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Intellectual Property Doctrine and Midlevel Principles

David H. Blankfein-Tabachnick*

Recent scholarship on intellectual property (“IP”) law argues that doctrinal and theoretical sophistication in IP requires an understanding of “midlevel” principles, purportedly constitutive of IP’s positive law. Proponents of this line of scholarship claim these principles serve as a bridge, connecting IP doctrine and practice with deeper foundational philosophical principles. They assert that such midlevel principles—the principles of proportionality, non-removal, dignity, and efficiency, for instance—explain, predict, and justify IP cases. According to this scholarship, IP doctrine, case outcomes, and statutes are suffused with midlevel principles. In turn, the scholarship treats midlevel principles as consistent with broadly conflicting foundational accounts of property entitlement, from Lockean liberalism on the economic right, to Rawlsian egalitarianism on the left. The result is an account of IP law that unifies practice and the positive law with facially conflicting accounts of foundational property theories. This Essay argues that such claims to IP unification—however revolutionary—are untenable. Drawing from prominent IP cases, including cases addressing the patentability of DNA, this Essay demonstrates that midlevel principles are not rigorously embodied in the positive law of

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IP and therefore cannot serve to explain or predict case outcomes. Further, these midlevel principles conflict with important liberal “foundational” accounts of property, thereby calling into question the justificatory force such principles might hold. Moreover, contrary to Professor Robert P. Merges’s view, different foundational principles, whether maximizing wealth, net aggregate value, or the position of the least well-off, will yield different substantive outcomes in IP cases. Accordingly, this Essay shows that any project conjoining this set of midlevel principles with maximizing distributive principles cannot be sustained. A sophisticated understanding of IP, its theory, and crucially its legal doctrine and practice, does not, and should not, include midlevel principles understood to be consistent with such variously competing foundations. Instead, this Essay acknowledges that courts deciding IP cases often invoke forward-looking foundational principles, whether aimed at utility or distributive justice.

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INTRODUCTION

A rethinking in intellectual property is underway. Technological and biomedical advances,¹ together with globalization and economic development, have drawn a spotlight on intellectual property law and its theory.² As the topic has entered the foreground, it has not only captured the attention and imagination of politicians and legal scholars, but has also been playing a role in federal court cases, most recently cases before the Supreme Court of the United States concerning DNA and the “law of nature” exception to patentable subject matter.³ Alternative IP regimes, much like competing accounts of tort, bankruptcy, or systems of taxation and transfer, can alter wealth distribution, income disparity, and economic growth, by variously altering the incentives to creation.

As a matter of institutional design, questions about wealth distribution, income disparity, and economic growth have traditionally been associated with public law such as tax policy.⁴ Yet, legal scholars have also come to appreciate the role that private law, such as IP, might play in achieving economic or social goals. Rights to control the building blocks of invention and the fruits of creation are crucial to welfare distribution; whether wealth maximization *or* the broader concerns of social justice, say, maximizing the position of the least well-off. As a result, the connection between public values and legal institutions constructing private rights is receiving sustained, rigorous attention.⁵

Legal scholars acknowledge a close relationship between public law, taken to address distributive or economic values, and private law, taken to address private interests. Some scholars even question where in law such a distinction might lie, given the difficulty isolating the extent to which particular bodies of law represent public versus private rights. Leon Green, for example, described private law as merely “public law in disguise.”⁶ Further, the

1. See, e.g., *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303 (Fed. Cir. 2012).

2. See generally AIDAN HOLLIS & THOMAS POGGE, *INCENTIVES FOR GLOBAL PUB. HEALTH, THE HEALTH IMPACT FUND: MAKING NEW MEDICINES ACCESSIBLE FOR ALL* (2008); *INCENTIVES FOR GLOBAL PUBLIC HEALTH: PATENT LAW AND ACCESS TO ESSENTIAL MEDICINES* 233 (Thomas Pogge et al. eds., 2010) [hereinafter *INCENTIVES FOR GLOBAL PUBLIC HEALTH*]; ROBERT P. MERGES, *JUSTIFYING INTELLECTUAL PROPERTY* (2011); MADHAVI SUNDER, *FROM GOODS TO A GOOD LIFE: INTELLECTUAL PROPERTY AND GLOBAL JUSTICE* (2012); Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 *YALE L.J.* 1742 (2007).

3. See, e.g., *Mayo*, 132 S. Ct. at 1289; *Ass’n for Molecular Pathology*, 689 F.3d at 1303.

4. See, e.g., LIAM MURPHY & THOMAS NAGEL, *THE MYTH OF OWNERSHIP: TAXES AND JUSTICE* (2002); Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient Than the Income Tax in Redistributing Income*, 23 *J. LEGAL STUD.* 667 (1994); 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 (2000).

5. See, e.g., *INCENTIVES FOR GLOBAL PUBLIC HEALTH*, *supra* note 2; MERGES, *supra* note 2; SUNDER, *supra* note 2.

6. Leon Green, *Tort Law Public Law in Disguise*, 38 *TEX. L. REV.* 1, 1 (1959).

purported lack of any clear distinction between public law and private law has at times even led scholars to call into question the very idea of private property itself.⁷ In keeping with Green's proclamation, some scholars have understood private law in instrumentalist fashion, that is, in service of public, distributive, or economic values.⁸

The legal academy has long recognized these observations; yet, the role that private law—specifically IP law—might play in fulfilling economic and social goals is enjoying new attention.⁹ This interest in IP law has produced a need for new understanding in the field—that is, an analysis of IP law's doctrinal contours, theory, and precise relationship to broader background values, along with a treatment of IP that contrasts it with the spirit of Green's proclamation. In other words, there is a need to articulate IP law's private law dimensions and properly situate them in the sea of public values.

More than any other legal scholar, Robert Merges¹⁰ has succeeded in so situating IP law. Through a series of groundbreaking articles,¹¹ culminating in *Justifying Intellectual Property*,¹² he has provided a comprehensive analysis of IP law from its foundations and midlevel principles to its doctrine and practice.¹³ His work not only aims to describe, explain and justify IP law, but also attempts to use midlevel principles to unify the field's foundational theory with its doctrine and practice.¹⁴

Clarification here may be helpful. Midlevel principles are the principles upon which actual institutions operate. Decisions made within institutions are made on the basis of midlevel principles without any direct reference to deeper

7. See *Goldberg v. Kelly*, 397 U.S. 254 (1970) (extending procedural rights to welfare revocation); Charles A. Reich, *The New Property*, 73 YALE L.J. 733 (1964) (arguing that so-called public institutional rights are actually among one's private assets).

8. See GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970) (arguing that torts are instrumental in achieving distributive ends); RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (7th ed. 2007) (exploring various areas of law through the concept of wealth maximization); Henry Hansmann & Reinier Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879 (1991) (arguing that corporate and bankruptcy law constructed so as to maximize wealth would require giving preference to tort creditors over contract creditors in bankruptcy so as to avoid the externalization of accident costs); Anthony T. Kronman, *Contract Law and Distributive Justice*, 89 YALE L.J. 472, 483–88 (1980) (considering, for example, Paretianism and Utilitarianism as exogenous distributive goals to instrumentally guide contract doctrine).

9. See SUNDER, *supra* note 2.

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11. Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CALIF. L. REV. 1293 (1996); Robert Merges, *Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents*, 62 TENN. L. REV. 75 (1994); Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655 (1994).

12. MERGES, *supra* note 2.

13. See generally MERGES, *supra* note 2.

14. *Id.* at 140–43. For a detailed description of Merges's tripartite account of IP law, see David H. Blankfein-Tabachnick, *Does Intellectual Property Have Foundations? A Review of Robert Merges's Justifying Intellectual Property*, 45 CONN. L. REV. 995 (2013) (book review).

or more foundational principles of comprehensive or general application, such as Rawls's two principles of justice¹⁵ derived from the "original position,"¹⁶ Kant's categorical imperative, or the utility principle.

Based on such midlevel principles, Merges has argued for an independent rights-based account of IP law broken into three parts: doctrine and practice, midlevel principles, and theoretical foundations.¹⁷ Central to his view are midlevel principles purportedly eminent in IP's positive law, such as proportionality,¹⁸ non-removal,¹⁹ dignity,²⁰ and efficiency.²¹ These midlevel principles exist in contrast to foundational principles of Locke, Kant, and Rawls. He argues that these midlevel principles, limited in their scope, serve as a bridge connecting IP doctrine and practice with broader, more foundational, property principles or theories. They, not the foundational principles, are taken to justify IP cases. For Merges, IP doctrine, case outcomes, and statutes are suffused with the values of midlevel principles; and midlevel principles, in

15. JOHN RAWLS, A THEORY OF JUSTICE 302 (1971) [hereinafter THEORY OF JUSTICE] ("First Principle: Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all. Second Principle: Social and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and (b) attached to offices and positions open to all under conditions of fair equality of opportunity.").

16. *Id.* at 17–22. The Original Position ("OP") is Rawls's idealized social choice scenario in which representatives select political and economic principles so as to maximize their self-interest under less than perfect knowledge conditions from behind a veil of ignorance.

17. MERGES, *supra* note 2, at ix ("I wanted to defend IP rights against a host of charges . . . that the field is . . . incoherent . . . that IP, whatever it is, is not really property . . . [and] suggest some ways that this area of law could be trimmed and tailored to better serve its main purpose, which for me has always been protecting creative works . . . and rewarding creative people.").

18. *Id.* at 8 (describing the proportionality principle as embodying a conflict between utility and fairness, while acknowledging the Lockean pre-institutional aspects of the principle that I will later show draw it into conflict with Rawlsianism) ("IP law . . . tailor[s] a creator's . . . right . . . [to] reflect[] his contribution. This is the proportionality principle. There is a . . . Lockean flavor to [it] . . . (though it makes sense on utilitarian grounds as well) . . . [I]t is about basic fairness: the scope of a[n] [IP] right ought to be commensurate with the magnitude of the [creator's] contribution . . ."). Again, invoking such a vague conception of proportionality, or fairness, that it might even be viewed as consistent with utilitarianism, a theory typically rejected specifically due to its purported conflict with fairness or justice.

19. *Id.* at 145 (describing the functional outcome of his vague principle of nonremoval, but purposefully avoiding a definitive account) ("[The public] domain . . . is the end product of the nonremoval principle. . . . [I]t is the product of many disparate doctrines . . . not itself . . . a unitary concept, we . . . see a . . . diversity in conceptions of it.").

20. *Id.* at 156 (committed again to avoiding a precise definition, but instead describing the nature of the value at stake) ("The dignity principle . . . [holds that] . . . the creator of a work should be respected and recognized in ways that extend beyond the traditional package of rights associated with property [T]he interests it protects . . . continue after a creator sells the rights to a given creative work.").

21. *Id.* at 153 (straightforwardly conflicting with the other midlevel values Merges describes, for example, the conception of fairness embodied in his midlevel principle of proportionality; this appears a good deal stronger than Merges may have intended) ("Efficiency guarantees that whatever entitlements the legal system starts with, they will be allocated to their highest-valued use as cheaply and quickly as possible.").

turn, are consistent with a wide range of seemingly conflicting foundational accounts of property entitlement, ranging from Locke to Kant to Rawls.²²

This Essay addresses Merges's argument and situates his view of IP law in the contemporary debate over the independence of private law from economic, social, or distributive goals. Merges's account of IP law embraces a midlevel strategy, aiming to demonstrate the independence of IP law from background values, and to unify IP with general foundational political principles.²³ Merges finds doctrinal support for his midlevel principles in the prominent *eBay* case,²⁴ but this Essay finds inconclusive evidence of such principles in *eBay*. Further, this Essay argues that such midlevel principles also did not play a decisive doctrinal role in Federal Circuit cases such as *Ethicon*²⁵ and *Myriad*,²⁶ nor in the recent United States Supreme Court case, *Mayo*.²⁷ The piece concludes that the *substance* of the midlevel principles Merges's espouses, in addition to his methodology, is incompatible with the foundational theories he advances, specifically Rawlsianism.²⁸

My argument is broken into several parts. First, Part I describes and analyzes Merges's account of IP law. Part II discusses prominent accounts of the independence of midlevel legal principles from foundational values, including Ronald Dworkin's analysis of midlevel values, legal rule making, and the corrective justice conception of tort. This Part situates Merges's account of IP law in this literature. Further, this Part looks at IP cases and finds that Merges's midlevel principles are not reflected in the positive law of IP. Part III suggests that foundational property theories, especially Rawlsianism, are not compatible with Merges's midlevel principles, and addresses Merges's pluralistic midlevel-principle strategy for resolving foundational property disputes. This Part holds that IP law disagreements run deeper than midlevel principles. Part IV addresses what remains if we reject Merges's account. It discusses the crucial role foundational principles play in setting property baselines and asset portioning. Part V illustrates the demand for foundational

22. *Id.* at 13, 139.

23. *Id.* at 140 (adopting the midlevel private law strategy typically associated with the corrective justice conception of tort). *See, e.g.*, JULES L. COLEMAN, *THE PRACTICE OF PRINCIPLE: IN DEFENCE OF A PRAGMATIST APPROACH TO LEGAL THEORY* 54 (2001) (stating that the principle of corrective justice "occupies a mid-level between the practices of tort law and an upper-level principle of fairness in allocating the costs of life's misfortunes"); Arthur Ripstein, *The Division of Responsibility and the Law of Tort*, 72 *FORDHAM L. REV.* 1811, 1814–15 (2004) (stating that private law—tort, contract, property and unjust enrichment—must have a certain kind of independence, but can be limited by the concerns of public justice).

24. *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

25. *See, e.g.*, *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456 (Fed. Cir. 1998).

26. *Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303 (Fed. Cir. 2012).

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

28. Prior to the *Mayo* decision, I noted my skepticism with regard to Merges's claim that his midlevel principles constitute the positive law of IP and questioned Merges's general claim to unification in IP law. *See Blankfein-Tabachnick, supra* note 14.

principles in the context of pharmaceutical patents and discusses the recent *Mayo* and *Myriad* decisions. It concludes that differing foundational theories will yield differing substantive conclusions in such cases and therefore, a claim of unification in IP law—ambitious and elegant as it may be—is unsustainable.

I.

MERGES'S VIEW OF INTELLECTUAL PROPERTY

For Merges, IP law requires an understanding of what he describes as “midlevel principles,” purportedly, eminent in IP’s positive law. These principles, which include proportionality, non-removal, dignity and efficiency, act as a bridge, connecting IP doctrine and practice with deeper foundational principles, such as the grand political theories of Kant, Locke and Rawls. Such midlevel principles are taken to explain, predict, and justify IP cases. In Merges’s view, IP doctrine, case outcomes, and statutes are suffused with such midlevel principles, which he believes are consistent with foundational accounts of property entitlement. The result is an account of IP law that ostensibly justifies and explains IP practice and the positive law of IP, and unifies them with facially conflicting foundational accounts of property, while preserving IP’s independent status as a species of private law. The aim, then, is to show not only that IP law is an independent and systematic body of law, but also that it is also consistent with a wide range of background values represented by foundational property theories.²⁹

In making his case, Merges draws an analogy between IP law and the corrective justice conception of tort law (discussed in Part II). He understands IP as being governed, like tort and the theory of corrective justice, by a group of values that bears a level of independence from background or foundational principles. In this view, IP’s practices and doctrine internalize a unique set of governing norms: its midlevel principles. These midlevel norms cannot be derived directly from foundational principles, and are not instrumental to the institutional instantiation of any particular foundational theory.

Instead, understanding this unique set of regulatory norms is a matter of “identifying midlevel principles”³⁰ and this, for Merges, “is an inductive exercise”³¹ that begins with legal doctrine, not foundational theory. Innovatively, Merges appears to derive justification and legal theory in reverse. He starts with actual doctrine and practice and, by his own description, abstracts “up-ward” toward the law’s “foundations.”³² In his own words, “one looks for the common conceptual threads in a field and treats them as instances or manifestations of a more complete principle. The idea is to start with

29. MERGES, *supra* note 2, at 1–27.

30. *Id.* at 140.

31. *Id.*

32. *Id.*

ground-level practices and abstract ‘upward,’ toward a unifying principle that explains and rationalizes the practices.”³³

For Merges, then, IP doctrine is governed or controlled by a set of small-bore normative, midlevel principles that can be located by moving up a level, abstracting from doctrine and practice. In this view, midlevel principles, abstract as they are, are implicit in IP. If one starts by examining IP case law, one is faced with what might appear to be disconnected and differing rules and holdings. This is understandable: IP doctrine and its various rules have developed over time, in differing jurisdictions and in response to the needs and factual contingencies of differing eras. Yet, for Merges, there is still the possibility of systematizing these divergent rules and doctrines. Merges laudably aims to provide structure to what might otherwise appear incoherent, incomplete, or indeterminate.

Legal doctrine in IP lacks obvious uniformity. Yet, for Merges, there are unifying norms, and these norms, implicit as they are, may be identified through inductive reasoning, and serve a needed justificatory role for IP doctrine.³⁴ For Merges, these unifying norms *are* the midlevel principles of IP law. One “induce[s] the principle[s] from the details of the specific rules and practices.”³⁵ Since Merges derives midlevel principles from doctrine and practice, and not from any one specified foundational theory, there is the possibility these midlevel principles overlap with a range of foundational approaches to property.

Merges is clear: midlevel principles do not “depend” upon, nor are they derived from, “any particular” foundation.³⁶ Given his methodology, overlap between midlevel principles and foundations is possible, but this will turn on the substance of the midlevel principles and lack of determinacy found in the application of the foundational principles he espouses.

But apart from the question of consistency between midlevel principles and foundations, there remains the question of justification. While such principles might predict or explain case outcomes or systematize IP law, it is unclear why one might conceive of such principles as *justificatory* simply because they are implicit in IP doctrine. Even if Merges were correct that such midlevel principles do serve as the regulatory norms of IP doctrine, it would not follow that these free-floating norms are *justificatory*. Demonstrating that these midlevel principles are implicit in IP law and that they serve to predict,

33. *Id.*

34. *Id.* at 140–43 (articulating a justificatory role, “this is their role exactly: [midlevel values] enable normative debate—debate above the detailed doctrinal level,” but also claiming that the midlevel principles “tie[] together and *explains* each of these rules in terms of a broader conception”) (emphasis added).

35. *Id.* at 143.

36. *Id.* at 140.

explain, or govern IP doctrine is a distinct task from providing a justificatory account of IP.

The concern is this: Merges denies that foundational principles exert regulatory force or control upon IP's midlevel principles. While this approach preserves the possibility of consistency or overlap between midlevel principles and a range of differing (justificatory) foundational property theories, it does so at significant cost to the possibility of justifying IP. 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.

Yet, Merges's thinking is sophisticated. He alludes to a connection between midlevel principles and foundational values: “[m]idlevel principles engage foundational values in a number of ways, but they do *not* depend on any particular set of values for their validity.”³⁷ The nature of this “engagement,” however, remains unclear. Given Merges's claim that midlevel principles are independent from foundations, one wonders if this “engagement” is nothing more than a contingent overlap or empirical regularity between foundations and midlevel principles. But such overlap may be insufficient to justify IP law. In a more satisfying approach, the “engagement” of foundational values and midlevel principles would involve guidance rather than chance overlap, although such a view would be incompatible with Merges's claim to midlevel independence.

II.

MIDDLELEVEL PRINCIPLES AND PRIVATE LAW

A. Midlevel Strategies and Private Law Independence

Merges, of course, is not the first to discuss this sort of midlevel approach to common law judicial decision making. This Part discusses prominent accounts of the independence of midlevel principles from foundational values—first, Ronald Dworkin's view of the justification for legal decisions and then the corrective justice conception of tort law—and situates Merges's account of IP law in this literature. It concludes that Merges's arguments for unification are not supported by these two midlevel accounts. Unlike Merges, neither Dworkin nor the corrective justice account of tort law make any claim to the consistency between foundational maximizing values and midlevel principles. Setting aside the question of the ultimate viability of midlevel normative strategies in judicial decision making, this Part shows that the possibility of unification between midlevel principles and the plurality of foundational values that Merges espouses is problematic.

37. *Id.* (emphasis added).

1. Ronald Dworkin and Justification of Legal Decisions

Ronald Dworkin defends something akin to Merges's approach,³⁸ distinguishing between background morality and the justification of legal decisions. Dworkin distinguishes between "background rights, which . . . provide a justification for political decisions by society . . . and institutional rights, that provide a justification for a decision by some . . . specified political institution."³⁹ Merges's ideas seem akin to Dworkin's. However, Dworkin's view avoids—or side steps—the crucial normative problem of "engagement" between foundational and midlevel principles. Unlike Merges, Dworkin presents two distinct forms of justification questions: (1) the sort of justification involved in a judge reaching a legal decision and (2) justification involved in a legislative act or a wholesale reform or creation of a body of law.⁴⁰ For Dworkin, the two modes of justification, contra Merges's view, need not be, and are often not, compatible with one another.⁴¹

Although Merges purports to provide a justificatory account of IP law, he does not elaborate upon which of those two justification problems he is addressing, but maintains nevertheless that midlevel principles and foundations are compatible. Of the two, Merges's inductive-midlevel procedure likely best fits Dworkin's legal argument, but this mode of legal analysis appears very odd indeed from the legislative or foundational perspective.

For Dworkin, a judge's argument, but not the legislature's, is insulated from, or independent of, what he calls "background" morality.⁴² Perhaps this is, to some extent, what Merges has in mind by the "independence" of midlevel principles. In Dworkin's view, however, judges are not in the position of lawmakers, who have the freedom to ask straightforwardly what the law should be and appeal to, in Merges's language, "foundational principles." It is the legislature that may determine what the best law might be in light of foundational principles, subject to constitutional limitations.

On the other hand, judges, for Dworkin, do not have such liberty. Their role is not to decide what the best law would be from the perspective of background morality, but instead to apply the legal standards given by the legal system. For Dworkin, but seemingly not Merges, the legal system may be, and

38. See RONALD DWORIN, TAKING RIGHTS SERIOUSLY 93–94, 101, 103, 105 (1977).

39. *Id.* at 93.

40. *Id.* at 93–94, 101, 103, 105.

41. *Id.* at 93 (discussing the prominent conflict in property matters between the "institutional" values involved in judicial decision making and competing "background" conceptions of morality and property entitlement) ("I could preserve my initial background claim by arguing that the people as a whole would be justified in amending the Constitution to abolish [or alter] property, or perhaps in rebelling and over-throwing the present form of government . . . [E]ven though I concede that [one] does not have the right to specific [judicial] institutional decisions as these institutions are now constituted.").

42. *Id.* at 101 ("[T]he concrete rights upon which judges rely must have two characteristics. They must be institutional rather than background rights, and they must be legal rather than some other form of institutional rights.").

probably is, less than ideal, or inconsistent with the correct account of background morality. Where the judge cannot simply apply a clear precedent or statute, the judge is to look for principles that are inherent in the legal system, midlevel principles, which would settle the case.⁴³

The method Dworkin describes may very well be similar to the inductive method Merges advocates, but for Dworkin, although crucially not Merges, there is no demand that the principles discovered through the inductive method are consistent with the fundamental or background principles that anyone, even the judge, would accept.⁴⁴ For Dworkin, the judge is not empowered to make a direct or naked appeal to foundational principles. The judge's role, instead, is to apply the inherent principles of the *legal system* to the case at hand. It is in this sense that, for Dworkin, legal decisions are independent from background morality.

Dworkin avoids Merges's would-be unification train, by disavowing a requirement of consistency between background morality and midlevel or common law principles.⁴⁵ One may, of course, raise normative objections to Dworkin's account given the possibility of this conflict. But, if one accepts a picture of judicial or midlevel independence like Dworkin's, as Merges appears to, it quickly becomes urgent to know exactly how these two frameworks can be consistent with one another and, further, how foundational values might regulate, constrain, or control midlevel principles, which is a requirement of Merges's normative and conceptual unification.

2. Corrective Justice Conception of Tort Law

There are other viable accounts of midlevel principles. In fact, Merges explicitly embraces the account of midlevel principles and their relationship to "lower" and "upper" values typically associated with a corrective justice conception of tort law.⁴⁶ The idea here is that corrective justice is understood as a moral principle—or group of moral principles—taken to be independent of distributive justice. Distributive justice purportedly concerns itself with social justice, while corrective justice addresses the causation of private harm and the private duty of repair. The principle of corrective justice is thought to generate a moral duty of repair: that is, a backward-looking duty to pay compensation, in economic terms, for harm that one has caused another though wrongful or

43. *Id.*

44. *Id.* at 93. Dworkin is skeptical of the compatibility of competing foundational accounts of justice in property entitlements and correspondingly notes that divergent foundational accounts of property may conflict with institutional rules.

45. *Id.*

46. MERGES, *supra* note 2, at 139–42 (articulating the account of midlevel principles he endorses); see also *id.* at 139 ("Midlevel principles . . . tie together a number of discrete and detailed doctrines, rules, and practices In tort law, for example, legal doctrines such as negligence and strict liability, together with . . . accident insurance, constitute the gritty detail of the field. What ties these disparate details together . . . is the [midlevel] principle of 'corrective justice' . . .").

defective action.⁴⁷ Typically, only harm caused either by morally faulty or unreasonably risky action is thought to be necessary (though not sufficient) for the imposition of liability. Proponents of corrective justice often also hold that such liability for harm caused by one's faulty or unreasonably risky action must be, in some measure, fair or reasonably proportional to the harm caused.⁴⁸

While Merges enthusiastically accepts aspects of this methodological multi-level discussion of tort and corrective justice, it is unclear that this midlevel account⁴⁹ will so smoothly slide into place in Merges's own account of IP law, given his overarching goal of unifying actual IP doctrine, midlevel principles, and foundations.

Contra Merges, this corrective justice account of tort law makes no demand for the unification of tort doctrine, a multiplicity of midlevel principles, and detailed or well-defined maximizing foundational theory. Instead, there is a more manageable demand that the midlevel principle of corrective justice reflect legal doctrine and that this midlevel principle inform and be, itself, informed by more abstract—and vague—ideas of fairness. Absent a demand that the midlevel principle of corrective justice be compatible with the foundational maximizing principles of distributive justice, consistency can be maintained. The present corrective justice model makes only a significantly weaker demand that the middle value of corrective justice be consistent with more abstract notions of fairness. The idea is that, in the first instance, there are practices and doctrines that are taken to embody the idea of corrective justice. These practices and doctrines provide concrete content to the more abstract aspects or requirements of the midlevel principle of corrective justice. The principle of corrective justice, in turn, gives content to our basic or foundational ideas of allocational “fairness.”⁵⁰

47. 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, i]t is not an absolute demand of justice and morality.”).

48. See Stephen R. Perry, *Tort Law*, in, A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 57, 74 (Dennis Patterson ed., 1996) (“[C]orrective justice requires *A* to compensate *B* for loss caused by *A*'s conduct (. . . by *A*'s *faulty* conduct).”).

49. See COLEMAN, *supra* note 23, at 54–55 (“[K]ey terms and concepts are made more concrete—their semantic content is more fully specified—by the social practices that articulate or embody them [T]he practices we have do not merely reveal the content of the principles to which we are committed; each practice partially constitutes that content Starting at so to speak, the ground level, we have practices of corrective justice—a system of practical inferences that purports to determine when the imposition of a liability is justified. The structure of these inferences in tort law gives determinate content to its key concepts, and thereby makes explicit the requirements of the principle of corrective justice; while at the same time the principle of corrective justice organizes the concepts of tort law, explains the nature and structure of the inferences those concepts license, and in doing so, guides the practice of tort law. The principle of corrective justice, in turn, occupies a mid-level between the practices of tort law and an upper-level principle of fairness in allocating the cost of life's misfortunes. Here again the higher principle is said to be given determinate content by the practices subordinate to it, while at the same time guiding and constraining them.”).

50. COLEMAN, *supra* note 23, at 54–55.

This midlevel account remains consistent, but only at the cost of significantly constraining one's choice of foundational principles. These principles themselves are to be partially derived from the conception of "fairness" purportedly embodied in the backward-looking corrective justice account of tort. The demand for a holistic account prominently conflicts with the forward-looking and maximizing Rawlsian account of distributive justice. However fruitful this "holistic"⁵¹ multi-tiered corrective justice strategy may be, I am not confident that it will suit Merges's aim for unification.

The trouble is this: the corrective justice midlevel strategy is less expansive than Merges's midlevel strategy and more constrained by tort doctrine. That is, the corrective justice strategy need not, and should not, seek to unify midlevel principles with maximizing, forward-looking foundational values. The corrective justice view ought to make no obvious or direct claim of the compatibility of midlevel principles with exogenous, maximizing foundational principles.⁵²

Those holding well-defined foundational views should object to this corrective justice midlevel account. Consider the following: "to the libertarian (or to others)," the "obvious methodology for a normative theory of a body of law . . . reflect[s] the assumption . . . that only such an independently determined norm could provide genuine normative guidance or constrain the practices of . . . law from the standpoint of justice."⁵³ The corrective justice midlevel strategy "naturally . . . den[ies] that assumption,"⁵⁴ but in doing so it makes no obvious claim of compatibility with exogenous and well-defined forward-looking maximizing foundational theories of distributive justice,⁵⁵ as Merges does.

But Merges's aim is to show compatibility between *his* midlevel principles and at least two highly specified and *maximizing* upper level accounts, Rawlsianism and utilitarianism. So, given Merges's desire for unification, the present corrective justice midlevel view of tort law may not serve well. Aside from the question of unification, there is still the question of

51. *Id.* at 55.

52. See John Rawls, *The Basic Structure as Subject*, in JOHN RAWLS, *POLITICAL LIBERALISM* 266–67 (1993) [hereinafter *POLITICAL LIBERALISM*] ("[W]e cannot tell by looking only at the conduct of individuals and associations in the immediate (or local) circumstances whether, from a social point of view, agreements [or transactions] reached are just or fair. For this assessment depends importantly on the features of the basic structure, on whether it succeeds in maintaining background justice.").

53. COLEMAN, *supra* note 23, at 56.

54. *Id.*

55. *Id.* On the corrective justice midlevel account, contra the foundational principles Merges espouses, "no analytical priority is assigned . . . to abstract concepts" (i.e., "concepts[s] regarded in abstraction from . . . practices in which [they] figure[]; or a principle regarded in abstraction from . . . the practices it purports to govern") whether they be "a lower mid-level one . . . a higher mid-level one like . . . corrective justice, or an *upper-level* concept like *fairness* . . . or to the actual practices in which those concepts and practices figure." *Id.* & n.4 (emphasis added).

the existence of midlevel principles in the positive law of IP. I address this in the next section.

B. Cases and Statutes: The Positive Law of IP and Midlevel Principles

The next obvious question is the extent to which IP law embodies Merges's midlevel principles. This Section addresses that question by looking at two prominent IP cases, *eBay* and *Ethicon*, and finds that Merges's midlevel principles are not reflected in IP doctrine. The absence of midlevel principles in important IP cases raises significant skepticism with regard to a conception of IP law which isolates such principles at the core of IP doctrine.

For Merges, the principle of proportionality determines "when courts feel comfortable modifying the entitlement structure of already-issued IP rights to correct for undue leverage."⁵⁶ If Merges is correct, courts will break-up an anti-commons by failing to enforce ownership rights where existing, previously granted entitlements create what Merges describes as "excessive" or "disproportionate" leverage.⁵⁷ To be clear, the idea is this: where the relationship between the backward-looking value of desert (merit in ownership) is disproportionate to market leverage, the courts will fail to enforce an existing patent.

Merges's claim is complex. His idea is first that in deciding whether or not to enforce a preexisting patent, the court will decide on backward-looking deontic grounds, as opposed to, say, utility-based grounds. And additionally, that the conception of fairness or justice the court actually invokes is his relationship of proportionality between merit and market leverage.

It is crucial to Merges's view that midlevel principles regulate IP case outcomes. The above patent example, however, could conceivably be decided on various normative grounds. Thus, Merges must show that his articulated midlevel principles are the actual principles that control. Return to Merges's "inductive" account of the derivation of midlevel principles. Merges's approach involves first addressing legal doctrine (IP statutes and case law), and then, considering what these laws have in common. What he believes they have in common are his midlevel principles, which are supposedly capable of support under any foundational theory.

Even if one grants Merges's inductive methodology, it is crucial that Merges shows that the substance of his midlevel principles underlies positive law. For example, that the midlevel principle of proportionality—is *the* principle that animates IP law's case outcomes.

Before turning to the cases, it is important to review the role midlevel principles might play in the positive law. Were midlevel principles to exist and to count as rigorously embodied in the settled positive law, they would need to

56. MERGES, *supra* note 2, at 181.

57. *Id.* at 182.

be reasonably clear and definite. Further, they would need to be uniform enough to guide or control judicial decisions.

But consider the deontic notion of proportionality: in order to evaluate the proportionality of the relationship between market leverage and contribution, one must first establish the degree of desert an inventor possesses for his art. Desert, however, is a difficult concept to define, let alone use as the basis of ownership in a complex market system. Further, such appraisals may be difficult to separate from marginal product, which, in turn, is not suitably distinct from the values on the economic side of the proportion to make an evaluation of the “fairness” of the proportionality. One is now in a good position to reflect upon *eBay* and *Ethicon*.

*I. eBay Inc. v. MercExchange, L.L.C.*⁵⁸

Merges discusses his view in terms of what he conceives of as an instance of “disproportionate leverag[ing]”⁵⁹ in the widely discussed *eBay* IP case.⁶⁰ Here, Merges holds that his principle of proportionality (that is, the relationship between the backward-looking notion of desert and market leverage) may be understood as the normative ground behind the Court’s failure to uphold a previously granted patent. In crafting his argument, however, Merges focuses not on the unanimous majority opinion which did not discuss proportionality, but rather on Justice Kennedy’s concurrence, which garnered the support of only three other justices. As Merges’s views purport to be straightforwardly engaged with the positive law of IP, it is instructive to revisit *both* the unanimous majority opinion and Justice Kennedy’s concurrence in the *eBay* case.

Consider the values of the case in light of Merges’s view. MercExchange holds a patent for an “electronic market” that facilitates transactions, which it endeavored to license to eBay and Half.com, but the parties failed to reach an agreement.⁶¹ MercExchange then sued eBay for patent-infringement.⁶² The district court found that MercExchange’s patent was valid and was infringed by eBay, awarding merely monetary damages and expressly declining to award permanent injunctive relief.⁶³ That is, the court awarded liability rule protection, as opposed to property rule, protection.⁶⁴ MercExchange then

58. 547 U.S. 388 (2006).

59. MERGES, *supra* note 2, at 161 (disproportionate leveraging occurs when ownership rights are out of balance with the market leverage the right holder possesses).

60. See *eBay*, 547 U.S. at 388.

61. *Id.* at 390.

62. *Id.*

63. *Id.* at 390–91.

64. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1105–06 (1972) (explaining the difference between liability and property rules).

appealed to the United States Court of Appeals for the Federal Circuit.⁶⁵ The circuit court granted MercExchange a permanent injunction (property rule protection), reasoning that in the absence of exceptional circumstances, it had never failed to enjoin patent infringement.⁶⁶ eBay then appealed to the Supreme Court to determine whether a permanent injunction is required when a patent has been violated.⁶⁷ The unanimous majority vacated and remanded⁶⁸ the decision of the Federal Circuit, finding that both lower courts failed to apply a “four factor test”⁶⁹ required in determining the appropriateness of granting permanent injunctive relief under the U.S. Patent Act.⁷⁰

The Federal Circuit held that section 154 of the Patent Act did justify such a *per se* rule.⁷¹ The Supreme Court rejected this argument and refused “to replace traditional equitable considerations with a rule that an injunction automatically follows a determination . . . [of] infringe[ment].”⁷² While there is no statutory *per se* rule, courts have the right to grant injunctive relief only if the four-factor test is satisfied.⁷³

The district court concluded that a “‘plaintiff’s willingness to license its patents’ and ‘its lack of commercial activity in practicing the patents’ would be sufficient to establish that the patent holder would not suffer irreparable harm if an injunction did not issue.”⁷⁴ Interestingly, however, the majority took no position on whether a permanent injunction should be granted.⁷⁵ Instead, it

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

66. *Id.*

67. *Id.*

68. *Id.* at 394.

69. *Id.* at 391 (“According to well-established principles of equity, a plaintiff seeking a permanent injunction . . . must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.”). Interestingly, there still is a lack of convincing evidence in the four-prong test demonstrating that Merges’s specified principle of proportionality is operative.

70. 35 U.S.C. § 283 (2012). Section 283 of the Patent Act states, “The several courts having jurisdiction of cases under this title *may grant injunctions in accordance with the principles of equity* to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.” *Id.* (emphasis added).

71. *eBay*, 547 U.S. at 391; 35 U.S.C. § 154(a)(1) (2012) (“Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.”).

72. *eBay*, 547 U.S. at 392–93.

73. *Id.* at 392.

74. *Id.* at 393 (quoting *MercExchange, L.L.C. v. eBay, Inc.*, 275 F. Supp. 2d 695, 712 (E.D. Va. 2003)).

75. *Id.* at 394.

vacated the decision and remanded the case for application of the four-factor framework.⁷⁶

Return to *Merges*. As I say, he finds fertile ground in support of his midlevel principles not in the majority opinion, but in Justice Kennedy's concurrence. This concurrence, however, marshals the support of only three other justices. Kennedy argues that granting injunctions to patentees may need to be assessed in light of licensing fees and the public interest.⁷⁷ Justice Kennedy is aptly concerned about patent trolls and increasing market prices due to market leverage and the ability to hold out over negotiating parties.⁷⁸ At the same time, the unanimous opinion's reasoning for reversal is the Federal Circuit's misapplication of the "traditional four-factor framework that governs the award of injunctive relief."⁷⁹ To be clear, the opinion of the court expressly declines to consider whether a permanent injunction would be proper in this case.⁸⁰ But *Merges* does not read *eBay* in this manner. Instead, in his reading of *eBay*,

[t]he Supreme Court takes the position that it may in proper cases look behind the leverage created by a property right. This inquiry . . . reveals the heart of the proportionality principle The contribution of the property owner is weighed against the economic leverage the right provides in actual market transactions.⁸¹

Since desert and market leverage lack what *Merges* conceives of as "balance," one would predict that the Court would step in as proportionality might require.⁸² Here, again, what *Merges* must have in mind is that the Court intervenes for the backward-looking reasons of his midlevel principle of proportionality; that is, the particular relationship between owner desert and market leverage.

But, there is no clear evidence of *Merges*'s desert-based notion of proportionality in the opinion of the case, nor in Justice Kennedy's concurrence, which *Merges* cites enthusiastically. Further, mere overlap of the Court's majority opinion or the concurrence with the would-be outcome of the application of *Merges*'s principle of proportionality is insufficient to show that his principle is constitutive of the positive law. The concurrence simply holds

76. *Id.*

77. *Id.* at 396–97 (Kennedy, J., concurring).

78. *Id.* ("For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent. . . . When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.") (citations omitted).

79. *Id.* at 394.

80. *Id.*

81. *MERGES*, *supra* note 2, at 167.

82. *Id.*

that the Supreme Court of the United States should disallow the market leverage associated with a counterproductive holdout.

Kennedy does not reference the ideas embodied in Merges's highly stylized understanding of proportionality between the deontic notion of desert and market leverage. Instead, Justice Kennedy balances what he describes as "undue leverage" with a patented "small component."⁸³ The mere discussion of a trade-off or "balancing" is insufficient to demonstrate that Justice Kennedy is invoking Merges's principle of proportionality. Importantly, alternative principles would serve equally well as the basis of Justice Kennedy's concurrence. So, foundational principles, say, the utility principle or Rawls's forward-looking principles of justice,⁸⁴ would also demand breaking up inefficient holdouts, but at the level of theory, would rule out the desert-based conception of fairness embedded in Merges's principle of proportionality.⁸⁵

There is an absence of convincing evidence for Merges's midlevel position in the *eBay* case. Yet Merges's thinking is rich and the midlevel tradition from which it is drawn is important. Thus, it is crucial to test his claims against additional IP doctrine.

2. *Ethicon, Inc. v. United States Surgical Corp.*

I turn now to an IP inventor and ownership case which straightforwardly rejects Merges's midlevel strategy. Consider *Ethicon, Inc. v. United States Surgical Corp.*⁸⁶ with an eye toward Merges's midlevel principles—specifically his critically important principle of proportionality. Here, the Federal Circuit considered the question, among others, of whether a minor joint-contributor⁸⁷ to the inventive process is entitled to what would be, for Merges, disproportionate ownership and licensing rights to an entire patent, or whether the terms of a patent license agreement are limited to the components of an invention to which each individual inventor contributed, as Merges's proportionality principle would dictate.⁸⁸ Interestingly, the majority held, contra Merges's proportionality principle, that a contribution to one claim of the patent is sufficient to establish full ownership rights in the entire patent.⁸⁹

83. *eBay*, 547 U.S. at 396.

84. See Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?*, 85 TEX. L. REV. 783 (2007); see also Smith, *supra* note 2, at 1781 ("It is ultimately an empirical question at what point the uncertainty in the contours of intellectual property rights leads to serious enough holdout problems to justify a move away from injunctions (property rules) toward damages (liability rules).").

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

86. *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456 (Fed. Cir. 1998).

87. One who has made a comparatively small contribution to the inventive process.

88. See generally *Ethicon*, 135 F.3d at 1465–67 (finding that joint inventions may become joint property without express agreement to the contrary; therefore, Yoon must share ownership of all claims with Choi, the minor joint-contributor, including those claims that he invented by himself).

89. *Id.* at 1460.

In *Ethicon*, Yoon, a physician-inventor, worked with Choi, an electronic technician, and created a safety device for a medical and surgical instrument called a “trocar.”⁹⁰ After ending his relationship with Choi, Yoon applied for a patent disclosing various embodiments of a safety trocar, naming himself the sole inventor. The United States Patent and Trademark Office then issued the patent (“’773 patent”) to Yoon with 55 claims.⁹¹

Yoon then granted an exclusive license to Ethicon, but failed to disclose his application or its issuance to Choi.⁹² Ethicon then sued U.S. Surgical Corporation for a purported infringement of two claims under the ’773 patent.⁹³ With this suit pending, U.S. Surgical learned of Choi’s involvement in the creation of the safety trocar and obtained a “retroactive license” from Choi, which allowed it to use Choi’s trocar-related inventions.⁹⁴ Choi agreed to assist U.S. Surgical in any lawsuit related to the ’773 patent.⁹⁵ U.S. Surgical motioned to correct inventorship of the ’773 patent, maintaining that Choi was a co-inventor of various claims under the patent.⁹⁶

The district court ruled in favor of U.S. Surgical, finding that Choi was a co-owner of the ’773 patent as he contributed to two claims under the patent.⁹⁷ U.S. Surgical then motioned to dismiss, arguing that because Choi was a co-owner of the patent, and since he had granted U.S. Surgical a retroactive license, there was no patent infringement.⁹⁸ The district court again ruled in favor of U.S. Surgical, and granted the motion to dismiss.⁹⁹

On appeal Ethicon argued, in keeping with *Merges*, that Choi was only entitled to those claims to which he had contributed and not to the entire patent.¹⁰⁰ The circuit court was unimpressed: it noted that the Patent Act makes clear that each co-inventor shares an undivided interest in a patent regardless of whether he or she “make[s] a contribution to the subject matter of every claim of the patent.”¹⁰¹ Further, section 262 of the Patent Act speaks of ownership in terms of a patent, not ownership in terms of claims under the patent.¹⁰² Accordingly, the Federal Circuit upheld the district court, holding that a joint inventor, for example, even a relatively minor contributor to the overall invention, could effectively prevent his joint inventor from enforcing the patent

90. *Id.* at 1459.

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.* at 1459–60.

99. *Id.* at 1460.

100. *Id.*

101. 35 U.S.C. § 116(a) (2012).

102. 35 U.S.C. § 262 (2012); *see also Ethicon*, 135 F.3d at 1466.

against an alleged infringement.¹⁰³ Contra *Merges*, co-inventors share an undivided interest in the entire patent, regardless of their contributions.¹⁰⁴ Thus, a co-inventor need not contribute to every claim within the patent to enjoy full ownership rights of the entirety.¹⁰⁵ Proportionality need not obtain.

The theoretical issues at stake, however, are plainly controversial.¹⁰⁶ The dissenting opinion describes the history of the law of joint invention and ownership and its attendant conception of fairness, equality, and proportionality.¹⁰⁷ Prior to *Ethicon*, a 1984 amendment to 35 U.S.C. § 116 had broadened the eligibility for joint inventorship to include any person who makes an inventive contribution to a least one claim of a patent.¹⁰⁸ Previously, only those inventors making contributions to each claim under a patent would achieve full and undivided ownership in the entire patent.¹⁰⁹ Drawing on this legislative history, the dissent asserted that “the law of shared ownership was founded on shared invention.”¹¹⁰

Before 1984, joint ownership “required mutuality of interaction and a real partnership in the creation and development of the invention.”¹¹¹ A “joint inventor” was “justly and legally, an equal owner of the idea and of any patent thereon.”¹¹² This previous conception no longer holds given changes in joint inventorship doctrine.¹¹³ The dissent invoked notions akin to *Merges*’s free-floating principle of proportionality and dignity, holding, that the 1984 amendment unfairly rewards those who do not contribute. It stated: “the legislators surely did not intend to create [an] inequity”¹¹⁴ and “[i]t is not an implementation of the common law of property, or its statutory embodiments,

103. *Ethicon*, 153 F.3d at 1466 (interpreting section 262 of the Patent Act to confer in a joint inventor the presumption of ownership in the entire patent).

104. This conflicts with *Merges*’s conception of proportionality and his related backward-looking midlevel principle of dignity.

105. *Ethicon*, 153 F.3d at 1460 (citing *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 888 (Fed. Cir. 1988)).

106. “In *Ethicon*, the court’s decision, while jurisprudentially correct, risks causing potential inequities among disproportionately vested joint inventors as well as a general erosion of the social policy against patent infringement.” Dale L. Carlson & James R. Barney, *The Division of Rights Among Joint Inventors: Public Policy Concerns After Ethicon v. U.S. Surgical*, 39 *IDEA* 251, 266 (1999).

107. *Ethicon*, 135 F.3d at 1470–71 (Newman, J., dissenting).

108. 35 U.S.C. § 116(a) (2012) (“When an invention is made by two or more persons jointly, they shall apply for patent jointly and each make the required oath, except as otherwise provided in this title. Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent.”) (emphasis added).

109. *Ethicon*, 135 F.3d at 1469 (Newman, J., dissenting) (“Before the statutory change made in 1984 Mr. Choi could not have been named a ‘joint inventor’ of the ‘773 patent, for he had not jointly conceived and contributed to the entire invention.”).

110. *Id.* at 1472.

111. *Id.* at 1470.

112. *Id.*

113. *Id.* at 1469; see also 35 U.S.C. § 116(a) (2012).

114. *Ethicon*, 135 F.3d at 1471.

to treat all persons, however minor their contribution, as full owners of the entire property as a matter of law.”¹¹⁵

Further, “[t]he law had never given a contributor to a minor portion of an invention a full share in the originator’s patent.”¹¹⁶ However, this thinking was based on an “all claims” doctrine of joint inventorship that has been repudiated.¹¹⁷ Under the new law, one might even object that the “rule that grants equal and undivided interests to joint inventors, regardless of their respective inventive contributions to the individual claims of the patent, is both illogical and inequitable.”¹¹⁸

C. Midlevel Analysis in Light of eBay and Ethicon

Return now to Merges and the account of midlevel principles. There is theoretical controversy in the common law represented by the sharply differing majority and dissenting opinions in *Ethicon*.¹¹⁹ First, while the midlevel principles Merges articulates—specifically the principle of proportionality—may at various times guide some IP statutes and the structure of some courts’ reasoning, like the dissent in *Ethicon*, the principle is not embedded, in any rigorous or uniform fashion, in *Ethicon* or *eBay*. In *Ethicon*, the majority explicitly rejected any account of proportionality between inventor and the backward notion of contribution and ownership rights as being legally salient.¹²⁰ Instead, the Federal Circuit appears to have adopted a more pragmatic approach to the joint-invention-and-joint-ownership quandary for reasons of mere simplicity and practicality.

Again, as in *eBay*, there is no legally binding mention of the relationship between ownership rights derived from the backward-looking value of desert and the market power derived from ownership or the right to exclude. My sense is that, given the need for simplicity and practicality, the principle of proportionality is too indefinite to fulfill the prominent role Merges asks of it. And correspondingly, the principle does not rigorously lie behind the positive law of IP, but it instead—as one might expect of a philosophical principle—represents one highly stylized dimension of a critically important normative debate whose partisans at various times get a hearing in the positive law of IP. Merges’s principle of proportionality may better serve as a normative corrective of the positive law, as opposed to being understood as constitutive of it.

115. *Id.*

116. *Id.*

117. *Id.* at 1469; see also 35 U.S.C. § 116(a) (2012).

118. Carlson & Barney, *supra* note 106, at 256.

119. See generally *Ethicon*, 135 F.3d 1456 (Fed. Cir. 1998).

120. See *id.* at 1466 (“[A] joint inventor as to even one claim enjoys a presumption of ownership in the entire patent.”).

III.

FOUNDATIONS AND MIDDLELEVEL PRINCIPLES

This Part first describes what I take to be the proper relationship between foundational values and would-be midlevel principles. It then articulates a fundamental incompatibility between maximizing foundational principles and backward-looking midlevel principles. This conflict holds for such midlevel principles, whether in the context of Merges's backward-looking principle of proportionality or the corrective justice conception of tort. This Part also holds that this prominent conflict cannot be overcome by appeal to pluralism or agreement drawn from an overlapping political consensus.

At the outset, a quick recap of a plausible account of the relationship between foundational values and midlevel principles may be helpful. Midlevel principles, if they exist, are normative principles that regulate actual legal institutions and their decision making. Such values control and regulate political and legal institutions. Institutional decisions are made on the basis of such midlevel values, without direct appeal to foundations.

Foundational values, by contrast, are broad normative principles of general or comprehensive application. In a legal and political system actually constrained by midlevel principles, the institutions operating on these principles must satisfy the deeper foundations; that is, where the fundamental principles are utilitarian, the whole set of institutions will serve to maximize utility compared with alternative institutions; were the foundational principles Rawlsian, the institutions as a whole would need to satisfy Rawls's two principles of justice. In this sense, foundational principles would be expected to control or regulate midlevel principles.

This, however, is not Merges's view. While Merges takes great care in addressing and articulating foundational political theory, and his accounts of Locke, Kant, and Rawls are sophisticated, the role of foundations in Merges's account of IP is unclear. Merges must hold that foundational theory is, in some manner, critical to IP law; but in his view, midlevel principles are the controlling norms of IP. These "midlevel" principles, which "spring from doctrine and detail, from the grain of actual practice[,] . . . do not depend upon any particular set of [fundamental] values for their validity."¹²¹

Merges does not allow for his midlevel principles to be trumped, governed, or constrained by foundations. He propounds an "independence of . . . foundational normative principles from the operational details of [IP law], as well as from the midlevel principles that arise from and are shaped by those [operational] details."¹²² Foundational values occupy "the top of this hierarchy." "What lies beyond [midlevel] principles . . . is a set of 'upper-level'

121. MERGES, *supra* note 2, at 140.

122. *Id.*

principles, which correspond roughly to deep or foundational . . . values.”¹²³ But this approach is a counter-intuitive midlevel strategy, particularly when paired with Merges’s aim at unification in IP. It would be more straightforward to understand “midlevel” principles, as described above, as constrained by or even constructed in service to foundational values.

To be fair to Merges’s position, views akin to his exist in the corrective justice account of tort. Stephen Perry, for example, has suggested that the internal workings of Rawlsian theory are compatible with a corrective justice conception of tort law. Perry holds that since Rawlsianism is “highly indeterminate,”¹²⁴ the actual scheme of legal and political institutions created by the principles of justice can accommodate the corrective justice conception of tort law.¹²⁵

Perry attributes the possibility of this compatibility to the “dynamic,” as opposed to “static” nature of Rawlsianism.¹²⁶ But, the distinction is difficult to articulate: there is little reason to believe, as Perry does, that static Lockean principles should be thought of as fixing one scheme in place or that dynamic Rawlsianism permits constantly changing schemes. Both types of principles impose specified structural economic demands: Rawlsianism and Lockeanism are as static or as dynamic as the principles and the empirical circumstances demand.

Since the Rawlsian principles of justice are maximizing, there is little indeterminacy in the selection of the complete scheme of legal and political institutions, as Perry maintains.¹²⁷ The selected scheme is constructed to maximize the position of the least well-off, while satisfying the maximizing requirements of the first principle of justice and the opportunity principle, taken in that order.¹²⁸ A scheme of legal and political institutions that includes the backward-looking corrective justice model of tort law, at the level of principle, conflicts with the demands of the two principles of distributive justice—when compared to all other possible schemes. Merges’s midlevel account of IP is subject to a similar conflict.¹²⁹

123. *Id.*

124. Stephen R. Perry, *On the Relationship Between Corrective and Distributive Justice*, in OXFORD ESSAYS IN JURISPRUDENCE 237, 260 (Jeremy Horder ed., 4th ed. 2000).

125. *Id.* at 247 (“[C]orrective justice should be conceived of as an independent moral principle that operates within the context of distributive justice, but not as a part of it.”).

126. *Id.* at 246–47.

127. See Kevin A. Kordana & David H. Tabachnick, *On Belling the Cat: Rawls and Tort as Corrective Justice*, 92 VA. L. REV. 1279, 1307 (2006).

128. See *id.* at 1306 (“[R]awlsianism and a principled commitment to corrective justice are incompatible. If more than one institutional scheme satisfies the *adequacy* demand of the (revised) first principle of justice, then the opportunity principle and the difference principle, taken in lexical priority, are free to select between them.”).

129. *Id.* (“[S]ince the [Rawlsian] difference principle is maximizing, it will be incompatible with economic arrangements derived from backward-looking moral concerns such as the corrective justice conception of tort.”).

A. Pluralism

This Section further addresses the conflict between independent midlevel principles and maximizing foundational principles. It addresses the idea that this conceptual conflict may be overcome through appeal to pluralism or a political consensus, concluding that a unification strategy drawn from pluralistic arguments cannot be sustained.

Return briefly to Merges. He holds that there is, at once, the possibility of compatibility among the foundational theories of Kant, Locke, and Rawls, and Merges's own avowed midlevel values. Merges holds that foundations engage midlevel principles and are critical to IP law. It is unclear given his position how such foundational principles are capable of exerting a governing constraint upon his midlevel principles. It remains an open question how foundational conceptions of property mediated by midlevel values might inform or engage IP law's doctrine, much less, constrain or govern it.

Merges appears well aware of this concern and boldly addresses the issue head-on. He asks, "[w]hat would it do to . . . the field [of IP law] if the deep substratum could be changed under our feet . . . ?"¹³⁰ He answers, "[A]t the operational level . . . not much . . . [T]he . . . operational principles of the IP system are the midlevel principles . . . Efficiency, Nonremoval, Proportionality and Dignity—these basic principles . . . are largely independent of the deep conceptual justifications of IP protection."¹³¹ He continues, noting that in his view "[foundations] rarely do much direct work, or make a large practical difference, to the IP system in its day-to-day operation."¹³² Merges then addresses foundations directly: "What about at the theoretical level? What would it do to our understanding of the field if we shifted from one foundation to another?"¹³³ The answer to this question is critical to understanding Merges's view: "My theory of IP includes this foundational pluralism. . . . In the vast majority of cases, the new normative grounding does not affect my view of correct policy in any way."¹³⁴ These remarks are both highly provocative and suggestive. At first read, one wonders if Merges has in mind the skeptical idea that we just do not know enough to adequately apply foundational principles; or perhaps the legal realist idea that law is ultimately indeterminate. But, neither of these is his position.

On one hand, it can, at times, be difficult to determine or know with confidence whether or not actual institutional rules are doing their part in satisfying foundational principles. Nevertheless, complete skepticism in this regard is not warranted, nor is it espoused by Merges; we often have very good ideas of how to improve our institutions in respect of one or another opposing

130. MERGES, *supra* note 2, at 9.

131. *Id.*

132. *Id.* (emphasis added).

133. *Id.*

134. *Id.* at 10–11 (emphasis added).

fundamental principle. On the other hand, what Merges may have in mind is a perfectly sound insight: Our confidence in our knowledge of when institutions are meeting the demands of foundational principles may be best in cases where it matters very little whether we are to improve the position of the least well-off or increase the maximum number of satisfactions, since the most obvious improvements to IP institutions or rights will do both.

Yet Merges's view is significantly stronger than the assertion of this sound insight—he aims to defend more than the content of these remarks. Merges is arguing for the principled compatibility of foundational and midlevel principles.¹³⁵ However, his strategy aims to achieve such compatibility at the cost of breaking the conceptual link between midlevel and foundational principles. For Merges, at the level of IP law's doctrine, midlevel principles hold primacy over foundational principles; for Merges, there is “room at the bottom”¹³⁶ for a full range of foundational theories.¹³⁷ He argues that various foundations “serve equally well to anchor the principles and practices of IP law.”¹³⁸

Recall that Merges's goal is to unify “social practices and institutions; midlevel principles, such as efficiency and proportionality; and the foundational concepts of Locke, Kant, and Rawls, in a single coherent theory of the IP field.”¹³⁹ Merges believes these foundational concepts “best justify the structure of IP law.”¹⁴⁰ He argues further in this compatibilist vein that “other foundations might serve as well . . . [T]here is ‘room at the bottom,’ at the foundational level of the field, for various justificatory principles, including perhaps utilitarianism and various alternative ethical theories.”¹⁴¹

So, Merges is clearly no skeptic, and these last remarks indicate that he does not hold that legal theory is indeterminate. Instead, it would appear that Merges defends an inviting systematic account of pluralism—bold in its ambition and inspired, in no small measure, by the Rawlsian ideal of political agreement.¹⁴² I turn to these ideas next.

Merges's idea is that appeals to foundations are essentially irrelevant to resolving IP questions. For Merges, courts may resolve actual legal controversies in IP law—between partisans to foundational disputes—by invoking midlevel principles. Merges's hope is that such partisans, regardless

135. *Id.* at 13.

136. *Id.* at 140.

137. *Id.*

138. *Id.*

139. *Id.* at 13.

140. *Id.* at 140.

141. *Id.* at 140, 7–11. This is a strong claim—in stating that there is room at the foundational level, Merges would appear, at least in sentiment, to be calling into question the determinacy of the conflicting political theories he has introduced.

142. POLITICAL LIBERALISM, *supra* note 52, at 134 (describing an overlapping consensus as a “social unity based on a consensus” even among those who hold differing foundational values or reasonable comprehensive doctrines).

of foundational commitment, in fact, accept the same midlevel principles of IP. Here, the midlevel argument draws heavily upon the Rawlsian account of pluralism.¹⁴³ Locating Merges's argument in this context may be helpful.

Rawls initially presented his account of "Justice as Fairness" in *A Theory of Justice*¹⁴⁴ as a comprehensive moral view.¹⁴⁵ However, he later came to be impressed with what he calls the "fact of reasonable pluralism,"¹⁴⁶ the idea that a diversity of foundational values is a permanent feature of democratic society.¹⁴⁷ Like Merges's account, this is not foundational skepticism: Rawls did not deny that one might know a specific comprehensive view to be correct, nor did he deny that others are mistaken in their foundational beliefs.¹⁴⁸ Rawls did deny, though, that there were any reliable and morally acceptable methods that could persuade all reasonable and rational people to agree on foundational principles and, further, that this type of disagreement is an inevitable feature of free or liberal society.¹⁴⁹ But this form of reasonable pluralism poses a serious problem to anyone who aspires to a society in which every reasonable person can accept the basic principles of the society: its law. So Rawls, in *Political Liberalism*,¹⁵⁰ came to hold the view—perhaps naively so—that his account of justice could appeal to a wide range of reasonable, comprehensive (in Merges's language, foundational) views and be the object of an "overlapping consensus."¹⁵¹

There is a significant tension in this position, one that is even foreshadowed in *A Theory of Justice*. That is, the tension between the emphasis Rawls places on "toleration"¹⁵²—which later comes to serve as a model for the type of theory *Political Liberalism* defends—and the status of his initial view in *A Theory of Justice* as, itself, a comprehensive view.¹⁵³ This is a tension, too, that any midlevel view in IP law must address. A mere appeal to the empirical possibility of an overlapping consensus is insufficient to demonstrate the

143. MERGES, *supra* note 2, at 141 ("My version . . . derives . . . from John Rawls's conception of pluralism For Rawls, 'public reason' plays much the same role as midlevel principles do in my approach to IP. [Rawls] calls the shared deliberative space . . . an 'overlapping consensus,' and this is . . . the spirit of what I am describing Midlevel principles create an overlapping consensus among people with differing beliefs about the ultimate normative foundations of IP law. . . . They bracket, and . . . transcend, disagreements about ultimate issues, while tying together disparate strands of doctrine and practice.").

144. THEORY OF JUSTICE, *supra* note 15, at 3, 30.

145. *Id.* at 19. That is, a foundational normative theory of general application; which incorporates basic, non-range-limited normative principles.

146. JOHN RAWLS, JUSTICE AS FAIRNESS: A RESTATEMENT 32 (Erin Kelly ed., 2001) [hereinafter JUSTICE AS FAIRNESS].

147. POLITICAL LIBERALISM, *supra* note 52, at 36.

148. JUSTICE AS FAIRNESS, *supra* note 146, at 90.

149. *Id.*

150. POLITICAL LIBERALISM, *supra* note 52.

151. JUSTICE AS FAIRNESS, *supra* note 146, at 190.

152. *Id.* at 192–93.

153. THEORY OF JUSTICE, *supra* note 15, at 3, 19, 30.

principled compatibility of a midlevel account of the private law with foundations.

A Theory of Justice was written largely in an attempt to displace utilitarianism by correcting for canonical objections to it.¹⁵⁴ These objections highlighted that utilitarianism embodied a distributive problem, namely, that it failed to take seriously what Rawls understood as the moral distinction between persons.¹⁵⁵ Accordingly, it is not clear that there is the possibility of any overlapping consensus, since Rawls's two principles of justice, and utilitarianism, for example, straightforwardly conflict. There is always a possibility of a range of contingent (non-principled) overlap, and concerns over the rule of law or political stability may bring about compromise among proponents of differing foundational principles. However, this form of agreement or compromise is insufficient to serve Merges's principled unification project.

First, the domain of any such contingent overlap is uncertain. And second, Merges's claim that his midlevel principles of IP are dominant in any overlapping consensus appears simply utopian: his principles conflict with both Rawlsianism and utilitarianism and are not, as we have seen, systematically present in the positive law. A claim of contingent overlap should provide pause for concern, as does the question of the justificatory force of any such overlap.

B. Conflicting Conceptions of Liberalism and Property Theory

This Section discusses competing conceptions of liberalism. In doing so, the Section elaborates upon the prominent conflict between maximizing foundational conceptions of liberalism and backward-looking principles. The Section holds that several important aspects of Rawlsianism, crucial and powerful as they are, often go unappreciated. Once fully acknowledged, they demonstrate the incompatibility between Merges's midlevel principles and the Rawlsianism conception of distributive justice. Importantly, this incompatibility does not show or suggest that Merges's midlevel principles are defective or unacceptable in their own right. Instead, the Section casts doubt upon Merges's ambition of unification in IP and suggests that his midlevel account might be best understood as an appealing alternative to Rawlsianism, rather than being understood as consistent with it.

Consider foundational principles again. There is theoretical tension between the foundations Merges espouses. Although each theory provides a liberal account of property, they each also offer competing and conceivably conflicting conceptions of property. Merges recognizes that these liberal theories, despite any possible range of contingent overlap, may conflict. "[F]or me," he writes, "a lock-solid utilitarian case might someday unseat

154. *Id.* at 94–97.

155. *Id.*

deontological rights as the [IP] field's foundation."¹⁵⁶ Despite this acknowledgement, Merges's foundational property principles must ultimately serve a more definitive role in IP than his position seemingly allows. I elaborate in what follows by considering competing conceptions of liberalism.

1. Pre- and Post-Political Values

Merges accepts an important distinction among political theories: the broad distinction between pre-¹⁵⁷ and post-institutional conceptions of liberalism.¹⁵⁸ For pre-institutionalists, economic concepts, including aspects of IP, serve as the normative basis of institutional economic rights.¹⁵⁹ Here, backward-looking, pre-political notions of economic desert, merit, or moral responsibility and their corresponding notions of natural economic rights are primary.

For post-institutionalists on the other hand, legal and political institutions serve overarching distributive principles that define details of economic rights and entitlement.¹⁶⁰ Here, pre-political morality is silent with regard to economic constructions.¹⁶¹ It would appear, then, that Merges's midlevel principle of proportionality invokes, in some measure, the pre-institutional conception of desert and balances this value with market leverage. Yet there is an open question how such a pre-institutional principle of proportionality fares in the context of the Rawlsian post-institutional construction.

2. Post-Institutional Maximizing Foundations

Merges insightfully and correctly recognizes two further important aspects of Rawlsianism: first, that the two principles of justice, although derived from the original position, are, in some measure, maximizing¹⁶² and consequentialist;¹⁶³ and second, that these principles define Rawls's account of justice in legal and political institutions. Merges's acceptance of the distinction

156. MERGES, *supra* note 2, at 10.

157. *Id.* at 35 (“[O]n the basis of this *prepolitical* [property] right to individual appropriation, people come together to form governments.”) (emphasis added).

158. *Id.* at 95 (acknowledging the post-institutional conception of property and intellectual property rights) (“[Property rights] are not really conceivable without a state, so they cannot in any sense precede the state, at least not in their final, mature form.”).

159. See ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 150 (1974); A. JOHN SIMMONS, THE LOCKEAN THEORY OF RIGHTS 222 (1992).

160. THEORY OF JUSTICE, *supra* note 15, at 10, 311, 314.

161. *Id.* at 17–22.

162. MERGES, *supra* note 2, at 104 (“Rawls’s specific formulation [of the economic component of the second principle of justice] is often described as the “maximin” principle (short for maximizing the minimum): inequalities are tolerated only insofar as they *maximize* the minimum level of support in a society, that is, the support of the least advantaged.”) (emphasis added).

163. *Id.* (“[Rawls’s] system of thought begins with a Kantian focus on the rights of each individual, but then integrates this with an emphasis on the . . . *distribution of resources.*”) (emphasis added).

between pre- and post-institutionalism, conjoined with his apt recognition of these important aspects of Rawlsianism, is instructive in highlighting the present conflict.

Rawls's two ordered principles of justice reflect the plurality of values and deontological commitments of the original position. However, moving forward from the original position, the principles of justice are consequentialist, maximizing, and forward-looking in their selection among competing complete schemes of legal and political institutions.

The two principles of justice evaluate the distributive outcomes of competing complete legal and political schemes in terms of the expected quality of life of citizens living under such schemes, measured by what Rawls describes as an objective index of primary goods.¹⁶⁴ The principles, in their application or function, are indifferent to all backward-looking moral concerns.¹⁶⁵ Such deontic considerations are either endogenous to the principles themselves or have been abandoned in the original position as arbitrary from the moral point of view. Once the two principles of justice are derived, any remaining commitment to pre-institutional notions of economic desert is irrelevant. Conceptions of justice or economic desert, including would-be expansive IP rights, are then defined post-institutionally by the rules of legal and political institutions. So, Rawls's principles of justice are consequentialist, despite Rawls's clear initial Kantian starting point.

3. *The Incompatibility*

Return now to my second point above: Rawlsian principles provide a definitive account of economic justice, specifically, the details of ownership and entitlement.¹⁶⁶ The trouble for Merges is this: in his view, IP doctrine is

164. THEORY OF JUSTICE, *supra* note 15, at 92–95; JUSTICE AS FAIRNESS, *supra* note 146, at 61–65.

165. See Thomas W. Pogge, *Three Problems with Contractarian-Consequentialist Ways of Assessing Social Institutions*, 12 SOC. PHIL. & POL'Y 241, 244 (1995).

166. Although Merges and I appear, at points, to be in agreement with regard to this matter, it remains unclear how Merges reconciles his thoughts with his midlevel principles of IP. The difference principle is the second of two ordered principles, further constrained by the opportunity principle. So, arguably considerations other than economic distribution are at stake in IP matters. That is, one might argue on the basis of Rawls's first principle of justice that IP law, say, makers' or creators' rights, would have some independence of economic distributive considerations. Consistent with Merges, my response is this: for Rawls, all economic-oriented property baselines are a second principle matter. Rawls, as Merges eloquently discusses, does allow that the first principle constructs what Rawls calls "personal property." Merges acknowledges a point I have argued elsewhere, although in the context of contract and tort: that the first principle of justice may require that some very basic property rights may be required. See Kevin A. Kordana & David H. Tabachnick, *Rawls and Contract Law*, 73 GEO. WASH. L. REV. 598 (2005). The point, however, is that broader specific details of the rights of ownership require a property baseline that is not available at the first principle level. Thus, for Rawls, the law of IP is chiefly a second principle matter. See *id.* (describing personal property, contract options and articulating the "high-Rawlsian" position with regard to property and economic constructions); see also MERGES, *supra* note 2, at 102–03 ("[T]he starting point for [Rawls'] discussion is not fairness *within* the institution of property, but the fairness *of* property itself,

under the exclusive regulatory or normative control of midlevel principles. But one who demands this exclusive control cannot avoid a conflict, at the level of principle, between Rawls's two principles of justice and Merges's midlevel principles of IP. Merges's account of IP cannot avoid the relentless nature of the maximizing aspects of the two principles of justice any more than tax law can. Absent any coherent reason for the normative priority of midlevel principles over foundations, conflict is inescapable, particularly if, as is true here, the foundational principles are maximizing.

These important features of Rawlsianism, which Merges himself embraces, render the selected complete scheme of legal and political rules incompatible with independent conceptions of justice or fairness grounded in alternative, backward-looking notions of desert. Rawlsianism is incompatible with the independent midlevel account of IP law Merges defends.¹⁶⁷

Merges might, instead, offer his midlevel position as a more intuitive alternative to a Rawlsian account of IP law. Since Rawls appears to stand in contrast to Merges, Merges's position may more effectively be introduced or understood as embodying a critique of Rawlsianism.

But still, Merges has important insights about Rawls and IP law. He recognizes that the selection of IP regime or the details of economic rights in this area will impact the position of the least well-off. The trouble, however, is that this says very little about the actual structure or details of the Rawlsian account of IP. This insightful point shows instead, that for Rawlsianism, any possible IP law is best understood as subject to the two principles of justice, not the control of midlevel principles. Any such construction, however, will not, at the level of principle, share in Merges's midlevel account given the above incompatibility.

IV.

BASELINES: COMMONS VS. ANTI-COMMONS AND ASSET PARTITIONING

For Merges, the midlevel principles of proportionality and nonremoval, conjoined with efficiency and dignity, resolve practical questions concerning when courts construct open access oriented rules, as opposed to constructing rights to exclude. Further, Merges's claim is that, even at the theoretical level, foundational values would have little, if any, practical ramifications. Consider Merges's question of when and whether courts honor previously granted patents. Merges holds several intriguing positions in this regard: (1) courts, do, in fact, systematically look to Merges's implicit midlevel principles in answering or justifying such questions,¹⁶⁸ (2) in order to properly justify IP decisions, courts ought to invoke his midlevel principles in guiding case

considered in its overall social and economic context. For Rawls, the . . . question is whether . . . the . . . existence of private property promotes a fair distribution . . .").

167. MERGES, *supra* note 2, at 118.

168. *Id.* at 189.

outcomes,¹⁶⁹ and (3) even if courts were to appeal to foundational values, any set of foundational principles would serve equally well—it would make no “operational” or “theoretical” difference whether courts adopted, for example, the foundational values of Rawlsianism or utilitarianism.¹⁷⁰ The ideas in what follows have significant ramifications for Merges’s second and third claims.

A. *The Commons and the Anti-Commons*

Consider the canonical literature on the tragedy of the commons¹⁷¹ and the tragedy of the anti-commons,¹⁷² as well as the possible trade-off in an IP law regime between the right to exclude¹⁷³ and the right to a more “open use” regime in a Rawlsian context. To use Merges’s example, were courts to enforce a pre-existing patent, they would be engaged in a specified form of asset partitioning.¹⁷⁴ By granting a monopoly to the asset, the court affects the right holder’s return on investment, which in turn affects his incentives for research and development. Competing constructions in the strength of IP rights have differential distributive effects by changing incentives and outcomes. For example, longer pharmaceutical patents increase profits to pharmaceutical producers and correspondingly alter the incentives for innovation. Shorter patents may, on average, improve the welfare of the poor by allowing for cheaper generic substitute medications. In the context of a forward-looking distributive legal scheme such as Rawls’s, the hypothetical IP law regime is a goal-driven legal construction.

Merges holds that foundational values are theoretically and operationally irrelevant to considerations of whether to construct a more “open access” or “commons-like” IP regime. For Merges, the midlevel principles, chiefly the principle of proportionality, rule. Merges’s idea is that courts uphold previously granted patents where there is proportionality between the level of economic desert possessed by the patent holder and the benefit he or she receives via the monopolistic patent construction. Where such a patent holder deserves the right to exclude, and the benefits accrued to the right are proportional to the level of desert, courts should uphold the patent. On the other hand, where desert is disproportionately lower than such benefit, courts ought to and will fail to uphold the patent. For Merges, it would make no difference, either at the theoretical level or at the level of a judge crafting a legal rule, which foundational theory one adopts given the range of application of the midlevel principle of proportionality.

169. *Id.*

170. *Id.* at 10–12.

171. Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968).

172. Heller & Eisenberg, *supra* note 85, at 698.

173. On the role of the right to exclude, see, for example, Henry E. Smith, *Exclusion and Property Rules in the Law of Nuisance*, 90 *VA. L. REV.* 965 (2004).

174. On asset partitioning, see, for example, Henry Hansmann & Reiner Kraakman, *The Essential Role of Organizational Law*, 110 *YALE L.J.* 387 (2000).

But to be clear: IP rights of differing strengths have significantly differing effects upon both net aggregate wealth and the position of the least well-off. As a matter of institutional design, where foundational principles are maximizing, the choice of an IP law regime must be a function of such principles. Maximizing principles do not construct the indeterminacy in legal institutions that Merges's midlevel principles require. In this context, IP rights, where they exist, must find their home in a complete set of legal and political institutions, which, in conjunction with one another, best serve to meet the demands of the distributive principles.

Thus, the distributive principles define the very terms of what *is* a tragedy of the commons or anti-commons. Too much common ownership may fail to meet the demands of the utility principle, creating a utilitarian tragedy. Too strong a right to exclude may fail to meet the demands for the difference principle, creating a tragedy for distributive justice. Even the moderate Lockean philosophy Merges describes will be more tolerant of the aggregate value loss than can arise from strong rights to exclude, than a Rawlsian or utilitarian might be.

B. Property Baselines Questions

This Section demonstrates the normative control that foundations play in setting initial property baselines. In the context of such principles, IP rights must be constructed in conjunction with all legal other legal and political rules, including taxation and transfer; any hypothetical IP regime is no exception. For this reason, Merges's midlevel principles are, at the level of principle, inconsistent with such foundations.

By way of illustration, return to Rawlsianism. For Rawls, it is the complete set of legal and political rules that must meet the demands of the distributive principles. Since, as we have seen, moving forward from the original position Rawls's principles of justice are maximizing in their application, there is very little indeterminacy in the system for Merges's midlevel principles. The IP law regime for a Rawlsian would need to be constructed in conjunction with the system of tax and transfer.

The selection among competing IP regimes, as Merges recognizes, has significant effects upon the least well-off and, correspondingly, must be constructed in conjunction with an optimal tax and transfer system, unique to the two 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 of the two principles of justice.

Legal institutions answer to the demands of the two principles of justice: this renders meaningless, in theory, any distinction between IP and taxation. When constructed in service of maximizing principles, there is no meaningful distinction between a rule of tax law and a rule of property law. For example,

consider a legal rule that imposes a 50 percent tax on income. In theory, one could understand this rule as a tax rule, a property rule, or even a contract rule. The point is that in a Rawlsian context all legal rules are selected because of their instrumentalist role in the chosen complete scheme of legal and political institutions that satisfy the two principles of justice.¹⁷⁵

In selecting legal rules and institutions, there is not much latitude, given the maximizing demands of the distributive principles. Maximizing principles require a specific set of property rules conjoined with an optimal tax rate.¹⁷⁶ Any alterations in the IP regime of the sort demanded by Merges's midlevel principles would require compensating changes in tax policy, the result of which would be a complete scheme of legal and political rules that would fail to maximize. In switching between maximizing foundational principles, one must compare complete schemes of legal and political rules that best meet the demands of the respective foundational principles. The proper comparison is of complete sets of legal and political rules, and this selection is crucially interschemic.¹⁷⁷ One cannot meet the relentless demands of maximizing foundations by making only isolated intra-schemic alterations in the IP property regime, as the invocation of midlevel principles would require.

Return now to the central insight of work on the tragedy of the anti-commons: issuing too many IP rights can create a patent thicket, where problems involving holdouts and transactions costs serve to produce less than optimal gains in utility or welfare.¹⁷⁸ The important insight can be pushed a step further, the 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). Each would demand a different set of trade-offs between open access and the right to exclude. The property baseline must be constructed in service to the distributive principles; the distributive principles define the baseline that constructs the commons and defines the conception of a "tragedy."

Consider again Merges's principle of proportionality. Although Merges never provides a clear definition of this principle,¹⁷⁹ he appears to have in mind a conception of fairness, without articulating the complete details of what his conception of fairness entails.¹⁸⁰ However, he does discuss the relationship between desert and economic benefit. Perhaps Merges's idea is that economic

175. See Kronman, *supra* note 8.

176. For an account of the prominent role economic baselines play in answering distributive questions, see, for example, Douglas A. Kahn & Jeffrey S. Lehman, *Tax Expenditure Budgets: A Critical View*, 54 TAX NOTES 1661 (1992).

177. THOMAS W. POGGE, *REALIZING RAWLS* 66–67 (1989).

178. Heller & Eisenberg, *supra* note 85, at 698.

179. MERGES, *supra* note 2, at 159–60, 189–90 (self-consciously avoiding a specified account of proportionality with regard to the definition of specific rights).

180. *Id.* at 8.

institutions, particularly IP law institutions, ought not to embody arbitrary inequalities and, a lack of proportionality is an example of an unfair or impermissibly arbitrary inequality.¹⁸¹ But the idea of proportionality, absent any property baselines, is indeterminate.

The free-floating principle of proportionality is vague. For Rawlsianism, however, the justified metric of proportionality is automatically guaranteed by Rawls's principles of justice that set all property baselines and details of ownership. If an independent principle of proportionality requires anything different from that, perhaps embodying an alternative conception of equality or fairness, there is no Rawlsian rationale for it. The Rawlsian position is that all inequalities must be justified by the two principles of justice, alternative inequalities are by definition unjust. Therefore, an IP law construction that would be unjust on Merges's conception would be just for Rawls, if required by the principles of justice.

Merges's principle of proportionality balances desert with market leverage. However, the "sacrifice" or "contribution" required to establish desert for one's creation and the "benefit" derived from market leverage all require antecedent normatively salient benchmarks. That is, without an initial baseline, the idea of a backward-looking notion of contribution in creation is indeterminate.

The point is subtle: in discussing the proportionality between desert and benefit, one implicitly must compare the deservingness and respective market leverage of each IP rule under one possible IP law scheme, to the metric of desert and market leverage each person would have, were the rules of some alternative scheme adopted. However, it is not clear which, if any, comparative baseline scheme Merges has in mind in indexing his understanding of "proportionality" or "disproportionality."

Rawlsianism selects the inequality demanded by the two principles of justice. But I am unclear why Merges believes a free-floating, independent notion of proportionality is morally salient for Rawls and, further, how in the Rawlsian post-institutional conception such notions of desert might arise.

This draws attention to my concerns with Merges's claims that in order to properly justify IP decisions, courts ought to invoke his midlevel principles in guiding case outcomes,¹⁸² and that even if courts were to appeal to foundational values, any set of foundational principles would serve equally well. As he says, it would make no "operational" or "theoretical" difference whether courts adopted, for example, the foundational values of Rawlsianism or utilitarianism. In response to Merges's claims, where foundational principles are maximizing, there plainly is, at the level of theory and operation, a significant difference

181. *Id.* at 159–60.

182. *Id.* at 189.

among the required IP regimes. Further, courts operating in a hypothetical Rawlsian scheme should reject the substance of Merges's midlevel principles.

V.

PATENTS: THE "BUILDING BLOCKS" OF CREATION AND INVENTION, DNA PATENTS AND *PROMETHEUS V. MAYO* AND *MYRIAD*

A. Pharmaceutical Patents and Policy

In what follows, I will try to make clear exactly how wide the disagreement among proponents of divergent foundational principles may be. A brief discussion is not only illuminating, but will lead naturally to my doctrinal discussions of the recent *Prometheus v. Mayo*¹⁸³ decision in the Supreme Court and the Federal Circuit's decision in *Myriad*.¹⁸⁴

First, I address the policy question of pharmaceutical patents and particularly their welfare-oriented effects on the developing world. Particularly, I will examine both the question about appropriate patent length, and the deeper question about whether such patents are even appropriate. Interestingly, this is a subject that spawns significant international public debate, and one to which Merges deploys intellectual energy. Yet he is unable to remain true to the demands of his own midlevel analysis. In addressing the matter, Merges begins, contra his own position, with foundational analysis, as opposed to his dispute-resolving midlevel principles.¹⁸⁵

Here, the question is often posed as whether pharmaceutical creators and inventors can justly bar others from manufacturing and distributing cheap, suitable quality, generic pharmaceuticals. Monopolistic patents, the argument goes, exist to provide incentives for creators and inventors. Investment in pharmaceutical research, development, and creativity is expensive. If we expect economically motivated actors to allocate resources in this direction, we need an artificial institutional rule constraining the behavior of other economically motivated market participants. Thus, investment requires monopolistic protection to patent holders against would-be manufacturers of equal quality generic substitutions.

In constructing such a market-limiting legal rule, one balances the optimal incentives needed for creators and investors to bring their products to market against the loss of market freedom associated with limiting mutually beneficial exchange between would-be consumers of cheaper substitute medications and

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

184. *Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303 (Fed. Cir. 2012).

185. MERGES, *supra* note 2, at 277 ("[I] have couched the pharmaceutical patent issue in the language of the various foundational theories[:]. . . Locke, Kant, and Rawls, as well as utilitarian theory. . . . If I am to stay true to the pluralism I espouse . . . it would seem necessary also to discuss the issue in terms of the midlevel principles of IP law."). Here, Merges is essentially conceding that an appeal to pluralism and midlevel principles will not dissolve significant and protracted IP law disputes.

their would-be manufacturers. The result is a rule that creates institutional preconditions and incentives for needed, creative pharmaceutical development.¹⁸⁶

At first glance, the dispute appears to be over the length of time associated with such monopolistic rules. One might argue that Rawlsians, utilitarians, and Lockeans might disagree over duration of such patents. Lockeans might argue in favor of stronger, more restrictive patent rights, so as to provide greater protection of the economic interest of the creators, inventors, and investors. Rawlsians, on the other hand, would argue for a limitation on freedom, only to the extent that such a limitation would maximize the position of the least well-off. This, alone, is sufficient to show that midlevel principles will not resolve disputes over the appropriate level of patent protection

For Rawlsians, whether such IP rights would even be included in a scheme of legal institutions designed to maximize the position of the least well-off is also in question. Rather than merely questioning patent duration, or proportionality between merit and market leverage, the initial inquiry asks what ought to be patentable and questions whether there ought to be patents at all.¹⁸⁷

This, in turn, leads to the doctrinal question of patentable subject matter, the question taken up by the Supreme Court in *Mayo v Prometheus* and by the Federal Circuit in *Myriad*. The next Section shows that these cases provide insufficient evidence of midlevel principles in the positive law. Instead, they can be seen as invoking forward-looking consequentialist principles in guiding their outcomes in a fashion at odds with Merges's midlevel principles.

B. DNA as Patent Eligible Subject Matter: Mayo and Myriad

In light of the preceding discussion and the asset portioning and property baseline analysis of Parts IV.A and IV.C above, return now to IP doctrine, in the context of *Mayo* and *Myriad*. These cases show a lack of evidence that the courts, in deciding IP cases, invoke midlevel principles of the sort Merges espouses. Instead, there is strong evidence of forward-looking consequentialist

186. See INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 2, at 135, 145.

187. *Id.* The conflict for Rawls may be greater than a straightforward disagreement over the range of "proportionality" between desert and patent strength. Rawlsian Thomas Pogge, for example, argues that justice requires rejecting any scheme of monopolistic patent rights in the pharmaceutical context. Instead, Pogge has consistently made an appealing case for the Health Impact Fund, a scheme devised for the creation and invention of pharmaceuticals rooted mainly in innovative taxation and transfer mechanisms. For Pogge, much of the needed consequential value of the IP patent system can be effectively achieved via creative taxation policy. Pogge argues that his suggestions are not only pragmatically wise, but requirements of justice. ("If rich countries and their citizens desire medical innovation, then they must find ways of funding it that either leave the [market] freedom of the poor unreduced or else adequately compensate the poor for the loss of freedom imposed upon them [via monopolistic patents]."). See INCENTIVES FOR GLOBAL PUBLIC HEALTH, *supra* note 2, at 145. My present point is that even competing foundational principles may require radically distinct property constructions, a disagreement that runs far deeper than the range of Merges's midlevel principles and any account of contingent overlapping consensus.

reasoning in tension with such principles. This Section holds that midlevel principles do not uniformly constitute the positive law of IP and often serve as a contrast to it.

A brief description of *Mayo* may be helpful. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*,¹⁸⁸ Prometheus was the sole and exclusive licensee of two patents.¹⁸⁹ Mayo bought and used diagnostic tests based on Prometheus's patents.¹⁹⁰ In 2004, Mayo announced it would sell and market its own, slightly different, diagnostic test. Prometheus immediately sued Mayo alleging patent infringement.¹⁹¹

When the case finally reached the Supreme Court, it framed the question as "whether the claims do significantly more than simply describe . . . natural relations . . . [D]o the patent claims add *enough* . . . to qualify as patent-eligible processes that *apply* natural laws?"¹⁹² The Court answered this question in the negative,¹⁹³ finding that the claims provided nothing more than a description of the natural law with an obvious process to apply them.¹⁹⁴ In its unanimous decision, the Court maintained that if a law of nature is not patentable, then neither is a process reciting a law of nature, unless that process has "additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself."¹⁹⁵ Thus, absent such additional features, a process involving the mere recitation of a law of nature remains ineligible for patent for the very reasons that laws of nature are so ineligible.

Notably, the Court's analysis provides a consequentialist rationale for the "law of nature" exception to patentability.¹⁹⁶ While not mentioning inventor desert or merit, the Court maintains that "[L]aws of nature, natural phenomena, and abstract ideas' are not patentable,"¹⁹⁷ since the "monopolization of [the basic tools of science and technological work] through the grant of a patent might tend to impede innovation more than it would tend to promote it."¹⁹⁸ Further, the Court, in discussing proportionality, addresses the trade-off between patent ownership and loss of discovery owing to the possibility of holdouts, concluding that "upholding [law of nature] patents would risk disproportionately tying up the use of the underlying natural laws, inhibiting their use in the making of further discoveries."¹⁹⁹

188. 132 S. Ct. 1289 (2012).

189. *Id.* at 1290.

190. *Id.* at 1296.

191. *Id.*

192. *Id.* at 1297.

193. *Id.*

194. *Id.* at 1298.

195. *Id.* at 1297.

196. *Id.* at 1293.

197. *Id.* (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

198. *Id.*

199. *Id.* at 1294.

Although awarding patent protection to the discoverer of a law of nature “might well encourage their discovery, those laws and principles . . . are ‘the basic tools of scientific and technological work’”²⁰⁰ and as such, their common use is crucial for future discovery and advancement. Therefore, “there is a danger that . . . patents . . . that tie up their use will inhibit future innovation”²⁰¹ This danger becomes acute when a patented process merely applies the law of nature and thereby blocks more future invention than the underlying discovery could justify.²⁰²

Here, the Court is clearly concerned about stifling growth and innovation because upholding such preexisting process patents risks holding up future use of the natural laws.²⁰³ Return now to Merges’s ideas concerning inventor desert and proportionality,²⁰⁴ and recall that for Merges “[t]he Supreme Court takes the position [in *eBay*] that it may in proper cases look behind the leverage created by a property right. This inquiry . . . reveals the heart of the proportionality principle. . . . The contribution of the property owner is weighed against the economic leverage the right provides in actual market transactions.”²⁰⁵ To be fair to Merges, the Court does discuss a proportional relation between the “future innovation . . . foreclosed relative to the contribution of the inventor.”²⁰⁶ Yet, here, the Court’s analysis and rationale is consequentialist.²⁰⁷ The point is subtle, but the Court is balancing the inventor’s consequential “contribution” against the *ex ante* potential for stifling innovation.

Arguably, consistent with *eBay*, there is no decisive evidence of Merges’s principle of proportionality—grounded in the backward-looking notion of desert or merit and market leverage—controlling the Court’s decision not to uphold the preexisting process patents. Instead, the Court appeals to

200. *Id.* at 1301 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

201. *Id.*

202. *Id.*

203. *Id.* at 1302.

204. MERGES, *supra* note 2, at 8 (describing the proportionality principle as partially embodying the Lockean pre-institutional desert which straightforwardly conflicts with a consequentialist analysis) (“IP law . . . tailor[s] a creator’s . . . right . . . [to] reflect[] his contribution. This is the proportionality principle. There is a . . . Lockean flavor to [it] [I]t is about basic fairness: the scope of a[n] . . . [IP] right ought to be commensurate with the magnitude of the [creator’s] contribution”).

205. *Id.* at 167.

206. *Mayo*, 132 S. Ct. 1289, 1303 (2012).

207. *Id.* (citing Mark A. Lemley et al., *Life After Bilski*, 63 STAN. L. REV. 1315 (2011)) (invoking a law and economics rationale as opposed to Merges’s backward-looking principle of proportionality or fairness as reasons for not enforcing preexisting patents involving laws of nature). Here, the court notes, “The exclusion from patent law of basic truths reflects ‘both . . . the enormous potential for rent seeking that would be created if property rights could be obtained in them and . . . the enormous transaction costs that would be imposed on would-be users [of those truths].’” *Id.* (alterations in original) (quoting WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 305–06 (2003)).

consequentialist notions of contribution, which are antagonistic to the desert component of Merges's backward-looking principle of proportionality.²⁰⁸

Again, the fact of a trade-off is insufficient to support the claim that Merges's deontic, backward-looking principle of proportionality controls. True, the Court in *Mayo* invokes the term "contribution," but this is not Merges's backward-looking understanding of the concept. Instead, the Court has in mind the forward-looking consequentialist analysis associated with marginal product.²⁰⁹ There is clear evidence for this view in the preceding cited passages and the Court's citation to the Landes/Posner transaction costs justification.²¹⁰ On the basis of this evidence, the values the court invokes in constructing this IP decision are in conflict with Merges's midlevel principles.

The Federal Circuit's application of *Mayo* in *Myriad* provides further evidence of a conflict between midlevel principles and the reasoning of courts. *Myriad*²¹¹ was a companion case to *Mayo* concerning patent eligibility—interestingly on a collision course with *Mayo*. Here, medical organizations, researchers, genetic counselors, and patients brought action against a patentee and the Patent and Trademark Office (PTO), challenging validity of patents which claimed isolated DNA sequences associated with predisposition to breast and ovarian cancers and diagnostic methods of identifying mutations in those DNA sequences.²¹²

The question before the Federal Circuit was "whether the claims [A.] to isolated BRCA DNA, [B.] to methods for comparing DNA sequences, and [C.] to a process for screening potential cancer therapeutics meet the threshold test for patent-eligible subject matter under 35 U.S.C. § 101 in light of various Supreme Court holdings,²¹³ particularly including *Mayo*."²¹⁴ Perhaps most

208. MERGES, *supra* note 2, at 160 (analyzing excessive or disproportionate leverage not in consequentialist terms, but in terms of the backward-looking notion of desert) ("By 'excessive' or 'disproportionate leverage' . . . I mean power beyond what a person rightfully *deserves*." (emphasis added)).

209. For a consequentialist or economic based account of "contribution" in the context of abstract ideas, see Lemley et al., *supra* note 207, at 1340 (2011) ("[C]ourts should consider the importance of the patentee's *contribution*. . . . [O]verclaiming is about balancing the incentives needed for the patentee against the risk of stifling future innovation.") (emphasis added).

210. LANDES & POSNER, *supra* note 207.

211. Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office, 689 F.3d 1303 (Fed. Cir. 2012).

212. *Id.* at 1309.

213. The Supreme Court's precedents provide three judicially created exceptions to § 101's broad patent-eligibility principles: "[L]aws of nature, natural phenomena, and abstract ideas' are not patentable." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1290 (2012) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)). The Court has also referred to those exceptions as precluding the patenting of mental processes, *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), and products of nature, *Diamond v. Chakrabarty*, 447 U.S. 303, 313 (1980) ("[T]he relevant distinction [for purposes of § 101 is] . . . between products of nature . . . and human-made inventions."). The Court has explained that, "[t]he concepts covered by these exceptions are 'part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none.'" *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)).

pertinent is the court's answer to the first question, where the composition claims to isolated BRCA genes are patent eligible.

The court held that "*Mayo* does not control the question of patent-eligibility of such claims,"²¹⁵ as "[t]hey are . . . expressly authorized as suitable patent-eligible subject matter in § 101" of the Patent Act.²¹⁶ The actual question was whether or not isolated DNA falls under the "products of nature" exception to § 101. The court held that they do not.²¹⁷ "The isolated DNA molecules," it reasoned "are not found in nature. They are obtained in the laboratory and are man-made, the product of human ingenuity."²¹⁸ Further, the patentee alleged that "[t]he claimed isolated DNA molecules are distinct from their natural existence as portions of larger entities, and their informational content is irrelevant to that fact."²¹⁹ The court held that "[u]nder the statutory rubric of § 101, isolated DNA is a tangible, man-made composition of matter defined and distinguished by its objectively discernible chemical structure."²²⁰

The Federal Circuit explicitly rejected the argument that the DNA patents inappropriately preempted laws of nature.²²¹ The court clearly acknowledged that "[t]he remand of this case for reconsideration in light of *Mayo* might suggest, as Plaintiffs and certain amici state, that the composition claims are mere reflections of a law of nature."²²² But the Federal Circuit distinguished *Mayo*, stating that "the Supreme Court in *Mayo* focused on its concern that permitting patents on particular subject matter would prevent use by others of, in *Mayo*, the correlation recited in the method claims."²²³ For the Federal Circuit, "[t]he answer to that concern is that permitting patents on isolated genes does not preempt a law of nature. A composition of matter is not a law of nature."²²⁴ The court declined to acquiesce in the plaintiff's argument that these genes are essentially reflections of a law of nature.²²⁵

Crucially, the court was unwilling to engage with newly advanced claims concerning the downstream consequences of these patents. "The question is," the court wrote,

not whether [it is] desirable for one company to hold a patent or license covering a test that may save people's lives, or for other companies to be excluded from the market encompassed by such a

214. *Ass'n for Molecular Pathology*, 689 F.3d at 1324.

215. *Id.* at 1325.

216. *See* 35 U.S.C. § 101 (2012).

217. *Ass'n for Molecular Pathology*, 689 F.3d at 1325.

218. *Id.*

219. *Id.* at 1330.

220. *Id.*

221. *Id.* at 1331.

222. *Id.*

223. *Id.*

224. *Id.*

225. *Id.*

patent—that is the basic right provided by a patent, *i.e.*, to exclude others from practicing the patented subject matter.²²⁶

The court appeared to hold that these negative downstream consequences are the inevitable outcome of the justified trade-off between incentivizing research into laws of nature and the risk of preempting those laws from future use. As a result, any newly introduced adjustment would upset the antecedently justified balance, as existing law already contemplates such values and is suffused with them.

Correspondingly, the court held that BRCA genes are patent eligible²²⁷ and declined to directly (re)balance the negative consequences of upholding patents, maintaining that the case was “not about whether individuals suspected of having an increased risk of developing breast cancer are entitled to a second opinion. Nor [was] it about whether . . . the owner of the instant patents, or Myriad, the exclusive licensee, has acted improperly in its licensing or enforcement policies with respect to the patents.”²²⁸ And notably, the opinion reasoned in an incentive-based consequentialist vein, “[w]e would further note . . . that patents on life-saving material and processes, involving large amounts of risky investment, would seem to be precisely the types of subject matter that should be subject to the incentives of exclusive rights.”²²⁹

Again, it is not that the court considered the above-stated negative consequences irrelevant, but rather that the current patent structure and system already contemplate such negative outcomes, such that any alterations to the existing structure would be worse still in consequentialist terms. Indeed, the court highlighted aspects of the current patent structure that antecedently attend to such concerns.²³⁰ Even where one remains uncertain that the current system is actually justified in consequentialist terms, and there may be very good reasons to believe that it is not,²³¹ the present point is that regardless of the court’s substantive view of the outcome of the balance, the forward-looking structure of the court’s reasoning conflicts with any backward-looking midlevel principles.

Not all members of the panel, however, fully adopted this view. The dissenting opinion in *Myriad* maintained that Myriad’s BRCA gene claims and

226. *Id.* at 1324.

227. *Id.* at 1326.

228. *Id.* at 1324.

229. *Id.*

230. *Id.*

[A] *limited* preemption is inherent in every patent: the right to exclude for a limited period of time. 35 U.S.C. § 154(a)(1) (“Every patent shall contain . . . a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States . . .”). When the patent expires, the public is entitled to practice the invention of the patent. That is true of all inventions; during the term of the patent, unauthorized parties are “preempted” from practicing the patent, but only for its *limited* term.

Id. at 1331 (emphasis added).

231. *Heller & Eisenberg*, *supra* note 85 at 698.

its claims to gene fragments were not patent-eligible.²³² The dissent reasoned that “the court’s decision, if sustained, will likely have broad consequences . . . preempting methods for whole-genome sequencing, even though Myriad’s contribution to the field is not remotely consonant with such effects.”²³³

The dissent’s rationale provides a particularly insightful critique of the majority, and one that in part has an affinity with Merges’s view. The dissent held that “a patent involving a law of nature must have an ‘inventive concept.’”²³⁴ Here, “the applicant claims a composition of matter that is nearly identical to a product of nature”²³⁵ and the dissent maintained that “it is appropriate to ask”²³⁶ the backward-looking question, perhaps consistent with Merges, of “whether the applicant has done ‘enough’ to distinguish his alleged invention from the similar product of nature.”²³⁷ The dissent continued, asking rhetorically, “[h]as the applicant made an ‘inventive’ contribution to the product of nature?”²³⁸ and interestingly held that “the answer to those questions is no.”²³⁹

Finally, the dissent also challenged the majority opinion by attending to the downstream consequences of the holding. In a clearly consequentialist vein, the dissent held that “it is important to consider the effects . . . on the biotechnology industry.”²⁴⁰ Although the majority had emphasized “industry’s need of patent protection to encourage and reward research . . . , there [was] another side to the coin.”²⁴¹ Such “[b]road claims to genetic material present a significant obstacle to the next generation of innovation in genetic medicine”²⁴² Crucially, “[n]ew technologies are being developed to sequence . . . even an entire human genome rapidly, but firms developing those technologies are encountering a thicket of patents.”²⁴³ In order to proceed, “a firm would have to license thousands of patents from many different licensors [T]he costs involved . . . could be prohibitive.”²⁴⁴

232. *Ass’n for Molecular Pathology*, 689 F.3d at 1348 (Bryson, J., concurring in part and dissenting in part).

233. *Id.*

234. *Id.* at 1355.

235. *Id.*

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.* at 1357.

241. *Id.*

242. *Id.*

243. *Id.*

244. *Id.* The opinion notes that “existing studies ‘have focused relatively little attention on downstream product development’ and that . . . the costs associated with the patent thicket are ‘quite real in the calculations of product-developing firms.’” *Id.* (quoting Rebecca S. Eisenberg, *Noncompliance, Nonenforcement, Nonproblem? Rethinking the Anticommons in Biomedical Research*, 45 HOU. L. REV. 1059, 1076–80 (2008)).

Return to Merges's midlevel principles and the case for their unification with competing foundations. In addressing the question of whether or not the court will uphold previously granted patents, there is, as in *eBay*, insufficient convincing evidence of Merges's midlevel principles controlling the majority opinions in *Mayo* and *Myriad*.

Yet, the question of the patentability of small snippets of DNA, although in the less broad context of patent trolls, is of interest to Merges. He holds that courts fail to uphold preexisting patents where the proportionality between owner's desert and market leverage is unfair.²⁴⁵

Interestingly, there are the makings of a view akin to Merges's in *Myriad*. The dissenting opinion arguably discusses the backward-looking notion of desert and its relationship to market leverage. The dissent holds that the plaintiff had not "done enough"²⁴⁶ to deserve or merit such market leverage via patent. At the same time, the dissent is clearly concerned with the downstream negative consequences of the majority's holding. Conjoining these two concerns, there are the makings of Merges's proportionality principle: a test of the relationship between desert and market leverage. But setting the remarks of the *Myriad* dissent aside, the *Myriad* majority argues in a forward-looking consequentialist fashion, as opposed to the backward-looking desert analysis embodied in Merges's midlevel principle of proportionality.

The conceptual issues over patentability run a good deal deeper than a proportionality analysis of this type may lead one to believe. There is a "law of nature" exemption to patentability.²⁴⁷ But the bounds of the exception cannot be resolved by appeal to the backward-looking notion of desert. The very idea of the exemption is that even the fruits of honest industry are not patent eligible if they constitute a law of nature, whether the inventor deserves reward or not.²⁴⁸ Given the existence of the exception, the question must always come to

245. MERGES, *supra* note 2, at 160–61 (describing the court's ultimate unwillingness to uphold initially granted unfair patents on "short snippets" of DNA, as an example of courts invoking his backward-looking notion of proportionality, although in the context roughly of "patent tolls") ("[S]hort snippet patent[s], intrinsically worth very little when granted, might come to generate very substantial revenues. . . . [W]hat bothered me about it was a sense of disproportion: these very minor patents . . . on gene snippets could . . . have [become] worth huge amounts of money.").

246. *Ass'n for Molecular Pathology*, 689 F.3d at 1355.

247. MERGES, *supra* note 2, at 142 (discussing his midlevel principle of non-removal, but avoiding a precise definition. Instead, he provides illustrations of it. He writes "not all information can be protected with IP rights," and concerning patentable subject matter, "no one can obtain exclusive rights over basic mathematical or scientific formulas or laws of nature."). But, as I argue, actual zones of non-removal demand detailed boundaries that require antecedently specified property baselines. The free-floating demand of non-removal requiring a public domain provides insufficient grounding and detail. What is needed is a prior account of the specific details of that domain. In this, proponents of different foundational principles will stridently disagree, for example, over the question of whether or not DNA ought to be patentable.

248. See, e.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) ("[A] new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of

a balance between the consequential gains and losses (*ex ante* and *ex post*) between constructing a monopolistic patent rule and assigning the asset to the commons. Desert is not at issue where the very question is one of patentability. Conceptually, what is needed is a definitive account of property baselines, establishing what can and cannot be owned, where on the basis of such baselines, it is antecedently given that laws of nature, among other things, cannot.

Shortly before this Essay went to print, the Supreme Court rendered its opinion in *Myriad*.²⁴⁹ The Court again provided a forward-looking incentive-based analysis of the justification of patent law. The Court's stated justification is based in social welfare, not the rights of inventors. Further, the Court holds that the proper test of a "new and useful . . . composition of matter" is a function of social utility, not inventor merit.²⁵⁰ And the structure of the Court's reasoning in *Mayo* and the Federal Circuit's reasoning in *Myriad's* majority opinion show that midlevel principles, of the sort *Merges* describes, do not universally control IP case outcomes. Given these counterexamples, the claim that midlevel principles consistently or universally regulate the positive law of IP is unfounded.

gravity. Such discoveries are 'manifestations of . . . nature, free to all men and reserved exclusively to none.')

(quoting *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.").

249. The *Myriad* decision was released on June 13, 2013, just before this article went to print. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, No. 12-398, 2013 WL 2631062 (U.S. June 13, 2013).

The rule against patents on naturally occurring things is not without limits, however, for "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas," and "too broad an interpretation of this exclusionary principle could eviscerate patent law." As we have recognized before, patent protection strikes a delicate balance between creating "incentives that lead to creation, invention, and discovery" and "imped[ing] the flow of information that might permit, indeed spur, invention." We must apply this well-established standard to determine whether *Myriad's* patents claim any "new and useful . . . composition of matter," or instead claim naturally occurring phenomena.

Id. at *7 (alterations in original) (citations omitted). In terms of inventors' rights, the Court notes, "Myriad found the location of the BRCA1 and BRCA2 genes, but that discovery, by itself, does not render the BRCA genes 'new . . . composition[s] of matter,' that are patent eligible." *Id.* at *8. The Court continues, "Myriad did not create anything. To be sure, it found an important and useful gene, but separating that gene from its surrounding genetic material is not an act of invention. Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the §101 inquiry." *Id.* Further, the Court states, "Myriad seeks to import . . . extensive research efforts into the §101 patent-eligibility inquiry. . . . But extensive effort alone is insufficient to satisfy the demands of §101." *Id.* Instead, what the court requires is the satisfaction of the above forward-looking standard that balances the social value of incentives leading to creation, invention, and discovery with transaction costs and holdouts. For purposes of patentability, this standard, as opposed to one based in inventors' rights or merit, defines such terms as "creation," "act of invention," etc.

250. *Id.* at *1.

CONCLUSION

A close study of seminal IP cases has demonstrated through counterexamples that midlevel principles are not uniformly embodied in the positive law of IP. *eBay* and *Ethicon* and *Mayo* and *Myriad* confirm the strong overarching thesis of this Essay: midlevel principles are not rigorously constitutive of the positive law of IP. Correspondingly, midlevel principles cannot systematically serve to explain, describe, or predict case outcomes. There is a lack of evidence of midlevel principles in the majority opinion in *Mayo* which constructs the rules concerning patentability in a forward-looking, incentive-based fashion. The same holds true of the Federal Circuit's majority opinion in *Myriad*.

Further, there is a conceptual conflict between midlevel principles and forward-looking maximizing foundational property principles. Correspondingly, those holding differing foundational views of property will, at the level of principle, disagree over IP case outcomes. Any claim to the unification of midlevel level principles, of the type *Merges* defends, and foundational theory in IP law is untenable, both at the level of principle and at the level of legal doctrine.

