing use occurs. An example of this would be the idiosyncratic distress that a singer-songwriter might experience if another recording artist covers one of her songs in a way she finds aesthetically offensive. Thus, harm based on outcome can be objective (measurable in a market) or subjective. And again, these harms based on outcome are entirely familiar to law and economics.

Harm based on process, by contrast, is a new component in the model of property disputes. It represents the value each party places on control—on

⁹² See, Fennell, *supra* note 7, at 963–66 (discussing personal enjoyment and returns from trade, which are outcome-based, as part of subjective value).

having the power to make the decision whether the use occurs or not. Part of the harm that stems from lacking the entitlement to prevent or engage in a particular use is the subjective dissatisfaction from lacking control. If a party values control to some extent—if she has a preference for a particular process or pathway toward achieving outcomes, and not just preferences over outcomes—then the analysis of entitlements, property rules, and liability rules should take this into account.

Returning to the running numerical example,⁹³ recall that the owner experienced harm of 50 (a drop from 100 to 50) as a result of the user's prospective activity. My suggestion is to disaggregate these 50 units of harm into two categories. Suppose the objective market harm from the opposing use and the subjective dissatisfaction from witnessing the opposing use add up to 40. The remaining 10 units' worth of harm represent the value of control. In other words, to remain indifferent between making the decision about the contested use and having no power to make the decision, the owner would require compensation of 10 units. The owner has some degree of preference for calling the shots.

One can acknowledge the value of control without abandoning the utilitarian framework employed by law and economics. In fact, the utility-function approach assumes that the value of control can be converted into dollar terms. Moreover, this analysis still takes parties' preferences—the value they each place on control—as given, rather than speculating as to whether one preference is more or less valid. There is no departure from standard economics on that front, either.⁹⁴

What is a bit new and different in this Article is that recognition that different legal rules (like assigning property rights to one party or another, or choosing a property rule instead of a liability rule) instantiate different processes for resolving disputes. These processes then become endogenous to the parties' experience of the world. In other words, the processes themselves are goods that each individual will value differently. Since the law is allocating this power, it makes sense for lawyers, economists, and policy makers to incorporate the value of control into their thinking about assigning property rights.

⁹³ See *supra* Section II.A.2.

⁹⁴ See, e.g., VARIAN, *supra* note 82, at 94 (taking consumer preferences as given).

3. Ranking the Initial Endowments under Each Rule

Incorporating the value of control into the model of property disputes reveals a surprising possibility about parties' views of the two liability rules, Rule Two and Rule Four.⁹⁵ Normally one would assume that having the entitlement is preferable to lacking it. Thus, the conventional wisdom is that the owner (the plaintiff in a property dispute) would prefer Rule Two to Rule Four, and the user (the defendant) would prefer Rule Four to Rule Two. Calabresi and Melamed themselves referred to the entitlement decision as primary, leaving the policy decision about the method of protection as secondary.⁹⁶ This has led commentators to imply that having the entitlement is always preferable for any individual.⁹⁷ But this implicitly assumes a one-dimensional, solely monetary mode of valuing property rights. Once we adopt a two-dimensional framework for value, however, and incorporate the value of control, we see that the conventionally assumed preferences over Rule Two and Rule Four can flip for either party, or both.

The numerical example can be used to illustrate the point. The owner values full property-rule protection, which includes the power to block uses and the power to demand her subjective price to transfer the entitlement, at 100. This is equivalent to the initial endowment that the owner would receive if policy makers chose Rule One.⁹⁸ The owner is still perfectly free to sell the entitlement. But if the owner is a rational economic actor, she will gain from any trade. Thus, 100 units is merely her starting point—the amount of resources that the legal system is giving her to start with.

The running example specifies that the harm to the owner from the user's activity would be 50, leaving the owner with 50. The 50 units of value remaining are equivalent to the initial endowment that the owner would receive if policy makers chose Rule Three instead.⁹⁹ Again, the owner may be able to make a deal; here, the deal would be to improve her lot by purchasing the entitlement (if advantageous and possible). But 50 is

⁹⁵ See *supra* Sections I.B & I.C (providing definitions of the rules).

⁹⁶ See Calabresi & Melamed, *supra* note 1, at 1090.

⁹⁷ See, e.g., POSNER, *supra* note 65, at 92–94 (discussing the distributive effects of property regimes with the implicit assumption that having the entitlement is preferable).

⁹⁸ Rule One means the owner has the entitlement, protected by a property rule, giving the owner both compensation and control. See *supra* text accompanying note 43.

⁹⁹ Rule Three means the user has the entitlement, protected by a property rule. See *id.*

the initial endowment under Rule Three. Thus, we can think of the quantum of harm that we have been discussing—the 50 units the owner stands to lose in the dispute—as the gap between the initial value of Rule One and Rule Three from the owner’s perspective. An analogous, reversed calculation could be done from the user’s perspective.

The next question is how to value the initial endowments under Rule Two and Rule Four. Consider Rule Two first. Ordinarily, under the standard law-and-economics analysis, one would say that Rule Two endows the owner with 100 units of value, subject to the user’s option to engage in the use for a government-determined fee.¹⁰⁰ Valuing the option would depend on assumptions about the user’s preferences, the level of the fee, and the administrative costs of exercising the option, among other things. But the base endowment would be 100—if the status quo holds, then the owner would avoid any harm and would be as well off as under Rule One.

Incorporating the value of control changes this analysis. The 50 units of potential harm to the owner was disaggregated into 40 units of outcome-based harm and 10 units of process-based harm.¹⁰¹ Rule One endows the owner with both categories of value, the full 50 units of potential harm, for a total endowment of 100. But Rule Two only endows the owner with the value of the outcome-based harm—40 units, in this example—that the entitlement allows her to avoid. By contrast, Rule Two denies the owner the value of control, that is, the value of decision-making power. The owner’s entitlement is subject to an option; thus, the owner lacks control. Regardless of the outcome—regardless of how the process of the user exercising or not exercising the option plays out—the owner never receives those 10 units of value. Thus, we would say that the owner’s initial endowment is worth 90 units under Rule Two, subject to the user’s call option.

We can do the converse analysis to calculate the owner’s endowment under Rule Four. The standard analysis would put the endowment at 50 under Rule Four, plus the value of the option to block use that the owner possesses under that regime. But recognizing the value of control suggests that Rule Four gives the owner more than that. Under Rule Four, the owner is the decision-maker, whether she exercises her option to block or not.

¹⁰⁰ In this way, liability rules operate like “call” options. *See* Ayres & Goldbart, *supra* note 50, at 4–5. In this Article, I leave aside property regimes designed like “put” options.

¹⁰¹ *See supra* text accompanying note 93.

Thus, the 10 units of value she places on control are part of her endowment under Rule Four, giving her an initial endowment of 60.

In this example the owner would still rank the rules in the standard way, not yet accounting for the value of options.¹⁰² Rule One is preferable to Rule Two (because $100 > 90$), Rule Two is preferable to Rule Four (because $90 > 60$), and Rule Four is preferable to Rule Three (because $60 > 50$). This preference ordering flows from the 10 units of value that the IP owner places on control. The analogous ranking could be calculated from the user's perspective, based the harm she would experience from being blocked and her own subjective value of control.

Now consider what would happen if the owner placed an even higher value on control. For example, a composer might place more subjective value on deciding whether her song may be used than she would put on a state of affairs in which no unauthorized use occurs. Numerically, what if a larger component of the 50 units of total harm were constituted by the value of control? Suppose the value of control was 30 units instead of 10 (while keeping the total harm fixed at 50). This would change the initial value of Rule Two to 70, which is 100 (the value of Rule One, which includes the value of control) minus 30 (the value of control). Meanwhile, the initial value of Rule Four would become 80, which is 50 (the value of Rule Three) plus 30 (the value of control).

If the owner placed a higher value on having control, then the ranking of rules changes. Rule Four becomes preferred to Rule Two (because $80 > 70$). Intuitively, the idea is that some individuals may have a strong preference for controlling the process—for being the decision-maker. If this preference is strong enough, then Rule Four becomes more attractive than Rule Two to the owner. The owner may prefer not to have the entitlement if the entitlement is to protected by a liability rule. Similarly, Rule Two could become more attractive to the user than Rule Four, for fully analogous reasons. So far, I have only demonstrated this with respect to the initial valuations of each rule; the next section considers the value of the options that Rule Two and Rule Four instantiate.

¹⁰² See *infra* Sections II.B.4 & II.B.5.

4. Four Scenarios

Rule Two gives the user an option to engage in the contested use as she wishes. Exercising the option requires payment of a government-determined fee. Conversely, Rule Four gives the owner an option to block the use. This option also requires payment of a government-determined fee to exercise it. Each option presents two possibilities: either the possessor of the option exercises it or she does not.

Making the assumption that individuals maximize their utility, one can specify the conditions under which individuals would exercise their options.¹⁰³ I will call the government-determined fee under Rule Two “f2” and call the fee under Rule Four “f4.”¹⁰⁴ This notation will distinguish the two fees and recognize that they may differ, perhaps substantially.¹⁰⁵ We will also assume for simplicity of exposition that there are no administrative costs.¹⁰⁶ For now, we are simply taking f2 and f4 as given—something determined by the government in a black box, wisely or foolishly.

The user would exercise her option under Rule Two as long as the outcome-based harm she would experience from not engaging in the use is greater than f2.¹⁰⁷ Similarly, the owner would exercise her option under Rule Four whenever the outcome-based harm she would experience from enduring the use exceeds f4.¹⁰⁸

To compare the policies of Rule Two and Rule Four, then, we must consider four scenarios:

(a) Neither the user nor the owner would exercise her option if it were granted to her.

¹⁰³ See VARIAN, *supra* note 82, at 98–102 (explaining utility maximization).

¹⁰⁴ Ordinarily in scientific writing, one would write f_2 and f_4 , using subscripts. But for purposes of this draft I have found that f2 and f4 are easier for readers to distinguish.

¹⁰⁵ I will assume that the fees are strictly greater than zero. Otherwise, for $f2 = 0$, Rule Two and Rule One are equivalent.

¹⁰⁶ Greater administrative costs would make the liability rules less appealing relative to the property rules. More relevant to my purposes here, they would increase the cost of exercising an option under Rule Two or Rule Four. My argument in this section is robust to adding an administrative cost, but it would make the core result harder to see.

¹⁰⁷ The outcome-based harm for the user is simply the total harm that the user would experience from not being free to engage in the use, minus the value of control.

¹⁰⁸ The outcome-based harm for the owner is the total harm that the owner would experience if the use occurred, minus the value of control.

(b) The user would exercise her option under Rule Two, but the owner would not exercise her option under Rule Four.

(c) The user would not exercise her option under Rule Two, but the owner would exercise her option under Rule Four.

(d) Both the user and the owner would exercise their options if granted.

The owner could prefer Rule Four to Rule Two—could prefer having decision-making power to having the entitlement—in any of these four scenarios, depending on the details of the situation. Analogously, the user could prefer Rule Two to Rule Four in each of the four scenarios. Why does this matter? First, it shows the importance of taking the value of control into account; it can flip individuals' policy preferences. Second, it suggests that Rule Four may have more applicability than currently appreciated.¹⁰⁹ And third, it opens up several new policy possibilities discussed below.¹¹⁰

5. Conditions Under Which Owners Prefer Rule Four to Rule Two

This section considers each of the four scenarios in turn and describes the conditions under which an owner could prefer Rule Four to Rule Two using our running numerical example. The converse result would follow analogously for users.

a) Neither Would Exercise

In this scenario, neither party would exercise the option if she had it. This means that, under Rule Two, the user would decide that f_2 is too great a price to pay to engage in the use. Similarly, under Rule Four, the owner would decide that f_4 is too great a price to block the use. Therefore, the ending outcome for the owner is the same as her initial entitlement under whichever rule is chosen. In our running numerical example, we specified that the owner would receive 100 units of value if the use did not occur and she had decision-making power. She faced potential harm of 50 units.

As above, we can disaggregate this harm into outcome-based harm and process-based harm. Under Rule Two, the owner receives an endowment of 100 units minus the process-based harm—what I have been calling the

¹⁰⁹ See *infra* Sections II.B.6 & III.A.

¹¹⁰ See *infra* Part IV.

value of control. Under Rule Four, by contrast, the owner receives an endowment of 50 units plus the value of control.

Which will be a better situation for the owner? It depends on whether the value of control is more or less than half the total harm. If it is more than half, then she prefers Rule Four. In our numerical example, she will prefer Rule Four to Rule Two whenever the value of control is greater than 25. In this scenario in which neither party would exercise her option, that condition is enough to generate the result.

b) Only the User Would Exercise

In this scenario, f_2 is low enough such that the user would find it desirable to exercise her option if Rule Two is the chosen property regime. The owner, however, would not exercise her option under Rule Four (because f_4 is greater than the outcome-based part of the harm she faces). Thus, to compare Rule Two and Rule Four, we must compare (i) the owner's outcome under Rule Two after the user has exercised her option to (ii) the owner's initial endowment under Rule Four, which would remain unchanged as the owner declined to exercise her option.

Using the numbers in our running example, the owner's outcome under Rule Two is 50 plus f_2 , because the full harm is exacted upon her but she is compensated with the government-determined fee. Under Rule Four, the outcome is 50 plus the value of control. Thus, in this scenario, the owner will prefer Rule Four whenever the process-based harm exceeds f_2 . The intuition is that the owner is directly comparing the value of control to the value of compensation.

c) Only the Owner Would Exercise

This scenario is the reverse of the preceding one. The owner would exercise her option to block under Rule Four, but the user would decline to exercise her option to use under Rule Two. We can compare these outcomes from the owner's perspective using our numerical example. Under Rule Two, her outcome is 100 minus the value of control. This is her initial endowment under this rule, which (by assumption in this scenario) is left unchanged because the user would not exercise her option. Under Rule Four, the owner's outcome if she chooses to block is 100 minus f_4 , the government-determined fee. So in this scenario the owner will prefer Rule Four whenever the process-based harm exceeds f_4 . Just as in scenario (b),

the owner likes Rule Four better if she places a higher value on control than on the amount of compensation required to block the disputed use. But here it is the obverse situation: the owner would rather be endowed with control only if the cost of the owner exercising that control (*i.e.*, f_4) is not too great.

d) Both Would Exercise

In this final scenario, we assume that each party would exercise her option if granted it. From the owner's perspective, the comparison is between 50 plus f_2 (the Rule Two outcome) and 100 minus f_4 (the Rule Four outcome). The Rule Four outcome will be preferable whenever the total harm the owner would experience exceeds the sum of f_2 and f_4 .¹¹¹ This is not really a new result in the study of property rules and liability rules, since the value of control does not play a role.¹¹² The owner will tend to like Rule Four better: (i) the greater the harm she faces, (ii) the cheaper it would be to exercise her option under Rule Four, and (iii) the less appealing the compensation under Rule Two happens to be. Thus, even when the value of control—the process-based part of the reciprocal harm—is zero, Rule Four might be preferred by owners. As the previous three scenarios show, however, taking into account the value of control is often highly relevant.

The analysis under all four scenarios can be reversed to generate the analogous conditions under which users would prefer Rule Two to Rule Four. The key point is that either party might value decision-making power over the right to receive compensation. This result flows from the recognition that individuals can derive utility from both compensation and control. But the scenario analysis presented here makes this insight more precise and vivid. The next section considers the policy implications of these theoretical insights.

¹¹¹ The algebra goes as follows. Start with the inequality that is required for Rule 4's outcome to be greater than Rule 2's. This is $100 - f_4 > 50 + f_2$. Add f_4 to both sides of the inequality. Subtract 50 from both sides. This leaves $(100 - 50) > f_2 + f_4$, or simply $50 > f_2 + f_4$. It is important to be cognizant of what the number 50 in our running example represents abstractly: the gap between the IP owner's best initial endowment (100) and the IP owner's worst endowment (50), *i.e.*, the maximum potential harm to the owner.

¹¹² See *supra* Section II.A (describing the standard law-and-economics account of property disputes).

6. A New Set of Policy Prescriptions

Up to this point, I have focused on individuals' preferences among the rules. Usually the analysis of property rules and liability rules has taken the perspective of a policy maker seeking efficiency or, more broadly, the perspective of overall social welfare.¹¹³ And of course this focus on efficiency makes some sense. The point of property law and intellectual property law is not usually seen as distributional, favoring one class of actors over another; instead, it is more justified to pursue an efficient or balanced policy. In law-and-economics scholarship, there is a strong preference for focusing on efficiency—usually wealth maximization or Kaldor-Hicks efficiency (the size of the pie)—rather than distributional goals.¹¹⁴

I have also concentrated my focus on a comparison of the two liability rules, Rule Two and Rule Four. By contrast, much of the focus in the scholarly literature has been on the comparison between property rules and liability rules, between markets and regulation, between private actors and courts.¹¹⁵ This makes perfect sense given the centrality of these questions to our politics.

But suppose that society had an interest in Pareto efficiency (making sure each party is no worse off) rather than Kaldor-Hicks efficiency.¹¹⁶ Perhaps policy makers might be open to distributional considerations as well.¹¹⁷ And suppose that both property rules, Rule One and Rule Three, were known to be undesirable or infeasible to implement. The analysis in this Section shows that an opportunity has been buried in the discussion of property rules and liability rules. What if both parties to a dispute had the same preference over the two liability rules? For example, what if conditions were such that the owner preferred Rule Four to Rule Two, while the user preferred Rule Four as well? This would make possible a compelling argument that the government should choose Rule Four.¹¹⁸ As

¹¹³ See Calabresi & Melamed, *supra* note 1; see also Kaplow & Shavell, *supra* note 38; Ayres & Talley, *supra* note 70; Krier & Schwab, *supra* note 22.

¹¹⁴ See POSNER, *supra* note 65, at 14–17.

¹¹⁵ See, e.g., Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655 (1994).

¹¹⁶ See *supra* notes 65–66 and accompanying text.

¹¹⁷ See Calabresi & Melamed, *supra* note 1, at 1098–1101.

¹¹⁸ Why couldn't the parties reach this result through a private transaction? They might

between the two parties, selecting Rule Four would be Pareto efficient. Rather than a zero-sum game, the assignment of entitlements and the choice about how to protect those entitlements would be an opportunity for mutual benefits.

Implementing this policy—if both parties prefer one of the liability rules to the other, choose that one—requires the right circumstances. Policy makers must have identified a situation where the property rules are either unappealing or unavailable. They would need to know that externalities do not tip the scale toward either side. And most importantly, policy makers would need good information about each party's preferences. In particular, the government would need a way to assess how much each party to a property dispute valued control in and of itself. I explore these informational demands below and propose a method to begin measuring the value of control.¹¹⁹

Policy makers should think about property disputes as such—conflicts that society needs to settle in a way that gives each party some positive benefits if possible. In instances where the options have been narrowed to liability-rule protections, we should seek mutually preferred policy options and implement them if they exist. Even in other instances, it may be useful for policy makers to explicitly recognize that parties can value control for its own sake.¹²⁰ This search for mutually preferred options, recognizing the value of control over property and intellectual property, will make our policy efforts more fruitful. At a minimum, the set of policy options that policy makers consider in both property law and intellectual property law should include Rule Four, the reverse liability rule.¹²¹

do so; parties can contract around liability rules. But inefficiencies might impede bargaining. My model builds on the standard law-and-economics approach, which accounts for transaction costs—including private information. *See supra* Section II.A.3.

¹¹⁹ *See infra* Part III.

¹²⁰ Parties can bargain in the shadow of liability rules. *See* Kaplow & Shavell, *supra* note 38; Ayres & Talley, *supra* note 70. For particular applications, see Kristelia A. García, *Penalty Default Licenses: A Case for Uncertainty*, 89 N.Y.U. L. REV. __ (forthcoming, 2014); Peter DiCola & David Touve, *Licensing in the Shadow of Copyright*, 17 STAN. TECH. L. REV. __ (forthcoming, 2014).

¹²¹ This echoes a call made by intellectual property scholar Dan Burk. *See* Burk, *supra* note 48; *see also* MCLEOD & DICOLA, *supra* note 30, at 261–67.

C. *Anticipating Critiques*

This Section responds to some anticipated critiques of the theoretical approach outlined in the previous one.¹²² Some of the objections are specific to disputes over intellectual property. Others apply more generally to the economic analysis of property disputes and the specific approach taken in this Article.

1. Doubts About the Reciprocal Nature of Harm

The harms I am contemplating in property disputes include both objective market harm and subjective psychological harm.¹²³ Subjective harm can often be understood relative to an expectation, perhaps one created by existing law. Thus, there can be a feedback loop running from law to preferences and back to law again. Preferences could also arise from misperceptions of existing law. For example, a songwriter previously unfamiliar with copyright law might have expected to decide who can record or perform her song. Consider the disappointment and frustration the songwriter might experience at not being able to block a cover version of her musical work. An analogous dynamic can occur for the user, when a user expects to use a work free and clear but finds herself receiving a valid takedown notice through YouTube, or when a company buys patents later found to be invalid. In a sense the harm lies in the gap between expectations and reality.

This particular feature of the harm that owners and users might experience will perhaps lead some to say this is no harm at all—it is based on a mistake. I have a few responses to this line of critique. The model in this Article describes the possibility of subjective perceptions of harm, regardless of their source, because policy makers must settle disputes in which parties have subject valuations. Moreover, making a mistake of law does not render the corresponding normative position—*i.e.*, the law should be as I mistakenly think it is—illegitimate. All harms are subjective in one way or another; the point of analyzing subjective harm is to account for the idiosyncratic.

The theory of reciprocal harm offered by Coase gives us some reason to

¹²² For a discussion of concerns about the practical implementation of Rule Four, see *infra* Section III.A.

¹²³ See *supra* text accompanying notes 2–7.

think that intellectual property disputes are analogous to nuisance disputes.¹²⁴ But one must be careful about making the leap from real property to intellectual property; there are similarities and differences.¹²⁵ In economic terms, intangible goods have the character of public goods.¹²⁶ First, intangible goods are non-rival, at least to some degree—for example, one person knowing the details of an invention does not prevent another person from knowing that same information. Second, it is difficult to exclude people from enjoying or possessing intangible goods. Non-rivalry makes it seem to some observers that there is little or no harm from unauthorized uses of intellectual property.¹²⁷ Meanwhile, the difficulty of exclusion has led some to argue that preventing unauthorized uses is overly expensive or futile.¹²⁸ Those holding this view might reject the claim to reciprocal harm, in that owners are not truly harmed by unauthorized use.

On the other side, proponents of strong intellectual property protection often argue that there is no harm to putative users, because substitutes are available.¹²⁹ Consumers deterred from purchasing goods made more expensive because intellectual property law protects some aspects of those goods, such as the brand name, could choose to buy something else. Downstream creators deterred from purchasing a license to use intellectual property could redesign their creation with another component or simply produce a different product altogether. According to this view, the harm in these situations is marginal at most, even nonexistent.

Without taking a position on the optimal strength of intellectual property law, one can still acknowledge that these two views exist in the world. A theory of how to resolve particular intellectual property disputes, both small and large, should recognize the subjective harm that each side might experience in the event of losing the dispute.

¹²⁴ See *supra* text accompanying note 59.

¹²⁵ See *supra* note 8.

¹²⁶ For a formal discussion of public goods, see MAS-COLELL ET AL., *supra* note 62, at 359–64.

¹²⁷ See, e.g., John Perry Barlow, *The Economy of Ideas*, WIRED, Mar. 1994, <http://www.wired.com/wired/archive/2.03/economy.ideas.html>.

¹²⁸ See, e.g., Peter K. Yu, *Why the Entertainment Industry's Copyright Fight Is Futile*, GIGALAW.COM, Aug. 2002, at <http://www.peteryu.com/gigalaw0802.pdf>.

¹²⁹ See, e.g., David S. Olson, *First Amendment Based Copyright Misuse*, 52 WM. & MARY L. REV. 537, 585–86 (2010) (discussing the argument that intellectual property rights do not harm consumers through an exercise of market power).

2. Doubts About the Economic Analysis of Harm

One might object that property disputes require a more holistic ethical approach than economic analysis can offer. For instance, it would be morally repugnant to view some harms as reciprocal, such as intentional torts or violent crime. Calabresi and Melamed discussed this issue in terms of situations in which morality dictates that an entitlement should be inalienable.¹³⁰

Disputes over intellectual property provide illustrations of this line of critique. Although intellectual property disputes do not usually feature violence, they can take on a contentious character in which parties use heated rhetoric suggesting that one party has been harmed to a degree tantamount to harm from violent crime.¹³¹ Moreover, moral rights systems sometimes make particular rights inalienable, perhaps reflecting a judgment that the opposite entitlement would be unconscionable.¹³² Meanwhile, by reserving certain exceptions and limitations, intellectual property law often recognizes that users must have certain entitlements.¹³³ Thus, some might object that moral considerations, whether should supersede economic analysis.

Economic analysis can and should be tempered with recognition for other ethical considerations.¹³⁴ Accordingly, the discussion below about practical implementation of Rule Four will acknowledge particular moral considerations, such as free-speech values, that limit the scope of the property regime.¹³⁵

3. Doubts about the Separate Value of Control

The central assumption I made to augment the standard law-and-economics approach to property disputes was that actors place a value on control that is separate from the value they place on the substantive outcome. One might question the appropriateness of this assumption.

Process-based harm, or what I have called the value of control, should

¹³⁰ Calabresi & Melamed, *supra* note 1, at 1111–15.

¹³¹ See Litman, *supra* note 36, at 1903 (quoting then-MPAA Chairman Jack Valenti's comparison of the VCR to the Boston Strangler).

¹³² See Kwall, *supra* note 28.

¹³³ See Netanel, *supra* note 21.

¹³⁴ See *supra* notes 84–86 and accompanying text.

¹³⁵ See *infra* Section III.B.5.

not be overlooked. This value could vary widely across different individuals and different types of individuals. For example, a painter might care a lot about process while a corporate patentee cares little. My theoretical arguments take the form of demonstrating possibilities: showing that the value of control could generate preferences that differ from what we would otherwise expect. Not individual places significant value on control in and of itself. Nor does this value always tip the scales in terms of owners preferring Rule Four to Rule Two or users preferring the opposite. The point is rather that, a priori, such preferences are entirely possible. Policy makers should pay attention to this possibility because of the opportunities it could present to resolve disputes efficiently and perhaps fairly.

Individuals having preferences over process may seem unfamiliar. But this assumption does not require abandoning a utilitarian framework. Instead, it is a way to incorporate the kinds of values that non-utilitarians care about, such as justice, fairness and autonomy, into a utilitarian framework. Non-utilitarians may, of course, object to this enterprise. Utilitarians, however, have no reason to do so, at least not on the ground that it departs from utilitarianism. On the contrary, assuming that the value of control is a relevant variable takes advantage of the flexibility of utility analysis.

Second, even if valuing control seems unfamiliar, this pushing of the usual boundaries is useful. It is true that economics is focused on outcomes. For instance, the classical analysis of supply and demand is a story about equilibrium—about the happy endpoint that society reaches when a market operates.¹³⁶ Economic analysis of law, as an interdisciplinary methodology focused on law and policy, should incorporate process into the analysis. After all, process is at the heart of the legal system.¹³⁷ This is only a modest step. When the legal system allocates goods, individuals may care about how the goods came into their possession, not just the consumption value of those goods. In this way, the potential unfamiliarity of the model is not a

¹³⁶ See VARIAN, *supra* note 82, at 219. Economists have generally been less concerned, and less able to analyze, the process of reaching equilibrium. My microeconomics teacher in graduate school referred to this silence on the process of reaching equilibrium as the “soft underbelly” of economics.

¹³⁷ See, e.g., HENRY M. HART, JR. & ALBERT M. SACKS, *THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW* (William N. Eskridge, Jr. & Philip P. Frickey eds., 1994).

weakness but a strength.

III. IMPLEMENTING THE MISSING RULE

This Article has outlined a new theory that explains how both liability rules, Rule Two and Rule Four, can be useful for policy. Yet Rule Four is rarely used with respect to real property and almost never used or even considered with respect to intellectual property. This unfamiliarity calls for some discussion of how Rule Four would work in practice.¹³⁸ It also suggests that there are reasons why policy makers have not often deployed Rule Four, which will require institutional design choices that mitigate the drawbacks.¹³⁹ Despite the legitimate qualms lawmakers have had, declining to use Rule Four more often represents a missed opportunity. Using the full complement of Calabresi and Melamed's rules would help resolve disputes efficiently and fairly. Through the use of policy experiments, making use of Rule Four would also allow policy makers to learn more about the true preferences of parties to property and intellectual-property disputes.¹⁴⁰

A. *How Rule Four Could Work*

This section explains how Rule Four, the reverse liability rule, would work in practice. Each of the four rules is really a category of rules.¹⁴¹ Choosing one of the rules is only the first policy choice; many other dimensions of designing the property regime must be considered. This section offers some thoughts about those secondary choices.

1. Determining When to Deploy Rule Four

Suppose that a policy maker faces a dispute between a property owner and a would-be user of a certain part or aspect of the property. One way to approach the choice of a property regime would be to decide first which party should have the entitlement and decide second how to protect that entitlement. Another approach would flip the order of those decisions, making the choice between property-rule protection and liability-rule protection first, then deciding which party should have the entitlement. Still another approach would be to choose the better decision-maker first—decide who should have control—and then decide whether this control

¹³⁸ See *infra* Section III.A.

¹³⁹ See *infra* Section III.B.

¹⁴⁰ See *infra* Section III.C.

¹⁴¹ See *supra* Section I.A.

should be in the form of property-rule ownership or a call option. Finally, one could consider all these dimensions jointly.¹⁴² Any of these approaches to decision-making could lead policy makers to Rule Four.

From the entitlement perspective, choosing Rule Four would mean deciding that users should have the entitlement rather than owners (and then choosing a liability rule). Many policy rationales, whether based on efficiency or “other justice reasons,” could justify such a choice.¹⁴³ For example, in an intellectual property dispute, it might appear that compensation for a disputed use is unnecessary to provide incentives for creation, marketing, or distribution of the work. Or there might be a social norm in place that suggests a widespread, longstanding belief that users had the right to engage in the disputed use.

If the government makes the property rule/liability rule decision first, then getting to Rule Four would require a conclusion that liability rules are superior in the particular context of the property dispute. Liability rules are more appealing when the bargaining and decision-making costs of private transactions are relatively high and the costs of government assessment are relatively low.¹⁴⁴ Enforcement and monitoring costs could also point toward liability rules; imagine a situation like protecting copyright in an MP3 file in which a property rule is almost impossible to enforce *ex ante*.¹⁴⁵ Liability rules could also be a default rule to spark bargaining.¹⁴⁶

Distributional concerns can also explain a preference for liability rules. Liability rules are less extreme in the way they distribute resources because they limit the rewards that the entitlement holder can demand. Suppose a particular dispute is contentious—both owners and users have strong

¹⁴² This would mean weighing Rules One, Two, Three, and Four against one another all together, rather than eliminating two of the rules and then choosing between the remaining two. There are other possibilities for the decision process, such as eliminating rules one by one based on a combination of economics and non-economic factors.

¹⁴³ See Calabresi & Melamed, *supra* note 1, at 1102.

¹⁴⁴ This requires explanation why the government has an informational advantage over the parties to the dispute. See Krier & Schwab, *supra* note 22. One possible explanation is a hold-up problem.

¹⁴⁵ See TARLETON GILLESPIE, *WIRED SHUT: COPYRIGHT AND THE SHAPE OF DIGITAL CULTURE* 165 (2007) (describing failures of file-encryption efforts to enforce copyright). A liability rule can be made very expensive to mimic a property rule as closely as possible. But in some contexts this appears to afford little deterrence.

¹⁴⁶ See *supra* note 120 and accompanying text.

arguments that they should have the entitlement. In such a situation, it might be preferable to choose one of the liability rules than one of the property rules, purely on grounds of fairness in distribution.

Suppose that the policy maker has indeed chosen to implement one of the two liability rules. From there, a preference about administrative efficiency, informational efficiency, or a distributional view about who should have the entitlement could lead to a choice of Rule Four over Rule Two. Accounting for the value of control opens up the possibility that both parties have the same preference as between Rule Two and Rule Four.¹⁴⁷ This might provide an additional reason to choose Rule 4 once the field of policy choices has been narrowed to the two liability rules.

Policy makers might also choose the best decision-maker first.¹⁴⁸ Efficiency arguments can justify this approach. If one party is better at assessing the facts of the situation, its superior information might be a compelling reason to grant it control. Arguments rooted in fairness or “other justice reasons” might also justify this approach.¹⁴⁹ For example, First Amendment values might call for users to have the power to make the decision about whether to use a portion of an existing copyrighted or trademarked work.¹⁵⁰ Once the owner is the chosen decision-maker, then the choice between Rule One and Rule Four may come from either efficiency, based on some of the reasons mentioned above, or fairness.

2. Exercising an Option to Block Use

Rule Four gives the owner of the property an option to block a particular use of the property in return for paying the user a government-determined fee. In the real property context, the idea is that a resident subject to a nuisance could receive a special kind of injunction, one requiring it to pay a fee determined by the court.¹⁵¹ In the intellectual property context, the notion is similar. Rule Four specifies that the owner can pay a government-determined fee for the right to block a particular use of their invention or work. Control belongs to the owner. Compensation flows, however, to the

¹⁴⁷ See *supra* Section II.B.

¹⁴⁸ See Ayres & Goldbart, *supra* note 50.

¹⁴⁹ Calabresi & Melamed, *supra* note 1.

¹⁵⁰ See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

¹⁵¹ *Spur Industries v. Del E. Webb Development Co.*, 108 Ariz. 178, 494 P.2d 700 (1972).

user.

Rule Four would not prohibit voluntary transactions, just as Rule Two does not.¹⁵² After paying the fee, the owner could always exercise the option and then license the use under modified terms. For instance, the owner could then demand a higher licensing fee. Or, once she has exercised her option under Rule Four, the owner could offer the user a license that cabins the originally desired use to a use of more limited scope.

This highlights the fact that Rule Four also requires a government institution not only to set the fee but also to define the scope of the use in question. At the root of all this analysis is a dispute over a particular use. When the government wishes to deploy Rule Four (or Rule Two, for that matter), it must specify the use that is subject to an option. In other words, the government must decide exactly what activities the owner may prevent the user from engaging in. Other uses can be subject to other rules—in other words, the property can be disaggregated into a bundle of potential uses, with each use potentially subject to a different rule.¹⁵³

Rule 4 may also require some administrative apparatus to keep track of the exercised options, to collect fees, and to resolve disputes over the operation of the rule itself. These administrative costs are an important part of the desirability of the rule in the first place, since these costs are where liability rules might have a disadvantage compared with property rules.

3. Variations

As emphasized above, each of Calabresi and Melamed's four rules is really a category containing many specific policies. Many variations are possible in terms of what kind of government institution sets the fee, whether the fee is tailored or untailored, and whether the rule applies to one-time disputes or repeated interactions as well.

¹⁵² For example, parties to the Section 115 statutory license typically contract around the government license. *See* 17 U.S.C. § 115(a) (creating a statutory license for reproductions and distributions of musical compositions); *see also* DONALD PASSMAN, *ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS* 213 (7th ed. 2009) (“[T]he compulsory license is almost never used. . . . The copyright owners (publishers) would rather give you a direct license because they can keep track of it easier.”).

¹⁵³ *See* Calabresi & Melamed, *supra* note 1. *But see* Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 *YALE L.J.* 357 (2001) (criticizing the bundle of rights view).

a) Methods of Fee-Setting

Under Rule 4, a government institution must set the fee f_4 , whether it is a legislature, a court, or an administrative agency.¹⁵⁴ A legislature might set the initial fee and arrange for inflationary adjustments. Alternatively, a legislature could delegate rate-setting to an administrative agency.¹⁵⁵ In situations with more individualized disputes, courts might choose Rule 4 as a remedy and craft an appropriate fee structure, along with an injunction that covers the blocked use in question.

b) Tailored versus Untailored

The fee that allows an owner to exercise her option to block use under Rule Four can either be tailored or untailored.¹⁵⁶ A tailored fee refers to an individualized process in which the government determines the appropriate fee based on its estimates of the harm each party would experience without the right to the use. This is what a court does when it implements Rule Four (or Rule Two) in a specific case. By contrast, an untailored fee would be an across-the-board price that owners would face in order to exercise their option. Tailoring can be a matter of degree—fees could be tailored to particular subgroups of owners.

c) One-time versus Each-time

There is also a design choice regarding how many users the option will be valid against once exercised. Rule Four could offer owners the opportunity to block all uses of a particular type with a one-time fee. This design gives Rule Four the shape of allowing owners to pay for stronger property rights if they want them.¹⁵⁷ Alternatively, Rule Four could proceed instance by instance, requiring the owner to pay a fee each time she wishes to block a particular user. The concern this design immediately raises is the possibility of extortion, which I will discuss below.¹⁵⁸ Here, my point is merely to recognize this dimension of institutional-design choice. Policy

¹⁵⁴ See *supra* notes 104–106 and accompanying text.

¹⁵⁵ The Rule 2 analog of this in copyright law is the Copyright Royalty Board.

¹⁵⁶ See, e.g., Ayres & Talley, *supra* note 70.

¹⁵⁷ This one-time-payment structure would result in a policy similar to the idea of requiring renewal fees for copyrights or patents to last longer. See William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 477 (2003). The fee in Landes and Posner's proposal would be paid to the government, not to the user, which is a significant difference.

¹⁵⁸ See *infra* Section III.B.3.

makers must choose whether Rule Four is a one-time fee or an each-time fee.

4. Precedents

Scholars have always asked *Spur Industries v. Del E. Webb Development* to do a lot of work as an example.¹⁵⁹ It showed up at an opportune time to suggest that Rule Four really did exist in the world, rather than as a mere possibility.¹⁶⁰ Carol Rose has pointed out that Rule Four looks a lot like eminent domain, where many similarly affected individuals are on the owner side of the dispute.¹⁶¹ In that situation, the government is both setting up the regime and exercising the option on behalf of a group of citizens.¹⁶² In this Article, I am focused on disputes between individuals, or individual entities. And in that one-on-one context, Rule Four remains unfamiliar.¹⁶³

Insisting on the policy relevance of Rule Four puts one in the position of a physicist who has discovered one quantum particle (*i.e.*, Rule Two) but has yet to observe its implied opposite.¹⁶⁴ Rule Four is unquestionably unfamiliar, especially to intellectual property. Still, there are a few possible analogies, each of which admittedly differs from Rule Four in important respects. The one-time-fee version of Rule Four looks a lot like offering owners stronger rights for a fee, except that the proceeds are paid to the user rather than to the government.¹⁶⁵ In this way, Rule Four could act like a costly screen, helping policy makers sort out which owners value blocking the use and which do not.¹⁶⁶ Finally, one might observe a loose, private analogy to Rule Four in situations where an owner pays for a user not to

¹⁵⁹ 108 Ariz. 178, 494 P.2d 700 (1972).

¹⁶⁰ See Krier & Schwab, *supra* note 22.

¹⁶¹ See Carol M. Rose, *The Shadow of the Cathedral*, 106 YALE L. J. 2175 (1997).

¹⁶² *Id.*

¹⁶³ See THOMAS W. MERRILL & HENRY E. SMITH, *THE OXFORD INTRODUCTIONS TO U.S. LAW: PROPERTY* 99 (2010).

¹⁶⁴ See, e.g., Christina Scelsi, *Stopping the Collision: The Fight over the Large Hadron Collider*, 5 No. 3 ABA SCI TECH LAW. 8, 9 (2009) (describing quark pairs).

¹⁶⁵ See *supra* Section III.A.3.c.

¹⁶⁶ See David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677 (2012); Jonathan S. Masur, *Costly Screens and Patent Examination*, 2 J. LEGAL ANALYSIS 687 (2010); cf. Ayres & Talley, *supra* note 70 (arguing that liability rules can have this screening effect).

engage in a particular use.¹⁶⁷

Property disputes between individuals and intellectual property law in general do not appear to employ Rule Four. It remains the missing rule. Why this is so probably relates to several obvious drawbacks with Rule Four.¹⁶⁸ But there are ways to mitigate these problems, which suggests that the missing rule should be part of policy makers' toolkit after all.

B. *Obvious Problems and Design Responses*

There are reasons that Rule Four is an uncommon approach to assigning entitlements and choosing how the law will vindicate the resulting property interests. I call these reasons "obvious problems" because they tend to come up immediately in conversations about Rule Four. In this section, I will discuss the drawbacks of Rule Four and outline some ways to mitigate these concerns.

1. Why Intervene with a Liability Rule at All?

Disputes between property owners and would-be users require resolution at some point. But that does not imply that the government must do the resolving. Liability rules threaten to step in where a private transaction might have occurred by creating an option for one party to a property dispute to force a transaction with the other party. Private ordering has many well-documented attributes that liability rules could threaten. Despite the promise of private negotiations, however, several types of inefficiencies can arise in particular situations: holdout problems,¹⁶⁹ hold-up problems,¹⁷⁰ royalty stacking problems,¹⁷¹ division-of-profit problems in the sequential innovation context,¹⁷² and so on.

Liability rules can be the preferred mechanism depending on the circumstance. Sometimes liability rules are put in place more or less by

¹⁶⁷ One example would be opting out of the YouTube license, which involves forgoing compensation rather than paying it to the users.

¹⁶⁸ See *infra* Section III.B.

¹⁶⁹ See Thomas J. Miceli & C.F. Sirmans, *The Holdout Problem, Urban Sprawl, and Eminent Domain*, 16 J. HOUSING ECON. 309, 311-12 (2007) (explaining the holdout problem).

¹⁷⁰ See Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007).

¹⁷¹ See *id.*

¹⁷² See Green & Scotchmer, *supra* note 63.

necessity, because no transaction was possible. Think of a car accident, and the liability rules of tort law.¹⁷³ Other times liability rules are put in place in recognition of the failure of a private licensing deal to occur. Here, think of the compulsory licensing of intellectual property, often in the context of antitrust concerns.¹⁷⁴ Besides, as long as a liability rule makes exercising an option voluntary, then it can serve as a background, default rule. Liability rules can catalyze bargaining just as well or better than a property rule in the right situation.¹⁷⁵

Property rules and liability rules each have costs and benefits, drawbacks and attributes. The appropriate economic stance is one of agnosticism. Comparative institutional analysis is required to decide which method of protection is called for. By highlighting some advantages of Rule Four in this Article, I mean only to advocate for Rule Four to be considered on an equal footing with the other rules in the abstract. I am not suggesting that it should predominate or enjoy a thumb on the scale. I am suggesting instead that Rule 4 should not be categorically ignored.

2. Won't the Government Get the Price Wrong?

Liability rules—both Rule Four and its mirror image Rule Two—call for the government to set the price of an option, whether it is an option to block (Rule Four) or to use (Rule Two). In that sense, liability rules are a heavier-handed government intervention in the market than either of the property rules. All four rules for protecting entitlements call for government enforcement of the boundaries. But only the liability rules involve government price-setting.

Along these lines, one straightforward and immediate objection to Rule Four is that liability rules are undesirable or at least suspect in the way that all government price-setting is undesirable or suspect.¹⁷⁶ A fair portion of

¹⁷³ See Calabresi & Melamed, *supra* note 1; Kaplow & Shavell, *supra* note 120.

¹⁷⁴ See, e.g., DiCola & Sag, *supra* note 46, at 203–09 (discussing ASCAP versus radio); F.M. Scherer, *Antitrust, Efficiency, and Progress*, 62 N.Y.U. L. REV. 998, 1016–17 (discussing the remedy imposed in the FTC's case against Xerox, which required compulsory licensing of patents).

¹⁷⁵ See *supra* note 120 and accompanying text.

¹⁷⁶ The policy preference for market actors to set or negotiate prices, based on economic thinking, has been ascendant in the U.S. since the late 1970's. See Stephen Breyer, *Airline Deregulation, Revisited*, BLOOMBERGBUSINESSWEEK.COM (Jan. 20, 2011), <http://www.businessweek.com/stories/2011-01-20/airline-deregulation->

the scholarly literature on property rules and liability rules focuses on debating this point.¹⁷⁷ And some of the political dissatisfaction with existing liability rules revolves around complaints about the process of government price-setting (beyond the standard complaints that the price chosen is too low or too high).¹⁷⁸ Moreover, because of policy makers' relative unfamiliarity with Rule Four, one might be concerned that lack of experience will make price-setting even more costly and even less accurate than Rule Two. And the property rules avoid price-setting entirely.

But again, the economist's answer must be "it depends." Government price-setting is subject to errors; so is private price-setting. There can be circumstances in which the government is more likely to get the price (*i.e.*, the fee, f2 or f4) correct on average than private actors are.¹⁷⁹ In that event, liability rules can be more efficient. This leaves aside consideration of externalities as well as any of the non-economic reasons that policy makers may rely on to choose a particular rules.¹⁸⁰

3. Won't Rule Four Lead to Extortion?

Perhaps the most common spontaneous reaction to Rule Four relates to the possibility of extortion.¹⁸¹ The concern is that many sham users will arrive to threaten property owners with contrived, offensive, and damaging uses, in hopes of inducing the property owner to pay them f4 for the use that must be blocked. This is the reverse of "coming to the nuisance"¹⁸²—instead, this is making oneself a nuisance and taking advantage of the fact that Rule Four grants the entitlement to the user. What's worse, individual users might show up multiple times with phony claims about desiring to use the property in a particular way, essentially hoping to use the owner as an

revisitedbusinessweek-business-news-stock-market-and-financial-advice.

¹⁷⁷ Compare POSNER, *supra* note 65, with Kaplow & Shavell, *supra* note 38.

¹⁷⁸ See *supra* note 45 and accompanying text (describing composers' complaints about the statutory license of 17 U.S.C. § 115).

¹⁷⁹ Kaplow & Shavell, *supra* note 38.

¹⁸⁰ See *supra* Section III.A.1 (discussing externalities and "other justice reasons" as possible justifications for liability rules).

¹⁸¹ See James Lindgren, *The Elusive Distinction Between Bribery and Extortion: From the Common Law to the Hobbs Act*, 35 U.C.L.A. L. REV. 815, 825 (1988) ("Broadly speaking, coercive extortion can refer to any illegal use of a threat or fear to obtain property or advantages from another, short of violence that would be robbery.").

¹⁸² "Coming to the nuisance" played a large role in the *Spur v. Del E. Webb* decision, which applied Rule 4; thus, the opposite of coming to the nuisance makes sense as a drawback of Rule 4.

ATM. In the context of intangible property, it is incredibly inexpensive to find and use preexisting works by others, which exacerbates the general concern about extortion under Rule Four.

The possibility that Rule Four could be used in this strategic fashion, in the absence of a bona fide dispute, is a real problem that requires administrative responses. To combat the issue of making oneself a nuisance, and manufacturing even a single dispute, the government could offer an administrative process to allow owners to challenge a user's entitlement to the fee under Rule Four on grounds of bad faith. Even the presence of some administrative costs and hurdles could be used as a screen to limit the entitlement to bona fide users.¹⁸³ To deal with the problem of the same user instigating multiple disputes with the same owner, Rule Four could be implemented with a cap. Within a certain period of time, the fees for an individual owner to block the same individual user could be limited (perhaps only to a single imposition of the fee).

Another possibility of institutional design—one that takes the property regime out of the traditional Calabresi and Melamed framework, but retains some of the features of Rule Four—is that the compensation paid under Rule Four could go to the government rather than to the user. The government could distribute the fees to a class of users or likely users, rather than to individual users. For example, if copyright law applied Rule Four to digital sampling, the fees collected when owners opt to block use could be aggregated and distributed to musicians' groups or arts organizations.¹⁸⁴ The notion would be that, even where policy makers have decided that owners should have an entitlement to block uses, the owners should have to pay into a fund to promote expression, precisely because exercising their option has thwarted expression. For some readers, this will only inflame their dislike of the proposal rather than ameliorate it. But it is one way to address the extortion issue.

4. Would Rule Four Create Unfair Advantages for Wealthy Owners?

Suppose that Rule Four were set up such that a one-time fee purchased the right to block any uses of a certain type. Under that particular version of

¹⁸³ See Fagundes & Masur, *supra* note 166.

¹⁸⁴ See MCLEOD & DiCOLA, *supra* note 30, at 265–66.

the proposal, it is particularly straightforward to foresee that wealthy owners—and large corporations that aggregate many properties—would find it easy to purchase the option to block. Owners with a high ability to pay could purchase control rights as a routine cost of doing business. With respect to the properties of those wealthy owners, users' entitlement would not mean much in practical terms, as the options to which their entitlements are subject would always be exercised.

Next, suppose that Rule Four were set up as an every-time fee, requiring payment to block each use by each individual user. Under this regime, it is straightforward to see that owners with a low ability to pay would find it difficult to block multiple uses. They might end up at the mercy of users.

No property regime makes it easy to dissipate or neutralize the effect of wealth in society. It does not seem appealing to adjust f_4 for wealth, as this would worsen the concern about extortion, making wealthy owners an especially attractive target. But the other sort of wealth effect, disadvantaging less wealthy owners, could be mitigated. One institutional design choice would be to structure f_4 as a small fraction of future sales of the owner's work.¹⁸⁵ That way, less wealthy owners could pay as they go.

5. How Can Rule Four Be Squared With Important Rights?

Granting users the entitlement to a particular use obviously restricts the property rights of owners. But if that entitlement is protected by a liability rule, as it is under Rule Four, then the owner is entitled to an option to block use. This potentiality, if not implemented properly and carefully, could interfere with important rights of users. For example, in the real property context, some uses might involve essential freedoms. In the intellectual property context, some uses might constitute fair use¹⁸⁶—a doctrine that, at least in copyright law, is a central bulwark against infringing the First Amendment rights of users. The prospect of owners exercising their options to block expressive uses, to block uses of brand names, and to block research uses is appalling.

¹⁸⁵ This is the mirror image of, for example, the statutory license for musical works in 17 U.S.C. § 115.

¹⁸⁶ Fair use exists in both copyright law and trademark law. Patent law contains a limited exception for research use, which is certainly not equivalent to fair use, but still represents an important right of users.

The legal response to this appalling prospect is straightforward to articulate but potentially complicated to implement. The simplest answer to the dilemma is that rights like freedom of speech must trump property rights at times, just as they do under existing law. Regardless which rule is chosen, doctrines like fair use or the research-use exemption take precedence.¹⁸⁷ One difficulty is setting up formal procedures that vindicate those rights and privileges in an effective fashion. An even more complex task of institutional design is to ensure that the background rights and formal procedures lead to a system in which the rights and privileges are meaningful in practice. For example, there is widespread concern that fair use is not practically useful in contexts like the music industry.¹⁸⁸

A key question is whether implementing Rule Four as the property regime governing a particular kind of property dispute would have complex repercussions that upset the balance of power between owners and users. Without sound institutions to vindicate rights and without an understanding of how private institutions and private actors will respond to the system, it is difficult to say in advance how Rule Four could threaten rights and privileges—even if the black-letter law was clear that these rights and privileges superseded owners’ option to block use. I acknowledge this limitation and would urge policy makers to take it quite seriously. Both careful design in advance of launching Rule Four and careful monitoring after launching Rule Four would be essential to safeguard important rights.

6. Is Rule Four Too Complicated to Administer?

Because Rule Four requires administrative procedures necessary to deal with extortion and to safeguard rights, it is a fairly complex policy. Rule Four seems complicated to begin with, as its operation as an option to block use is unfamiliar and perhaps not intuitive (though I hope it will become so). Setting fees, requiring administrative hurdles, and making provisions for certain rights to trump the owner’s option to block use all add up to a more complicated policy compared to the two property rules. Currently, the

¹⁸⁷ See, e.g., Litman, *supra* note 36.

¹⁸⁸ See, e.g., MCLEOD & DICOLA, *supra* note 30, at 238-40; *but see* PATRICIA AUFDERHEIDE & PETER JASZI, RECLAIMING FAIR USE: HOW TO PUT BALANCE BACK IN COPYRIGHT (2011) (describing a best-practices approach to enhancing the practical utility of fair use).

Copyright Office may not be equipped to administer such a policy.¹⁸⁹

On the other hand, to take one area of intellectual property law as an example, proposals are on the horizon that would implement small-claims courts for copyright.¹⁹⁰ Perhaps the challenges to bona fide use and the safeguarding of fair use could be treated as small claims. The U.S. Patent and Trademark Office might be able to offer similar functionality administratively. The fact is that property rights and intellectual property rights are always going to be complicated in terms of their boundaries. Admittedly, there are additional startup costs to setting up the administration of Rule Four, just as there are for setting up a statutory license to implement Rule Two. And it is not desirable to add to the law's complexity or opacity to the general public. These are drawbacks that should be weighed against the attributes of Rule Four in particular situations.

In summary, if implementation of Rule Four appears appropriate, then there are ways to alleviate the concerns associated with it. I do not mean to minimize those concerns. Nor do I mean to suggest that Rule Four should come to predominate our thinking about property, real or intangible. My point is rather that Rule Four is a tool that policy makers should keep in their toolbox and sometimes deploy. It could produce the best result in some contexts, resolving disputes in a way that best balances the interests of creators, users, and the general public. Moreover, using Rule Four as a background rule could spur the parties to a property dispute, large or small, to bargain toward the best solution.

C. *Experiments with Rule Two and Rule Four*

An exciting aspect of bringing Rule Four into the policy conversation in a fuller way is that it opens up the possibility of policy experiments.¹⁹¹ Information about the parties' true valuations of the reciprocal harm at stake plays a central role in property disputes. Developing better information

¹⁸⁹ See DiCola & Sag, *supra* note 46, at 193–95.

¹⁹⁰ See Maria A. Pallante, *The Next Great Copyright Act*, 36 COLUM. J.L. & ARTS 315, 333 (2013); DEP'T OF COMMERCE INTERNET POLICY TASK FORCE, COPYRIGHT POLICY, CREATIVITY, AND INNOVATION IN THE DIGITAL ECONOMY (2013), <http://www.uspto.gov/news/publications/copyrightgreenpaper.pdf>.

¹⁹¹ On policy experiments generally, see Michael Abramowicz, Ian Ayres & Yair Listokin, *Randomizing Law*, 159 U. PA. L. REV. 929 (2011).

about the preferences of certain types of disputants could facilitate more efficient and more equitable resolution of those disputes.

1. Measuring the Value of Control

Suppose that policy makers have discerned that a particular kind of property dispute is not amenable to either of the property rules.¹⁹² There is a set of owners and a set of users who are involved in disputes with some relevant similarities. For example, think of the holders of patents in mobile phone technology as the owners and the manufacturers of mobile phones as the users. The preceding analysis has shown that, from the perspective of each party, we cannot know a priori whether either party will prefer Rule Two or Rule Four. Standard law-and-economics analysis has shown that the government must estimate the total harm to each party in order to choose its rule.¹⁹³ This Article suggests that the government should also attempt to estimate what portion of the harm is due to the loss of control for its own sake.¹⁹⁴ How should the government go about this?

One intriguing possibility is for the government to conduct experiments. By making Rule Four a plausible policy option in addition to Rule Two in such circumstances, the government would have the opportunity to set up a choice. On one side of that choice would be Rule Two, with fee f_2 set at a particular level. On the other side would be Rule Four, with fee f_4 also set at a particular level. Either party, as a subject in the policy experiment, would need to know both f_2 and f_4 in order to know what she would have to pay to exercise her option (if she chose the rule that gave her one) and what she would receive if the other party exercised an option (if she chose the opposite rule).

The fee levels could be varied on a random basis. For example, f_2 could be set at either 1% or 2% of the revenue the user derives from the use, while f_4 could vary between 3% and 5% of the revenue the owner derives from the property. Each party to a dispute of this type would then face a different menu of options. Their choices would have real consequences, so that they would be revealing their true preferences.

¹⁹² This can be a result of practical limitations in enforcement or the inefficiencies that can arise in bargaining. *See supra* notes 169–172 and accompanying text.

¹⁹³ *See supra* Section II.A.2.

¹⁹⁴ *See supra* Section II.B.

By observing how the parties made their choices, the government could begin to learn about the harm that each party would experience. Over time, it would be possible to impute the value of control in and of itself from how the parties chose. As discussed above, preferences between Rule Two and Rule Four depend on whether the parties expect the options to be exercised or not.¹⁹⁵ But this expectation could be measured in order to determine which of the four scenarios the party expects to be in at the time of choosing between rules. With that information, and knowing the level of fees, policy makers could infer parties' valuation of harm (and the portion of that harm attributable to the separate value of control) from the conditions derived above.¹⁹⁶

2. Both Owners and Users as Subjects

Although I have used owners in many examples to illustrate the economic analysis, it is essential that both owners and users would be subjects of the policy experiments. One reason is balance and fairness. Whichever party gets to choose the legal regime is being given a separate kind of benefit—a sort of meta-benefit—in the form of an opportunity to exercise control. There is no a priori reason to bestow that benefit on owners or users during the experimental period.

Highlighting this benefit to one side or the other raises an important ethical problem that is endemic to experiments. The nature of the experiment affects the parties' interests, perhaps profoundly. The best way to address this is for policy makers to test fee levels that are within a realistic range. One safety valve for problems is that parties would still be free to bargain around the liability rule or to make a transaction after the option is exercised.

Conducting these policy experiments with both owners and users as subjects, giving individuals in each position the choice between Rule Two and Rule Four, creates the possibility for identifying opportunities where the two sides' preferences actually align. It is possible that policy experiments will reveal that most owners (in a certain type of dispute) prefer Rule Four, and that most users also prefer Rule Four. The same could be true in other situations with respect to Rule Two. And that presents a

¹⁹⁵ See *supra* Section II.B.4.

¹⁹⁶ See *supra* Section II.B.5.

possible opportunity to make most people better off, by choosing the preferred rule.¹⁹⁷ Without conducting the policy experiments, it would be much more difficult and speculative to identify these opportunities.

IV. APPLICATIONS

This Part of the article is meant to suggest some areas where the conditions are particularly ripe for deployment of Rule Four, or at least Rule-Four thinking. My goal is to outline a new way of looking at things, spark discussion, and suggest a research agenda.

A. *Copyright*

Because copyright deals with original works of expression, disputes about control and creative autonomy arise often. In the category of copyright disputes that deal with an upstream copyright owner/creator and a downstream creator,¹⁹⁸ for example, both sides usually seek and value control independent of financial rewards, present or future. This makes copyright a natural area in which to relax the implicit assumption in previous law-and-economics analysis that the value of control is purely instrumental.¹⁹⁹

One way to see the usefulness of taking account of control—and considering Rule Four as a viable approach to copyright disputes—is by process of elimination. In copyright, Rule One, meaning property-rule protection for copyright owners, has become practically impossible to enforce in many circumstances. Unauthorized file-sharing continues on a large scale. Moreover, Rule One does not always lead to a robust licensing market; on the contrary, copyright licensing can be cumbersome on scales small and large. This can backfire on copyright owners.

Rule Three has a central place in copyright as well. It applies to situations in which works or aspects of works are in the public domain,

¹⁹⁷ See *supra* Section II.B.6.

¹⁹⁸ The other broad categories are owners more generally (who might not be the creators) vs. downstream users more generally, owners vs. consumers, and aggregate owners vs. distributors/new technologists. Parties in these other categories might value control in and of itself, but that is harder to conceive for corporate actors on either side of the dispute. Managers might place psychological value on control, but managers are distinct from the entity that employs them, making the welfare analysis more complicated.

¹⁹⁹ See *supra* Section II.B.

broadly conceived.²⁰⁰ It is a commonplace to critique fair use for being unpredictable;²⁰¹ that claim turns out to be exaggerated.²⁰² A more trenchant critique is that, in some contexts, fair use is not recognized by parties doing business in the copyright industries.²⁰³ Besides, in some circumstances Rule Three will be too extreme in its distributional consequences; sometimes the copyright owner should have claim to some of the value that stems from the use.

Now consider Rule Two in copyright. The copyright statute contains several statutory licenses.²⁰⁴ Copyright owners bristle at every one of them. Their displeasure is not necessarily a reason to discard Rule Two—policy compromises should perhaps leave every party at least a bit unhappy. And some of the complaints amount to grandstanding for a higher fee. But there are real problems with copyright’s statutory licenses. In the context of upstream and downstream creators, some upstream creators would be dismayed at losing the right to deny permission to use their work.²⁰⁵

At this point, the process of elimination leads one to wonder whether Rule Four has some traction in certain types of copyright disputes. Suppose that tailoring the fees under either liability rule is prohibitively expensive administratively, so that the focus is on untailed versions. Where the value of the harm to the copyright owner (whether the financial harm or the

²⁰⁰ Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 976 (1990) (“But the class of works not subject to copyright is, in some senses, the least significant portion of the public domain. The most important part of the public domain is a part we usually speak of only obliquely: the realm comprising aspects of copyrighted works that copyright does not protect.”).

²⁰¹ David Nimmer, “*Fairest of Them All*” and Other Fairy Tales of Fair Use, David Nimmer, 66 LAW & CONTEMP. PROBS. 263 (2003).

²⁰² See, e.g., Matthew Sag, *Predicting Fair Use*, 73 OHIO ST. L.J. 47 (2012) (conducting an empirical study of fair use, showing that some variables are predictive of results in fair use cases).

²⁰³ See MCLEOD & DiCOLA, *supra* note 30.

²⁰⁴ See, e.g., 17 U.S.C. § 115 (reproductions of musical works); *id.* § 116 (jukeboxes); *id.* § 119 (satellite retransmission of video).

²⁰⁵ See *id.* On the psychology of creators more generally, see Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745 (2012); Gregory N. Mandel, *To Promote the Creative Process: Intellectual Property Law and the Psychology of Creativity*, 86 NOTRE DAME L. REV. 1999 (2011); Jessica Silbey, *Harvesting Intellectual Property: Inspired Beginnings and “Work-Makes-Work,” Two Stages in the Creative Processes of Artists and Innovators*, 86 NOTRE DAME L. REV. 2091 (2011); cf. Christopher Buccafusco & Christopher Jon Sprigman, *The Creativity Effect*, 78 U. CHI. L. REV. 31 (2011).

value of control) is highly idiosyncratic, an untailored version of Rule Two is unappealing. But an untailored version of Rule Four allows policy makers to sort out the copyright owners who will experience harm greater than the level of the fee f_4 . My point here is certainly not that Rule Four should become the norm in copyright. I am only claiming that Rule Four could prove useful in some situations.

In some circumstances, the desire for control over copyrighted works is an unsympathetic, even unconstitutional, position. Giving control to copyright owners can serve merely to block the free expression of downstream creators for petty reasons. It is worth recalling, however, that giving control to copyright owners is a feature of both Rule One and Rule Four. As safeguards for speech, which can be applied to either rule, there exist the idea-expression dichotomy and fair use. These doctrines switch the regime to Rule Three where First Amendment values call for it. But in some contexts the copyright owner's desire for control is more sympathetic. Suppose a creator's artwork is used in an advertisement against her will. Or suppose a musician's song becomes the soundtrack to a political campaign for a candidate he vehemently opposes. A statutory license could seem undesirable, even weighed against free speech, if it burdens interests in personality or identity.

Rule Four gives the downstream creator the entitlement to the use, subject to an option held by the copyright owner. This gives the copyright owner the power to object to certain uses, at a cost. On the other side of the dispute, the downstream creator might be willing to substitute out a particular audio sample, text snippet, or video clip.²⁰⁶ The results can sometimes be serendipitous. Rule Four, however, would recognize the burden of blocked sampling, remixing, and other reuses by compensating the thwarted sampler for having to adjust. Although this cost might vary across users, it could have less variance than the idiosyncratic value of control to copyright owners. This would make Rule Four preferable to Rule Two, as the government would have a better chance of setting f_4 correctly than f_2 in these circumstances. For these reasons, copyright policy makers should begin to consider Rule Four.

²⁰⁶ MCLEOD & DICOLA, *supra* note 30.

B. *Trademark*

One of the most controversial developments in trademark law in recent decades has been the expansion of trademark protection against dilution.²⁰⁷ Several scholars have criticized this development as an expansion beyond trademark's proper focus on unfair competition.²⁰⁸ Other commentators have defended the historical roots of this approach.²⁰⁹ The area remains one of contention. Currently, trademark law allows a trademark owner to get an injunction after a finding of dilution—that's Rule One.²¹⁰ Damages are rare but possible; that would be Rule Two.²¹¹ And if no dilution is found or in the event of a successful defense, then the particular use would be handled with Rule Three.²¹² Again there is a missing rule. Thus, one possibility is to consider Rule Four.

An option to block certain uses of trademarks would be one form of compromise between trademark owners and users. I would envision this policy choice being useful in some of the harder dilution cases, for instance where the marks are identical but non-competing.²¹³ My own sense is that trademark dilution has been too broad, so I would advocate moving some cases handled with Rule One to a Rule Four approach instead. In that event, if the user is to be denied control, at least the user is compensated when a trademark owner wishes to block a use.

Another area, similar to the copyright example about sampling above, would be expressive uses of trademarks. In most cases, Rule Three may be the appropriate approach to protecting users' rights to use trademarks, and this seems to be the status quo.²¹⁴ But it may be worth exploring whether

²⁰⁷ See generally Jerre B. Swann, *The Evolution of Dilution Law in the United States from 1927 to 2006*, in INTERNATIONAL TRADEMARK DILUTION ch. 3 (2013).

²⁰⁸ See, e.g., Robert G. Bone, *Schechter's Ideas in Historical Context and Dilution's Rocky Road*, 24 SANTA CLARA COMPUTER & HIGH TECH. L.J. 469 (2008); Rebecca Tushnet, *Gone in Sixty Milliseconds: Trademark Law and Cognitive Science*, 86 TEX. L. REV. 507 (2008).

²⁰⁹ See Swann, *supra* note 207, at § 3:15.

²¹⁰ See J. THOMAS MCCARTHY, 4 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 24:132 (4th ed. 2014) (describing remedies under the federal anti-dilution statute).

²¹¹ *Id.*

²¹² *Id.* § 24:123 (providing an overview of defenses to the federal anti-dilution statute).

²¹³ *Cf. id.* § 24:68 (discussing the core purpose of dilution in the course of criticizing anti-dilution law's expansion beyond that purpose).

²¹⁴ See William McGeeveran & Mark McKenna, *Confusion Isn't Everything*, 89 NOTRE

there are some types of uses that are more ambiguous in character, where the owner's claims are more sympathetic. Rather than a stark choice between Rule One and Rule Three, perhaps Rule Four could be used in a limited way to vindicate owners' value of control—where legitimate. This would require carefully delineating the boundaries of the expressive uses to which Rule Four applied instead of Rule Three.

C. *Patent*

Unlike the other areas of intellectual property law, patent law is not usually discussed in terms of personal autonomy. Although patentees receive strong rights to control their inventions, patent disputes do not turn on issues of personal autonomy as often as copyright and trademark disputes. But there are exceptions. Consider the case of university researchers who wish to donate their work to the public domain, but retain concerns that others will misuse their invention in various ways; for example, by selling knock-off versions that take advantage of consumers.²¹⁵ One could also consider statutory invention registrations as instances of inventors exerting a degree of control, ensuring that others cannot patent the registered technology.²¹⁶ These examples suggest that control can be a value for some inventors. Thus, in some circumstances it could be socially beneficial for the entitlement to go to users at large, but allow the patentee to retain an option to block certain uses for a fee. Rule Four merits further investigation in the area of patent policy.

D. *Privacy*

Privacy is a multifaceted concept.²¹⁷ Digitization, Internet connectivity, national security initiatives, social networking, and other features of contemporary life have brought privacy to the fore of policy discussions. These challenging issues have left privacy law in a state in which new

DAME L. REV. 253, 287–91 (2013) (“[C]ourts seem increasingly to understand the importance of protecting the type of expressive uses we have highlighted.”).

²¹⁵ See Grisca Metlay, *Reconsidering Renormalization: Stability and Change in 20th-Century Views on Patents*, 36 SOC. STUD. SCI. 565, 572–73 (2006) (describing the attitudes of the developers of insulin).

²¹⁶ See J. Jonas Anderson, *Secret Inventions*, 26 BERKELEY TECH. L.J. 917, 976 (2011) (“The statutory invention registration allows inventors to publish inventions that they do not intend to patent in a manner that precludes others from patenting the invention.”).

²¹⁷ Daniel J. Solove, *A Taxonomy of Privacy*, 154 U. PA. L. REV. 477 (2006).

policy solutions are needed.²¹⁸ I would not suggest that Rule Four offers the sole way forward, or even a large piece of the solution to society's growing dilemmas about privacy. Rather, I would suggest that as a part of policy makers' thinking about the particular solutions that involve ownership of personal data, Rule Four should be considered as one of the possible property regimes.

To make this concrete, consider the four rules as applied to personal data.²¹⁹ Imagine a search company, an online retailer, or a social-networking company that wishes to collect, aggregate, and perhaps sell these personal data. Rule One would mean that individuals can obtain an injunction to prevent the company from collecting or retaining those data at all. Rule Two would mean that damages were available to individuals, but companies willing to pay the fines could proceed in collecting, aggregating, and selling the data and regard the fee as a cost of doing business.²²⁰ Rule Three would mean that the companies have property-rule protection for the data they collect from individuals. Perhaps one of those rules seems appealing, but none of those approaches have yet to catch on or prove effective.

Rule Four will have drawbacks, including the general drawbacks described previously,²²¹ but it has some attributes as a compromise that I have yet to see anyone consider in the privacy debates. Rule Four would give decision-making authority to individuals, but would require them to pay a government-set fee to retrieve this data, therefore recognizing the investment that online companies have made in collecting data. The fee might be set very low, perhaps five or ten dollars, such that most citizens could afford to pay it to the online companies they deal with most. Consumer advocates would certainly prefer Rule Three to Rule Four. But perhaps it is a compromise that should be put on the table.

²¹⁸ See Daniel J. Solove, *Introduction: Privacy Self-Management and the Consent Dilemma*, 126 HARV. L. REV. 1879, 1900 (2013) (acknowledging that good policy ideas for privacy are scarce).

²¹⁹ See, e.g., Jane Yakowitz, *Tragedy of the Data Commons*, 25 HARV. J.L. & TECH. 1, 6–7 (2011) (defining personally identifiable information).

²²⁰ This depends, of course, on the level of the fee f_2 . Currently, it does not appear that the fines that have been levied have stopped any company from collecting personal data, but that is just my impression.

²²¹ See *supra* Section III.B.

What made me think of privacy law in the context of property rules and liability rules is the decoupling of compensation and control. In the privacy debate, individual consumers and citizens care about control and autonomy for its own sake. The data aggregators are in business to make money. Rule Four does, in a sense, give each side what it wants.

CONCLUSION

Recognizing the distinct value of control for its own sake has important consequences for how scholars analyze property disputes and policy makers resolve those disputes. By relaxing a single assumption in the standard law-and-economics account of property rules and liability rules, I have shown that having the entitlement to a particular use of property is not always preferable. The analysis shows that an individual might prefer not to have the entitlement, if the entitlement is to be protected only by a liability rule. Moreover, I have derived the specific conditions under which that will be the case. Acknowledging the distinct value of control makes for an expanded set of conditions.

This economic analysis should give new life to the missing rule: the reverse liability rule dubbed Rule 4 about four decades ago. It also suggests that the government needs to learn about the preferences and values of the parties to property and intellectual property disputes, possibly through policy experiments. I have provided some broad suggestions about how Rule Four, and the decoupling of compensation and control more generally, can be useful in the areas of copyright, trademark, patent, and privacy. Future work could explore the details of implementing such a policy in these areas—the benefits and the pitfalls.

Disputes over property, whether real or intangible, can be difficult. The reason certain types of controversies remain fraught—such as the disputes over digital sampling, trademark dilution, applications of academic research, and personal data that I have discussed here—are that both sides have compelling interests. Sometimes, both parties will have an interest in being the decision maker, in exercising control, or in enjoying autonomy. Sometimes, both parties will seek mainly financial rewards. But in some cases, one party will be more focused on one than the other. We should look to identify those instances and craft policy compromises accordingly.

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