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ARTICLES

MAXIMIZING INTELLECTUAL PROPERTY: OPTIMALITY, SYNCHRONICITY, AND DISTRIBUTIVE JUSTICE

DAVID BLANKFEIN-TABACHNICK[†]

INTRODUCTION

This Article addresses the distributive structure of intellectual property and innovation policy¹ and the foundational role it plays in distributive justice. Distributive accounts of law are undergoing a renaissance; an unprecedented paradigm shift away from the wealth-maximizing approach to law and legal theory and toward a distributive view.² In line with this shift, this

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¹ Intellectual property traditionally pertains to patents, copyrights, trademarks, and trade secrets, while innovation policy marks a broader set of legal incentives to innovation.

² See Richard L. Revesz, *Regulation and Distribution*, 93 N.Y.U. L. REV. 1489, 1491–92 (2018); David Blankfein-Tabachnick & Kevin A. Kordana, *Kaplow and Shavell and the Priority of Income Taxation and Transfer*, 69 HASTINGS L.J. 1, 9 (2017) [hereinafter Blankfein-Tabachnick & Kordana, *Kaplow and Shavell*]; Zachary Liscow, Note, *Reducing Inequality on the Cheap: When Legal Rule Design Should Incorporate Equity as Well as Efficiency*, 123 YALE L.J. 2478, 2482 (2014); Matthew Dimick, *Should the Law Do Anything About Economic Inequality?*, 26 CORNELL J.L. & PUB. POL'Y 1, 40 (2016); Mark A. Geistfeld, *Cost-Benefit Analysis Outside of Welfarism*, 37 REVUS 1, 4–5 (2019); Kevin A. Kordana & David H. Tabachnick, *Taxation, the Private Law, and Distributive Justice*, 23 SOC. PHIL. & POL'Y 142, 163 (2006); Samuel Scheffler, *Distributive Justice, the Basic Structure and the Place of Private Law*, 35 OXFORD J. LEGAL STUD. 213, 229 (2015); SAMUEL FREEMAN, LIBERALISM AND DISTRIBUTIVE JUSTICE 167–94 (2018); Todd D. Rakoff, *The Five Justices of Contract Law*, 2016 WIS. L. REV. 733, 737; Kevin A. Kordana & David H. Tabachnick, *Rawls and Contract Law*, 73 GEO. WASH. L. REV. 598, 599 (2005); Kevin

Article breaks new ground in providing a needed framework for a distributive theory of intellectual property law and innovation policy and articulates an appealing, egalitarian alternative to wealth- or welfare-maximizing accounts of intellectual property and innovation policy. In doing so, this Article diagnoses and serves as a corrective to a seemingly systematic omission in the mature scholarly literature surrounding intellectual property. This omission is namely the underappreciated role that optimal tax rates and optimal legal rule construction play in the context of a distributive account of intellectual property and innovation policy. This Article concludes that for maximizing accounts of intellectual property—whether aimed at net-aggregate wealth or welfare,³ or in egalitarian fashion, aimed at the economic position of the least well-off⁴—rules governing intellectual property are on a conceptual par with legal rules traditionally conceived of as

A. Kordana & David H. Tabachnick, *On Belling the Cat: Rawls and Tort as Corrective Justice*, 92 VA. L. REV. 1279, 1281–82 (2006) [hereinafter Kordana & Tabachnick, *On Belling the Cat*]; Kevin A. Kordana & David H. Blankfein Tabachnick, *The Rawlsian View of Private Ordering*, 25 SOC. PHIL. & POL'Y 288, 288 (2008).

³ RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 38–46 (7th ed. 2007) (discussing the justification of copyright and patent as predicated on net-aggregate wealth creation; noting that “the dynamic [economic] rationale for property rights is readily applied to the useful ideas that we call inventions”); William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 325–53 (1989) (articulating a wealth-maximizing justification for intellectual property and noting that “[f]or copyright law to promote economic efficiency, its principal legal doctrines must, at least approximately, maximize the benefits from creating additional works minus both the losses from limiting access and the costs of administering copyright protection”); ROBERT P. MERGES, *JUSTIFYING INTELLECTUAL PROPERTY* 2 (2011) (“Current convention has it that IP law seeks to maximize the net social benefit of the practices it regulates. The traditional utilitarian formulation—the greatest good for the greatest number—is expressed here in terms of rewards.”); Daniel J. Hemel & Lisa Larrimore Ouellette, *Innovation Policy Pluralism*, 128 YALE L.J. 544, 558–93 (2019) (discussing optimal innovation policy from a chiefly welfare-maximizing perspective).

⁴ JOHN RAWLS, *A THEORY OF JUSTICE* 72, 266 (rev. ed. 1999) (describing economic inequalities as justified if they are “to the greatest . . . benefit of the least advantaged” in terms of an objective index of what Rawls calls primary goods); MERGES, *supra* note 3, at 136 (describing monopolistic protection as justified in a Rawlsian scheme where “the poor benefit so much from things covered by IP rights that the products covered by those rights more than make up for the excess distributional shares that wind up in the hands of rightowners”); David H. Blankfein-Tabachnick, *Intellectual Property Doctrine and Midlevel Principles*, 101 CALIF. L. REV. 1315, 1342–43 (2013) (describing monopolistic protection in intellectual property as justified in Rawlsianism only if it finds a home in the complete scheme of legal and economic institutions that serve to maximize the position of the least well-off, subject to lexically prior liberty and opportunity constraints).

merely operating in the “background” of intellectual property. Intellectual property has traditionally been understood as the legal doctrine surrounding copyrights, patents, and trade secrets.⁵ But legal institutions well beyond these areas of law are crucial to setting optimal incentives surrounding innovation and the governance and control of knowledge goods; this broader range of legal institutions can be described as innovation policy. This Article shows that maximizing principles demand a certain synchronicity among entitlement-governing legal rules, and those distinct maximizing principles demand unique sets of optimal legal rules—inclusive of intellectual property and innovation policy—and, further, that each respective set of legal rules must be constructed in light of a unique optimal tax rate. These observations have important ramifications for ongoing disputes in intellectual property scholarship—for example, the debate over monopolistic legal rules versus taxation and prizes⁶—as well as

⁵ For discussion and defense of the traditionalist approach to intellectual property law as a limited domain, see MERGES, *supra* note 3, at 132 (describing intellectual property law beyond these three areas as the “periphery” and specifically noting that “[t]axation is of course external to IP law”); 1 PETER S. MENELL ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE: 2019*, at 31 (2019) (discussing copyrights, patents, and trade secrets and noting that “[i]ntellectual property law has traditionally been taught along doctrinal lines”); Hemel & Ouellette, *supra* note 3, at 551 (discussing the traditional view critically and expanding the discussion to “innovation policy,” noting that “[a]lthough intellectual property law historically has been the principal field in which legal scholars have thought about innovation policy, governments [incentivize] innovation and allocate access to knowledge goods through a wide variety of mechanisms”); Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents—Prizes Debate*, 92 TEX. L. REV. 303, 304–05 (2013) (conceiving of innovation policy as beyond the traditional account; “[l]awyers and economists have long recognized that the patent system is not the only possible mechanism for incentivizing the production of new knowledge: government-awarded prizes and grants can perform similar functions”); Amy Kapczynski, *The Cost of Price: Why and How To Get Beyond Intellectual Property Internalism*, 59 UCLA L. REV. 970, 978 (2012) (rejecting internalism and advocating for an externalist and distributive approach, although not one focused on maximizing the position of the least well-off); Peter S. Menell, *Property, Intellectual Property, and Social Justice: Mapping the Next Frontier*, 5 BRIGHAM-KANNER PROP. RTS. CONF. J. 147, 161–63, 186–90 (2016) (discussing the internal and external perspective and their relationship to distributive and social justice).

⁶ See generally Thomas Pogge, *The Health Impact Fund: Better Pharmaceutical Innovations at Much Lower Prices*, in *INCENTIVES FOR GLOBAL PUBLIC HEALTH: PATENT LAW AND ACCESS TO ESSENTIAL MEDICINES* 135 (Thomas Pogge et al. eds., 2010) [hereinafter *INCENTIVES FOR GLOBAL PUBLIC HEALTH*] (discussing a system of taxation and prizes, from an essentially Rawlsian perspective); Steven Shavell & Tanguy Van Ypersele, *Rewards Versus Intellectual Property Rights*, 44 J.L. & ECON. 525 (2001) (comparing a system of taxation and prizes with monopolistic protection

ramifications for doctrinal intellectual property disputes concerning the copyright/patent divide⁷ and bankruptcy's treatment of intellectual property.⁸

This Article first addresses intellectual property from the perspective of its *internal* doctrinal boundaries, that is, the copyright/patent distinction, and then from outside its traditional parameters, in its relationship to non-intellectual property legal rules. This Article shows that external normative principles⁹ are

as incentives to innovation); Hemel & Ouellette, *supra* note 3; Hemel & Ouellette, *supra* note 5.

⁷ See Pamela Samuelson, *Strategies for Discerning the Boundaries of Copyright and Patent Protections*, 92 NOTRE DAME L. REV. 1493, 1494–95 (2017) (discussing doctrinal boundaries between copyright and patent). See also Peter S. Menell & Daniel Yablon, *Star Athletica's Fissure in the Intellectual Property Functionality Landscape*, 166 U. PA. L. REV. ONLINE 137, 147 (discussing the boundary between copyright and patent skeptically in the context of *Star Athletica*, and noting the possibility of creating “mutant species” of intellectual property law); Viva R. Moffat, *Mutant Copyrights and Backdoor Patents: The Problem of Overlapping Intellectual Property Protection*, 19 BERKELEY TECH. L.J. 1473, 1521 (2004) (discussing the possibility of a “mutant” form of copyright); Christopher Buccafusco & Mark A. Lemley, *Functionality Screens*, 103 VA. L. REV. 1293, 1293–94 (2017) (discussing intellectual property's internal partitions, focusing on the legal mechanisms designed to screen for functionality in the domain of utility patents, and distinguishing among filtering, exclusion, and threshold style-screens); Kevin Emerson Collins, *Patent Law's Authorship Screen*, 84 U. CHI. L. REV. 1603, 1607 (2017) (innovatively and insightfully discussing the ways in which patent law does and should guard against the invasion of authorial work); Mark P. McKenna & Christopher Jon Sprigman, *What's In and What's Out: How IP's Boundary Rules Shape Innovation*, 30 HARV. J.L. & TECH. 491, 492 (2017) (discussing the boundary surrounding utility patents).

⁸ See generally Peter S. Menell, *Bankruptcy Treatment of Intellectual Property Assets: An Economic Analysis*, 22 BERKELEY TECH. L.J. 733 (2007) (comprehensively discussing the treatment of intellectual property in the context of bankruptcy with particular attention to potential tensions and conflicts in law); Jennifer Ying, Comment, *The Plain Meaning of Section 365(c): The Tension Between Bankruptcy and Patent Law in Patent Licensing*, 158 U. PA. L. REV. 1225 (2010) (discussing the potential tension between patent licenses and bankruptcy's goals); Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807 (1998) (defending a contractualist approach to bankruptcy from a wealth maximizing perspective, including—contra the bankruptcy code—the upholding of *ipso facto* clauses in bankruptcy, for example, pre-bankruptcy contractual terms predicated on insolvency).

⁹ See Henry Smith, *The View from Germany*, NEW PRIV. L. (Sept. 7, 2015, 8:43 AM), <https://blogs.harvard.edu/nplblog/2015/09/07/the-new-private-law-the-view-from-germany-henry-smith/> [<https://perma.cc/8XQL-7Y2X>] (drawing a distinction between values internal to legal doctrine and those external to it, and posing the instructive question, “[s]hould a theory or explanation or justification of the law respond more to considerations of internal coherence? Or should a theory of law be judged on how well it makes legal results correspond with some external purpose, be it efficiency, fairness, conformance to wider cultural patterns or something else?”); Kapczynski,

capable of playing a crucial role in resolving seemingly intractable internal doctrinal conflicts. But, where such external principles are maximizing, traditional or conventional boundaries internal to intellectual property are untenable. This Article maintains that, in the context of maximizing principles, intellectual property rules cannot be conceptually or methodologically disambiguated from other entitlement-oriented legal rules, for example, those of bankruptcy and taxation. The distinction between intellectual property rules and “background” rules is illusory. This Article shows that egalitarian distributive principles aimed at maximizing the position of the least well-off operate along an important dimension, in an analogous fashion to wealth- and welfare-maximizing theories. However, when properly understood, such theories construct a *unique* set of *optimal* entitlement-oriented rules—inclusive of intellectual property and innovation policy—conjoined with uniquely optimal taxation rates. This Article shows that this relationship between intellectual property and optimal taxation rates has gone underappreciated, even in the context of a mature and sophisticated scholarly literature. This Article aims to serve as a corrective to the current omission.

Part I of this Article discusses competing normative conceptions of private law, focusing on intellectual property and innovation policy in light of the current debate over empirical versus normative accounts of intellectual property and the scholarly renaissance in distributive accounts of private law. Despite the fever pitch of the current scholarly debate, this Part shows that there are important methodological similarities between wealth-maximizing and maximizing distributive principles, and that such distributive principles are capable of supporting an underappreciated account of intellectual property and innovation policy. Part II discusses the domain of copyright and patent protection. The discussion first addresses the internal workings of intellectual property doctrine, specifically, the patent/copyright divide in the context of the conflict surrounding the Useful Article Doctrine, and then discusses skeptical concerns over copyright’s monopolistic protection. Part III then poses a puzzle for forward-looking maximizing theories: the question of whether or not such theories are even capable of justifying monopolistic protection, or if instead, they point in the direction of alternative

supra note 5, at 975 (distinguishing between internal and external accounts of intellectual property and casting reasonable skepticism on internalist accounts while defending the externalist approach).

forms of institutional design, for example, a system of taxation and prizes. Part IV discusses the traditional distinction between intellectual property and innovation policy and “background” rules—specifically budget expenditures and bankruptcy policy. Drawing upon an instructive doctrinal conflict in bankruptcy’s positive law, Part IV concludes that, in the context of maximizing principles, any distinction between intellectual property and background rules is illusory. In light of the previous sections, Part V culminates in the diagnosis and remedy of an important omission in the sophisticated scholarship surrounding intellectual property and innovation policy. Part V addresses the underappreciated fact that maximizing principles require synchronicity among all property entitlement governing legal rules, inclusive of intellectual property and innovation policy. Crucially, such principles demand the construction of an *optimal* set of legal rules, conjoined with an *optimal* tax rate; this Part holds that any departures from optimal rule construction *cannot* be offset by alterations in taxation, if one is to meet the demands of maximizing distributive principles. The final Part provides a conclusion.

I. THE STRUCTURE OF INTELLECTUAL PROPERTY AND EXTERNAL PRINCIPLES

A. *Conceptions of Private Law*

Consider first competing conceptions of the private law generally. Scholars of private law concern themselves with the private law’s normative structure. There is, for example, a long-standing debate over how to best understand an ideal contract law. One theory is that an ideal contract law should instantiate the value of autonomy through the backward-looking value of promises, as in the *ex post* or “will” conception of contract, often associated with Charles Fried.¹⁰ A competing theory is that an ideal contract law is best constructed instrumentally, in service to the forward-looking demands of *wealth maximization*,¹¹ as the *ex ante* conception of contract would demand. To take another

¹⁰ See generally CHARLES FRIED, CONTRACT AS PROMISE: A THEORY OF CONTRACTUAL OBLIGATION (2d ed. 2015) (defending the autonomy or will theory of contract law). See also Peter Benson, *Contract*, in A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 24, 43 (Dennis Patterson ed., 1996) (distinguishing between the *ex ante* and *ex post* accounts of contract law).

¹¹ See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 32 (9th ed. 2014). See generally Charles J. Goetz & Robert E. Scott, *Enforcing Promises: An Examination of the Basis of Contract*, 89 YALE L.J. 1261 (1980).

example, in the context of accidents, tort law is ideally understood as justified by the backward-looking value of *corrective justice*,¹² or as instantiating roughly optimal deterrence, so as to efficiently reduce, spread, and distribute accident costs.¹³

The ongoing debate over the structure of private law is no longer strictly confined to a dispute over wealth maximization on the one hand and autonomy or corrective justice on the other. Recently, the details of a third approach have been discussed, namely, a distributive account of private law.¹⁴ Scholars have addressed the question of whether the private law ought to embody normative values beyond wealth maximization or autonomy and corrective justice—values often associated with taxation¹⁵—and considered notions of equality and distributive justice.¹⁶ Such scholars have also addressed the further question of whether or not distribution through private law rules can be

¹² See JULES L. COLEMAN, *THE PRACTICE OF PRINCIPLE: IN DEFENCE OF A PRAGMATIST APPROACH TO LEGAL THEORY* 54 (2001) [hereinafter COLEMAN, *THE PRACTICE OF PRINCIPLE*] (discussing and defending the principle of corrective justice); Arthur Ripstein, *The Division of Responsibility and the Law of Tort*, 72 *FORDHAM L. REV.* 1811, 1814–15 (2004) (holding that the private law—tort, contract, property, and unjust enrichment—should bear an independence of distributive justice, but is (also) limited by public justice). Cf. George P. Fletcher, *Corrective Justice for Moderns*, 106 *HARV. L. REV.* 1658, 1669 (1993) (reviewing JULES COLEMAN, *RISKS AND WRONGS* (1992)) (“Corrective justice is not immanent in the tort system . . . Nor does it provide a bulwark against economic and regulatory reasoning in tort law. [Further, it] is not an absolute demand of justice and morality.”).

¹³ See GUIDO CALABRESI, *THE COST OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* 28 (1970).

¹⁴ See Rakoff, *supra* note 2, at 737; Kordana & Tabachnick, *Rawls and Contract Law*, *supra* note 2, at 599; Kordana & Tabachnick, *On Belling the Cat*, *supra* note 2, at 1280; Kordana & Blankfein Tabachnick, *The Rawlsian View of Private Ordering*, *supra* note 2, at 288; Aditi Bagchi, *Distributive Injustice and Private Law*, 60 *HASTINGS L.J.* 105, 105–06 (2008); Josse Klijnsma, *Contract Law as Fairness*, 28 *RATIO JURIS* 68, 70 (2015); Robert K. Rasmussen, *An Essay on Optimal Bankruptcy Rules and Social Justice*, 1994 *U. ILL. L. REV.* 1, 7; Elizabeth Warren, *Bankruptcy Policymaking in an Imperfect World*, 92 *MICH. L. REV.* 336, 340 (1993); Elizabeth Sepper & Deborah Dinner, *Sex in Public*, 129 *YALE L.J.* 78, 87 (2019) (discussing equality and economic opportunity in the context of “private” associations); see generally Anthony T. Kronman, *Contract Law and Distributive Justice*, 8 *YALE L.J.* 472 (1980).

¹⁵ See LIAM MURPHY & THOMAS NAGEL, *THE MYTH OF OWNERSHIP: TAXES AND JUSTICE* 3 (2002).

¹⁶ See generally Kronman, *supra* note 14; Kordana & Tabachnick, *Rawls and Contract Law*, *supra* note 2; Kordana & Tabachnick, *On Belling the Cat*, *supra* note 2; Kordana & Blankfein Tabachnick, *The Rawlsian View of Private Ordering*, *supra* note 2; Bagchi, *supra* note 14; Klijnsma, *supra* note 14; Rasmussen, *supra* note 14; Warren, *supra* note 14.

accomplished efficiently, and if not, whether the rules of the private law should continue to answer only to the values of wealth maximization. This leaves all distributive goals, however egalitarian, solely to the domain of the system of income taxation and transfer.¹⁷

Private law judicial opinions have long been predicated on a concern for equality and distributive justice,¹⁸ but leading legal scholars have been skeptical.¹⁹ Such scholars have understood concerns over equality addressed to private law rules as well-intended, if misplaced in common law.²⁰ In this view of distributive and economic justice, reasons of both normativity²¹ and efficiency²² demand that a concern for economic equality is best relegated to the narrow domain of taxation and tax policy, as opposed to the common law. However, recent pathbreaking legal

¹⁷ LOUIS KAPLOW & STEVEN SHAVELL, FAIRNESS VERSUS WELFARE 35–37 (2002); Louis Kaplow & Steven Shavell, *Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income*, 29 J. LEGAL STUD. 821, 821 (2000) [hereinafter Kaplow & Shavell, *Should Legal Rules Favor the Poor?*]; Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income*, 23 J. LEGAL STUD. 667, 669 (1994) [hereinafter Kaplow & Shavell, *Why the Legal System is Less Efficient*].

¹⁸ *Javins v. First Nat'l Realty Corp.*, 428 F.2d 1071, 1079–80 (D.C. Cir. 1970) (Wright, J.) (enforcing an implied warranty of habitability and discussing unequal bargaining power between landlords and comparatively less well-off tenants whose home-rental options may be constrained by race or social and economic class-based discrimination); *Liriano v. Hobart Corp.*, 170 F.3d 264, 271 (2d Cir. 1999) (Calabresi, J.) (affirming liability on a manufacturer on the grounds that the “jury could reasonably find that there exist people who are employed as meat grinders and who do not know . . . that it is feasible to reduce the risk with safety guards . . . [and] that the grinders should be used . . . with the guards”).

¹⁹ See Kaplow & Shavell, *Should Legal Rules Favor the Poor?*, *supra* note 17, at 822–25; Kaplow & Shavell, *Why the Legal System is Less Efficient*, *supra* note 17, at 667–68.

²⁰ See Kaplow & Shavell, *Should Legal Rules Favor the Poor?*, *supra* note 17, at 822–23; Kaplow & Shavell, *Why the Legal System is Less Efficient*, *supra* note 17, at 667–68.

²¹ See, e.g., Kronman, *supra* note 14, at 500–01 (describing Rawls as providing a problematic account of political liberalism that limits the domain of distributive justice to taxation and transfer, but arguing, contra Rawls, that contract law is properly understood as a locus of distributive justice); Liam B. Murphy, *Institutions and the Demands of Justice*, 27 PHIL. & PUB. AFF. 251, 252, 259 (1998) (noting that for Rawls, the domain of distributive justice was mainly taxation and transfer). See also Ripstein, *supra* note 12, at 1814–15 (“Justice requires that private law—tort, contract, property, and unjust enrichment—have a certain kind of independence. . . . [W]e must also avoid being sucked into the idea that relations between private individuals must be subordinated to distributive concerns.”).

²² See Kaplow & Shavell, *Should Legal Rules Favor the Poor?*, *supra* note 17, at 821; Kaplow & Shavell, *Why the Legal System is Less Efficient*, *supra* note 17, at 669.

scholarship has come to forcefully reject this view, despite long-standing entrenchment.²³

This scholarship has recast the role that legal rules play in achieving overarching ideals of equality and distributive justice.²⁴ Leading legal scholars have explicitly endorsed a broad role for

²³ See Revesz, *supra* note 2, at 1490–92 (attributing this long-standing or “dominant view” to Kaplow and Shavell, but challenging this “dominant view, arguing that it suffers from two serious practical shortcomings”). Although they argue that “the efficiency of regulations should not be compromised for distributional concerns, Kaplow and Shavell do not claim that distributional concerns are unimportant. Instead, they maintain that whatever preferences our society might have for distribution should best be addressed through the income tax system, not the regulatory process.” *Id.* See also Blankfein-Tabachnick & Kordana, *Kaplow and Shavell*, *supra* note 2, at 8; Lee Anne Fennell & Richard H. McAdams, *The Distributive Deficit in Law and Economics*, 100 MINN. L. REV. 1051, 1062, 1111–12 (2016) (noting that “the K&S result and the policy advice have become the conventional wisdom,” but objecting to the Kaplow and Shavell position for taking inadequate account of transaction costs); Liscow, *supra* note 2, at 2482 (“[L]egal rules may be more *efficient* than income taxes at redistributing income from the rich to the poor.”); Dimick, *supra* note 2, at 40; Geistfeld, *supra* note 2, at 5 (discussing distribution and tort law); Jeremy Waldron, *Locating Distribution*, 32 J. LEGAL STUD. 277, 281–82 (2003) (discussing Rawlsianism in light of Kaplow and Shavell’s choice of social welfare function); JEREMY WALDRON, ONE ANOTHER’S EQUALS: THE BASIS OF HUMAN EQUALITY 9–10 (2017) (discussing the surface-level equality required of economic and legal institutions as reflecting a deeper commitment to human equality). For an early property entitlement–based criticism of Kaplow and Shavell and a discussion of what have come to be called pre-distributive entitlement rules, see Kordana & Tabachnick, *Taxation, the Private Law, and Distributive Justice*, *supra* note 2, at 163.

Kaplow and Shavell appear to assume the existence of an underlying system of property ownership and free markets. [The] issue, however, is the very question of the form that *property* rules should take; that is, we are interested in the question of whether the equity-oriented values that differing theorists hold are best met through tax and transfer, or through (in part) the rules of property law. Thus, it is not clear that Kaplow and Shavell’s discussion, which compares tax and transfer to a tort rule (in isolation) and concludes that tax and transfer is superior in terms of economic efficiency, would (also) apply to the question of the underlying set of property rules.

Id. (emphasis in original). See also Steven K. Vogel, Opinion, *Elizabeth Warren Wants To Stop Inequality Before It Starts*, N.Y. TIMES, (Jan. 3, 2019, 9:03 PM), <https://www.nytimes.com/2019/01/03/opinion/elizabeth-warren-economic-policy-democrats.html> [<https://perma.cc/TCU4-SBZ3>] (“Pre-distribution is less costly than redistribution . . . The pre-distribution agenda . . . is about shaping markets to allocate returns from economic activity more fairly in the first place rather than trying to correct inequities after the fact.”).

²⁴ See generally Scheffler, *supra* note 2 (discussing the relationship between distributive justice and private law). See also FREEMAN, *supra* note 2, at 168 (“My position is that Rawls conceived the principles of justice as applying directly to the regulation of laws in terms of contractual agreements and individuals’ use, control, and disposal of . . . property.”).

distributive values in the construction of non-tax and transfer legal rules, arguing, for example, that the regulatory rules of administrative agencies—in addition to the rules of taxation and transfer—may serve as the proper domain of distributive justice.²⁵ More expansively still, this growing literature has endorsed a distributive role for the private law in bankruptcy,²⁶ contract,²⁷ property,²⁸ tort,²⁹ and trusts and estates.³⁰ An important paradigm shift appears to be upon the legal academy. The scholarly refutation of the narrow conception of distributive justice—as applicable only to rules of taxation and transfer—has seemingly spawned a renaissance in legal scholarship surrounding a distributive conception of private law rules.

B. *Conceptions of Intellectual Property*

Against this backdrop of private law scholarship, debate over the normative structure of intellectual property and the correct principles that serve to justify it is also underway.³¹ Here, there

²⁵ See Revesz, *supra* note 2, at 1492.

²⁶ See generally Kordana & Tabachnick, *Taxation, the Private Law, and Distributive Justice*, *supra* note 2; Rasmussen, *supra* note 14; Warren, *supra* note 14.

²⁷ See generally Kronman, *supra* note 14; Kordana & Tabachnick, *Rawls and Contract Law*, *supra* note 2; Scheffler, *supra* note 2; FREEMAN, *supra* note 2.

²⁸ See generally Blankfein-Tabachnick & Kordana, *Kaplow and Shavell and the Priority of Income Taxation and Transfer*, *supra* note 2. See also Kordana & Tabachnick, *Taxation, the Private Law, and Distributive Justice*, *supra* note 2; Craig Rotherham, *Property and Power: The Judicial Redistribution of Proprietary Rights*, in PRIVATE LAW AND POWER 107 (Kit Barker et al. eds.) (2017); Liscow, *supra* note 2; Ezra Rosser, *Destabilizing Property*, 48 CONN. L. REV. 397, 471 (2015) (discussing property law and how alterations to the structure of property entitlement may improve the welfare of the poor); Eduardo Moisés Peñalver & Sonia K. Katyal, *Property Outlaws*, 155 U. PA. L. REV. 1095, 1095 (2007) (arguing that “property outlaws” have played a role in a just “evolution and transfer of property entitlements”).

²⁹ Chris William Sanchirico, *Taxes Versus Legal Rules as Instruments for Equity: A More Equitable View*, 29 J. LEGAL STUD. 797, 799–800 (2000) (defending the setting of liability in a more egalitarian direction than optimal deterrence would have it in the context of wealth maximization).

³⁰ See Steven J. Horowitz & Robert H. Sitkoff, *Unconstitutional Perpetual Trusts*, 67 VAND. L. REV. 1769, 1795–96 (2014) (discussing the constitutionality of perpetual trusts and aspects of the question of intergenerational wealth). See generally Matthew Harding, *Trustees' Powers and Social Justice*, in PRIVATE LAW AND POWER, *supra* note 28, at 137 (discussing the distributive function of trustee powers).

³¹ See generally MERGES, *supra* note 3, at 2; Blankfein-Tabachnick, *supra* note 4, at 1343–44 (discussing the principled incompatibility among foundational principles and midlevel principles of intellectual property); Robert P. Merges, *Foundations and Principles Redux: A Reply to Professor Blankfein-Tabachnick*, 101 CALIF. L. REV. 1361, 1361 (2013) (discussing the compatibility of foundations and midlevel principles and the possibility of an overlapping consensus among them). See also Robert

are diverse views. Some argue, for example, that intellectual property is justified in terms of protecting the general value of human expression even beyond the context of copyright, and in the context of patent as well.³²

Another important view holds that intellectual property's monopolistic rules serve a distributive function, but one that provides mainly for equality of opportunity.³³ But like private law scholarship in general, intellectual property scholars tend to disagree over how to best understand intellectual property. Some believe intellectual property is best understood as a system of private law rules justified from *backward-looking* notions of desert or meritorious labor.³⁴ Others are of the opinion that intellectual property's construction of monopolistic protection via patent and copyright protection—if it should exist at all—is best justified by a complex system of forward-looking incentives to creation. On balance, such rules would improve public welfare by serving as a needed solution to a public goods problem.³⁵

1. Backward-Looking Conceptions of Intellectual Property

As discussed, and consistent with the general divide in private law scholarship, some intellectual property theorists conceive of the subject as justified by backward-looking notions of merit. At work here is the idea that one ought to have a measure of legal

P. Merges, *The Relationship Between Foundations and Principles in IP Law*, 49 SAN DIEGO L. REV. 957, 957–58 (2012) (further discussing foundational principles and midlevel principles); Mark A. Lemley, *Faith-Based Intellectual Property*, 62 UCLA L. REV. 1328, 1328 (2015) (defending a welfarist or utilitarian account of intellectual property in substantial disagreement with Merges's deontic account); Robert P. Merges, *Against Utilitarian Fundamentalism*, 90 ST. JOHN'S L. REV. 681, 681–82, 681 n.1 (2016) (objecting to Lemley's welfarist account of intellectual property); Robert P. Merges, *Locke for the Masses: Property Rights and the Products of Collective Creativity*, 36 HOFSTRA L. REV. 1179, 1180 (2008) [hereinafter Merges, *Locke for the Masses*] (discussing merit-based or backward-looking normative accounts of intellectual property); Eric R. Claeys, *Intellectual Property and Practical Reason*, 9 JURIS. 251, 251–52 (2018) (defending backward or deontic accounts of intellectual property).

³² See generally Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1749–50 (2012) (discussing “expression” as a candidate for the justification of intellectual property, interestingly, in both patent and copyright).

³³ See Justin Hughes & Robert P. Merges, *Copyright and Distributive Justice*, 92 NOTRE DAME L. REV. 513, 516 (2016) (discussing the role copyright law might play in equal opportunity in achieving distributive justice).

³⁴ See MERGES, *supra* note 3, at 31–67 (discussing Lockean justifications for intellectual property). See generally Merges, *Locke for the Masses*, *supra* note 31; Claeys, *supra* note 31.

³⁵ See POSNER, *supra* note 11, at 40–48; Landes & Posner, *supra* note 3, at 326.

control over that which one creates through honest industry. Intellectual property law provides such entitlement or ownership through limited, monopolistic protection of the fruits of one's honest industry and creation. Such theorists, often of Lockean inspiration, understand an ideal intellectual property law as embodying so-called "natural" or pre-institutional or prepolitical rights to ownership, and conceive of intellectual property as being drawn from deontic or rights-based, backward-looking principles of ownership.³⁶ These theorists conceptualize intellectual property as a sector of private law, in line with other backward-looking conceptions, including, for example, the corrective justice conception of tort and the *ex post* conception of contract law, often described as the "will" or "autonomy" theory.³⁷

2. Forward-Looking or Consequentialist Conceptions of Intellectual Property

Alternatively, the main subject of this Article is the forward-looking, typically utilitarian, welfare- or wealth-maximizing approach to intellectual property.³⁸ This approach is skeptical of "natural" rights to ownership and instead advocates for an instrumentalist approach to intellectual property.³⁹ Utilitarian or "law and economics" scholars conceive of monopolistic intellectual property protection, if it is to exist, as a complex set of incentives to innovation created through the construction of artificial monopolistic legal rules. These incentives are crafted so as to maximize utility, or net-aggregate wealth or welfare, by serving as a solution to a public goods problem.

In this view, often associated with William Landes and Richard Posner, and arguably described in the United States Constitution, the sole purpose of intellectual property is utility or wealth maximization.⁴⁰ Intellectual property rules incentivize innovation

³⁶ See Merges, *Locke for the Masses*, *supra* note 31, at 1180. See generally Claeys, *supra* note 31.

³⁷ See generally COLEMAN, *THE PRACTICE OF PRINCIPLE*, *supra* note 12; FRIED, *supra* note 10. See also SEANA VALENTINE SHIFFRIN, *SPEECH MATTERS: ON LYING, MORALITY, AND THE LAW* 48 (2014) (discussing promises and contract law).

³⁸ See Landes & Posner, *supra* note 3, at 326; Lemley, *supra* note 31, at 1340–44.

³⁹ See Lemley, *supra* note 31, at 1338–40; Blankfein-Tabachnick, *supra* note 4, at 1352–53; POSNER, *supra* note 11, at 402.

⁴⁰ See WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 11 (2003); Landes & Posner, *supra* note 3, at 325–26. See also U.S. CONST. art. I, § 8, cl. 8. (describing promotion of "Science and useful Arts").

through the promise of economic reward achieved through time-limited monopolistic control. But, even among those who advocate for monopolistic protection, there is disagreement over the correct structure and breadth of monopolistic protection⁴¹ in both copyright⁴² and patent,⁴³ and also in the question of whether copyright and patent ought to serve different forward-looking purposes. Under certain assumptions, others observe that the lack of monopolistic protection itself potentially serves as sufficient incentive to creation.⁴⁴ And some defend a nuanced or mixed system recognizing and leveraging the important trade-offs among various competing conceptions of intellectual property. In advocating for such a mixed system, such thinkers creatively bifurcate the “incentive” and “allocative” components of intellectual property and creatively draw taxation and transfer policy into innovation policy without completely abandoning monopolistic protection.⁴⁵

For this forward-looking approach, the chief question surrounding intellectual property’s monopolistic protection is whether or not the deadweight loss associated with monopolistic rules, that *ex post* defeat of would-be “win-win” economic transactions, is positively outweighed by the upside gained from would-be innovation *ex ante*. This form of reasoning applies to both patent and copyright. Importantly, in this model, monopolistic intellectual property rules, if they are to exist at all, are artificial legal constructions, *derivative* of external principles. Such monopolistic rules—however initially *inefficient* they may appear—are justified, if at all, through their all-things-considered instrumental service to the aims or goals of utility or wealth maximization.⁴⁶

⁴¹ See generally Shavell & Van Ypersele, *supra* note 6; INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 6.

⁴² Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 321 (1970).

⁴³ See generally Shavell & Van Ypersele, *supra* note 6, at 533–34; INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 6; Hemel & Ouellette, *supra* note 3; Hemel & Ouellette, *supra* note 5, at 310–12.

⁴⁴ See Kal Raustiala & Christopher Sprigman, *The Piracy Paradox: Innovation and Intellectual Property in Fashion Design*, 92 VA. L. REV. 1687, 1717–18 (2006) (discussing the idea that the lack of copyright protection can, itself, in the context of the fashion industry, give rise to incentives to innovation).

⁴⁵ See Hemel & Ouellette, *supra* note 3, at 547–49, 572–73; see also Hemel & Ouellette, *supra* note 5, at 321–25.

⁴⁶ See LANDES & POSNER, *supra* note 40, at 300.

3. Empiricism and Faith

Recently, eminent intellectual property scholar Mark Lemley has taken a position in favor of the forward-looking approach, arguing that intellectual property—in both patent and copyright—is at its core the application of the utility- or wealth-maximizing principle⁴⁷ to a set of changing empirical facts.⁴⁸ Lemley not only advocates for the utilitarian—or, as he describes it, an “*empirical*” conception of intellectual property—but he also goes further. Lemley is committed to the view that intellectual property, as a positive matter, *is* utilitarian; but, he also maintains that his backward-looking or deontic competitors’ normative accounts of intellectual property are not only incorrect, but worse still, “faith-based.” For Lemley, such normative theorists are not only wrong about theory and the positive law, but also are significantly misguided. Backward-looking or deontic conceptions of intellectual property, he maintains, are simply too obscure to play a foundational role in law—particularly a body of law so strongly implicated in innovation and, in turn, human welfare. So, Lemley not only defends the forward-looking incentive based account, but also raises significant skepticism toward nonutilitarian models.⁴⁹

Lemley mounts his attack not only against Lockean-libertarian and Lockean-liberal accounts of intellectual property, but also against other moderate rights-based accounts, so-called “midlevel” principle conceptions of intellectual property, and liberal egalitarian accounts associated with Rawlsianism.⁵⁰ Such

⁴⁷ See Lemley, *supra* note 31, at 1330 (“IP rights are a form of government regulation of the free market designed to serve a useful social end—encouraging innovation and creation.”).

⁴⁸ *Id.* at 1331 (“The fact that IP is government regulation of the marketplace doesn’t mean it is a bad thing. Many regulations are desirable, and I think IP rights of some form are among them. But it does mean that it is not an inherently good thing. In a market-based economy, regulation requires some cost-benefit justification before we accept it.”); see also *id.* at 1334 (“The relationship between patents and innovation seems to depend greatly on industry; some evidence suggests that the patent system is worth the cost in the biomedical industries but not elsewhere.”).

⁴⁹ *Id.* at 1337–38 (“I call this retreat from evidence faith-based IP, both because adherents are taking the validity of the IP system on faith and because the rationale for doing so is a form of religious belief. The adherents of this new religion believe in IP. They don’t believe it is better for the world than other systems, or that it encourages more innovation. Rather, they believe in IP as an end in itself—that IP is some kind of prepolitical right to which inventors and creators are entitled.”).

⁵⁰ *Id.* at 1338–39 (describing a fallacious form of reasoning—“I made it and so I own it”—and alleging that his “faith-based” interlocutors themselves attribute the

midlevel conceptions include those associated, for example, with Robert Merges.⁵¹ Following the midlevel principle account of tort, for example, the corrective justice conception,⁵² a midlevel principle account of intellectual property, has been vigorously defended in the literature.⁵³ Such deontic accounts allege that midlevel principles, such as the principles of proportionality, autonomy, utility, and nonremoval, serve to unify intellectual property by connecting foundational theory to intellectual property doctrine.⁵⁴ Midlevel accounts are not without objection: it is not clear, for example, that competing normative foundations that contain conception of ownership can be shown to be consistent with midlevel principles, which embody an opposing conception of ownership.⁵⁵ But this is not Lemley's concern. His objection to such accounts of intellectual property is that they embody a form of normative reasoning that he finds untenable, or "faith-based."⁵⁶ So, for Lemley, the objection to such midlevel accounts is not the internal conflict but rather the fact that such accounts appeal to a non-empirical framework—one that invokes, for him, obscure notions of moral rights and moral reasoning.

4. Empiricism and the Distributive Approach

But, again, as in private law theory generally, there is a third possibility in intellectual property; this is a possibility which Lemley remarks upon only quickly—and perhaps surprisingly dismissively given his distaste for metaphysically obscure or backward-looking, deontic accounts⁵⁷—namely, the possibility of a distributive or Rawlsian account of intellectual property. True, distributive accounts of the private law, as argued above,

erroneous proposition to "John Locke, or Hegel, or, more recently, Rawls." Lemley also skeptically argues that "those theories have more than their fair share of problems").

⁵¹ *Id.* at 1336–38.

⁵² See the sources and accompanying text cited *supra* note 12 (detailing justifications and criticisms of the tort-law conception of "corrective justice").

⁵³ MERGES, *supra* note 3, at 139–60 (explaining and defending midlevel principles as "basic concepts that tie together a number of discrete and detailed doctrines, rules, and practices in a particular legal field").

⁵⁴ See *id.*

⁵⁵ See Blankfein-Tabachnick, *supra* note 4, at 1323 ("If the correct foundational theories exert no controlling force over midlevel principles, midlevel principles would seem, at best, to help explain, predict, or even control, as opposed to justify IP law.").

⁵⁶ Lemley, *supra* note 31, at 1337–38.

⁵⁷ *Id.* at 1338–39.

are not without objection.⁵⁸ But Lemley's skepticism is distinct, based neither in efficiency⁵⁹ nor upon a tax and transfer range limitation imposed upon distributive principles.⁶⁰

Here again, Lemley's suspicion would appear to derive from his general skepticism of normative reasoning.⁶¹ His concern with distributive theories presumably is one of *mere* faith in the acceptance of normative accounts of property. But this suspicion may be viewed as curious and arguably misplaced in the context of distributive theories. It is notable that Rawlsianism too rejects certain aspects of metaphysical—or, in Lemley's preferred language, "faith-based"—thinking surrounding deontic or backward-looking conceptions of property. Rawlsianism importantly, and self-consciously, bears a form of "property skepticism," akin at a certain level to Lemley's. Rawlsianism prominently rejects all pre-institutional or prepolitical property constructions and, like Lemley, is wholly instrumentalist about property; where property rights are to exist, they are derived instrumentally from distributive principles. This third distributive approach shares, if narrowly, in certain aspects of Lemley's skeptical concerns, at least pertaining to Lockean or pre-institutional property constructions.⁶² Lemley, however, appears to have deeper normative

⁵⁸ Kaplow & Shavell, *Should Legal Rules Favor the Poor?*, *supra* note 17, at 821; Kaplow & Shavell, *Why the Legal System is Less Efficient*, *supra* note 17, at 669.

⁵⁹ Kaplow & Shavell, *Should Legal Rules Favor the Poor?*, *supra* note 17, at 821; Kaplow & Shavell, *Why the Legal System is Less Efficient*, *supra* note 17, at 669.

⁶⁰ See generally Kronman, *supra* note 14; see also Murphy, *supra* note 21 at 251–54 (both noting, for example, that for Rawls, the domain of distributive justice is limited to taxation and transfer).

⁶¹ Lemley, *supra* note 31, at 1338–39.

⁶² RAWLS, *supra* note 4, at 275–76 (describing ownership, as defined by distributive principles, as "a just scheme [that] gives each person his due: that is, it allots to each what he is entitled to as defined by the scheme itself"); Thomas Nagel, *Rawls and Liberalism*, in THE CAMBRIDGE COMPANION TO RAWLS 62, 68 (Samuel Freeman ed., 2003) ("Th[e] rejection of economic freedom as a value in itself is one feature of Rawls's view that has attracted opposition . . ."); Kordana & Tabachnick, *Rawls and Contract Law*, *supra* note 2, at 614 ("Importantly, given Rawls's post-institutional conception of property, taxation is not a matter of redistribution, as it is typically understood in our public lexicon, but rather a matter of *distribution*. For Rawlsians, post-tax incomes represent distributive shares that are justified by the overarching distributive scheme (the difference principle). Market outcomes have no independent normative significance and are an irrelevant baseline for the purposes of economic distribution in a Rawlsian scheme."); MURPHY & NAGEL, *supra* note 15, at 31–33 (criticizing what they call "everyday libertarianism" in the context of pretax income, a view they believe embodies a confusion over the distinction between distribution and redistribution concerning property and taxation and contrasting that view with a preferred distributive approach, in line with Rawls). Although Murphy and Nagel discuss taxation, an analogous point can be made concerning property: in

concerns beyond a healthy skepticism toward prepolitical accounts of property, whether derived from reason or God, as Locke argued.⁶³ Lemley's strident form of skepticism, if taken seriously, would have to apply equally well to both the acceptance and derivation of the wealth- or utility-maximization principles, as it would to distributive principles. At a first cut, both camps invoke principles that maximize value—whether welfare, wealth, or an objective index of primary goods—over a set of empirical or factual features of the world. Perhaps this is what Lemley may have in mind: once the utility- or wealth-maximizing principle is accepted or derived, one simply needs an accounting of the facts to apply the principle.

But the wealth-maximization principle itself is no less metaphysical—or faith-based—than are other distributive or maximizing principles.⁶⁴ But, these two types of principles can be seen as being on something of a methodological par, if incorporating different goals and axiologies. Indeed, economists often derive the wealth- or welfare-maximization principle from a social choice scenario nearly identical to Rawls's original position

the context of distributive principles, like Rawls's, property entitlement, including patent, is the outcome of the scheme of rules selected by the principles and is in *no* way a starting place. This view of taxation and property has a certain affinity with aspects of Lemley's conception of intellectual property; one cannot just start with ownership of creation as given any more than one can start with pretax income as given.

There is no market without government and no government without taxes; and what type of market there is depends on laws and policy decisions that governments must make. In the absence of a legal system supported by taxes, there couldn't be money, banks, corporations, stock exchanges, patents, or a modern market economy—none of the institutions that make possible the existence of almost all contemporary forms of income and wealth.

It is therefore logically impossible that people should have any kind of entitlement to all their pretax income. All they can be entitled to is what they would be left with after taxes under a legitimate system, supported by legitimate taxation—and this shows that we cannot evaluate the legitimacy of taxes by reference to pretax income.

Id. at 32–33.

⁶³ JOHN LOCKE, *THE SECOND TREATISE OF GOVERNMENT* 18 (C.B. Macpherson ed., Hackett Publ'g Co. 1980) (1690).

⁶⁴ JOHN RAWLS, *JUSTICE AS FAIRNESS: A RESTATEMENT* 42–43 (Erin Kelly ed., Belknap Press 2001) (“[First Principle:] Each person has the same inalienable claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all; and [Second Principle:] Social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least advantaged members of society (the difference principle).”).

(“OP”), from which his principles of justice are derived.⁶⁵ If Lemley willingly accepts the utility- or wealth-maximizing principles as sufficiently non-faith-based, even given his normative skepticism, it would appear at pain of inconsistency that he would be estopped from objecting to distributive principles maximizing the position of the least well-off, at least along the dimension of their being hopelessly faith-based. Indeed, Rawlsianism bears a certain level of skepticism surrounding prepolitical or pre-institutional property constructions of its own, in a respect at home with at least some of the tenor of Lemley’s concerns.⁶⁶

⁶⁵ See John C. Harsanyi, *Cardinal Utility in Welfare Economics and in the Theory of Risk-Taking*, 61 J. POL. ECON. 434, 434–35 (1953) (describing an early, pre-Rawls, invocation of the “veil of ignorance” in deriving and developing utilitarianism). See also RAWLS, *supra* note 64, at 14, 18 (The “original position” is an idealized social-choice scenario, in which hypothetical persons select political and economic principles, so as to maximize self-interest under conditions of imperfect knowledge, from behind a so-called “veil of ignorance.”).

⁶⁶ The Rawlsian difference principle is the second of two lexically ordered principles; as such, its domain is constrained by the prior liberty principle and the opportunity principle. So considerations other than economic distribution are at stake in IP matters. That is, one might erroneously, in my estimation, argue on the basis of Rawls’s first principle of justice that IP law might be constructed as a series of liberty options, in a manner likely objectionable to Lemley. But importantly, for Rawls, all economic and property baselines are constructed by the second principle of justice’s demand that the position of the least well-off be maximized. This is where Rawls’s property skepticism lies. Importantly, Rawlsianism bears absolutely *no* commitment to prepolitical or pre-institutional property or economic constructions of the form to which Lemley so strenuously objects. See Kordana & Tabachnick, *Rawls and Contract Law*, *supra* note 2, at 598. The details of ownership and control are constructed in service to the maximizing demand of the second principle of justice. So for Rawls, the structure of innovation policy is an instrumentalist construction—the outcome of a cost-benefit analysis—methodologically analogous to Lemley’s approach, if admittedly under the control of a distinct maximand. See *id.* at 609 (advancing the “High Rawlsian” position with regard to property, ownership, asset allocation and all economic constructions). Importantly, Rawlsianism is committed to a certain measure of deontology but not at the level of legal rule construction or innovation policy. Instead, Kantianism informs the construction of the original position, not the application of the two principles of justice, which in turn constructs legal and political institutions, inclusive of the innovation policy. That the two principles of justice are consequentialist in form, if nonutilitarian, is a point Thomas Nagel (too) has made clear. Thomas Nagel, *Justice and Nature*, 17 OXFORD J. LEGAL STUD. 303, 306 (1997) (“Rawls’s approach is theoretically deontological in foundation, though its development leads in a consequentialist (but nonutilitarian) direction.”); see also CHRISTOPHER HEATH WELLMAN & A. JOHN SIMMONS, IS THERE A DUTY TO OBEY THE LAW? 156 n.38 (2005) (noting that “the natural duties actually discussed by Rawls are not ‘natural’ in any very strong sense, but are only the ‘post[-]institutional’ moral duties that original position reasoners would select to bind themselves in their subsequent interactions” and that a discussion departing from this post-institutional account “may seem to be aimed at a Rawls who is more Kantian than Rawls actually wished to be”).

5. The Third Distributive Possibility

Although intellectual property rules are typically understood as derived from either backward-looking deontic or forward-looking utilitarian or wealth-maximizing principles, there is an alternative, if under-appreciated, forward-looking possibility—that is, a distributive approach aimed at maximizing the position of the least well-off, as opposed to utility or net-aggregate wealth, as found in utilitarianism and law and economics, respectively. This approach may serve as an appealing middle ground for those skeptical of the idea of prepolitical or natural rights in property or for those who find the distributive flaws in utilitarianism or wealth-maximizing approaches fatally objectionable.⁶⁷ At the same time this approach is, happily for some, mercifully less metaphysically ambitious than its above described deontic or backward-looking *pre-institutional* competitors.

Methodologically, such a contemporary egalitarian approach to intellectual property and private law generally begins with a set of deontic or Kantian assumptions concerning human freedom and equality⁶⁸ that construct a social choice scenario: the Rawlsian OP.⁶⁹ From this idealized social-choice scenario, hypothetical representatives select political and economic principles, so as to maximize self-interest under conditions of imperfect knowledge, from behind a so-called “veil of ignorance.”⁷⁰ What emerges are the so-called two principles of justice,⁷¹ taken to govern the “basic structure” of society.⁷² The first principle of justice, the liberty principle, governs constitutional essentials. The liberty principle takes lexical priority over the second principle of justice that embodies the so-called “difference principle,” which demands that the economic system—inclusive of the details of property and ownership, taxation and transfer, the law of contract and economic exchange, and business organization, among others—be organized so as to *maximize* the position of the least well-off,⁷³ subject to an equal opportunity constraint.⁷⁴

⁶⁷ Rawls’s aim was to displace utilitarianism by constructing an outcome-oriented theory that does not admit of the well-understood distributive flaws associated with utilitarianism. RAWLS, *supra* note 4, at 94–97.

⁶⁸ RAWLS, *supra* note 64, at 18.

⁶⁹ *Id.* at 15, 18.

⁷⁰ *Id.* at 18; RAWLS, *supra* note 4, at 136–39; Harsanyi, *supra* note 65, at 434–35.

⁷¹ RAWLS, *supra* note 64, at 42–43.

⁷² *Id.* at 8–10.

⁷³ In light of the argument above concerning the “high Rawlsian” position that the details of ownership and economic constructions are properly understood as

For contemporary egalitarians drawn to the Rawlsian difference principle, maximizing the economic position of the least well-off members of society is natural when thinking of intellectual property and innovation policy in distributive terms. Innovations' social impact is breathtaking, from life-saving and welfare-enhancing pharmaceuticals, to video game technology, to questions concerning the ownership of fashion design. Competing or potentially conflicting schemes of legal rules constructing intellectual property and innovation policy—much like taxation or bankruptcy policy, inclusive of rules governing the ordering of creditors over, say, firm or job preservation⁷⁵—have differential impacts on (in)equality, the position of the least well-off and, importantly, the social basis of self-respect.⁷⁶ The Rawlsian difference principle, subject to the above-stated lexically prior constraints, operates over its specified domain analogously to the forward-looking utility or wealth-maximization principle⁷⁷ in constructing the details of property ownership and control.⁷⁸ For such contemporary egalitarians, attention to the structure of the construction of *ex ante* incentives to innovation, as well as any *ex post* legal rules defining ownership and control, would be crucial to *maximizing* the position of the least well-off; in this, there may be somewhat more affinity with Lemley's position than his remarks reveal.⁷⁹

second-principle constructions governed by the difference principle, the first principle of justice in constructing equal liberty is, in the main, silent with regard to the details of property ownership and exchange. See MERGES, *supra* note 3, at 104–05 (noting that for Rawls, “personal property” is not an expansive concept” and “a broad right to property is not among the essential liberties”).

⁷⁴ See Hughes & Merges, *supra* note 33, at 540–42 (arguing the opportunity principle might construct some monopolistic protection).

⁷⁵ See Warren, *supra* note 14, at 354–55 (conceiving of bankruptcy as instantiating concerns for fairness, for example, labor and firm preservation); Schwartz, *supra* note 8, at 1850 (conceiving of bankruptcy as maximizing wealth); see also THOMAS H. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW 11–19 (1986) (conceiving of bankruptcy as mainly a solution to a collective action problem or common pool problem); Lawrence Ponoroff & F. Stephen Knippenberg, *The Implied Good Faith Filing Requirement: Sentinel of an Evolving Bankruptcy Policy*, 85 NW. U. L. REV. 919, 948–62 (1991) (discussing competing accounts of bankruptcy theory and policy).

⁷⁶ See RAWLS, *supra* note 64, at 59.

⁷⁷ See Thomas W. Pogge, *Three Problems with Contractarian-Consequentialist Ways of Assessing Social Institutions*, 12 SOC. PHIL. & POL'Y 241, 244 (1995) (describing Rawlsianism as forward-looking and consequentialist).

⁷⁸ FREEMAN, *supra* note 2, at 45.

⁷⁹ Lemley, *supra* note 31, at 1338–39.

Interestingly, despite the paradigm shift in distributive thinking over the private law,⁸⁰ there remains little consensus over the structure of intellectual property or the role innovation policy ought to play in such a distributive account of economic justice. Yet, systems of legal rules insufficiently attentive to innovation policy will fail in their mandate of providing the greatest possible advantage to the least well-off. The relationship, however, between this account of distributive and economic justice, intellectual property, and innovation policy remains incompletely understood; the scholarship surrounding the topic is conflicting and appears to reveal an inchoate understanding surrounding maximizing theories of innovation policy in general.⁸¹

Importantly, forward-looking maximizing theories, whether Rawlsian and aimed at the position of the least well-off or drawn from law and economics and aimed at net-aggregate wealth or welfare, must construct innovation policy that finds a home in the context of a complete scheme of *optimal* legal rules that are constructed, instrumentally, in service of the maximizing demand of respective external principles. The following discussion, initially drawn from within legal doctrine, and then more expansively drawn from outside traditional intellectual property doctrine, is instructive in showing the relationship between external principles and intellectual property and innovation policy.

In the context of intense scholarly debate, Part II holds that egalitarian distributive principles, aimed at maximizing the position of the least well-off, operate in important respects that are analogous to wealth- or welfare-maximizing principles. Drawing upon this analysis, Part II of this Article concludes that, where external principles bear maximizing components governing property entitlements, traditional or conventional boundaries

⁸⁰ See generally Scheffler, *supra* note 2; FREEMAN, *supra* note 2; Revesz, *supra* note 2; Kordana & Tabachnick, *Taxation, the Private Law, and Distributive Justice*, *supra* note 2; Rasmussen, *supra* note 14; Warren, *supra* note 14.

⁸¹ Consider the widely disparate views surrounding a distributive account of intellectual property. MERGES, *supra* note 3, at 132 (viewing intellectual property's monopolistic protection in isolation of taxation); Shavell & Van Ypersele, *supra* note 6, at 544 (discussing a system that involves an innovator's choice between intellectual property and prizes, but failing to account for the full cost of taxation's deadweight loss in the model). See generally INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 6 (writing in a Rawlsian vein and concluding that taxation and prizes are the correct innovation policy); Hemel & Ouellette, *supra* note 3; Hemel & Ouellette, *supra* note 5 (advancing an innovatively mixed conception invoking a range of incentives and discussing distributive justice-oriented concerns, but in the context of a wealth-maximizing approach to innovation policy).

internal to intellectual property are untenable. The following sections argue further that, in the context of such principles, the distinction between intellectual property rules and so-called background rules cannot be sustained. Where maximizing principles are brought to bear, intellectual property rules cannot be methodologically distinguished from non-intellectual property legal rules, for example, those traditionally associated with taxation and budget expenditure or bankruptcy.

II. INTELLECTUAL PROPERTY'S INTERNAL DOCTRINE

A. *The Patent–Copyright Divide*

In light of the preceding arguments, consider traditional intellectual property doctrine. Intellectual property doctrine offers monopolistic legal protection over the purportedly distinct domains of copyright and patent. On one hand, subject to specified constraints and balancing tests, copyright law offers monopolistic protection to works that tend to be characterized as the original expression of an idea; for example, computer programs and artistic or literary works.⁸² On the other hand, subject to meeting various doctrinal criterion—for example, novelty, utility, and non-obviousness—patent law permits monopolistic protection for a range of innovations that one might describe as inventive or utilitarian.⁸³ Copyright and patent law ostensibly pertain to disparate domains of innovation; correspondingly, the two are governed by differing sets of doctrinal rules.⁸⁴ Notably, patent protection requires a higher and costlier threshold for monopolistic protection than does copyright.⁸⁵ The doctrinal divide between the original expression of an idea on one hand, and a more utilitarian invention on the other, appears at first brush to make good sense. But the dichotomy can be deceptively simple; human

⁸² 1 MENELL ET AL., *supra* note 5, at 37.

⁸³ *Id.* at 168–70, 207, 233–34; 35 U.S.C. §§ 102, 103 (2018).

⁸⁴ 1 MENELL ET AL., *supra* note 5, at 37 (“Although the copyright and patent laws flow from the same constitutional basis and share the same general approach—statutorily created monopolies to foster progress—they feature different elements and rights, reflecting the very different fields of human ingenuity that they seek to encourage.”).

⁸⁵ See MARSHALL A. LEAFFER, UNDERSTANDING COPYRIGHT LAW 86–87 (6th ed. 2014) (describing the higher threshold associated with patent, as compared with copyright). “Unlike a copyright, a patentable invention must demonstrate considerably more than originality and must meet the rigorous tests of novelty and nonobviousness.” *Id.*

innovation does not always pattern the doctrinal dichotomy. Upon reflection, the two are not mutually exclusive, and correspondingly it is not always obvious whether a work should be viewed as inventive or expressive. Further still, there can be significant overlap between the two; works can be evaluated along multiple dimensions, creating the possibility that they admit of expressive and inventive aspects. So, the patent versus copyright divide in intellectual property doctrine, however clean at the doctrinal level, is ultimately contingent upon a potentially problematic dichotomy between expressive versus inventive or utilitarian innovation.

This Part describes an intractable conflict drawn from within intellectual property doctrine—namely, the conflict surrounding the Useful Article Doctrine’s “separability” standard—and argues that doctrinal conflict suffers from a *lack* of principled balancing of forward-going incentives with protection of the creative commons. At a first cut, if *ex ante*, the value of the innovation is greater than the loss to the creative commons, the law might construct monopolistic protection. But this Part shows that this form of external analysis points to a deeper theoretical tension internal to, and at the very heart of, intellectual property doctrine.

Where one conceives of intellectual property externally, in maximizing terms, the very distinction between copyright and patent, however central to intellectual doctrine, dissolves. As one abstracts away from intractably conflicting positive doctrine in the direction of external principles, one becomes less certain that initial statutory categories are well formed; that is, one begins to lose theoretical confidence in the very doctrinal categories that engender the initial conflict. True, if monopolistic protection is to exist at all, maximizing principles might ultimately construct higher and lower gradations of protection attendant to differential areas of innovation. But, crucially, this Part shows that these categories would not pattern the expression/utilitarian-function distinction in any one-to-one fashion. The recognition of this internal breakdown in turn leads to the theoretical question of whether or not monopolistic protection is compatible with maximizing principles, whether aimed at the position of the least well-off or net-aggregate welfare. It also raises further questions into the general structure of intellectual property ownership and innovation policy beyond the traditional bounds of intellectual property doctrine.

B. The Useful Article Doctrine

Consider the internal workings of traditional intellectual property law in the context of the Useful Article Doctrine and its “separability” standard, which is invoked when an expressive work bears an inventive or utilitarian function.⁸⁶ The Doctrine operates squarely at the intersection of copyright and patent and allows for copyright’s monopolistic protection of useful or inventive articles “if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.”⁸⁷ The statute aims to define the contours of intellectual property protection for articles bearing both a utilitarian-inventive function, the typical domain of patent, and an expressive component, the domain of copyright. Interestingly, if an article’s expressive aspect is “separable” from its utilitarian function, it need not be precluded from invoking copyright’s lower bar to monopolistic protection. The doctrine allows an overlap of copyright with the typical domain of patent, but at the same time produces a gap between the two, thereby precluding the use of copyright’s lower bar to monopolistic protection as a strategic end run around patent’s elevated barriers to monopolistic protection.

Perhaps unsurprisingly, the legal construction of “separability” has caused significant doctrinal conflict, and there is no consensus over how courts are to construct the concept. Important leading judges, circuit courts, and prominent legal scholars are significantly split over the correct analysis of “separability”

⁸⁶ “A ‘useful article’ is an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information. An article that is normally a part of a useful article is considered a ‘useful article.’” 17 U.S.C. § 101 (2018).

⁸⁷ Section 101 states:

“Pictorial, graphic, and sculptural works” include two-dimensional and three-dimensional works of fine, graphic, and applied art, photographs, prints and art reproductions, maps, globes, charts, diagrams, models, and technical drawings, including architectural plans. Such works shall include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned; the design of a useful article, as defined in this section, shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.

Id.

for copyright purposes.⁸⁸ Notoriously, intractably conflicting case law invokes differential and inconsistent standards in attributing or denying ownership and control via copyright protection to such “useful articles” bearing original expressive authorship. The basic issue is this: on one hand, a narrow doctrinal construction of “separability” reduces the domain of copyrightable useful articles—for example, leaving fashion design unprotected—thereby increasing the magnitude of the gap between copyright and patent with its higher bar to monopolistic protection.

Therefore, the narrower the construction of “separability,” the wider the gap between copyright and patent, and the broader the range of useful articles potentially beyond the reach of intellectual property protection. On the other hand, a more expansive legal construction of “separability” increases the breadth of copyrightable subject matter but risks encroaching patent’s domain and its attendant elevated bar to intellectual property protection. Ultimately, then, there is a trade-off. On one side, there is a narrow construction of “separability” and the attendant increased risk of reduced investment and market failure in unprotected useful articles bearing an expressive component. On the other side, there is a broader construction of “separability” and an increased risk of “too much” monopolistic protection for utilitarian articles—interestingly with copyright’s expanded term of years—owing to copyright’s encroachment upon patent’s domain and its heightened bar to monopolistic protection.

Questions concerning property ownership are, by their nature, controversial and quickly lend themselves to significant disagreement. The creation of new property rights or the perceived destruction of existing property rights is no exception, and further, where value will be protected by a monopolistic rule, one expects conflict. It is unsurprising that competing tests over separability have emerged, functionally effecting competing commitments concerning ownership and the breadth of monopolistic protection.

Consider the various conflicting legal tests and accounts of “separability” that have emerged in the courts. First, there is a narrow test requiring *physical* separability of the article’s aesthetic and functional aspects arising from a Court of Appeals for the District of Columbia Circuit case in which the court deferred

⁸⁸ See *infra* notes 89–96 and accompanying text (detailing six approaches to a “separability” analysis).

to a regulation limiting copyright to situations in which “features of a utilitarian article . . . ‘can be identified separately and are capable of existing independently as a work of art.’ ”⁸⁹

Second, there is a “conceptual separability” test, sometimes referred to as the Denicola test. Here, if utilitarian concerns dominated in the design process, the object would not be copyrightable, but if elements of the design represent “artistic judgment exercised independently of functional influences,” then the object could be copyrightable.⁹⁰ In *Brandir*, the Second Circuit denied copyright to an innovative bicycle rack design because “the form of the rack [was] influenced in significant measure by utilitarian concerns and thus any aesthetic elements [could not] be said to be conceptually separable from the utilitarian elements.”⁹¹ In a dissent, Judge Winter argued for a different version of the “conceptual separability” test, under which an object is a candidate for copyright if “the design of a useful article, however intertwined with the article’s utilitarian aspects, causes an ordinary reasonable observer to perceive an aesthetic concept not related to the article’s use.”⁹²

Still another version of “conceptual separability” has been proposed by Goldstein, under which a “pictorial, graphic or sculptural feature incorporated in the design of a useful article is conceptually separable if it can stand on its own as a work of art traditionally conceived, and if the useful article in which it is embodied would be equally useful without it.”⁹³ Judge Newman offered a fourth version of the “conceptual separability” test under which separability regarding a feature exists if “the design creates in the mind of the ordinary[, reasonable] observer two different concepts that are not inevitably entertained simultaneously.”⁹⁴

A fifth approach asks which of the utilitarian and expressive functions is primary and which is subsidiary. In *Kieselstein-Cord v. Accessories by Pearl, Inc.*, the Second Circuit held the “primary ornamental aspect” of handcrafted belt-buckles “conceptually separable from their subsidiary utilitarian function,” noting that the

⁸⁹ *Esquire, Inc. v. Ringer*, 591 F.2d 796, 800 (D.C. Cir. 1978).

⁹⁰ *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142, 1145 (2d Cir. 1987). See generally Robert C. Denicola, *Applied Art and Industrial Design: A Suggested Approach to Copyright in Useful Articles*, 67 MINN. L. REV. 707 (1983).

⁹¹ *Brandir*, 834 F.2d at 1147.

⁹² *Id.* at 1151 (Winter, J., dissenting).

⁹³ PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 2.5.3.1(b) (3d ed. Supp. 2019-2).

⁹⁴ *Carol Barnhart Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 422 (2d Cir. 1985) (Newman, J., dissenting) (citation omitted).

buckles were widely known as works of art and that several had been donated to the permanent collection at the Metropolitan Museum of Art.⁹⁵ Finally, Alfred Yen has even suggested an aesthetic conception of separability drawing upon philosophical accounts of the conceptual inclusion conditions for counting as art in determining whether or not aesthetic aspects of an article are separable from the functional aspects.⁹⁶

The construction of “separability,” internal to copyright doctrine, has become so contested that in 2016 the Supreme Court of the United States granted certiorari on the matter with the aim of sweeping away existing confusion. Given the magnitude of not only the legal disagreement but also the economic consequences for industry, this is perhaps unsurprising. In *Star Athletica, L.L.C. v. Varsity Brands, Inc.*,⁹⁷ the Court addressed the copyright eligibility of the artistic elements of the designs of useful articles. At issue were the validity of “copyright registrations for two-dimensional designs” of cheerleading uniforms, consisting of “chevrons . . . , lines, curves, stripes . . . , and shapes.”⁹⁸ According to the Copyright Act, “the design of a useful article . . . shall be considered a [copyrightable] work only if . . . such design incorporates [copyrightable] features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.”⁹⁹ Notably, the opinion of the Court, written by Justice Thomas, and a dissent, written by Justice Breyer, each took a different approach to the separability analysis in this case.

Justice Thomas articulated a two-part test for separability:

[A] feature incorporated into the design of a useful article is eligible for copyright protection only if the feature (1) can be perceived as a two- or three-dimensional work of art separate from the useful article and (2) would qualify as a protectable pictorial, graphic, or sculptural work—either on its own or fixed in some other tangible medium of expression—if it were imagined separately from the useful article into which it is incorporated.¹⁰⁰

⁹⁵ 632 F.2d 989, 993–94 (2d Cir. 1980).

⁹⁶ See generally Alfred C. Yen, *Copyright Opinions and Aesthetic Theory*, 71 S. CAL. L. REV. 247 (1998).

⁹⁷ 137 S. Ct. 1002 (2017).

⁹⁸ *Id.* at 1007 (first alteration in original) (citation omitted).

⁹⁹ 17 U.S.C. § 101 (2018).

¹⁰⁰ *Star Athletica*, 137 S. Ct. at 1007.

The first step of his analysis was to determine that the test for separability “depend[ed] solely on statutory interpretation” of the language of the United States Code section 101.¹⁰¹ The opinion then identified two requirements for separability from the text of section 101. First, the element must be able to “be identified separately from . . . the utilitarian aspects of the article.”¹⁰² Second, the element must be “capable of existing independently of[] the utilitarian aspects of the article.”¹⁰³

An element can be identified separately from a useful article if a person can “look at the useful article and spot some two- or three-dimensional element that appears to have pictorial, graphic, or sculptural qualities.”¹⁰⁴ And an element is capable of existing independently if it can “exist as its own pictorial, graphic, or sculptural work . . . once it is imagined apart from the useful article.”¹⁰⁵

“In sum, a feature of the design of a useful article is eligible for copyright if, when identified and imagined apart from the useful article, it would qualify as a pictorial, graphic, or sculptural work either on its own or when fixed in some other tangible medium.”¹⁰⁶ Because Varsity’s designs satisfied both elements, the Court found them to be separable and copyrightable.¹⁰⁷ Notably, the Court rejected the narrow “physical . . . separability” test and the Denicola-inspired version of “conceptual separability,”¹⁰⁸ citing Judge Winter’s dissent in *Brandir* favorably.¹⁰⁹

Justice Breyer dissented, arguing that the cheerleader uniforms failed the separability test. Although he “agree[d] with much in the Court’s opinion,” he did not agree that the designs could “be perceived as . . . two- or three-dimensional work[s] of art separate from the useful article.”¹¹⁰ Under Justice Breyer’s approach, the separability analysis contains “two exercises, one physical, one mental.”¹¹¹ First, he asks, “Can the design fea-

¹⁰¹ *Id.* at 1010 (citation omitted).

¹⁰² *Id.* (citation omitted).

¹⁰³ *Id.* (citation omitted).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 1012.

¹⁰⁷ *Id.* at 1016.

¹⁰⁸ *Id.* at 1014–15 (citation omitted) (“The statute’s text makes clear, however, that our inquiry is limited to how the article and feature are perceived, not how or why they were designed.”).

¹⁰⁹ *Id.* at 1015.

¹¹⁰ *Id.* at 1030 (Breyer, J., dissenting) (alterations in original).

¹¹¹ *Id.* at 1031.

tures . . . be physically removed from the article (and considered separately), all while leaving the fully functioning utilitarian object in place?”¹¹² If not, a person must be able to “conceive of the design features separately without replicating a picture of the utilitarian object.”¹¹³

To determine whether a design element satisfies the “capable of existing independently” requirement, Justice Breyer proposed “imagin[ing] the feature on its own and ask[ing], ‘Have I created a picture of a (useful part of a) useful article?’ If so, the design is not separable from the useful article. If not, it is.”¹¹⁴ And because Varsity’s designs “look[ed] like cheerleader uniforms,” or “like pictures of cheerleading uniforms,” “there [was] nothing to separate out but for dress-shaped lines that replicate[d] the cut and style of the uniforms.”¹¹⁵ On that basis, he would have held that the designs were not separable and the uniforms not copyrightable.¹¹⁶

Although the Court had aimed to dispense with confusion, it is not clear that the new test articulated in the opinion remedies the matter. The Court’s test resolves certain quandaries while, at the same time, raising new ones. The problem with the doctrine does not merely emanate from past inconsistency; the issue that plagues the analysis runs deeper. The Useful Article Doctrine starts with two broad categories in intellectual property: the dichotomy between articles potentially associated with statutorily defined *copyrightable* subject matter, and those potentially associated with statutorily defined *patentable* subject matter. The Useful Article Doctrine adopts these two existing categories and their respective doctrinal labels: expressive versus inventive or utilitarian. The trouble flows, in part, from the fact that the statutorily defined categories are not well characterized by these labels. Consider, for example, the statutory mandate that computer programs are deemed copyrightable subject matter.¹¹⁷ The issue with the expressive-inventive dichotomy comes to this: (1) so-called “expressive” works bear a general utilitarian—or welfarist—value, and (2) so-called inventive articles can admit of expression.

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.* at 1033.

¹¹⁵ *Id.* at 1035.

¹¹⁶ *Id.* at 1035–36.

¹¹⁷ 17 U.S.C. § 101 (2018).

So, where useful articles are both “expressive” and “inventive,” one faces a dilemma between two types of error.¹¹⁸ The first type of error is false copyright positives, resulting in copyright protection—replete with its lower barrier and longer term of years—being applied to patentable subject matter.¹¹⁹ The second type of error is the possibility of false copyright negatives, resulting in too little copyright protection available to innovation that is suitable to copyright’s lower bar and longer term of years.¹²⁰ What is needed is not a linguistic analysis of the term “separability” but an account of intellectual property protection that recognizes the trade-offs between false positives and false negatives and provides a balance between the two. Notably, differing principled accounts of ownership will yield differing results in terms of balancing these two types of errors.

The courts, however, have seemingly found themselves caught up in an internal analysis of the linguistic meaning of “separability,” as opposed to providing a solution to this balancing problem. Some of the tests of separability appear intuitively appealing, while others can be viewed as largely results-driven. But the Court’s recent test has the potential to reach absurd outcomes, which could inadvertently create “mutant” forms of intellectual property by characterizing articles that might best be understood as patentable subject matter as copyrightable. This characterization could allow such items to enjoy copyright’s low barrier to entry and extended monopolistic protection. What is

¹¹⁸ See Blankfein-Tabachnick, *supra* note 4, at 1349 (discussing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012), and *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office (Myriad Genetics, Inc.)*, 689 F.3d 1303 (Fed. Cir. 2012), in light of the trade-offs surrounding the patentability of the building blocks of science and cost to the creative commons, given the possibility of too much or too little monopolistic protection from the perspective of differing distributive principles); Buccafusco & Lemley, *supra* note 7, at 1358 (discussing the types of errors that decision makers might make in the determination of patentability qua functionality and noting that “[i]n determining the value of different screening regimes, the law should consider both the relative costs of each of these kinds of errors and their relative probabilities”); Collins, *supra* note 7, at 1612; Joseph Scott Miller, *Error Costs & IP Law*, 2014 U. ILL. L. REV. 175, 176–77 & n.5 (discussing generally the cost of errors surrounding the broadening of intellectual property rights; specifically noting *Mayo* in the context of the patentability of laws of nature or the building blocks of science; and maintaining that courts cannot “simply ignore any IP-right-broadening error as harmless; they know that this excessive propertization can harm innovation just as readily as its opposite”).

¹¹⁹ See e.g., LEAFFER, *supra* note 85, at 87.

¹²⁰ See *id.* at 91–92 (citing *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 49 F.3d 807 (1st Cir. 1995), *aff’d*, 516 U.S. 233 (1996) (per curiam).

actually fueling the trouble is cycling between broader versus narrower linguistic analyses of “separability,” with notably insufficient attention to the consequential balance at stake and the ways in which differing principled conceptions of ownership might resolve the matter.

The divergent “separability” tests are too focused on “plain language” and defining the essentially contested concept of “separability” in linguistic terms internal to legal doctrine. Instead, if one is to follow maximizing principles, the focus should be on a consequentialist, or balancing, resolution to the problem at hand. No matter how much care and skill in rule-craft is brought to bear, given the initial false dichotomy, too much copyright protection will always need to be balanced against too little. Again, the need for this balance is an inevitable result of the two ill-defined terms, or the false dichotomy that frames the very discussion in the first instance. The various tests are too focused on the contested concept of “separability” and insufficiently focused on the substantive reasons for the categories in the first instance.

C. *The Useful Article Doctrine and External Principles*

Considering the conflict in terms of internal versus external accounts of law is helpful. On one hand, the internal, doctrinal, or first-order conflict can be viewed as intractable, given the essentially contested¹²¹ nature of the term “separability.” But if one moves up a level of abstraction from the immediate legal doctrine, such first-order doctrinal conflict can be viewed externally, at the level of principle. From a more abstract vantage point, the doctrinal conflict emanates from a failure to clarify conflicting second-order, principled accounts of ownership. So, first-order doctrinal conflict surrounding ownership can, at times, be understood as a failure in second-order or principled analysis. Such failure, in turn, can camouflage the essentially contested aspects of the first-order legal doctrine, thereby causing the form of perpetual doctrinal deadlock we see surrounding separability.

Now consider again the broader copyright and patent divide in light of external principles, whether maximizing net-aggregate

¹²¹ W. B. Gallie, *Essentially Contested Concepts*, 56 PROC. ARISTOTELIAN SOC'Y 167, 167–70 (1956) (discussing essentially contested concepts as concepts that admit of convergence or agreement over their general meaning but lack convergence over the best conception of the concept in question or the correct practical application of that concept, for example, the concept of “fairness”).

welfare or the Rawlsian difference principle maximizing the position of the least well-off. From such a maximizing perspective, the statutory divide in intellectual property doctrine is not merely definitional. True, monopolistic protection might break down into lower-threshold and higher-threshold categories, perhaps akin to the copyright and patent divide, but any such divide would be merely for consequentialist reasons. At a broad level, all valuable innovation or creation, by definition, improves human welfare and bears a utility function, if in different ways.

From an externalist maximizing perspective, however, any divide in monopolistic protection concerns the evaluation of what is sometimes called “collective creativity,”¹²² that is, an *ex ante* balance of the *ex post* cost of monopolistic protection in terms of the removal from the “commons” and the creation of incentives to innovation. The thinking here might be that monopolistic protection of works associated with copyrightable subject matter tends, on average, to be less deleterious to collective creativity than the monopolistic protection of innovation associated with patentable subject matter. Further, once copyright imposes a bar on the monopoly protection of “ideas” and allows such protection only for *expressions* of such ideas, the creative commons is fairly well insulated from loss.¹²³ True, the expression of the idea is removed from the commons, but the idea itself remains and stands ready for further use in collective creativity. Further, the idea/expression distinction operates against the backdrop of exceptions to copyright protection, for example, the merger¹²⁴ and fair use doctrines¹²⁵ and the remedial aspects of copyright law

¹²² See generally Menell & Yablon, *supra* note 7 (discussing the creative commons).

¹²³ See *Baker v. Selden*, 101 U.S. 99, 101–02 (1879) (discussing the distinction between uncopyrightable ideas and copyrightable expressions). See also 17 U.S.C. § 102 (2018) (“(a) Copyright protection subsists, in accordance with this title, in original works of authorship,” and “(b) In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”).

¹²⁴ See LEAFFER, *supra* note 85, at 92–93 (“Under the merger doctrine, courts will not protect a copyrighted work from infringement if the idea underlying the work can be expressed only in one or a few different ways, for fear that there may be a monopoly on the underlying idea. In such an instance, it is said that the work’s idea and expression ‘merge.’”).

¹²⁵ 17 U.S.C. § 107 (“[T]he fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by [sections 106 and 106A], for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright.”).

that do *not* automatically or mechanically apply injunctions to infringement.¹²⁶ Together, this yields the result that monopolistic copyright protection *may*, on average, likely be less costly to the collective commons than monopolistic protection offered to the innovation associated with patentable subject matter.

Given the preceding rationale, the law might provide a substantially lower bar to obtaining some form of monopolistic protection in some domains, and a higher bar in others.¹²⁷ The law may also grant such protection for a longer term of years. But crucially, any distinction would not be due to a primary divide between expressive and inventive or utilitarian aspects of innovation; those terms become secondary or derivative of the primary utility or welfare calculus. Return to the Useful Article Doctrine, which picks up this distinction between these two domains of innovation but does so from the statutory perspective, as opposed to an externalist or principled one. If one is to avoid falling back into the game of words surrounding the legal concept of “separability,”¹²⁸ one must recognize that, from the externalist perspective, these two categories would only be constructed for *consequentialist* reasons. These reasons are not primarily associated with the dichotomy between “expressive” versus “inventive or utilitarian” innovations but rather the *ex ante* welfarist effect on innovation and the *ex post* effect upon the creative commons. Put this way, as noted above, the two categories are not mutually exclusive—indeed, the first is a species of the second.

Given the cycling of conflict in the context of separability, one is understandably tempted to return to the doctrinal categories or statutory groupings that frame intellectual property

¹²⁶ See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 390–91 (2006) (awarding damages, as opposed to injunctive relief, in the context of infringement and requiring the satisfaction of a four-prong balancing test in awarding injunctions).

¹²⁷ McKenna & Sprigman, *supra* note 7, at 540 (insightfully discussing the possible justification of monopolistic protection from the perspective of high production costs, as opposed to cost to the creative commons).

If we are going to have an IP system with different types of rights, then surely there must be reasons why certain rules apply to particular subject matter.

Some might suggest that different forms of rights are needed because some subject matter is costlier to produce and more difficult to exclude others from.

Id. McKenna and Sprigman further comment skeptically on the positive law’s sorting rules surrounding copyright, patent and trademark: “But even though that observation is undeniably true, it has virtually no explanatory power regarding existing doctrinal rules.” *Id.*

¹²⁸ See *supra* Section II.B.

doctrine debate to get one's bearings.¹²⁹ But such a return to doctrine will only go so far; from the externalist perspective, the very bounds of such categories and doctrines are themselves constructed, in the first instance, by antecedent principled accounts of ownership in intellectual property. Such principles do not begin with statutorily imposed categories; their reach is deeper; they define the very construction of such categories. True, any delineation in intellectual property between patent and copyright, as an example, must ultimately be set by statute, but any such divide is *derivative* of distributive principles. Such principles, where invoked, whether aimed at net-aggregate wealth or the position of the least well-off, would define the very bounds and details of the statutory construction.¹³⁰ The collapse of the doctrinal distinction between patent and copyright, as constructed in the current positive law, is an open possibility.¹³¹

Insights surrounding the balancing required for a consequentialist resolution to the "separability" conundrum can be pushed even further still. From such a consequentialist perspective, the question goes directly to the justification of monopolistic protection in the first instance. Correspondingly, scholars disagree about the extent to which monopolistic protection is necessary from the perspective of incentive to innovation. There is the real possibility that monopolistic rules—whether conceived of as copyright, patent, or otherwise—are non-optimal in the face of maximizing principles.

D. Copyright Skepticism

Justice Stephen Breyer has famously introduced a level of skepticism with regard to copyright's monopolistic protection.¹³² His insight is that the "natural" lead time between publication and potential copying can itself, in many cases, serve as sufficient

¹²⁹ Menell & Yablon, *supra* note 7, at 147 (discussing the confusion surrounding *Star Athletica*, and concluding that courts should "look to statutory requirements and limitations, legislative guidance, and the foundational principles undergirding the intellectual property system").

¹³⁰ Carol M. Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577, 600 (1988) (discussing fixed rules and their relationship to the commons).

¹³¹ Kapczynski, *supra* note 5, at 977, 982–83 (discussing the economic efficiency accounts of Demsetz and Hayek, presumably wealth maximization, and maintaining "that IP internalism cannot, as a general matter, be justified by appeals to efficiency").

¹³² Breyer, *supra* note 42, at 299 ("A book's initial publisher will ordinarily enjoy several advantages that may partially offset a copier's lower production costs. . . . [H]is book will reach the market first.")

incentive to innovation, absent monopolistic rules.¹³³ Similarly, in a vein skeptical of the universal necessity of copyright, Raustiala and Sprigman have called into question the need for copyright in the context of fashion design.¹³⁴ Maintaining—however counterintuitively—that copyright is not only unnecessary but also that its *absence* serves as sufficient incentive to innovation, Raustiala and Sprigman argue that, in the context of fashion design, piracy serves to spur innovation; consumer demand for new fashion designs each season is actually spurred by the threat of the introduction of knock-offs in the market.¹³⁵ Further, they argue that price discrimination can insulate the market for originals from the market for mere copies while at the same time providing a unique form of advertising for originals.¹³⁶

Whether these arguments yield the conclusion that monopolistic rules are unnecessary is an empirical as well as a structural question. The empirical matter concerns, in some measure, the state of technology and is akin to something of an information cost question.¹³⁷ The second part of the issue concerns the structure of the legal rules against which any comparison is to be evaluated and how copyright's monopolistic protection—or its absence—would dynamically interact with that set of rules. The empirical question concerns the speed of production of indistinguishable high-quality copies. Technological advance could significantly alter the lead-time calculus by lowering the cost of design information, as well as production speed. Near instantaneous production of high-quality copies could, for example, eliminate lead time entirely. Consider the possibility of the instantaneous transmission of digital images from high-fashion runways to production facilities in China.¹³⁸ Such a reduction in lead time would, perhaps, militate in the direction of increased monopolistic protection or incentive to creation. The second part of the question surrounds the structure of other operative—nonmonopolistic—legal rules governing ownership that too serve as disincentives to innovation. Such rules, while perhaps viewed as mere background rules from the internal perspective of

¹³³ *Id.*

¹³⁴ Raustiala & Sprigman, *supra* note 44, at 1698, 1718.

¹³⁵ *Id.* at 1722–24.

¹³⁶ *Id.*

¹³⁷ *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 430 (1984) (“From its beginning, the law of copyright has developed in response to significant changes in technology.”).

¹³⁸ 2 MENELL ET AL., *supra* note 5, at 742.

traditional copyright doctrine, operate simultaneously and dynamically interact with any monopolistic copyright rules.

Return to the copyright-skepticism that Breyer¹³⁹ and Raustiala and Sprigman¹⁴⁰ have introduced. Industries like publishing, unlike fashion design, have subject matter that allows for monopolistic protection, but, as Justice Breyer points out, there is the possibility that copyright law admits of arguably unnecessary and costly monopolistic protection.¹⁴¹ The claim, if true, would in turn yield the conclusion that the present state of copyright unnecessarily increases transaction costs and dead-weight loss through, for example, what Heller and Eisenberg have famously described as a “tragedy of the anticommons.”¹⁴² Further, the current state of affairs may increase the risk of unjustified, costly legal conflict and may be deleterious to collective creativity. Consistent with Justice Breyer’s skepticism toward the inefficiencies surrounding the current state of monopolistic copyright protection, where such protection is available, Raustiala and Sprigman brilliantly explain how an entire innovative industry, however counterintuitively, might flourish largely *without* monopolistic copyright protection.¹⁴³ This body of skeptical work shows that there can be innovation without monopolistic protection and, at the same time, provides—even if implicitly—a needed cautionary note against falling into the trap of thinking that, where innovative value exists, we ought to automatically construct corresponding monopolistic legal rights. Monopolistic rights come at a cost; where one is a consequentialist, the opposite may often be true.

Still, from the externalist perspective of maximizing principles, Breyer’s and Raustiala and Sprigman’s respective insights invite further questions over whether or not the current equilibrium is maximally efficient, and if not, what the *optimal* level of monopolistic protection might be. From Justice Breyer’s perspective, there is the possibility of too much monopolistic protection in publishing,¹⁴⁴ and Raustiala and Sprigman note that the fashion industry is profitable without monopolistic

¹³⁹ Breyer, *supra* note 42, at 299.

¹⁴⁰ Raustiala & Sprigman, *supra* note 44, at 1698, 1718.

¹⁴¹ Breyer, *supra* note 42, at 299.

¹⁴² See generally Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698 (1998).

¹⁴³ Raustiala & Sprigman, *supra* note 44, at 1698, 1718.

¹⁴⁴ Breyer, *supra* note 42, at 299.

protection.¹⁴⁵ These important insights raise questions concerning the *optimal* level of monopolistic protection and how, as a matter of institutional design, optimality might be obtained. The fact that some areas may admit of *too* much protection is insufficient to show that *zero* is optimal; at the same time, the fact that the fashion industry is profitable nearly without monopolistic protection does not yield the conclusion that near zero is optimal. The fashion industry, for example, might carry on reasonably well, although hampered or “taxed” by an unjustifiable lack of monopolistic protection, even from the perspective of concern for collective creativity. Recognizing Breyer’s¹⁴⁶ and Raustiala and Sprigman’s¹⁴⁷ important cautionary observations that monopolistic rules may not always be necessary to incentivize creation, one begins to think of innovation policy in terms of incentives to innovation from the broader perspective of institutional design.

III. THE CONSEQUENTIALIST INNOVATION PUZZLE

Now, with the question of *optimal* monopolistic protection at the fore, consider innovation policy more broadly. From the forward-looking perspective, a significant analytic puzzle arises over the structure of innovation policy. Here, the aims of intellectual property and innovation policy are stated *ex ante*, but there is still room for significant divergence over institutional design and the form that legal rule constructions should take. That is, even where the instrumentalist goals or maximizing aims are well articulated, it is less clear how institutions and legal rules ought to be constructed in meeting those goals. The possibilities are complex, and it is important to understand what is traded off and balanced in a forward-looking approach to monopolistic protection.

Start with some initial considerations. Monopolistic intellectual property rules might be justified if their addition to a given set of legal rules would predictably create greater welfare gains than the set of legal rules would create absent such monopolistic protection. This would, of course, occur if such rules served as an incentive to creation and innovation. Importantly, however, the baseline in innovation—absent monopolistic rules—is not zero. A

¹⁴⁵ Raustiala & Sprigman, note 44, at 1698, 1718.

¹⁴⁶ Breyer, *supra* note 42, at 299.

¹⁴⁷ Raustiala & Sprigman, *supra* note 44, at 1698, 1718.

measure of innovation can arise against the backdrop of a set of legal rules absent monopolistic protection or any focused innovation policy through ambient human ingenuity, desire for glory, passion, or inventive “tinkering.” To be clear, the measure of innovation and creation that may occur against the backdrop of legal and institutional legal rules, absent enhanced legal or institutional incentives, is not zero. Any innovation incentivized by monopolistic rules would have to outweigh the deadweight loss associated with “naturally” motivated “tinkerers” who would opt for monopolistic protection, were monopolistic rules to exist. Some such “tinkerers” would invoke intellectual property protection, once it is available.

But this, importantly, is not the end of the story. The forward-looking analysis is more complicated; there is a further dimension to consider beyond just the loss of potential “natural” innovation. If one is to maximize, one must take account of the magnitude of *hypothetical* forward-going deadweight loss, balanced against the gains of *hypothetical* innovation, were monopolistic rules to exist. Importantly, the measure here is not merely an *ex ante* calculation that monopolistic rules can be predicted to serve as *further* incentives to innovation, against the baseline of a set of rules in which such monopolistic rules do not exist and innovation and creation comes only through “tinkering.” Here, if one is to follow maximizing principles, *hypothetical* gains in innovation achieved through monopolistic incentives must be balanced against *hypothetical* losses associated with monopolistic rules—albeit losses that would *not* have existed—had the innovation in question *not* been developed via monopolistic rules. Once such *hypothetical* gains, subject to *hypothetical* deadweight loss, become the new baseline, meeting the forward-going justificatory burden becomes increasingly difficult.

Considering the *ex ante* balance of *hypothetical* gains minus hypothetical losses invites inquiry into the structural efficiency and the distribution of benefits and burdens of monopolistic legal protection. If monopolistic rules are difficult to justify in welfare terms once hypothetical gains and losses are taken into account, then as a matter of institutional design, forward-looking theorists compare the scheme of monopolistic rules to alternative, less costly, incentive-based schemes of legal rules.¹⁴⁸ For example, a system of prizes, funded through tax revenue, could provide

¹⁴⁸ See, e.g., INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 6, at 136–38.

incentives to innovation. But, prizes also come at a cost, and, importantly, not just a cost in the value of the prize itself but also in the deadweight loss associated with increased taxation required to fund the prize. Further, a scheme of legal rules including taxes and prizes, like monopolistic protection, also bears the attendant deadweight loss associated with redirecting ambient tinkering into the taxation and prize system.

So, the comparison is between (A) the value of the hypothetical innovation incentivized by monopolistic entitlement rules, minus the combined values of (i) the loss of natural tinkering, (ii) the predicted hypothetical deadweight loss associated with monopolistic rules, and (iii) administration costs, and (B) the positive value of predicted innovation incentivized by prizes minus (i) again, the value of lost natural tinkering, plus (ii) the predicted deadweight loss caused by the added negative distortion of the labor-leisure trade-off associated with the marginally higher tax-rates needed to fund prizes, plus (iii) the cost of the prizes themselves and administration costs. The more one is skeptical of the likelihood that A is greater than B, the more one tends to favor taxation and prizes over monopolistic intellectual property rules as the ideal scheme to serve as incentive to innovation. It follows from this that, from a maximizing perspective where the concern is over optimal innovation policy, one must be prepared to consider abandoning monopolistic legal rules in favor of a different set of legal rules and alternative-account institutional design, however it may be conceived.

IV. INTELLECTUAL PROPERTY AND INNOVATION POLICY AND MAXIMIZING PRINCIPLES

A. *Budget Expenditures, “Background” Rules, and Non-Traditional Intellectual Property Doctrine*

The preceding Part directs one’s attention to questions of institutional design. As noted, prior to the selection of any specific innovation policy scheme, any existing set of legal rules contain their own unique innovation disincentives, whether via private law rules constructed by insolvency law or via the taxation system; the “given” baseline in incentive to innovation is, as stated above, *importantly* non-zero. From a maximizing perspective, however, the matter is more complicated still. Consider, for example, the multiple functions of budget expendi-

tures, *e.g.*, the Federal Medicaid and Medicare programs and the Federal Prescription Drug Plan D. As Douglas Kahn and Jeffrey Lehman have argued, these forms of government spending, in the first instance, constitute public provisions and, as such, create basic entitlement baselines.¹⁴⁹ But such expenditures, whether intentionally or not, also serve a second function, however inefficiently; these expenditures alter incentives and serve as a subsidy to innovation in healthcare and pharmaceutical research and development. Similarly, charitable tax deductions for philanthropic gifts are, in effect, a subsidy to innovation associated with hospitals and universities, for example. In terms of the tax base, the designation and differential tax treatment of long-term capital gains income versus ordinary income—especially in the context of the taxation of private equity funds—alters incentives and subsidizes innovation in the finance industry. Beyond taxation and tax policy, any scheme of “background” rules also contains rules enabling and limiting the freedom to contract, tort law, corporate law, laws governing trusts and estates, regulations embodying the entitlement-granting rules of the administrative state, and insolvency law and policy. In conjunction with one another, these groups of legal rules construct a specific, non-zero measure of incentive to innovation, even where such rules, perhaps *deceptively*, appear *merely* to operate in the “background” to innovation policy.

Importantly, it is this set of legal rules that serves as the baseline against which one measures innovation policy. All legal rules taken together, inclusive of taxation policy, for example, construct ownership baselines of necessity; in comparing competing innovation policies, one must hold constant the scheme of “background” legal rules that control ownership, in which competing innovation policy schemes might operate. But, the notion of “background” is merely a heuristic device that can be *extremely* deceptive. It is within this backdrop of legal rules—replete with its own respective innovation baseline—that the selected innovation policy will find its home, ultimately in the construction of a complete scheme of legal rules. The innovation policy ultimately selected will find a home *within* the *complete* scheme of legal rules, not outside of it; the so-called “background” rules will straightforwardly interact with the selected innovation

¹⁴⁹ See Douglas A. Kahn & Jeffrey S. Lehman, *Tax Expenditure Budgets: A Critical View*, 54 TAX NOTES 1661, 1662–63 (1992).

policy. Once selected, the innovation policy becomes unified into the *complete* scheme of legal rules; such rules, of necessity, interact with one another, introducing the possibility of further inefficiency gains or losses. Where one is to follow maximizing principles, alignment is absolutely critical.

Once rules governing innovation policy are added, incentives and subsidies are altered; all aspects of the now complete scheme of entitlement-oriented legal rules operate in tandem with one another. The deceptive nature of the term “background” rules now becomes plain. Once innovation policy is added, many aspects of the existing set of rules against which innovation policy was chosen *become* the innovation policy itself. Ultimately, the innovation policy cannot be disaggregated from the “background rules,” and alignment among all rules is critical. For example, an innovation policy aimed at maximizing wealth would be significantly hampered by an insolvency policy self-consciously aimed at firm and job preservation and a tax base that does not, for example, prefer capital gains over ordinary income.

Maximizing principles, by their nature and over the range of their domain, do not admit of much latitude in rule construction. From the perspective of institutional design, the issue becomes the comparison of competing complete sets of legal rules governing ownership and the question of how such competing schemes serve the external maximizing principle. But, thinking from this perspective brings one to contemplate institutional design beyond the mere confines of the copyright/patent divide or legal doctrine internal to traditional intellectual property. Where the aim is the maximization of wealth or the position of the least well-off, the inquiry directs itself to structural questions concerning the *complete* set of ownership rules and the role innovation policy might play with or without monopolistic protection, whether described as copyright, patent, or however else. Once one recognizes the important role of “background” rules, it becomes plain that the proper analysis must reach well beyond intellectual property’s traditional bounds. In this vein, consider bankruptcy law’s treatment of intellectual property in the context of executory contracts.¹⁵⁰ Bankruptcy rules lie outside

¹⁵⁰ See 11 U.S.C. § 365(f)(1) (2018) (“Except as provided in subsections (b) and (c) of this section, notwithstanding a provision in an executory contract or unexpired lease of the debtor, or in applicable law, that prohibits, restricts, or conditions the assignment of such contract or lease, the trustee may assign such contract or lease under paragraph (2) of this subsection.”); *Perlman v. Catapult Ent., Inc.* (*In re*

the scope of canonical or traditional intellectual property doctrine. As such, they are subject either to being deceptively taken as given or assumed to operate in the background or at the periphery of private law or intellectual property. But selection among competing conceptions of bankruptcy policy, like taxation, *ex ante*, creates incentives for innovation, for example, by comparatively altering risk and its distributive impact upon the poor. *Ex post* bankruptcy policy stands behind property ownership by governing asset allocation in the context of insolvency. Thus, there is an interactive relationship among all entitlement-governing legal rules from a maximizing perspective.

B. Bankruptcy and Monopolistic Licenses

Now consider a second example, not drawn from inside traditional intellectual property law but instead drawn from what one might only erroneously, from an externalist maximizing perspective, conceive of as a set of background rules. In bankruptcy, there is significant doctrinal conflict surrounding a debtor-in-possession's rights to assume executory contracts involving patent licenses in cases where assumption is crucial to a successful restructuring but contrary to the will of patent licensors.¹⁵¹ Here, intellectual property ownership and control is at stake. The trade-off is between (1) bankruptcy's construction of the strength of patent ownership, and (2) the risk of firm failure. The question is whether bankruptcy law should construct an in-effect mandatory reassignable regime with respect to patent licenses that is indifferent to the will of the licensor or instead construct patents as "personal and nondelegable."¹⁵² An (in-effect) mandatory reassignability regime, as opposed to a personal and nondelegable regime, would *disallow* patent licensors to block the assumption of executory contracts containing patent licenses, allowing for mandatory reallocation of patent licenses conducive to firm restructuring. Such a mandatory reassignment regime may reduce the risk of firm failure and its attendant social costs but, at the same time, would lower patents' value and thereby decrease *ex ante* investment in patents.

Catapult Ent., Inc.), 165 F.3d 747, 750 (9th Cir. 1999); *Institut Pasteur v. Cambridge Biotech Corp.*, 104 F.3d 489, 490 (1st Cir. 1997); Menell, *supra* note 8, at 789.

¹⁵¹ 11 U.S.C. § 365(f)(1).

¹⁵² Compare *In re Catapult Ent., Inc.*, 165 F.3d at 750, with *Institut Pasteur*, 104 F.3d at 490.

Yet, despite its *potential* for profound effect on intellectual property and innovation, bankruptcy law, if conventionally understood, would operate in the background to intellectual property, not as constitutive of it. But, bankruptcy, like taxation, potentially constrains, alters, and redefines intellectual property ownership and control.¹⁵³ In the conventional view, each of the three bodies of law serve distinct purposes and are understood to order differing aspects of ownership and control.¹⁵⁴ Correspondingly, the conventional view invites the conclusion that doctrinal conflicts are best resolved from within their respective range-limited domains. But choice of bankruptcy policy is crucial to innovation policy; rather than operating in the *background*, bankruptcy rules stand among the *pillars* of ownership and asset allocation and, importantly, *ex ante* incentives to creation. Conceptually speaking, relegating any set of rules governing asset allocation to the “background” is deceptive where a structural distribution is at stake. From this perspective, aspects of bankruptcy law hardly operate in the “background” of innovation policy but instead are better understood to be definitive of it; they are essential to the very construction of innovation policy and the structure of any monopolistic legal rules.

Consider this significant and intractable doctrinal conflict—drawn from outside traditional intellectual property doctrine—here, in the context of bankruptcy law. This conflict can be viewed as analogous, for present purposes, to the conflict surrounding the Useful Article Doctrine, drawn from within traditional intellectual property law. The tension surrounding the Useful Article Doctrine helps demonstrate that traditional distinctions within intellectual property doctrine dissolve in the face of maximizing principles. Analogously, the conflict surrounding the assumption of executory contracts involving intellectual property licenses helps show that doctrinal distinctions drawn between innovation policy and “background rules” drawn from outside traditional intellectual property doctrine are similarly unsustainable.

Consider the eminent conflict. A circuit split has emerged regarding the debtor-in-possession’s ability to assume patent licenses.¹⁵⁵ In *Perlman*, the Ninth Circuit rejected the debtor-in-possession’s attempt to assume a number of patent licenses, over

¹⁵³ Ponoroff & Knippenberg, *supra* note 75, at 948–62.

¹⁵⁴ See MERGES, *supra* note 3, at 132; Samuelson, *supra* note 7, at 1514. See generally Menell & Yablon, *supra* note 7.

¹⁵⁵ See Menell, *supra* note 8, at 789.

the objection of the licensor. In doing so, the court applied the so-called “hypothetical test” under which “a debtor in possession may not assume an executory contract over the [licensor’s] objection if applicable law would bar assignment to a hypothetical third party, even where the debtor in possession has no intention of assigning the contract in question to any such third party.”¹⁵⁶ Here, “applicable law,” for purposes of section 365(c) of the Bankruptcy Code, governing the debtor in possession’s authority to assume executory contracts, is constructed as “federal patent law.”¹⁵⁷ And, according to the latter, nonexclusive patent licenses are understood to be personal and nondelegable without the consent of the licensor.¹⁵⁸

Importantly, however, section 365(f)(1) strips nonassignability clauses from patent licenses, rendering them unenforceable.¹⁵⁹ This is an example, similar to the Bankruptcy Code’s nonenforcement of *ipso facto* clauses,¹⁶⁰ of the Code’s altering of state contract law in opposition to the *Butner* principle.¹⁶¹ But this, crucially, does not (automatically) implement a “free-assignability” regime. Section 365(c)(1) calls for the application of “applicable law,”¹⁶² *qua* mandatory rules, to determine the assignability question.¹⁶³ If federal patent law, as opposed to state law, is

¹⁵⁶ *In re Catapult Ent., Inc.*, 165 F.3d at 750.

¹⁵⁷ *Id.*; *see also id.* at 749.

¹⁵⁸ *See Everex Sys., Inc. v. Cadtrak Corp. (In re CFLC, Inc.)*, 89 F.3d 673, 680 (9th Cir. 1996).

¹⁵⁹ 11 U.S.C. § 365(f)(1) (2018) (“Except as provided in subsections (b) and (c) of this section, notwithstanding a provision in an executory contract or unexpired lease of the debtor, or in applicable law, that prohibits, restricts, or conditions the assignment of such contract or lease, the trustee may assign such contract or lease under paragraph (2) of this subsection.”).

¹⁶⁰ *See id.* § 363(l); *Holland Am. Ins. Co. v. Sportservice, Inc. (In re Cahokia Downs, Inc.)*, 5 B.R. 529, 531 (Bankr. S.D. Ill. 1980).

¹⁶¹ *See Butner v. United States*, 440 U.S. 48, 55 (1979) (“Property interests are created and defined by state law. Unless some federal interest requires a different result, there is no reason why such interests should be analyzed differently simply because an interested party is involved in a bankruptcy proceeding.”). *But see infra* note 173.

¹⁶² 11 U.S.C. § 365(c) (“The trustee may not assume or assign any executory contract or unexpired lease of the debtor, whether or not such contract or lease prohibits or restricts assignment of rights or delegation of duties, if—(1)(A) applicable law excuses a party, other than the debtor, to such contract or lease from accepting performance from or rendering performance to an entity other than the debtor or the debtor in possession, whether or not such contract or lease prohibits or restricts assignment of rights or delegation of duties; and (B) such party does not consent to such assumption or assignment.”).

¹⁶³ *Perlman v. Catapult Ent., Inc. (In re Catapult Ent., Inc.)*, 165 F.3d 747, 752 (9th Cir. 1999).

determined to be the relevant “applicable law” for reasons of uniformity, or more generally, reasons of patent policy,¹⁶⁴ then nonassignability will be the rule, as nonexclusive licenses will be held to be personal and nondelegable.

Such an outcome echoes the purported policy reasons for not allowing licenses to fall under what *Everex* describes as a “free-assignability regime.”¹⁶⁵ In this view, patent law ostensibly exists to foster innovation and creativity by granting the inventor the right to have monopolistic control of an innovation for a specified number of years. The law also gives patent holders the right to give others a nonexclusive license to use the patent. Under the federal common law of patents, a licensee cannot assign or transfer a license to a third party without the permission of the licensor. The controversial policy reason offered for this is that licensors must have the ability to control the identity of their licensees. Under a “free-assignability regime,” licensees could assign the license to a competitor of the licensor, even over the objection of the licensor. On the other side of the ledger, crucially, limitations on assumption and assignability can be in tension with firm preservation, and therefore job preservation.

In contrast, in *Institut Pasteur*, the First Circuit upheld the debtor-in-possession’s assumption of two patent licenses. In doing so, the court rejected the “hypothetical test,”¹⁶⁶ and instead applied the “‘actual performance’ test” under which assumption is allowed unless the licensor would be “forced to accept performance under its executory contract from someone other than the debtor party with whom it originally contracted.”¹⁶⁷ While both cases were purportedly about assumption, they notably touched on the assignability question as well. Although both the “hypothetical

¹⁶⁴ Menell, *supra* note 8, at 792 n.211 (“The *Erie* doctrine . . . leaves room for federal courts to apply federal common law rules where a specific showing has been made that applying state law will create conflict or will pose a threat to some federal policy or interest.”).

¹⁶⁵ *Everex Sys., Inc. v. Cadtrak Corp. (In re CFLC, Inc.)*, 89 F.3d 673, 679 (9th Cir. 1996).

¹⁶⁶ *Institut Pasteur v. Cambridge Biotech Corp.*, 104 F.3d 489, 493 (1st Cir. 1997) (citing *Summit Inv. & Dev. Corp. v. Leroux*, 69 F.3d 608, 612 (1st Cir. 1995)).

¹⁶⁷ *Id.* (quoting *Summit Inv. & Dev. Corp.*, 69 F.3d at 612); see also DOUGLAS G. BAIRD, *ELEMENTS OF BANKRUPTCY* 133 (5th ed. 2010) (comparing *Perlman* with *Institut Pasteur* and concluding that “[t]he law here remains in flux. The most important cases have involved patent licenses. Some courts have found ways to read the statute in a way that allows the debtor in possession to continue to use patent licenses even though non-bankruptcy law provides that they are not assumable. Other courts, invoking Supreme Court opinions that mandate fidelity to statutory text in bankruptcy, have refused to do so.”).

test” and the “‘actual performance’ test” would seemingly prohibit reassignments to third parties, the debtor-in-possession in *Perlman* was merging with a third party as part of its reorganization plan, and the debtor-in-possession in *Institut Pasteur* was being acquired by a major competitor of the licensor by a stock sale. Yet—ignoring the de facto merger doctrine¹⁶⁸—the court in the latter case rejected the argument that the transaction was in substance an assignment, stating that “[s]tock sales are not mergers whereby outright title and ownership of the licensee-corporation’s assets (including its patent licenses) pass to the acquiring corporation.”¹⁶⁹ The court rejected Institut Pasteur’s argument that the generic nonassignability provisions in the license agreements barred the debtor-in-possession from—in effect—“assigning” the licenses to Institut Pasteur’s competitor.¹⁷⁰ Counterintuitively, the court held that the generic nonassignability clause was not specific enough to address the circumstances between the debtor-in-possession and the competitor.¹⁷¹ The court argued that if Institut Pasteur had been concerned about its licenses being transferred to competitors, it should have specifically written a detailed, as opposed to generic, nonassignability provision into the cross-license agreements addressing that issue.¹⁷²

It is notable that in determining “applicable law” for the purposes of section 365(c) of the Bankruptcy Code, courts have a range of options, whether or not consistent with the *Butner* principle.¹⁷³ For example, under California law, patent licenses are freely assignable,¹⁷⁴ but under federal common law, patent

¹⁶⁸ See generally *Farris v. Glen Alden Corp.*, 143 A.2d 25 (Pa. 1958).

¹⁶⁹ *Institut Pasteur*, 104 F.3d at 494.

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Butner v. United States*, 440 U.S. 48, 51–54 (1979). The *Butner* principle is itself, arguably indeterminate or simply wrong. See Barry E. Adler, *The Questionable Axiom of Butner v. United States*, in *BANKRUPTCY LAW STORIES* 11, 19 (Robert K. Rasmussen ed., 2007) (“The *Butner* principle notwithstanding, then, useful bankruptcy reform might include highest priority for nonconsensual claims.”); Lawrence Ponoroff, *Whither Recharacterization*, 68 RUTGERS U. L. REV. 1217, 1263 (2016) (“Thus, to conclude that state law would regard a particular investment as a loan . . . is, if not entirely meaningless, certainly not decisive, and by no means does it signal the end of the inquiry. . . . [T]o leave the matter to be decided based on the purely serendipitous rubrics of state law is hardly prudent; it is not mandated by the Supreme Court’s opinion in *Butner* and it is certainly no way to run the railroad.” (emphasis added)).

¹⁷⁴ *Farmland Irrigation Co. v. Dopplmaier*, 308 P.2d 732, 740 (Cal. 1957).

licenses are constructed as personal and nondelegable.¹⁷⁵ The choice would, importantly, dramatically affect the value of patents and therefore reflects competing conceptions of the strength of monopolistic protection. As the court noted in *Everex*, in the former regime “every licensee would become a potential competitor with the licensor-patent holder in the market for licenses under the patents.”¹⁷⁶ As the court argued, “[a]llowing free assignability . . . of nonexclusive patent licenses would undermine the reward that encourages invention,”¹⁷⁷ rendering patents less valuable.

True, such a regime would render patents less valuable to would-be licensors, but this is, of course, to view patents in isolation. It is far from clear that the policy reasons surrounding incentives of product innovation supporting the patent system, in the first instance, further justify such strong protection of the right to license or contract over such patents. Patents are in place to serve as incentive to innovation, but, notably, one must attend closely to the strength of patent protection, including, for example, the barrier to entry and the lifespan, as well as the separable question of licensing rights over patents. Given the preceding discussion, the concern becomes plain. Courts are myopically looking only at one side of the ledger. Any added incentive to innovation that is derived from (1) monopolistic protection conjoined with (2) the added, yet controversial, contract right concerning a prohibition on nonconsensual assignability, must be balanced against the potential deadweight loss associated with firm failure and the social loss associated with it. This quickly becomes a tall order, as we saw above. From a maximizing perspective, the fact of the monopoly alone can be difficult to justify, given the initial deadweight loss, and here there is the added concern of firm failure. Even if ultimately correct, the courts provide essentially a conclusion, as opposed to an analysis of the actual policy reasons supporting the patent system. Such an analysis would need to balance the equities concerning innovation *ex ante* and the deadweight loss created *ex post*.

One way to understand the assignability issue surrounding patent licenses is to view it from a remedial perspective. In both

¹⁷⁵ *Everex Sys., Inc. v. Cadtrak Corp. (In re CFLC, Inc.)*, 89 F.3d 673, 679–80 (9th Cir. 1996) (collecting cases from the D.C. Circuit, Sixth Circuit, Seventh Circuit, and Eighth Circuit).

¹⁷⁶ *Id.* at 679.

¹⁷⁷ *Id.*

Perlman and *Institut Pasteur*, the licensors are in effect arguing that their patent licenses should be protected by what Calabresi and Melamed have described as property rule protection.¹⁷⁸ While restructuring is not a remedial matter, there is an important analogous insight at play here. The licensor wishes to retain complete control over the assignability of patent licenses; following *Everex*, the *Perlman* court appears to believe that such legal protection is most consistent with what the court takes to be the justification of monopolistic rules. This so-called product innovation theme yields the conclusion that such licenses ought not to be assignable absent the consent of the licensor, unless the *ex ante* policy reasons surrounding monopolistic protection are essentially defeated. But it does not follow directly that, where patents are infringed, courts automatically grant injunctive relief; patent protection is simply not always quite so absolute. A four-factor balancing test is required and there is always the possibility of damages, as opposed to injunctions,¹⁷⁹ or what Calabresi and Melamed have described as liability rule protection.¹⁸⁰ The point is analogous to the remedial context; a less contractualist rule, something akin to liability rule protection of the licenses, for example, may well be consistent with the full balance policy reasons for monopolistic protection in the first instance.

Consider *Perlman* and *Institut Pasteur* in light of principles aimed at wealth maximization or the position of the least well-off. There are essentially three issues at stake. First, the courts are taking as a given monopolistic protection, but, as we have seen, the very question of monopolistic protection is an open one, from both of these maximizing perspectives.¹⁸¹ Still, assume briefly, for the

¹⁷⁸ See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972) (discussing property versus liability rules).

¹⁷⁹ See Blankfein-Tabachnick, *supra* note 4, at 1329, 1331 (discussing the remedial aspects of patent infringement in *eBay Inc. v. MercExchange, L.L.C.*, 54 U.S. 388 (2006), in terms of property and liability rules). Recently elaborating and expanding upon this idea, see Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?*, 85 TEX. L. REV. 783 (2007); Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949 (2016); Carl Shapiro, *Property Rules vs. Liability Rules for Patent Infringement*, (May 4, 2016) (unpublished article), <https://ssrn.com/abstract=2775307> [<https://perma.cc/H4YE-4KYG>]; cf. Mark P. Gergen, John M. Golden & Henry E. Smith, *The Supreme Court's Accidental Revolution? The Test for Permanent Injunctions*, 112 COLUM. L. REV. 203 (2012).

¹⁸⁰ See Calabresi & Melamed, *supra* note 178.

¹⁸¹ See *supra* Section IV.A.

sake of argument, that some level of monopolistic protection is justified from both the perspective of wealth maximization and the Rawlsian difference principle. There are still two further issues: first, the construction of patent licenses as personal and nondelegable, effectively creating an added contractual right to—and possible windfall for—licensors, simply by dint of filing for bankruptcy; and second, the question of the Bankruptcy Code's stripping of nonassignability clauses.

Absent reference to a governing, *external* principle of ownership, attempts to resolve these questions may appear forced or somewhat arbitrary. At its core, the question is one of asset allocation: Should the deadweight loss associated with the nondelegable patent licenses—for example, the possibility of the public and private cost of firm failure—be borne by the debtor-in-possession, even where important jobs are at risk or socially necessary AIDS research is at stake? Or, on the other hand, should needed medical advances—here AIDS research—and job preservation, be viewed as costs associated with successful innovation? The question of what-is-the-cost-of-what¹⁸² cannot be non-arbitrarily answered absent an external or principled account of ownership, but, importantly, differing external accounts of ownership may well yield distinct resolutions.

On one hand, still on the assumption that there would even be monopolistic protection, a wealth-maximizing approach might construct patent licenses as personal and nondelegable and disallow section 365(f)(1)'s stripping of nonassignability clauses. This could occur based on the belief that the ability to privately order via transferable rights, that is, a more contractual approach, is conducive to the relentless aim of maximizing net-aggregate wealth. On the other hand, a Rawlsian approach aimed not at wealth maximization but, instead, at the economic position of the least well-off, may perhaps look less favorably upon the *Everex* court's added enforceability of the nonassignability clause—that is, an added contractual right and windfall to patent licensors—from the perspective of California law.¹⁸³

Importantly, Rawlsianism typically takes a more constrained view of private ordering and, correspondingly, closes contractual options that are, from a structural perspective, deleterious to the economic position of the least well-off. Crucially, with regard to

¹⁸² See generally CALABRESI, *supra* note 13.

¹⁸³ See *Farmland Irrigation Co. v. Dopplmaier*, 308 P.2d 732, 740 (Cal. 1957).

the Bankruptcy Code, the Rawlsian might have a comparatively greater “firm-continuation” bias over the wealth-maximizing position, given the social values at stake. A Rawlsian might, for example, insert an, in effect, “free assignability” mandatory rule, as in *Farmland Irrigation Co.*,¹⁸⁴ upholding California law. So, where a Rawlsian might attribute the social value of would-be firm restructuring to licensors, the wealth-maximizing principle may attribute the same cost to the debtor-in-possession, in effect leaving the question to private ordering. Notably consistent with this view, in discussing the Bankruptcy Code’s typical rejection of anti-assignment clauses,¹⁸⁵ Alan Schwartz argues, from a wealth-maximizing perspective, that if one recognizes the function of the Coase Theorem,¹⁸⁶ nothing is gained in terms of wealth maximization compared to a contractual or private ordering approach to bankruptcy that upholds anti-assignment clauses.¹⁸⁷ In short, Schwartz argues that the debtor-in-possession would bargain for rights were they more valuable in its hands.

On the other hand, there may be some wrinkles in this approach. First is the very assumption that wealth maximization would even admit of such monopolistic rules; it may well bear a differing conception of innovation policy. But if we allow monopolistic protection, again, if only for the sake of argument, bargaining and information problems may inhibit such seamless transactions,¹⁸⁸ as too might wealth effects, particularly relevant in the context of an insolvent debtor. Indeed, such breakdown is often, in a remedial context, the justification for providing liability rule, over property rule, protection.¹⁸⁹ It is unclear that the application of property rule protection would be maximally conducive to achieving wealth maximization. But, crucially, the application of property versus liability rule protection, for example, would turn on the specific circumstances surrounding the case. Consider the scenario in *Institut Pasteur*, where the debtor-in-possession was the licensee of patents related to AIDS research.¹⁹⁰

¹⁸⁴ *Id.* at 739.

¹⁸⁵ 11 U.S.C. § 365(c), (f) (2018).

¹⁸⁶ See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 2–6 (1960).

¹⁸⁷ Schwartz, *supra* note 8, at 1847–49.

¹⁸⁸ See Coase, *supra* note 186, at 2. See generally Alvin E. Roth, *Bargaining Experiments*, in THE HANDBOOK OF EXPERIMENTAL ECONOMICS 253 (John H. Kagel & Alvin E. Roth eds., 1995) (describing Ultimatum Game results).

¹⁸⁹ Calabresi & Melamed, *supra* note 178, at 1106–10 (discussing property versus liability rules).

¹⁹⁰ *Institut Pasteur v. Cambridge Biotech Corp.*, 104 F.3d 489, 490 (1st Cir. 1997).

Assume that the debtor-in-possession is best positioned to find a cure. It would seem that the demand of wealth maximization would require the assignment of the patent license rights to the debtor-in-possession. Yet the private interests of the two firms might point in the opposite direction. In short, the wealth-maximization principle, in this highly stylized case, might require the closing of more libertarian-oriented contractual outcomes and ultimately require a mandatory rule as opposed to allowing private ordering.

V. ENTITLEMENT EQUILIBRIUM

A. *Synchronicity*

Given the preceding example drawn from bankruptcy, it begins to become clear that, from a maximizing perspective, analyses of intellectual property and innovation policy cannot be limited to traditional doctrine—for example, patent, copyright, and trademark—to the exclusion of so-called background rules of entitlement, or the analysis will be importantly *incomplete*. However, such a constrained focus on traditional intellectual property doctrine is understandable or even, initially, laudable. One must of course start somewhere, and legal doctrine is often parceled into readily digestible modules or canonically defined subject areas for reasons of simplicity and practicality. In the context of maximizing aims or goals, it is true that the interconnections among all legal rules are in play. However, the law might construct modules or subcomponents to dampen the possibility of deleterious interconnection, and such partitioning may, for example, make law easier to modify and less susceptible to systemic or cascading error.

Importantly, however, were legal subcomponents or modules constructed, in the context of maximizing goals, there is still the open question of how to draw the very boundaries that define the modules or subcomponents. In the face of maximizing aims, the modules would likely be drawn in a fashion distinct from *traditional* doctrinal accounts, by, for example, employing fewer sharp distinctions between doctrinal bodies of law that can create unnecessary overlap or conflict. What might count as the “periphery” versus the “central features” of a particular body or subcomponent of law would likely shift from the perspective of traditional legal doctrine, to one contingent upon the substance of the maximizing principle.

That said, where one is concerned with maximizing principles, focus on *traditional* or *given* doctrinal legal modules or subcomponents can admit of a form of myopia that can, in turn, serve to disguise structural inefficiencies or systemic injustice. Such focus isolates one group of legal rules from among *all* property and entitlement-defining, incentive-creating legal rules—namely, those surrounding patent, copyright, and trademark—to the erroneous exclusion of other equally important rules, from the perspective of maximization. This further tends to camouflage the potential *incompatibility* of maximizing principles with such independent modules of intellectual property. Importantly, viewing intellectual property in isolation can invite a certain form of incomplete understanding. The trouble arises as a function of an understandable, if mistaken, omission: a failure to recognize that in the context of maximizing principles, there is a distributive symmetry between *all* legal rules that define ownership, the details of control, and asset allocation. This requirement of symmetry would remain true, whether such rules are associated with intellectual property, as conventionally understood, or the broader body of private law rules drawn, for example, from bankruptcy or the rules governing taxation and transfer. An important synchronicity is required.

Where one's ultimate consideration is a maximizing end, the private law, inclusive of intellectual property, is of *purely* instrumentalist value.¹⁹¹ To help make this point clear, consider the following: property and the bounds of the private law, from this maximizing perspective, bear a reciprocal relationship to taxation and transfer. As Anthony Kronman has noted, from a distributive perspective, a fifty-percent tax on ordinary income can equally well be characterized as a rule of taxation, a rule of property, or a rule of contract law.¹⁹² The correct conclusion to be drawn is that the rules of each complete set of "property-oriented" legal rules operate in conjunction with one another in setting entitlements. Taken collectively, all such rules construct

¹⁹¹ Interestingly, the point can be pushed beyond the context of the present discussion. A differing set of entitlement-oriented legal rules might be required where differing countries or economies have distinct economic goals. For example, one focusing on a competitive advantage in higher education might have different entitlement rules from an economy or country focused on a competitive advantage in health care. But still, internal synchronicity would be required between background and foreground rules, although the rules of the two schemes would differ.

¹⁹² See generally Kronman, *supra* note 14, at 501–05.

economic baselines and benchmarks necessary to evaluating innovation policy from the perspective of maximizing principles.

B. *Entitlement Optimality*

Consider the traditionalist or independent doctrinal perspective, again. Where one, for example, aims to maximize the position of the least well-off, a seemingly acceptable or just set of monopolistic rules, where viewed in isolation, risks being shipwrecked when injected into a set of legal rules that defines entitlements in any fashion deleterious to the position of the least well-off. Even where a set of monopolistic innovation rules appears acceptable in isolation, once conjoined with a distributively incongruous set of legal rules, the conjunction may fail to maximize. Or, worse still, it may even serve to further exacerbate deleterious risks to the economic position of the least well-off.

Any deleterious effects associated with misalignment, however, cannot simply be offset through the use of taxation and transfer, as one might naturally think. Importantly, differing maximizing principles impose upon legal institutions a specified demand for a unique set of optimal property-oriented legal rules, whether monopolistic protection or otherwise, conjoined with a uniquely optimal tax rate.¹⁹³ That is, the *optimal* complete set of property-oriented rules constructed by the wealth-maximizing principle is distinct from the *optimal* set of rules constructed by the Rawlsian difference principle,¹⁹⁴ although the two will likely admit of a range or domain of empirical overlap. Analogously, the wealth-maximization principle and the Rawlsian difference principle each require a *unique* optimal rate of taxation.¹⁹⁵

It follows from this that the question of innovation policy, whether monopolistic protection or otherwise, say, taxation and prizes, is not “open” or “free” in the context of maximizing prin-

¹⁹³ Blankfein-Tabachnick, *supra* note 4, at 1346 (“The selection among competing IP regimes . . . must be constructed in conjunction with an optimal tax and transfer system, unique to the . . . principles of justice. Intra-schemic alterations in the complete set of legal rules will require changes in taxation and upset, at the very least, the optimal tax rates and tax base, thereby causing a failure to meet the maximizing demands.”). *Cf.* Dimick, *supra* note 2, at 40 (noting the need to alter legal rules, but not the uniquely optimal tax rate).

¹⁹⁴ Blankfein-Tabachnick, *supra* note 4, at 1347 (“[T]he conception of what is optimal changes when one shifts between maximands. What is optimal for a utilitarian regime (maximizing net aggregate utility) cannot also be optimal for a Rawlsian (maximizing the position of the least well-off).” (emphasis omitted)).

¹⁹⁵ *Id.* at 1347 (“Maximizing principles require a specific set of property rules conjoined with an optimal tax rate.”).

principles.¹⁹⁶ The concern here can become acute; if the initial group of property-oriented rules, monopoly protection or otherwise, are not set optimally in service to the respective maximand, the slack will have to be picked up through the system of taxation and transfer. But, importantly, alterations to the tax rate cannot be cost-free; there is a fixed optimal tax rate in play, and upward or downward manipulations from the optimal tax rate will cause further economic distortion and an ultimate failure to maximize value. From a maximizing perspective, the conjunction of optimal entitlement rules and optimal taxation rates is a necessary, if seemingly *underappreciated*, constraint on institutional design that creates greater determinacy in the selection of intellectual property rules and innovation policy.

The matter quickly becomes complex, and it is important to understand what is at stake; taxation, whether based upon income, consumption, or endowment, does not merely operate upon a set of given rules that statically define ownership in the first instance. Where one is goal driven, as is the case in the context of maximizing principles, the tax rate depends upon the structure of the very rules that define ownership, and, conversely, the structure of these rules depends upon the tax rate—an equilibrium is critical. Where the complete set of legal rules is set in a non-optimal fashion, legal institutions will fail to maximize value. True, one might always attempt to offset losses associated with a less-than-optimal set of private law rules, such as too much monopolistic protection and an inefficient bankruptcy regime, through positive or negative alterations in the tax rate, for example. But any such changes drive the tax rate away from its optimal home or baseline, and the required equilibrium will fail to obtain. That is, a *less* than efficient set of legal rules, inclusive of inefficient monopoly protection, bankruptcy rules, or otherwise, *cannot* be merely offset or compensated through changes in the taxation rate, absent additional distortion. Alterations or departures from optimality in tax rates are simply not cost-free¹⁹⁷ and will, therefore, create an inefficient equilibrium. Absent synchronicity between the *unique* complete set

¹⁹⁶ *Id.* at 1346–48; Blankfein-Tabachnick & Kordana, *Kaplow and Shavell and the Priority of Income Taxation and Transfer*, *supra* note 2, at 34.

¹⁹⁷ Blankfein-Tabachnick, *supra* note 4, at 1346–48; Blankfein-Tabachnick & Kordana, *Kaplow and Shavell and the Priority of Income Taxation and Transfer*, *supra* note 2, at 34 (“[M]oves away from optimal taxation are not cost free.” (emphasis omitted)).

of optimal ownership and entailment rules, there will be a misalignment that, in turn, will cause a distortion in optimal taxation rates and ultimately an inefficient equilibrium will obtain.

It follows from this that where maximization is the aim, property entitlements—inclusive of innovation policy—cannot be set in isolation of concerns over optimal taxation rates. A maximizing demand requires an optimal set of property entitlements conjoined with an optimal taxation rate. This crucial but underappreciated relationship can confound thinking at the intersection of innovation policy and maximizing principles. From the externalist perspective of Rawlsian or wealth-maximizing accounts of intellectual property, it is quite natural to observe notable inefficiencies or injustices surrounding the construction of monopolistic entitlement in the positive law and commend a system of taxes and prizes as incentives to innovation, as a corrective to such perceived flaws. But here, one must fully appreciate the required synchronicity between rules governing entitlements and their relationship to taxation. Omitting to recognize the *unique* constraints imposed by optimal taxation and optimal entitlement rule construction in the context of differential maximizing distributive principles, will result in an incomplete, or even incorrect, assessment of innovation policy.

Disparate areas of law, traditionally conceived, might at times be viewed as having little in common with one another, but from a distributive perspective they bear a critical symmetry and cannot be properly evaluated in isolation. Since bodies of positive law are not without internal flaws, it is quite natural to turn to external principles for corrective guidance, as observed in the copyright and bankruptcy examples. True, where the positive law embodies inefficiencies and palpable economic injustices—or is best viewed as a simple hodgepodge, as seen in the doctrinal conflicts surrounding copyright and bankruptcy law above—most reasonable alterations would, as an empirical matter, likely improve *both* net-aggregate wealth and the position of the least well-off. But, importantly, “improving” is neither “maximizing,” nor “optimizing.” The observation, for example, that the positive law enjoins an *inefficient* or *unjust* measure of deadweight loss, derived from too much monopolistic protection (in terms of breadth or length of patent life) is insufficient to motivate the claim that from a maximizing perspective, a taxation and prizes regime is superior to monopolistic protection, although it *very* well may be.

In light of the preceding discussion of background-foreground synchronicity, optimal rule construction, and optimal taxation rates, consider the germane aspects of the current mature scholarly debate surrounding innovation policy that appear to leave this observation unacknowledged.

Working from a Rawlsian perspective, Thomas Pogge has prominently advocated for a system of taxation and prizes, as an egalitarian replacement to the present, objectionably, *inegalitarian* patent system enshrined in the positive law.¹⁹⁸ Pogge astutely observes that current patent law admits of numerous inefficiencies surrounding the production and distribution of pharmaceuticals, but he draws specific attention to the deadweight loss caused by monopolistic protection's quashing would-be win-win transactions over generic medications, in a fashion deleterious to the world's most vulnerable.¹⁹⁹ True, Pogge has drawn needed attention to the inefficiencies and inequality surrounding the current system and its significant risk to the least well-off. In addition, Pogge may well be correct that any reasonably well-conceived system of taxation and prizes would be a structural improvement to the presently distorted patent system, and he has raised both scholarly and global awareness of the question of whether or not the patent system can be justified from the perspective of least well-off.

Still, noting the distorted or objectionable nature of the positive law, as argued above, it is insufficient to show that a scheme of taxation and prizes is preferable to all possible systems of monopolistic protection. Here, importantly, the concern is not over the question of whether or not Pogge is correct—he may very well be—it is instead over the form the analysis should take in making the determination. Straight away, the analysis involves an inter-schemic comparison of complete sets of legal rules and their respective instrumentalist role in meeting the maximizing principle. At the same time, one must attend to the fact that shifts away from monopolistic legal rules as incentive and in favor of taxation and prizes reduce deadweight loss associated with monopolistic rules but, at the same time, increase deadweight loss associated with an increase in tax rates and its attended distortion of the labor/leisure trade-off.

¹⁹⁸ INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 6.

¹⁹⁹ *Id.*

Similarly, Steven Shavell and Tanguy Van Ypersele, arguing from a wealth-maximizing perspective, have also compared a scheme of taxation and rewards or prizes to a scheme of monopolistic rules, in contemplating innovation policy.²⁰⁰ The two, like Pogge, note inefficiencies associated with monopolistic rules, but Shavell and Van Ypersele also recognize flaws associated with a strict scheme of taxation and rewards.²⁰¹ For them, the chief concern surrounds needed information in determining the taxation and reward system.²⁰² As a remedy to this flaw in such a taxation and reward based system, the two argue that “an optional reward system—under which an innovator can choose between a reward and intellectual property rights—is superior to the intellectual property rights system.”²⁰³ Here, the aim is the construction of an *optimal* scheme, from the perspective of wealth maximization, but, at the same time, Shavell and Van Ypersele openly recognize that a reward system would have to be financed through taxation and transfer, presumably an income taxation.²⁰⁴ The two further note that this would involve a labor-supply, distortionary cost, and that this tax-based distortion was not recognized in their model; therefore, the case for the reward system they advance is less strong than even their own analysis suggests.²⁰⁵

Further, Lewis Kaplow, also writing from a wealth-maximizing perspective, has articulated a clear and needed account of an optimal patent system and notably concludes from this account that an innovation policy system *absent* monopolistic protection is a very real possibility.²⁰⁶ He holds that an optimal patent system is attained when the total social benefits maximally exceed the social costs, “[t]hus, all that can be known about the relationship between total benefits and costs at the optimal patent life is that total benefits exceed total costs; if this . . . were not true, the optimization process would have indicated that

²⁰⁰ Shavell & Van Ypersele, *supra* note 6, at 525.

²⁰¹ *Id.* at 543–44.

²⁰² *Id.* at 526.

²⁰³ *Id.* at 525–26.

²⁰⁴ *See generally id.*

²⁰⁵ *See id.* at 544 (footnote omitted) (“Reward systems have to be financed, and we presume through income taxation, but that involves a labor supply–related distortionary cost, something that was not considered in our model. Hence, the potential case for reward is less strong than is suggested by our analysis.”).

²⁰⁶ Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813, 1827 (1984).

there should be no patent system at all.”²⁰⁷ Notably, here, the question of patent lifespan would play a prominent role in the analysis of optimal monopoly protection. This optimal lifespan, as well as breadth of subject matter, may go some distance in the direction of remedying some of Pogge’s objections to the positive law.

As noted, Kaplow’s analysis, self-consciously, defines a system of monopolistic rules as incentives to innovation at its best.²⁰⁸ Notably, the account is in isolation and operates against the assumption that the model, if implemented, would operate in the context of a set of antecedently constructed background rules, replete with attention to egalitarian or distributive concerns—say, the correct shifting value between consumers and producers.²⁰⁹ But, Kaplow’s analysis of “optimal” is in isolation; here, one must be careful. It is important not to conclude too much from Kaplow’s definition of an optimal patent policy. As Kaplow aptly notes, if this much cannot be said on behalf of the patent system, it simply should *not* exist. But, importantly, as Kaplow also notes, it does not strictly follow that it *should* exist simply because the relationship described can be attained. Here, Kaplow’s account of *optimal* is limited to the narrow domain of monopolistic protection; even where a *patent* system is optimal, in the sense he describes, it does not directly follow that such a patent system is the optimal *innovation* policy scheme. The proper comparison is not among competing schemes involving monopolistic protection; that would be simply to weigh-in in favor of the monopolistic protection, *ex ante*. Instead, the proper comparison is among all competing schemes and how they respectively fare in meeting the demands of the maximizing principle.

Notably, however, even if such a patent scheme were to be the innovation policy selected from the perspective of wealth maximization, in light of the preceding analysis, it does not follow that the identical monopolistic regime would be selected from the perspective of maximizing the position of the least well-off. As argued above, differing maximizing principles require *unique* sets of entitlement-governing legal rules. When one shifts between external principles, say, the wealth-maximization principle and the Rawlsian difference principle, one, by definition,

²⁰⁷ *Id.*

²⁰⁸ *Id.* at 1825–27.

²⁰⁹ *See id.* at 1825.

decreases the size of the “economic pie” for distributive reasons based in equality. But in doing so, prices endogenous to the new, smaller, and more distributively just scheme change; for example, luxury goods quickly disappear, and surplus income is reduced. Given the wealth effects associated with the change in maximizing principles, rules governing entitlement must change too if they are to serve the maximand. At stake is the question of how property-oriented legal rules, in the *new* egalitarian scheme, will be structured. Thus, were a patent system meeting, for example, Kaplow’s conception of optimality, where total benefits exceed total costs in isolation, to merely seek-out its justification in a complete wealth-maximizing scheme of legal rules, it would likely fail to be adopted in a scheme focused on maximizing the position of the least well-off.

Daniel Hemel and Lisa Larrimore Ouellette, in recent path-breaking work, have produced an innovative *framework* for thinking about innovation policy; one arguably congenial to both a Rawlsian and wealth-maximizing perspective.²¹⁰ The two recognize that monopolistic protection is not a given;²¹¹ intellectual property should be more broadly conceived as innovation policy, as opposed to a limited range of canonical doctrine.²¹² Set this way, innovation policy has a variety of modal options at its disposal: monopolistic protection, taxation and rewards, tax credits, and grants.²¹³ Hemel and Ouellette point out that each of these modalities bears two separable aspects: an incentive component and an allocative component. One way to understand Hemel and Ouellette is as brilliantly articulating a form of a “decoupling” argument, familiar in the context of tortious liability, where an optimal liability system would allow that a damage award to the plaintiff be distinct, perhaps lower, than the total payment required from the defendant.²¹⁴ In the tort context, this form of “decoupling” is taken to be more efficient than the present system because it potentially preserves incentives to take reasonable care, while lowering incentives for plaintiffs to sue, thereby, lowering litigation costs.²¹⁵ The incentives necessary to

²¹⁰ See generally Hemel & Ouellette, *supra* note 3. See also Hemel & Ouellette, *supra* note 5, at 304–05.

²¹¹ Hemel & Ouellette, *supra* note 5, at 315.

²¹² *Id.* at 308–09.

²¹³ Hemel & Ouellette, *supra* note 3, at 557.

²¹⁴ See generally A. Mitchell Polinsky & Yeon-Koo Che, *Decoupling Liability: Optimal Incentives for Care and Litigation*, 22 RAND J. ECON. 562 (1991).

²¹⁵ *Id.* at 563.

ensure the correct number of lawsuits is not the same as the payment necessary to “optimal” deterrence; a bifurcation or decoupling can, then, be value-added.²¹⁶

In the innovation context, Hemel and Ouellette creatively note that the *incentive* component, representing the payout to the innovator, can be decoupled from the *allocative* component that constructs rules governing the terms under which consumers can avail themselves of the “knowledge goods.”²¹⁷ Hemel and Ouellette further argue that various modalities can be combined with one another, in a modular fashion, to produce an “optimal” innovation policy; their analysis addresses both *ex-ante* and *ex-post* considerations.²¹⁸ For example, one might conjoin the incentive component of the monopolistic modality with the allocative component of the prize system. Further, the government could purchase knowledge goods, once brought to market, from patent holders at an objective price and then create an open-access regime. The insight here is that the decoupling would provide sufficient incentive to producers but reduce the deadweight loss associated with monopolistic rules. And, importantly, further efficiency still can be gained by conjoining modules from the same side of the incentive/allocation divide; a grant might be coupled with monopolistic protection of a shorter than typical lifespan, where the grant alone might be insufficient to cover research and development.²¹⁹

Return now to the above concern over optimal taxation. Hemel and Ouellette’s chief concern in institutional design is the creation of an “optimal” innovation policy, initially from the perspective of welfare-maximization, but they immediately recognize that such an “optimal” innovation policy can significantly conflict with concerns of distributive justice.²²⁰ The two point out that the flexibility surrounding their modular approach may be effective in offsetting the distributive flaws associated with an optimal approach. They note that differential arrangements might be invoked for differential types of knowledge goods to account for distributive justice. The idea, roughly, is that, from the per-

²¹⁶ *Id.*

²¹⁷ Hemel & Ouellette, *supra* note 3, at 549–50.

²¹⁸ *Id.* at 559–63 (“Matching of this sort might be optimal when policy makers want to encourage innovation with an ex post, market-set reward, but without the allocative inefficiency and cost to cumulative innovation that comes with monopoly pricing.”).

²¹⁹ *See id.* at 580–81.

²²⁰ *Id.* at 587–88.

spective of distributive justice, the justification for taxation and prizes is stronger in the context of public goods, as a solution to a market failure or where the basic rights of the poor are at issue, and weaker where the knowledge goods surround, say, luxury products.²²¹

For example, the economic incentives needed for lifesaving pharmaceuticals aimed at treating diseases disproportionately afflicting the poor would be better implemented by a system of broad taxation and prizes rather than by monopolistic protection or an equivalent point-of-sale “user pays” consumption tax.²²² At the same time, they argue that distributive concerns might suggest that innovation focused on advances in luxury goods would be best incentivized by monopolistic rules, or, perhaps, a user-pays, consumption-tax scheme.²²³ The idea is the common-sense notion that it appears unjust to use general taxpayer funds to incentivize innovation in luxury goods that chiefly benefit the wealthy. At work here is a limited defense of the “user pays” principle of taxation; those who *benefit* should bear the cost. So, a mixed system of incentives is thought to be helpful in remedying perceived distributive flaws associated with the initial *optimal* scheme constructed of Hemel and Ouellette’s set of modular options. They write:

[T]he optimal allocation mechanism is one of open access because there is no information to be gained from proprietary pricing. The government can minimize deadweight loss through non-IP innovation incentives such as prizes, grants, or tax credits, and it can set the size of the reward correctly without relying on observed willingness to pay. But consider a case where the relevant knowledge good is a luxury product consumed primarily by the wealthy. . . . Even though the knowledge good may be socially beneficial, the benefit accrues to a segment of society that is not ordinarily thought to be the proper beneficiary of government redistribution. Since the government has only finite resources, the allocative-efficiency benefits of open access must be weighed against the distributional consequences of using public funds to pay for advances that benefit only the rich. Under these circumstances, policy makers might decide that they still want to rely on a user-pays model to some degree, though perhaps not entirely.

²²¹ See Hemel & Ouellette, *supra* note 5, at 349–51.

²²² Hemel & Ouellette, *supra* note 3, at 564.

²²³ *Id.* at 567.

To be sure, an alternative approach might be to combine a non-IP innovation incentive and an open-access allocation mechanism with adjustments to the tax-and-transfer system that offset the distributional consequences of the subsidy for luxury goods. Yet if there are insuperable political obstacles to tax-and-transfer reform, then policy makers might decide that the best available option is one in which users pay some, if not all, of the cost of the innovator's reward.²²⁴

Hemel and Ouellette's work breaks significant ground and provides welcome relief from traditional or doctrinal approaches to innovation policy; the modular approach is highly congenial to a maximizing scheme requiring synchronicity among background and foreground rules. Their modules may be implemented in constructing a complete scheme of legal rules, set to maximize welfare, wealth, or the position of the least well-off. But still, there is a concern over optimal taxation. The two recognize, as a pragmatic matter, that one may not be able to move seamlessly between taxes and legal rules, due to political or legislative impediments to creating optimal combinations.²²⁵ But there is a concern that runs deeper; the important issue surrounding optimal legal rules and optimal taxation rates arises here, yet again.

Once one acknowledges that the initial scheme is "optimal," as Hemel and Ouellette have, from a welfare-maximization perspective, but wrought with distributive flaws, one cannot simply alter the rules governing taxation or the entitlement-governing aspects of the private law while remaining true to the initial optimal relationship or equilibrium, here derived from the welfare-maximizing principle. Consistent, I believe, with much of Hemel and Ouellette's position, synchronicity is required among background and innovation policy rules, be they rules governing insolvency, private law, taxation, etc.

But once optimality is in place, any significant changes to the relationship among legal rules governing taxation, entitlement, incentives and allocation, will distort the optimal taxation rate, which will, in turn, alter prices and shrink the economic pie from the perspective of the initial baseline. Where optimality is a goal and an initial equilibrium is attained, one cannot simply add "new" *intra*-schemic alterations—in an egalitarian or more distributively just direction—and assume that the initial equilib-

²²⁴ *Id.* at 587–88 (footnotes omitted).

²²⁵ *Id.* at 588.

rium will hold. One cannot trust, for example, that the initial rate of production of needed pharmaceuticals for the poor will not decrease. The parameters of the initial *optimal* open-access regime were set in conjunction with a specified *optimal* taxation rate. Increasing the price of luxury goods, in effect, will alter the optimal balance. Remedying the perceived distributional flaw associated with the production of luxury goods, as Hemel and Ouellette suggest, in a wealth-maximizing system, may only serve to create other further distributive flaws elsewhere in the system. For example, were the added luxury-consumption tax to shrink the market in luxury goods, this could create further scarcity in revenue for the government's funding of prizes necessary to incentivize innovation in medications that disproportionately aid the poor. True, this scarcity could be met by increasing the income tax rate, but only at the cost of creating a further distortion associated with the departure from the initially optimal taxation rate; now, further *mismatched* with a non-optimal set of entitlement-governing legal rules, the distortion could become acute.

Where an optimal equilibrium is established, some tinkering may likely be required to bring the system into reflective equilibrium with considered judgements over the complete system; rules can be under- and over-inclusive, and there is not always a perfect fit.²²⁶ But, by invoking an independent (traditional) module of tax policy like the “user pays” principle, a species of the benefit principle,²²⁷ to govern an entire sector of the market, is to go beyond mere adjustments required for reflective equilibrium. One way to see the problem is this: the very notion of “benefit” requires an entitlement baseline or benchmark; for example, an answer to the question of which health conditions count as “diseases” or the magnitude of public provision of a social safety net. The initial benchmark is required to determine whether or not a particular advance is, indeed, a *benefit*, or simply part of the initial baseline distribution. Were the initial optimal open-access regime constructed broadly enough to provide for innovation associated with curing male-pattern baldness, to use Hemel and Ouellette's example,²²⁸ the would-be market in such innovation would be endogenous to the initial

²²⁶ See RAWLS, *supra* note 64, at 15, 18, 26–29 (discussing reflective equilibrium).

²²⁷ See MURPHY & NAGEL, *supra* note 15, at 16 (discussing the benefit principle and conflict with distributive principles).

²²⁸ Hemel & Ouellette, *supra* note 5, at 349–51.

equilibrium; removing it from the balance would upset the scheme. One way to understand the issue is this: the tax base itself is endogenous; one cannot simply layer a new taxation metric and hold true to the initial equilibrium. Maintaining an initial optimal equilibrium requires attention to synchronicity among both the rules governing innovation policy and (deceptively described) background rules in which innovation policy finds its home, and, in turn, requires a specific optimal taxation rate. Where one is committed to optimality among background rules and innovation policy as well as distributive justice, as Hemel and Ouellette are, what is needed is an external *maximizing* principle specifically selected to construct a set of legal rules, inclusive of the decoupled innovation policy, that does not admit of the disfavored distributive flaws—whether the Rawlsian difference principle, or otherwise. These insights, of course, go to institutional design in creating optimal innovation policy, not to Hemel and Ouellette's larger decoupling argument. As such, they are offered as a friendly amendment—consistent with Hemel and Ouellette's commitment to a systems based approach—that is itself skeptical of the distinction between innovation policy and background rules. That is, an account of innovation policy which, in my estimation, is at home with—and readily adaptable to—a Rawlsian distributive account of innovation policy, committed to maximizing the position of the least well-off.

Consider again the insights surrounding optimal taxation rates and maximizing principles. The preceding discussion identifies a seemingly neglected dimension to the innovation policy puzzle, the acknowledgement of which serves an important corrective to a sophisticated and mature scholarly literature at the intersection of taxation, intellectual property, and distributive principles. To be clear, what the preceding shows is that, from a maximizing perspective, the correct evaluation of innovation policy is not merely a comparison between the respective costs and benefits of taxation and prizes versus monopolistic legal rules, or recombinant arrangements of their constitutive components. Crucially, in the context of a maximizing principle, one must attend to the equilibrium among *optimal* taxation rates and *optimal* entitlement governing legal rules, that is, the complete scheme of legal rules to which the innovation policy regime will ultimately be endogenous.

CONCLUSION

Notably, maximizing principles, drawn from outside legal doctrine, are germane to the construction of legal rules. Such external principles can help alleviate doctrinal conflict through the construction of legal rules suffused with such principles. Drawing upon the examples above, this Article has shown that for maximizing theories, *all* entitlement-governing legal rules, whether traditionally conceived of as background rules or as traditional components of intellectual property doctrine, bear a conceptual or normative symmetry to one another. This Article has illuminated this symmetry through examples involving a notable doctrinal crisis. This Article yields a bold claim concerning the ownership and control of property ownership and entitlements: in the context of maximizing principles, canonical bodies of intellectual property law, such as patent and copyright, cannot be coherently evaluated independently of what are only erroneously conceived of as background rules to intellectual property, such as the rules of taxation and bankruptcy. Further, this Article diagnoses and remedies an important omission in the scholarly literature surrounding intellectual property concerning optimal legal rules and optimal tax rates. This Article concludes that optimal innovation policy turns on (1) empirical questions, as discussed above in the context of copyright, concerning, for example, the current state of technology; (2) the structure of the *complete set* of optimal legal rules defining ownership inclusive of optimal taxation rates; and (3) the governing *external maximizing* principle being applied. The *very* conception of *optimality* is goal- or maximand-dependent; importantly, the structure of innovation policy—for example, the measure of monopolistic protection, if any, that is optimal to wealth maximization—is not identical to the measure that is optimal to maximizing the position of the least well-off. These conclusions are offered as a helpful corrective to the mature and sophisticated literature surrounding intellectual property and innovation policy.