What Property Is

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WHAT PROPERTY IS

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WHAT PROPERTY IS

Abraham Bell* and Gideon Parchomovsky**

ABSTRACT

Property law has eluded both a consistent definition and a unified conceptual framework. Instrumentalists insist that property is nothing more than default contract rules. Conceptualists proclaim the primacy of in rem conceptualization and of specially privileged rights such as the rights to exclude. Others think of property as an infinitely malleable “bundle of sticks.”

We demonstrate that any comprehensive property theory must address four legal questions: (1) What things are protected by property law; (2) vis-à-vis whom; (3) with what rights; and (4) enforced by what mechanism. Then, we introduce a value-oriented theory to show how property law answers these questions by recognizing and helping to create stable relationships between persons and assets, allowing owners to extract otherwise unavailable utility.

Our approach illuminates recent property developments, and demonstrates the need for reform. Additionally, we demonstrate the need for property occasionally to yield to other legal fields like secured transactions.

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INTRODUCTION

Property is important. Believed by some to be a keystone right, or even the core of liberty, property lies at the foundation of both contract and tort law. As a legal term, property is prominent in many doctrines and statutes. Importantly, by contrast to contractual rights that avail only against other parties to the agreement, property rights avail against the rest of the world irrespective of consent. Hence, classifying an interest as property has far reaching implications in our legal system. A simple example demonstrates the power and importance of property. Consider the conveyance of an automobile. A contract can suffice to allocate legal rights between Buyer and Seller and, as between them, can render property law redundant. However, Buyer and Seller have no contractual relationship with third parties who may covet the automobile. Here, as between people out of contractual reach from one another, property is dominant. Since it is practically impossible to arrange most relationships in society by mutual agreement, property law determines most of the legal interactions regarding assets among people.

Yet, property law often seems to suffer from a characteristic disease of legal categories; everyone knows what it is, but no one can define it. Despite the recent renaissance of property as a subject of academic inquiry, the field seems to be in insoluble theoretic

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1 See Carol M. Rose, Property as the Keystone Right?, 71 NOTRE DAME L. REV. 329 (1999) (reviewing and critically examining the various sources of the view of property as a keystone right).
2 See WALTER LIPPMANN, THE METHOD OF FREEDOM, 100-02 (1934) ("[T]he only dependable foundation of personal liberty is the personal economic security of private property."); MILTON FRIEDMAN, CAPITALISM AND FREEDOM, 7-21 (1962) (arguing that private property is necessary for individual and political freedom); Charles A. Reich, The New Property, 73 YALE L.J. 733, 771 (1964) (posing that "civil liberties must have a basis in property, or bills of rights will not preserve them").
3 See Jacobellis v. Ohio, 378 U.S. 184 (1964) (Stewart, J., concurring) (After empathizing with "the Court, which ... was faced with the task of trying to define what may be indefinable," Justice Stewart wrote of "hard-core pornography" and the case at hand, "I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But I know it when I see it...").
disarray, with scholars scrambling to assemble a giant puzzle whose pieces do not fit. New theories tend toward the extremes of either denying that there is any meaning to property at all, or towards the magic of formalism, and both proclaim loudly – either proudly or shamefacedly – the complete disconnect with popular conceptions of what property is and why it should be protected.

Nowhere is the disjointedness of property theory more manifest than in the gap between the two leading methodological approaches to property analysis—instrumentalism, represented in the main, by law and economics, and formalism, or conceptualist scholarship. The two approaches seem so incompatible with one another that scholars belonging to each of the vying camps accuse their counterparts of misunderstanding the topic of their study.

Law and economics scholars are pleased to eschew altogether any special meaning for property, viewing it as an aggregation of legal rights (or, in the common metaphor, a “bundle of sticks”) not different in kind than legal rights that might be aggregated under any other

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6 See, e.g., Merrill & Smith, Property/Contract Interface, supra note 4 and Merrill & Smith, Numerus Clausus, supra note 4 (seeking to revive importance of traditional formal elements of property). Merrill and Smith, as we discuss in the text, also move far beyond formalism in advancing an informational theory of property.

7 See, e.g., BRUCE A. ACKERMAN, PRIVATE PROPERTY AND THE CONSTITUTION 113-15 (1977); JOHN G. SPIRKLING, UNDERSTANDING PROPERTY LAW 1-2 (2000); Grey, supra note 4 (comparing the popular understanding of property as thing-ownership to the bundle of rights conception); Thomas W. Merrill & Henry É. Smith, What Happened to Property in Law and Economics?, 111 YALE L. J. 357 (2001) (hereinafter, “Merrill & Smith, What Happened to Property”) (noting that “[a]lthough people are as concerned as ever with acquiring and defending their material possessions, in the academic world there is little interest in understanding property.”).

8 For discussion, see Part I.C., infra.

9 For discussion, see Part I.D., infra.

10 See e.g., Merrill & Smith, What Happened to Property, supra note 7 at 358 (accusing law and economics scholars of not taking property seriously).
At the basis of many economic treatments lies a Coasian approach. This approach calls for well-defined legal rights to be assigned and then allocated through voluntary exchanges mediated by the law of contracts. In Coase’s view, property rights are simply background rules — legally created entitlements awaiting reallocation through contract. And although Coase himself acknowledged that the initial rights allocation could affect the efficiency of an economic system, most subsequent economic theorists have declined to elaborate on this point, choosing instead to devote their attention to contractual institutions that succeed the allocation of property rights. Consequently, law and economics scholars do not attach any importance to property as a distinct field of law; for purposes of the standard economic analysis, property might just as well be the part of contract law that specifies default rules.

The conceptualists counter with notions derived from Roman law, insisting on the primacy of in rem rights and specially privileged rights such as the rights to exclude, to use and to transfer. Some conceptualists advance instrumental reasons for certain ancient rules, but they fail, or do not bother, to explain the institution of property in its entirety. The instrumentalists, on the other hand, have been able to explain some kinds of enforcement rules and property characteristics, but have little explanation — and, frankly, little use — for the aggregation of ancient forms that define the law of property. Off to the side, scholars occasionally note that neither head of theory connects very well with the popular conceptions of what property is,

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13 Id. at 16 (noting that in a world with positive transaction costs “the initial delimitation of legal rights does have an effect on the efficiency with which the economic system operates.”).
14 For detailed discussion, see Part I.C, infra.
16 See Part I.C., infra.
and why it is valuable, but the critics have been not been able to create a theory to compete with either the instrumentalists or the conceptualists.

Remarkably, what some might consider the central feature of property – its function as a device for capturing and retaining certain kinds of value – is almost completely absent from modern conceptual discussions of property. It was not always so. In earlier centuries, theories of property were almost completely dominated by the issue of value: how it was created and to whom it properly belonged, and how property helped to capture the value and retain it for its rightful (or wrongful) owner. John Locke, for example, in his Second Treatise of Government, suggested that the source of added value was labor, and that the addition of labor to natural resources, including the labor of finding the resource, created property that naturally belonged to the laborer. Karl Marx agreed with and extended the labor theory of value, arguing that recognizing property rights in capitalists was a way of alienating value from its “true” owners – the workers.

As these earlier conceptions of value have faded away, however, so have their importance to property theory. In modern economics, value is created not by any intrinsic worth of inputs (such as labor); rather, value is created by relative tastes and scarcity of resources, while profit is created by arbitrage, relying on differences in taste, information, or nearly any other factor. Thus, it is believed today, the institution of property is not necessary to guarantee the “real value” of an item for its “true” owner. Yet, this logic is flawed.

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18 See Part I, infra.

19 JOHN LOCKE, SECOND TREATISE OF GOVERNMENT, Chapter V, Part 26 (1690) (reasoning that “every man has a ‘property’ in his own ‘person.’ . . .The ‘labour’ of his body and the ‘work’ of his hands, we may say, are properly his. Whosoever, then, he removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property.”).


21 See ADAM SMITH, WEALTH OF NATIONS (1776), Book I, Ch. 4 (examining value as a function of utility, scarcity, taste and transferability).

22 See id., Book I, Ch. V, at 51 (“The labourer is rich or poor, is well or ill rewarded, in proportion to the real, not to the nominal price of his labour.”). As Adam Smith observed, “[w]hat everything is really worth to the man who has acquired it, and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people.” Id. at 47
The modern view that value derives from subjective tastes, rather than objective reality, does not alter the fact that property is an institution uniquely qualified to protect certain kinds of value. Thus, even in a world where value is contingent, rather than absolute, value remains the conceptual lynchpin of property theory.

To eliminate possible confusion, it is important to clarify at the outset that for us value is synonymous with utility or welfare as used in the field of welfare economics. Hence, our account belongs in the instrumentalist tradition. We depart from previous law and economics scholarship, however, in that we seek to evaluate the utility of property as a discrete legal field, and unearth its defining characteristics. Instead of viewing property doctrines as an aspect of contract — the rules that govern not-fully specified contracts — we see property as a legal field that stands on its own and serves its own goals. In other words, we argue that property as a field creates utility not provided by other fields like contract, just as previous scholars, for example, have argued that criminal law as a field creates utility not provided by fields like tort.

The framework we develop explains why formal features of property beloved of property conceptualists are indispensable to a proper instrumentalist understanding of property. Simultaneously, to the conceptualists, we show that even in the muddled world of modern property theory, value must be seen as the central concept uniting the law of property.

Our account is predicated on the insight that property law as a legal institution is organized around creating and defending the value that inheres in stable ownership. Property law both recognizes and helps constitute stable relationships between persons and assets.
allowing owners to extract utility that would not, otherwise, be available. Adopting this focus enables us to recast many of the key insights of the extant property literature, and demonstrate that they may be forged into a coherent theory of property.

As a first step, we analyze the seemingly chaotic body of property literature, and distill the foundational questions a comprehensive property theory must address. We posit that contemporary scholarship may be clustered around four questions: First, which legal entitlements qualify for legal recognition as property rights? Second, against whom do the rights apply? Third, what is the content of property rights, i.e., what kinds of rights does the legal category of property bestow upon the owner? And fourth, and finally, what should be the remedies for infringements of property rights?

Curiously, property scholars have shied away from proffering theories that address these four questions as a whole, and have elected instead to engage in discrete analyses that center on one or several of these themes. At the risk of a mild over-generalization, it may be said that law and economics scholars, have limited their investigations to the question of protection, while conceptualist theorists have focused their endeavors on the three other questions. Yet, even the conceptualists have not sought to structure property theory around a single principle. For example, Radin has devoted her attention primarily to the first question, while Merrill and Smith have directed their interest at the second, and Honore has elected to explore the third. Worse yet, the discrete analyses of each of the questions have been conducted from varying, and often, inconsistent perspectives.

This Article, on the other hand, focuses not on a discrete question but on a common concept. We postulate that the value inherent in stable ownership plays an unheralded but key role in answering all four questions, rendering a desperately confused field coherent.

26 See Radin, supra note 17 (proposing a Hegelian notion of personal property as imbuing the owner with greater property rights than fungible property); Margaret Jane Radin, What, if Anything, Is Wrong With Baby Selling?, 26 PAC. L. J. 135 (1995) (exploring the legal ramifications of surrogacy, beginning with the issue of babies as property); Margaret Jane Radin, Compensation and Commensurability, 43 DUKE L. J. 56, 72 (1993) (noting the challenge in determining tort compensation for pain and suffering, solace and other market-less elements of damages); Radin, The Liberal Conception of Property: Cross Currents in the Jurisprudence of Takings, 88 COLUM. L. REV. 1667 (1988) (exploring the liberal conception of property and its presence in our constitution).

27 Merrill & Smith, What Happened to Property, supra note 7; Merrill & Smith, Property/Contract Interface, supra note 4 (attempting to delineate property law and contract law by contrasting the in rem and in personam rights protected by each branch, respectively); Merrill & Smith, Numerus Clausus, supra note 4 (contending that courts should maintain limits upon the exercise of property rights for the sake of efficiency).

28 Honore, supra note 15.
Furthermore, we demonstrate that the classic incidents of property are subordinate to the overriding goal of defending value, and therefore must sometimes be abridged in favor of a rule that protects value. Consequently, the theoretical framework we propose extends to many of the satellite concepts that have attended recent property scholarship such as legal restrictions on the rights to exclude and alienate in order to prevent the over-fragmentation of property.29

Theoretical coherence is by no means the only virtue of our analysis. An important result of our theory is the abolition of the universally accepted but rarely understood characterization of property as a bundle of rights. In our view, property is a mechanism that defends stable ownership value; thus, the various rights that attend property are best seen not as random sticks but, rather, as means to property’s end. We demonstrate that a focus on stable ownership value is necessary to resolve the puzzle left open by Coase of how to arrange legal entitlements in order to maximize economic efficiency. By our lights, the realm of contracts is much smaller than assumed by standard analyses, and a law of property based on stable ownership value is thus essential to assuring the maximization of social welfare.

In addition to its conceptual implications, our value-oriented theory of property has both descriptive and normative power. Descriptively, we posit that the modern trend toward reducing the rights of non-owner possessors in fields such as the law of find aims to protect the value of the stable ownership of the original owner. Similarly, the value theory sheds new light on the primacy of the right to exclude in property law. Exclusion preserves owners’ idiosyncratic values and bargaining position. Hence, it is fitting to allow, as current law does, harsh punishment for ostensibly trivial trespass.31 We also explain the logic behind various partition rules, and some of the complexities of property rules of possession and chain of title.

Normatively, our value-oriented theory of property demonstrates the need for reform in a number of different areas. For instance, the value theory suggests that current nuisance law offers incomplete protection to property owners. Current law protects only the owners’ right to the “use and enjoyment” of their property, unfettered by unreasonable interference from their neighbors; a reformulated law of

29 Following Michael Heller’s influential article the problem of over-fragmentation is often referred to in the literature as “anti-commons.” Heller, Anti-Commons, supra note 4.
30 See Part V.A, infra.
31 See, e.g., Jacque v. Steenberg Homes, 563 N.W.2d 154 (1997) (court upholds award of $100,000 in punitive damages against the defendant for delivering a mobile home over the plaintiff’s property, notwithstanding the absence of “real” damages).
nuisance would also protect the owners’ right to value. Another area of law ripe for rethinking under a value theory of property is the ever controversial subject of takings. The value theory provides an explanation for the Fifth Amendment’s exclusive focus on property in takings protection; however, it challenges the current understanding of just compensation as payment of market value since this measure misses the very element that justifies extra protection of property.

Finally, we extend our theory to the outer boundaries of property by examining situations in which other welfare considerations may limit the usefulness of property. In such boundary situations, we argue, protection of stable ownership may bow partially, or completely, to the needs of such other fields as contract or secured transactions. Here, again, the key is the importance of stable ownership value; as such value declines in magnitude, property law is removed from the picture, and legal disputes can and should be resolved by means of other legal tools. Among the fields we analyze in this framework are secured transactions and marital property.

We develop our value theory of property as follows. In Part I, we review the extant theoretical property literature. In Part II, we identify the core function of property law as creating and defending the value that inheres in stable ownership of property. This allows us to reevaluate property scholarship in Part III, and examine where it succeeds and fails in explaining the design of the legal field of property. In Part IV, we delineate the contours of property by crafting a four-step analysis. Using this new analysis, we demonstrate that the value theory provides a comprehensive framework for understanding property. Part V explores ways in which our new concept of property illuminates current areas of law. Part VI highlights principles and doctrines that need to be revised in light of our new framework. Part VII examines the boundary questions of property. A brief conclusion follows.

I. **THE THEORY OF PROPERTY**

We begin our foray into the thicket of property theory by describing some of the prominent past approaches to property. Our aim in this Part is to produce a rough grouping of various theories of property, in order to advance our analysis of the strengths and weaknesses of these theories, and enable a reordering of the theoretical approach in the next two Parts.

A. A Natural Right to Property

Aristotle conceived of the right to property as inherent in the moral order. Arguing against Plato’s preference for common property, Aristotle urged for the primacy of private property on the
grounds that it encourages people to attend to their own affairs and not unduly interfere in those of others. Aristotle held this incentive to be the result of a self-love implanted by nature, such that only respect for private property could encourage the important virtue of liberality in the matter of property. Interestingly, Aristotle viewed the right to exclude as a key component of property rights since it allowed owners to display virtue by waiving this right and sharing the benefits of property ownership with others.

In this tradition, early post-Enlightenment theories of property focused on a “natural” right to property. Perhaps the most famous of these theories is “the labor theory” associated with John Locke. Locke’s point of departure was that God gave mankind in common the bountiful nature of the earth. Locke then posited that “every man has property in his own ‘person’” and in “[t]he ‘labour’ of his body and the ‘work’ of his hands.” Locke, therefore, deemed it just that one who expended labor upon objects would remove them from the common and claim them as private property. Locke added a utilitarian dimension by claiming that objects could not be beneficial to mankind until reduced to private property.

A different natural rights justification for property was developed by Freidrich Hegel. Hegel’s “personhood theory” is predicated on the premise that property provides the mechanism by which humans achieve self-actualization. To Hegel, people’s core is to be found in their will. However, the will needs material objects to express itself, and private property is therefore indispensable to the external manifestation of the will. Likewise, society’s recognition of private property further contributes to self-realization by respecting human agency. Thus, Hegel wrote, there can be no individual freedom without private property to provide freedom’s external sphere.

32 ARISTOTLE, POLITICS, Book II, Part V.
33 Id. (“[T]hrough virtue, the property of each will serve the good of all, according to the proverb, ‘friends’ goods are in common’ . . . when he decides how to use his own property, each [owner] makes part available to his friends and another part available to his fellow citizens.”).
34 LOCKE, supra note 19, at Chapter V, Part 26.
35 Id.
36 A strong argument can be made that Hegel’s perspective, while arguing for the importance on moral grounds, does not advance a natural rights-based, or even a rights-based theory. See SHLOMO AVINERI, HEGEL’S THEORY OF THE MODERN STATE 132 (1972) (noting that Hegel’s concept of human freedom “is not to be found in any legendary state of nature, but evolves precisely out of his effort to dissociate himself from his state of primeval savagery”); Jeanne Lorraine Schroeder, Virgin Territory: Margaret Radin’s Imagery of Personal Property as the Inviolate Feminine Body, 79 MINN. L. REV. 55, 124 n.263 (“Hegel’s property theory is intensely anti-naturalistic.”).
In time, natural rights theories of property fell into eclipse, especially in the wake of the Realist movement. Today, only a handful of scholars rely upon natural rights theories to justify or define the scope of property law. With a handful of notable exceptions, such as Richard Epstein’s qualified endorsement of a Lockean concept of property and Margaret Jane Radin’s embrace of a version of Hegel’s ideas about the importance of property to personhood, most scholars have based their understandings of property on a model where property is justified by utilitarianism and defined by positive law.

B. Positivism and Conceptualism

Perhaps the most famous attack on natural rights theories was launched by Jeremy Bentham, who scathingly dismissed natural rights:

Right ... is the child of law; from real laws come real rights; from imaginary laws, from laws of nature, fancied and invented by poets, rhetoricians, and dealers in moral and intellectual poisons, come imaginary rights, a bastard brood of monsters…. Natural rights is simple nonsense: natural and imprescriptible rights, rhetorical nonsense – nonsense upon stilts.

Naturally, Bentham was equally as dismissive of property rights as natural rights. In his view, “[p]roperty and law are born together, and die together. Before laws were made there was no property; take away laws and property ceases.” Bentham suggested, instead, a utilitarian basis for the law, an idea that eventually bore fruit in such frankly utilitarian legal analyses as the burgeoning economic analysis of law.

During the nineteenth century, however, while natural rights theories continued to reign supreme, the dominant understanding of property rights came to be that of William Blackstone, nominally a believer in natural rights, but, in practice, a formalist and conceptualist, interested less in the justifications for property law, and more in the minutae of its substance.

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38 See e.g. Mossoff, supra note 5 at 372 (2003) (“Since the turn of the century, the concept of property had succumbed to the acid wash of a nominalism first popularized in the law by the legal realists.”).
40 See e.g., Radin, supra note 17.
In his *Commentaries on the Laws of England*, Blackstone coined a formulation that eventually became the rallying cry of an expansive understanding of property. Property, wrote Blackstone, is “that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.” This famous formulation includes several central elements. First, property is concerned with rights *in rem*, i.e., “those rights which a man may acquire in and to such external things as are unconnected with his person.” Second, in the ideal, property belongs to a single individual, or as Blackstone put it, “one man.” Third, where land is concerned, property rights extend indefinitely upwards into the heavens and downwards to the center of the earth. Fourth, the principal right attached to property is the right to exclude “any other individual in the universe.” While Blackstone probably did not intend this result, modern theorists associated this formulation with an absolutist view of property that eventually came to be known, somewhat inaccurately, as the “Blackstonian bundle of land entitlements.” The Blackstonian bundle presupposes impeccably demarcated parcels whose boundaries extend upward to the heavens and downward to the depths of the earth, and owners with unbridled powers and privileges to use, transfer and even abuse the land.

By the beginning of the twentieth century, however, the Blackstonian conception had begun to wear. In a highly influential series of articles, Wesley Hohfeld sought to render legal thought more coherent by clarifying the basic concepts of the law. Concerned about the looseness with which legal terminology had been used, Hohfeld refined existing concepts and created new ones en route to devising a comprehensive legal taxonomy. Of particular importance to our project is his treatment of property rights. While Hohfeld listed ownership as his paradigmatic example of an *in rem* right, he reconceived of *in rem* rights as mere expressions of *in personam* rights vis-à-vis an indefinitely large class of people. Hohfeld also pointed out that property as a legal concept comprises not only

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44 Id.
45 Id. at Book 2, chapter 2.
49 Hohfeld II, supra note 48, at 718-733.
WHAT PROPERTY IS

rights, but also privileges and powers. He further elucidated that the crux of property is not a relationship between a person and an object, as Blackstone had suggested, but rather a nexus of legal relationships among people regarding an object. Hohfeld did not intend to create a comprehensive view. While his analysis of the question of whether property should properly be viewed as an in rem right has since become a staple of property theory, Hohfeld saw no need to address the practical implications of his taxonomy. Working from a purely conceptual perspective, Hohfeld did not concern himself with policy issues at all.

Nonetheless, Hohfeld’s observations are generally credited with having created an entirely new understanding of property as a “bundle of rights.” The “bundle of rights” concept of property denies any fixed meaning to the term property, and deemphasizes the importance

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50 Hohfeld gives meaning to “right” by comparison to its correlative “duty” through an example: “if X has a right against Y that he shall stay off the former’s land, the correlative (and equivalent) is that Y is under a duty toward X to stay off the place.” Hohfeld II, supra note 48, at 32. Compare definitions of “privilege” and “power”, infra notes 51-52.

51 For Hohfeld, the antithesis of the right-duty relationship is the privilege-no-right relationship. Thus, “privilege” is given meaning by comparison to the correlative, “no-right” by his example: “whereas X has a right or claim that Y, the other man, should stay off the land, he himself has the privilege of entering on the land; or, in equivalent words, X does not have a duty to stay off.” Id.

52 “Power,” in the Hohfeldian taxonomy, has the correlative “liability.” Thus, a “power-holder” is one who has the capacity to alter the legal status of the “liability-bearer.” Id. See also RESTATEMENT (FIRST) OF PROPERTY, § 3, illus.

53 This conclusion arises from the observation that rights are by definition relationship between people, see supra note 50. Where there is a right there must necessarily be a correlative duty, and an object cannot owe a duty.

of the thing with regard to which the rights are claimed. In the bundle metaphor, each right, power, privilege, or duty is but one stick in an aggregate bundle that constitutes a property relationship. Whether the removal of a stick (or set thereof) from the bundle will negate the classification of the remainder as property can never be determined in advance.\footnote{Moore v. Regents of Univ. of California, 51 Cal.3d 120, 166, 793 P.2d 479 (1990) (Mosk, J. dissenting) (“[Though a] … limitation or prohibition diminishes the bundle of rights that would otherwise attach to the property, yet what remains is still deemed in law to be a protectible property interest … [for, citing People v. Walker, 33 Cal.App.2d 18, 20, 90 P.2d 854 (1939)], ‘… property or title is a complex bundle of rights, duties, powers and immunities, [and] the pruning away of some or a great many of these elements does not entirely destroy the title….’”).} Thus, the bundle of rights theory transformed property into an almost infinitely malleable concept, amenable to numerous permutations, and subject to \textit{ad hoc} decisionmaking.

A.M. Honore played a decisive role in advancing the bundle or rights metaphor by cataloguing a generally accepted list of the “incidents” or property or ownership. Acknowledging that the “fashion[ of] speak[ing] of ownership as if were just a bundle of rights” might require small modifications in the list, Honore nevertheless confidently asserted:

Ownership comprises the right to possess, the right to use, the right to manage, the right to the income of the thing, the right to the capital, the right to security, the rights or incidents of transmissibility and absence of term, the prohibition of harmful use, liability to execution, and the incident of residuarity: this makes eleven leading incidents.\footnote{Honore, \textit{supra} note 15 at 113.}

Importantly, Honore noted that the importance of the list lay in its being an alternative to the “distortion” of the past, which saw property in the concentration of absolute rights of use, exclusion and transfer\footnote{Honore added to the list an “immunity from expropriation.” \textit{Id.}} in a single individual. Honore emphasized, by contrast, the lack of primacy of any individual stick in the bundle.

Today, the bundle of rights conception of property rules the academic roost. As Bruce Ackerman noted acerbically, the concept has become a “consensus view so pervasive that even the dimmest law student can be counted upon to parrot the ritual phrases on command.”\footnote{Ackerman, \textit{supra} note 7 at 26.} The result has been what some lament as the end of property law. In Thomas Grey’s words,

“We have gone […] in less than two centuries, from a world in which property was a central idea mirroring a clearly understood institution to one in which it is no longer a coherent or crucial category in our conceptual scheme. The concept of property and the institution of property have
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The substitution of a bundle-of-rights for a thing-ownership conception of property has the ultimate consequence that property ceases to be an important category in legal and political theory.59

C. Utilitarianism

As the legal conceptualization of property changed, so too did the justifications for property. The seeds planted by Bentham struck root, and today, many influential scholars justify property on instrumental and positive grounds. Today, there exists a widespread agreement that property law exists by order of the law, and that the law orders property in response to societal needs, rather than in obeisance to a moral command or the natural order of the universe.60

Property, like many other legal fields, has been heavily influenced by the movement to apply economic analysis to legal questions. Credit for generating the field has been ascribed at different times to Oliver Wendell Holmes,61 Ronald Coase62 and Richard Posner;63 today, however, it is Coase’s ideas that have had the most lasting impact in the field. Like much of modern law and economics, the two organizing principles of the analysis of property law are externalities and transaction costs. Negative externalities are costs created by one actor that are borne by another. Classical economics views externalities as a market failure that prevents

59 Grey, supra note 4 at 69, 74, 81.
60 To be sure, there remain some natural theory defenses of property, especially those sounding in Locke’s theory. See, e.g., Wendy J. Gordon, Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 YALE L. J. 1533 (1993) (proposing a natural rights-based theory of intellectual property). Indeed, Locke’s theory of natural rights in property continues to influence courts today, especially in the area of intellectual property. See, e.g., Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1002-03 (1984) (citing Locke’s Second Treatise as support for their holding that trade-secret rights can be considered “property” under the Takings Clause of the Fifth Amendment).
61 See, e.g., MARY ANN GLENDON, A NATION UNDER LAWYERS 187 (1994) (“[Holmes]’ writings, studded with quotable aphorisms, set the intellectual agenda of the law for the entire twentieth century. Legal realism, pragmatism, sociological jurisprudence, law and economics, and critical legal studies are all elaborations of themes announced by Holmes.”); see also RICHARD POSNER, OVERCOMING LAW 13-15 (1995).
62 See, e.g., George L. Priest, Gossiping About Ideas, 93 YALE L. J. 1625, 1629 (1984) (book review) (“The conceptual revolution that provided the vision … was the Chicago School law and economics of Ronald Coase.”).
otherwise competitive markets from achieving allocative efficiency.\(^{64}\) Ronald Coase revolutionized the field by noting that externalities will only lead to inefficiency where transaction costs impair private bargaining. In the absence of transaction costs, he wrote, parties would always negotiate to the efficient result notwithstanding externalities.\(^{65}\) While Coase paid no heed to the content of property as such, his analysis set the groundwork for subsequent contributions.

Harold Demsetz built on Coase’s foundation in advancing his important evolutionary theory of private property. Strikingly, Demsetz’s point of departure was identical to Locke’s—a hypothesized early state of nature in which property was held in common. However, Demsetz’s explanation of the transition from commons property to private property was very different. Demsetz noted that in comparison with commons, private ownership permits a single owner to internalize most costs and benefits, and greatly reduces the number of people exposed to externalities. Thus, Demsetz expected private property to arise wherever the gains produced by internalization exceeded the transaction costs involved in establishing the property right and the legal system to protect that right.\(^{66}\) Interestingly, Demsetz’ justification for property was not accompanied by any extended analysis of the concept or content of property. Thus, Demsetz unwittingly contributed to the further disintegration of the notion of property by signaling the divorce of normative from descriptive property theory.

A new level of ambiguity was added to scholarly understandings of property in the law and economic literature by Guido Calabresi and Douglas Melamed. Working from the basis of Coasean perspective, Calabresi and Melamed devised a tripartite menu of protecting legal entitlements consisting of inalienability rule protection, property rule protection, and liability rule protection.\(^{67}\) Entitlements protected by an inalienability rule may not be transferred even with the consent of the owner. Those protected by a property rule may be transferred at the owner’s discretion for the price set by her. As for entitlements protected by a liability rule, they may be taken by third parties in exchange for the payment of a price to be determined by a third party; the owner has no veto power, and must suffice herself with the compensation she receives. The taxonomy devised by Calabresi and Melamed, although ingenious, hopelessly confused the concept of

property. For while the term property rule protection implies a tight relation to property, this allusion is misleading.

Calabresi and Melamed elected to attach “property” to a type of legal enforcement of what they termed “legal entitlements.” By doing so, Calabresi and Melamed effectively added a third layer to the already bifurcated property analysis. Alongside the normative justifications for property and the descriptive analyses of property’s incidents, Calabresi and Melamed described property in a hitherto unfamiliar sense as a mode of protection that enables entitlement holders to enjoin nonconsensual uses of their entitlement—a power they dubbed “property rule protection.” Moreover, Calabresi and Melamed aggravated the confusion at the descriptive level by suggesting that any legal entitlement subject to property rule protection, thus conflating the entire Hohfeldian vernacular into a single, catch-all term that does not discriminate between property rights and other legal rights.

Yet another division of property was introduced by Yoram Barzel. Barzel distinguished between “economic property” which he defined as “the individual’s ability, in expected terms, to consume the good (or the services of the asset) directly or to consume it indirectly through exchange,” and “legal property,” which he defined as those economic property rights that are “recognized and enforced, in part, by the government.” Economic property, for Barzel, is an exceptionally broad term, encompassing the rights of anyone with any ability to consume the good in any fashion. For instance, in Barzel’s view, a car thief is a co-owner of a car along with the title-holder, because each has the ability to consume, in certain circumstances, a portion of the attributes of the asset.

Barzel too relied upon Coase’s insights to argue that the crux of property is the allocation of rights in environments of positive transaction costs. Barzel’s model stipulated that private contracting would invariably fail to capture certain valuable attributes of assets. The legal institution of property, on Barzel’s view, simply organized some forms of protection for those asset attributes not addressed by optimal contracting. For Barzel, therefore, property is a residual institution that is subordinated to the institution of contracts; legal property an even less significant factor, concerned with some instances in which the state might protect economic property rights. As Barzel put it, “[a]t the heart of the study of property lies the study of contracts.” Yet, as Smith and Merrill astutely observed, Barzel’s analysis suffers from a potential baseline problem. Barzel’s analysis is predicated on the primacy of contracts over property, but “one cannot

68 YORAM BARZEL, ECONOMIC ANALYSIS OF PROPERTY RIGHTS 3-4 (2d ed. 1997).
69 Id. at 33.
enter into contracts over the use of resources without some baseline to
determine who contracts with whom.\footnote{70}

In the final tally, the positivist and utilitarian analyses have
splintered the institution of property in several ways. Positivists, for
their part, have driven a wedge between descriptive and normative
dimensions of property. Utilitarians, for theirs, contributed to the
disjointedness by breaking the concept of property into legal rights
and economic rights (Barzel), and divorcing the issue of primary
rights from the issue of enforcement (Calabresi and Melamed).

D. Relational Conceptions of Property

In juxtaposition to the utilitarian and conceptualist property
theories, a different analysis arose in recent years emphasizing the
interpersonal relationships surrounding property rights. The most
notable work in this genre is Margaret Jane Radin’s \textit{Property and
Personhood}.\footnote{71} Building on Hegel’s theory, Radin introduced an
important distinction between personal and fungible property.\footnote{72} An
object belongs in the former category if it “if its loss causes pain that
cannot be relieved by the object's replacement.”\footnote{73} Contrarily, it
comes within the latter, if it “is perfectly replaceable with other goods
of equal market value.”\footnote{74} Personal property constitutes one’s self;
fungible property is held for “purely utilitarian reasons.”\footnote{75} Radin,
then, suggested that all objects may be ordered on a continuum that
runs from personal to fungible.\footnote{76} Moving to the normative
implications, Radin proposed a “two-level” property system that
offers differential protection to entitlements in accordance with their
classification as personal or fungible.\footnote{77} Furthermore, Radin suggested
that her theory may imply an obligation on the part of the government
to “guarantee citizens all entitlements necessary for personhood,” and
to ensure “that fungible property of some people does not overwhelm
the opportunities of the rest to constitute themselves in [personal]
property.”\footnote{78}

\footnote{70} Merrill & Smith, \textit{What Happened to Property}, supra note 7 at 377.
\footnote{71} 34 STAN. L. REV. 957 (1982)
\footnote{72} \textit{Id.} at 960. It is worth noting that Radin’s project was motivated in part to be a
response to the dominance of utilitarian theories of property and their celebration of
the market mechanism as a means for allocating resources. Radin, by contrast,
argued that the market has inherent limitations and that certain entitlements should
be excluded from market exchange. This theme was more fully developed in
\footnote{73} Radin, \textit{supra} note 71, at 959.
\footnote{74} \textit{Id.} at 960
\footnote{75} \textit{Id.}
\footnote{76} \textit{Id.} at 986.
\footnote{77} \textit{Id.} at 986.
\footnote{78} \textit{Id.} at 990.
Its ingenuity and importance notwithstanding, Radin’s analysis further obfuscated the concept of property. Radin’s analysis implied that theorists can no longer simply refer to property as a generic relationship among people regarding objects. Rather, it required a careful inspection of the nature of objects subject to property rights and the roles they play in constituting the personalities of the persons claiming them.

E. Neo-conceptualism and Utilitarianism

Most recently, a new body of scholarship has sought to recover the conceptual coherence of property by marrying traditional doctrines with some basic utilitarian justifications. In an important series of articles, Thomas Merrill and Henry Smith sought to reintroduce some coherence to property by stressing the centrality of two basic features of the property law: the *in rem* nature of property rights and the *numerus clausus* principle, under which property rights “must track a limited number of standard forms.” Merrill and Smith observed that “[w]hen property rights are created, third parties must expend time and resources to determine the attributes of these rights, both to avoid violating them and to acquire them from present holders.” Consequently, the creation of idiosyncratic property rights increases the information costs property imposes on third parties. Standardization, on the other hand, reduces them.

II. A Unified Value Approach to Property

In this Part, we have two aims. First, we isolate the core function around which property theory is constructed. Second, we explain how property is designed to serve this core function. Here, we sketch the outlines of how basic property rules serve property’s goals, and when property reaches the limits of its usefulness. To eliminate suspense, before beginning our exposition, we emphasize our central aim. We propose that the institution of property is designed to create and defend the value inhering in stable ownership. Property accomplishes this feat by creating and protecting the relationship between a person and assets. It bears noting at the outset that we do not aspire to create a radically different understanding of property; rather, we demonstrate that a coherent understanding of property can be found by rearranging elements of many of the theories that have been discussed through the years.

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79 Merrill & Smith, *Numerus Clausus*, supra note 4 at 5.
80 Id. at 8.
A. Overview: Property and Stability

In this Section, we assay to provide a more extensive analysis of the stability value created by the institution of property. Our conclusion is that a property system with stable rights increases the value of assets to users (now owners), and decreases the costs of obtaining and defending those assets. We further posit that a universally accepted and centrally-policed property system provides the most cost-effective means of producing these benefits in utility as a result of economies of scale. Finally, we show that, generally, the benefits provided by property systems increase with the stability of the property rights they create.

Before assaying a survey of the particulars of our analysis, we make a preliminary observation. The institution of property is not the only utility-enhancing institution in the law, nor is the value of stable ownership the only value that is or should be enhanced by legal institutions. Our point of departure, however, is that the law is divided into numerous legal fields such as property, torts, contracts and tax in order to handle characteristically similar utility questions in common fashion. In describing property, we discuss how property deals with value-enhancing relationships regarding assets, and, in particular, how property increases value by creating and defending stable ownership.

Thus, while our sketch of the value-enhancing role of property draws on contributions from many theorists, it does more than simply reiterate a utility-enhancing view of the purpose of law. We follow in the footsteps of luminaries such as Demsetz, Barzel, Steven Shavell, Robert Ellickson, Carol Rose and others too numerous to mention in viewing property law as aimed at enhancing utility, but there are some subtle and important differences between ours and others’ perspectives. First, we focus on the utility-enhancing results of \textit{ownership} rather than \textit{possession}. As we shall discuss, following in the steps of Meir Dan-Cohen, when the law of property creates a status of owner, it generates value that would not exist absent a recognized property relationship. Second, we emphasize the importance of legal recognition of an owner as the ultimate value claimant and of the restriction of property to certain types of assets rather than to any legal relationship or any asset. We posit that these two facets of our value theory are important to understanding why
there is a distinct law of property, and not simply a unified field of law dealing with all interactions among people in society. Yet, notwithstanding these contributions of our theory, we would be remiss in failing to note some of the central points on which we rely on our predecessors. Like them, we view property law as crucial in creating value by defending owners’ possession, reducing transaction costs for transferring objects, enhancing incentives to invest in developing objects, and providing a baseline for some kinds of contracts.

**B. Value of Property to an Owner**

In this Section we seek to delineate the various ways in which stable ownership enhances the value an owner receives from an asset. Those uninterested in the details of how property enhances value for the individual owner and for society may safely skip the next two sections and continue with Part II.D.

We begin with a familiar thought experiment of imagining the world without property law. In this world, no doubt, people would still have to use objects and they might still value some more than others and even be able to maintain a degree of stable possession over them. Each potential possessor of an object would then have to consider the following utility function before determining whether it is worth her while to obtain possession of the object. The expected utility from the object is represented in the following equation,

\[ U_o = P_o \cdot (S_o(p) - D_o) - C_o \]

where \( U_o \) is the expected utility to be obtained from an object; \( P_o \) is the aggregate probability of retaining the object (represented as a percentage of the total life of the object through which the acquirer manages to retain possession); \( S_o(p) \) is the use value of the object; \( D_o \) is the cost of defending the object from potential takers; and \( C_o \) is the cost of obtaining the object.

The utility function may also be expressed as the aggregate of the utility to be obtained in any given period over the sum of all of the periods of ownership. We provide the following notation for this idea:

\[ u_t = p_t \cdot (s_t(p) - d_t) - c_t \]

and
\[ U_T = \sum_{t=1}^{T} p_t \cdot (s_t(p) - d_t) - c_t = U_o \]

Here, \( u_t \) represents the utility obtained by the owner in any given period, and \( U_T \) represents the aggregate utility obtained over all periods. Thus, \( U_T \) is the equivalent of \( U_o \) above. Similarly, \( p_t \) is the probability of retaining the object in any given period, is the use value of the object; \( s_t(p) \) is the use value of the object in any given period; \( d_t \) is the cost of defending the object from potential takers during that period; and \( c_t \) is the cost of obtaining the object in that period.\(^{87}\)

It is evident, then, that the probability of retention and the use value are variables that positively correlate with the utility of the owner, whereas the cost of obtaining and defending the object are negatively correlated with the utility of the owner. The first question for policymakers is, thus, how and to what extent the introduction of property law is going to affect these variables. Initially, we presume that policymakers have only one available option for instituting a property law regime. Accordingly, they face a binary choice between having a property law regime and not having a property law regime. Later, we complicate the analysis by examining the issue of the ideal content of property law.

Assume that a basic property system has three chief components. First, it creates a certain status. The new legal status states that an asset – a widget, for example – “belongs” to the owner. Second, the legal system defines the meaning of this status. That is, it states that when a widget belongs to the owner, the owner enjoys a given menu of rights, powers, and privileges. Third, the legal system attaches certain practical consequences to the violation of property rules. For instance, the legal system may provide for the punishment of trespassers. It is not necessary for our purposes to assume that all violations will be detected or punished.

What will be the effect of the institution of property on each of the four variables we discussed? Begin with \( C \), the cost of obtaining objects. Our hypothesized property system affects \( C \) by altering the transaction costs pertaining to two types of information: information about status, and secondary information that facilitates transactions. Naturally, the creation of status engenders a new type of information about assets, i.e., to whom they belong. The creation of status, however, will likely have a very modest effect on information about

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\(^{87}\) In describing the aggregate utility as the sum of individual owners’ utilities, we ignore the likelihood of externalities, both positive and negative. The assumption of no externalities is, of course, highly unrealistic, and we revisit the topic later in this section.
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assets. This is because the creation of status does not, on its own, lower the defense cost of object owners. Without enforcement, one’s status as owner has little independent meaning. Hence, the effect on cost is contingent, relying upon the effectiveness of the enforcement mechanism. Stated otherwise, the major effect on C created by the informational status engendered by our hypothesized property system relies upon the system’s effect upon another variable – D, the cost of defending the object from possible takers.

We will return to the subject of cost of defending the object momentarily. First, however, it is important to discuss the secondary information effects of formalizing property as a legal right. The availability of legal protection enables asset holders to share transactional information, such as the location of the holder, the rights she holds, and the potential terms of exchange with the rest of the world. The availability of such information dramatically decreases the search and transaction costs for third parties. As a result, the overall cost of purchasing property declines. Yet, a possible countervailing effect must be noted. In the absence of effective protection of property, secrecy would be among the principal defensive measure asset holders use to maintain possession. Suppression, or concealment, of information about assets increases the search costs of potential takers and thus increases the current holder’s likelihood of keeping the asset. Thus, absent enforcement measures, it is difficult to determine the net effect of a property system on the cost of obtaining assets. However, once the property system includes an enforcement mechanism, we should expect an information market to arise, and, therefore, the cost of obtaining objects to decline.

Defensive costs (denoted D), of course, are more directly impacted by the property system’s provision of enforcement. As public enforcement mechanisms are made available to private property owners, they may substitute the public defensive mechanisms for their private protection. The better the public defense, the lower the private investments. Thus, central legal enforcement provides asset holders with the ability to reduce significantly defensive costs. This result obtains even if, as expected, legal enforcement of private property rights is less than 100% effective.

For similar reasons, legal enforcement of property rights should increase the property owner’s probability of retaining possession of her property—the P variable in our formula. The heightened protection effected by legal enforcement makes it less likely that assets would be involuntarily taken from their current owners. It should be noted that the availability of status recognition and legal enforcement are likely to prompt more voluntary transfers of assets in
market transactions. Thus, the emergence of voluntary exchange may well shorten the average ownership term. However, since voluntary exchanges increase asset values (enhancing the utility of both seller and buyer), the potential shortening of the ownership term has a net beneficial effect.

The effect of a property system on use value, \( S(p) \), is also positive. It bears emphasis, however, that the use value is a complex function. The use value of an object is influenced by various parameters such as use revenue, operating costs, learning curves, interoperability among assets, and the ability to separate ownership from possession or operation.\textsuperscript{88} The existence of a property system does not affect all these parameters uniformly. Rather than posit and plot a separate use function showing the interlocking effects of all these elements, we examine the broad effects produced by the property system.

Use revenue represents the gross stream of income derived from an asset. It includes both pecuniary and nonpecuniary elements. We may expect use revenue to increase with the institution of legal enforcement. The affordability of legal protection, and the corresponding diminution in reliance on self-help defensive measures, should result in increased use of assets, and a corresponding increase in the revenue stemming from use. The emergence of legal protection not only facilitates more open and more frequent uses of assets, but also makes possible the temporary separation of ownership and possession. Without property protection, asset holders would be extremely reluctant to surrender possession since possession would be their only cognizable interest in the item. Any concession of possession would have to be accompanied by sufficient security measures to compensate the asset holder for the impending risk of not having the asset returned. However, potential possessors would be equally reluctant to provide adequate securities to the asset-holders, lest their securities never be returned. Consequently, all property arrangements that involve separation of ownership and use, such as, lease, bailment, and licensing, would have to rely on barter. Such barter, however, would be extremely rare and difficult to execute since there might not be mutually desirable objects of the requisite value, or delivery might be practically impossible.

The possible voluntary decoupling of ownership and possession (or operation) increases the use value of assets in several related ways. First, it makes possible the temporary transfer of assets to

\textsuperscript{88} In principle, use value may also be affected by depreciation and obsolescence. However, since we defined \( P \) as the probability of retaining an asset over an asset's life, we need not concern ourselves with obsolescence and depreciation. Both obsolescence and depreciation determine the life term of relevant assets, and thus, in our representation, they are already incorporated into \( P \).
higher value users who cannot afford to purchase the assets. The common practice of taxi cab owners in major cities to give use rights to non-owner drivers is one example of this phenomenon. Leases of manufacturing equipment or commercial and residential real estate are another. These widespread practices would not have been nearly as ubiquitous, however, without a system of recognition and enforcement of private property rights that allows the temporary relinquishment of possession. The taxi cab driver will likely be one more skilled at producing revenue from the cab, while the owner will be more skilled at managing a fleet. The driver’s temporary possession thus enhances revenue produced by the asset. Second, the ability to transfer assets to people who are more skillful than the owner in using the asset almost invariably entails a reduction in operation costs. For example, the skilled manufacturing machinery operator will almost certainly be able to run the equipment at a lower cost than that of the less skilled owner. Together, these two factors – higher revenues and lower costs – point to greater profits resulting from temporary separations of ownership and possession.

Stable property ownerships also allow for increased net use value resulting from costs of learning how best to use an asset. The utility-enhancing effects of stability with respect to learning curves may arise in a number of different contexts. Consider, for instance, an expensive asset with a large number of attributes, such as an automobile. Over time and as a result of repeated use, the automobile operator will learn the various tics that are unique to the vehicle. For example, she will learn that the brakes best respond to moderate pressure, while the accelerator pedal works best when touched lightly. Acquiring this knowledge, through time, enhances the ability of the operator to extract the maximum utility from the vehicle. Of course, the benefits of learning are positively correlated with the complexity of the asset. Thus, for example, when a company’s assembly line is comprised of various pieces of machinery, stability in the right to possess produces more efficient use over time. Naturally, one cannot expect the company’s employees to realize the full economic potential of the machinery right away. Indeed, the operation of complicated machinery often requires long training periods, and cannot be put to use right away. The acquiring company must let its employees familiarize themselves with how each production unit and understand how it interacts with other pieces in the line. Stable ownership provides the employees with the opportunity to acquire this knowledge. One would expect that without the longer-term possession encouraged by property protection, the investment in complex assets that require learning would be much smaller than it currently is.

89 See infra, Part VI.C for further discussions of leases and property.
The last point is closely related to yet another advantage of stable ownership: compatibility. As the ownership period of various assets is extended, the ability to extract utility from other assets will be affected by potential interoperability. For instance, the utility of purchasing a particular car seat will be affected not only by the likelihood of continued possession of the seat, but also by the expected possessory life of the car itself. The property system’s enhancement of the value of one asset can therefore be expected to have positive multiplier effects as the increased value spreads to other, interoperable assets.

Finally, the property system may add to the use value of assets simply by bestowing the status of ownership on the relationship between an owner and asset, even where there is no change in the expected ability to defend the asset. Concretely, an owner of an asset is likely to receive some value from the realization that society recognizes her as the rightful owner of an object. This value, labeled “ownership value” by Meir Dan-Cohen, is wholly separate from that created by central enforcement. Consider, for instance, ownership of a home. The effect of the property system goes beyond the enhanced value resulting from secured possession or even sentimental attachment. There is independent value for the homeowner in the very creation of the new status. Dan-Cohen illustrates the value of “delight in ownership” by describing the utility owners derive from collections of bottlecaps or otherwise worthless items; he posits that in these cases the collector “does not value owning these items because she values the items, but the other way around—she values the items because she owns them.”

C. Value of Property to Society

To this point, we have shown that a property system may enhance the utility of individuals regarding objects they possess or use (or own). However, for policymakers, the creation of a property system is not solely related to its effect on individuals. Rather, policymakers must determine whether the public creation of a society-wide property system is utility-enhancing relative to the private and public alternatives (including the possibility of no property system at all).

\*Dan-Cohen, supra note 17 at 1.

\* Id. at 4. It is not difficult to guess that Dan-Cohen will disavow our utilitarian analysis of the value of ownership. Dan-Cohen’s account is proudly non-consequentialist and non-reductionist. Id. at 1. He analyzes ownership in relationship to constitution of the self, and while he recognizes that ownership is constitutive of value, to him this value is tightly linked to an ontological conception of the self.
The first step in analyzing whether a society-wide property system is worthwhile is to extend the analysis we conducted so far from the level of the individual to the society. Tackling the problem at a societal level reveals certain network externalities, free-riding problems, and economies of scale and scope that suggest both that the public definition of property status and public enforcement of property rights should be publicly provided.

We begin with property status, whose utility is directly related to the degree to which the property system is known in, and used by, society. Naturally, the more widespread and accepted a property system, the more it enhances property status. As the number of people who are aware of and respect the property system grows, there are more sources of information about property and a greater likelihood of social conventions developing regarding the labeling of and respect for property status. Conversely, as the number of persons not respecting the property system shrinks, one may expect a decreasing likelihood of a competing system that might send confounding signals regarding property status. In this way, a property system is analogous to a communication network whose value increases with each every additional subscriber. And correspondingly, the value each subscriber derives from the network increases as the network itself grows in size.

Moreover, property status is prey to free-riding. Once property rights are defined by an influential actor such that the standard is accepted throughout society, even those that do not pay for the service of property definition will be able to use the concept of property. If, for example, there is widespread agreement in society that there is such a thing as a property right, and that it is obtained by means of investing labor in an object, everyone who invests labor in an object will likely have her property rights respected, even if she has made no

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92 A network externality exists when the utility that a given user derives from a good depends upon the number of other users who are in the same network. Michael L. Katz & Carl Shapiro, Network Externalities, Competition, and Compatibility, 75 AM. ECON. REV. 424, 424 (1985). Although we are primarily concerned with network externalities of positive effect (as in the decreased cost per user in most telecommunications systems), they may also be negative (as in the increased cost per user on an overcrowded freeway).

93 For our purposes, economies of scale are increases in the efficiency of a system (decreases in the pro rata cost of the goods or services it delivers) resulting from an increase in its size (e.g., the number of users). See, generally, ROBERT S. PINDYCK & DANIEL L. RUBINFELD, MICROECONOMICS 227 (5th 2000).

94 For our purposes, economies of scope are increases in the efficiency of a system (decreases in the pro rata cost of the goods or services it delivers) resulting from an increase in its scope (e.g., the range of goods or services provided). Id.

95 Notwithstanding the presence of network externalities, there may be a role for competition in defining property rights. However, a full examination of the question is beyond the scope of this Article.
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investment in advancing the concept of property rights. A legal property system, in other words, is like many other parts of the legal system in that it may be viewed as a public good. Consumption of its services is nonrivalrous, and there is no effective way of excluding consumers from using its services. Indeed, in describing public goods as “instances in which marginal private net product falls short of marginal net social product because incidental services are performed to third parties from whom it is technically difficult to exact payment,” Alfred Pigou had in mind, inter alia, intellectual property law.

Public enforcement of property systems will also, often, be a public good. Enforcement of property rights through monitoring infringements, apprehending transgressors and prosecuting and punishing violators has the effect of strengthening the value of all property. In general, there is no way to exclude property owners from enjoying the benefit of enforcement and free-riding. Notably, where property owners can be excluded from enforcement benefits — for instance, where enforcement is carried out by social punishments in a tightly knit community — there will be less need for public provision of a property system. This insight is at the core of Demsetz’ observation that social interaction regarding property must become sufficiently expensive before a public property system is

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98 While law enforcement officials may refuse to extend protection to certain types of property owners, unless the method for refusing can be readily discerned by violators, all property owners will earn the benefits. This is because violators will not know in advance whether the property right that they are violating is subject to public punishment or not, and they will assess the risk equally across all assets, whether publicly protected property or not. For an example of how defense mechanisms that are externally unobservable protect all owners, see Ian Ayres & Steven D. Levitt, Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack, 113 Q.J. Econ. 43 (1998) (discussing and measuring the positive externalities of lojack). Interestingly, therefore, where there is systematic bias, a parallel private enforcement may very well arise in order to provide substitute private property protection.
worthwhile.\textsuperscript{100} The result is that in most cases, enforcement of property rights is a public good that should be centrally provided by the state.\textsuperscript{101}

It is possible that property definition and enforcement are also the source of economies of scale. Enforcing property rights involves monitoring violations as well as apprehending, prosecuting and judging transgressors. It is quite possible that centralized enforcement of property rights will produce these goods more cheaply. Additionally, there may exist economies of scope between monitoring and apprehension.

Enforcement of property rights is likely to be more cost effective when it is not performed on an individual basis. Enforcing consists of monitoring violations and apprehending, prosecuting and judging transgressors. Given that a single transgressor typically threatens multiple property owners, all these functions are likely to be characterized by economies of scale. Rather than require each individual owner in the threatened group to fend for herself, it will likely be cost effective for the state to provide enforcement.

A similar analysis applies to apprehension. The only difference between monitoring and apprehension is that the former aims at deterring transgressors from carrying out their schemes, and the latter at incapacitating them. As with monitoring, apprehension too gives rise to economies of scale, and thus, should be performed in a centralized fashion. In addition, apprehension also involves an element of expertise. Specialized agents being repeat players can

\textsuperscript{100} See Demsetz, supra note 66, at 350 ("[P]roperty rights develop to internalize externalities when the gains of internalization become larger than the cost of internalization.").

\textsuperscript{101} See, e.g., ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 653-766 (E. Cannan ed. 1937) (suggesting that because of certain market failures, the administration of justice should be provided by a civil government); Lawrence B. Solum, Alternative Court Structures in the Future of the California Judiciary: 2020 Vision, 66 S. CAL. L. REV. 2121, 2173-74 (arguing that enforcement of a private property system through a public dispute resolution system is a public good that should be provided by the state, rather than leaving aggrieved individuals to seek private enforcement through vigilantism); cf. Peter H. Aranson, et al., A Theory of Legislative Delegation, 68 CORNELL L. REV. 1, 27 ("Because private-sector decisionmakers will not necessarily supply public goods at efficient levels, such goods may be logical candidates for public-sector production."); James M. Buchanan & Milton Z. Kafoglis, A Note on Public Goods Supply 53 AM. ECON. REV. No. 3, at 403, 413 (concluding that if a municipal government ceased to provide police or fire departments, and instead people hired these services done, the "total resource outlay on providing protection to life and property would be greater than under collectivization"). But see Stuart Banner, Transitions Between Property Regimes 31 J. LEG. STUD. 359, 363 (arguing that enforcement of a property system may not be a public good because the organizers of the system can deny the benefits of the system to certain people by refusing to enforce those people’s rights).
pursue violators—be they convertors, trespassers or con-artists—more effectively than individual property owners.

Furthermore, there exist economies of scope between monitoring and apprehension. Various monitoring skills reduce the cost of apprehending transgressors. Likewise, familiarity with the physical and social setting of a given community can considerably lower the cost and increase the effectiveness of deterring violations of property rights and apprehending violators. Therefore, from an economic perspective, there are advantages to having both monitoring and apprehension performed by the same agents.

The final two activities, prosecuting and judging offenders, also rely on expertise, and are characterized by economies of scale. Both prosecuting and judging require proficient knowledge of the legal system and adequate familiarity with the facts of each individual case. Furthermore, judicial decisions give new content and meaning to property rights, and thus, affect parties beyond those involved in the immediate dispute. For all these reasons, it is beneficial to have a central property system.

Perhaps some would argue that the property system as a whole produces negative utility, i.e., it diminishes social welfare on the whole. Such claims, however, are difficult to reconcile with the empirical data. Numerous studies have demonstrated that property systems are crucial to the macroeconomic development of countries. Indeed, these works show that long term economic growth is intimately tied with the creation and defense of stable property rights. Moreover, a recent study shows that stable property institutions are more important to economic growth than contractual ones. Consistent with our theory, this study suggests that the

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102 Hernando de Soto, Preface to The Law and Economics of Development xiii (Edgardo Buscaglia et al. eds., 1997) ("Those nations that have succeeded in developing a market-oriented economy are not coincidentally those that have recognized the need for and secured widespread property rights protected by just law."); Paul G. Mahoney, The Common Law and Economic Growth: Hayek Might be Right, 30 J. LEGAL STUD. 503, 523 ("The data . . . suggest that the strong association between secure property and contract rights and growth is causal, and not simply a consequence of simultaneity."); Todd J. Zywicki, The Rule of Law, Freedom, and Prosperity, 10 SUP. CT. ECON. REV. 1, 22 ("The documented effect of increasing rule of law values on economic growth is robust. Individuals are more willing to invest in economic growth where property rights are stable . . . ."); Dani Rodrick, Institutions for High-Quality Growth: What They Are and How to Acquire Them 5 (Nat'l Bureau of Econ. Research, Working Paper, No. 7540, 2000), available at http://www.nber.org/papers/w7540 ("[E]stablishment of secure and stable property rights [was] a key element in the rise of the West and the onset of modern economic growth.").

103 See Daron Acemoglu & Simon Johnson, Unbundling Institutions, NBER Working Paper 9934 (August 2003) (demonstrating that property rights institutions
property system is crucial to encouraging societal welfare by creating and defending stable ownership rights in property. Finally, such scholars as Douglass North have provided the theoretic groundwork to the empirical work.

A far more interesting question that our analysis is not equipped to answer is what the optimal level of property protection should be. Admittedly, the state may provide more property protection than is socially optimal—and indeed, it may even be doing so now. Unfortunately, it is not easy to measure precisely the cost of providing a property system or property protection in any given case, or the precise utility of property vis-à-vis any particular asset or owner class. And, while the tradeoff of system utility versus transaction cost has not merited extensive examination in general property scholarship, the cost benefit analysis has been discussed extensively in the intellectual property literature. In the classic treatment of the subject, William Nordhaus demonstrated that the optimal duration of patent protection balances the utility of incentives for innovation against the costs produced by monopoly-induced deadweight loss.104 Unfortunately, determining where this balance lies in the real world has proved to be elusive.105 By the same token, it is difficult to imagine empirical studies that would accurately identify the precise tradeoff that would achieve the optimal level of property protection.

D. Asset Definition

So far, our discussion of the utility of a legal property system has omitted reference to the question of which assets should be included in the system. As we noted earlier, property is not the only field of law and not every asset is suitable for property protection. The value theory of property suggests the central limitations on assets to be covered: only assets for which protection of stable ownership will enhance social welfare should come under the aegis of property law. By necessity, as society changes, the value derived from different assets is transformed and therefore the objects of property law will

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105 In the wake of Nordhaus’ early investigations, many others have attempted to tackle the problem of optimal patent duration. See, e.g., Richard Gilbert and Carl Shapiro, Optimal Patent Length and Breadth, 21 RAND J. ECON. 106, 106 (“When patent policy is viewed to be a choice of patent breadth as well as patent length, we find that the optimal length may easily be infinite. The appropriate margin on which patent policy should operate may not be patent length, but rather patent breadth.”); F.M. Scherer, Nordhaus’ Theory of Optimal Patent Life: A Geometric Reinterpretation, 62 AM. ECON. REV. June 1972 at 422-27 (proposing a modification to Nordhaus’ original attempts at modeling optimal patent life).
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change over time. Similarly, as the cost of providing property rights for asset or owner classes changes, the net utility of providing for property rights will change as well.

The theory of property as protecting stable ownership value instantly suggests two types of assets that are not suitable for protection under the property system: non-market goods and goods for which there is no \textit{in rem} protection. Non-market goods are goods that will not appear on the market due to lack of demand (because no one derives any utility from them) or lack of supply (because they may not be cost-effectively protected). An example of an asset for which there is currently no demand is a torn plastic wrapper of a CD. An example of an asset that may not currently be cost-effectively protected is fair weather. The second category excluded contains goods for which there is no \textit{in rem} protection. An example of a good falling into this category is a beautiful singing voice. The voice qua voice may not be appropriated by third parties. No surgery or other medical procedure will do.

A different limitation on assets’ suitability for property protection stems from asset size and the threat of asset fragmentation. Here, the withholding of property protection is not categorical but individualized. Take ownership in land, for instance. Needless to say, in principle, ownership in land is a recognized property interest. However, if the interest is devised to too many devisees, or allowed to descend to too many heirs, it may become so fragmented as to lose virtually all of its value. Imagine that Blackacre is a sixteen-acre estate (2,722.5 ft.\(^2\)) that, after several generations of partitioning and re-partitioning, is divided into 1,249 separate parcels of less than 2.2 square feet each. Practically speaking, it is unlikely that the small parcels (each roughly 18 inches by 18 inches) will prove to be commercially useful in any fashion, and it is difficult to imagine the development of any residential use or sentimental value. In short, as the asset becomes too small, it is unlikely to be of any value whatsoever. And, indeed, as the asset becomes too small to be one where any value would be created or defended with stable ownership, it moves beyond the range of the legal property system. The loss of value in such cases is quite close to the problem Michael Heller dubbed the “tragedy of the anti-commons.”\(^{106}\) In Heller’s examples, Blackacre is not physically divided, but each of the devisees and descendants receives an increasingly small ownership share of the whole. Thus, each transferee, by virtue of being a co-owner, has veto power over any decision about the use or transfer of the asset. The creation of multiple veto powers, with the attendant holdout problem,

\(^{106}\) Heller, Anti-Commons, supra note 4 at 624 (“When too many owners have [the] privileges of use, the resource is prone to overuse--a tragedy of the commons.”).
often leads to insoluble asset lock-ins and thus causes underutilization of assets. Whether the asset is divided physically, or its ownership is divided among many owners, the solution is clear: a larger asset in the hands of fewer owners. This can be accomplished by either recombining the micro-parcels, or reaggregating the micro-shares of ownership. Either way, the legal system should discourage stability in ownership until the asset is one for which there is value in stable ownership.

Yet another category of assets unsuitable for property rights results from the cost of providing property protection. One current example of such an asset is ideas. Under the prevailing view, we have no property rights in pure ideas, as such, partially because the cost of protection would outweigh the benefit. It must be borne in mind, though, that the cost of property protection depends in large measure on technology and new technological advances may make it cost-effective to create new property rights in yet unprotected resources. Technology determines not only the feasibility frontier but also the effectiveness of the protection. For instance, the invention of barbed wire enabled farmers near perfect protection against roaming cattle, and consequently enhanced the value of their land. Indeed, it is quite feasible that an asset will become a suitable subject of property law primarily due to reductions in the cost of property protection, rather than any changes in the revenue derived from the asset. Conversely, the Napster cases and the digital information revolution generally may be read to suggest that an asset may cease to be a suitable subject of property law because of an increase in the cost of protecting it.

In subsequent sections we demonstrate how law deals with the problem of identifying and restricting property protection to the right kind of assets.

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107 See Galanis v. Proctor & Gamble Corp., 153 F.Supp. 34, 37 (“The general rule of law is that a mere idea is not property . . . .”); Douglas Y’Barbo, On Legal Protection for Electronic Texts: A Reply to Professor Patterson and Judge Birch, 5 J. INTELL. PROP. L. 195, 216 n. 52 (“[T]he high administrative cost of protecting ideas is no doubt important; it is simply too difficult to determine an idea’s source, e.g., whether it is original or not.”); Stephen C. Carlson, The Law and Economics of Star Pagination, 2 GEO. MASON L. REV. 421, 432 (“[T]he administrative costs of defining the idea are quite high [because determining the scope of the protected idea would be problematic.”]).

108 TERRY L. ANDERSON & DONALD R. LEAL, FREE MARKET ENVIRONMENTALISM 29-30 (1991) (describing the impact that barbed wire had on ranchers in the Western United States when it was introduced in the 1870s).
E. Property and Contract

A final point should be made about the relationship between contract and property in our understanding of property. As we noted previously, modern economic analysis presumes that property is the leftover category when contract is exhausted. Economic analysis in the Coasian vein notes that in a zero transaction cost world, people concerned with the use of a particular asset may arrive at perfectly contingent contracts that efficiently dispose of the asset, and make property irrelevant. Thus, the standard pose of such theorists is that of Barzel, who views property as merely setting up some default allocations and rights that provide the basis for further bargaining. To be sure, it is often noted that there will be cases that transaction costs will bar further transacting, and in such cases the property rules will be dispositive. But the bulk of analysis is not devoted to these residual cases.

In our view, this approach has the analysis precisely reversed. More frequently than not, there are many potential claimants for assets, and perfectly contingent contracts would need to be negotiated with a large number of parties in order to render property rules irrelevant. Recall our earlier example of the conveyance of an automobile. While the buyer and seller can likely tend to all their affairs by contract, they will almost certainly be unable to extend the contractual network very far into the rest of the world. Indeed, often so many parties would have to be bargained with that contractual solutions are unavailable, and property rules are the ultimate determinant of the societal welfare to be devoted from the object. In other words, only rarely can bargaining be counted upon to produce the efficient use and allocation of assets; in most cases, the property rules will determine whether social welfare is maximized. It is for this reason that property rules must be carefully tailored to maximize the value produced by property institutions.

III. Through The Value Prism

Having presented the basics of our theory, it is fitting in this Part to acknowledge our intellectual debt to some of the preexisting contributions. Our unified theory of value has many theoretic antecedents. As we noted, a value component in property theory is present in the writings of Locke, Marx and numerous others, and

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109 See supra text accompanying notes 70-71.
110 BARZEL, supra note 68 at 7
111 Id. at 33.
112 See Abraham Bell & Gideon Parchomovsky, Of Property and Anti-Property 102 Mich L. Rev. 102 (2004) (discussing how transaction costs may bar further transfer of property rights).
more recently, in those of Radin and Barzel. Each of them uses value in a different way. We are no exception to the trend; our use of value diverges from prior use. Furthermore, in a significant departure from current conceptualist scholarship, we use value as the key component in unifying property as a legal institution. In this Part, we compare our theory with other existing theories, examine their fit with ours, and highlight remaining differences. Here, we engage a wide variety of scholarship ranging from neo-conceptualism to law and economics.

A. Labor Theory of Value

The differences between our use of value and that of Locke and Marx should be readily apparent. Although, Locke and Marx proffered radically divergent theories, and each of them was concerned with a dissimilar set of issues, both used value in a similar fashion. They both used value as the connecting link between labor and ownership. The critical premise in their writings was that labor enhances the value of objects, a commonality that led them both to argue that the laborer is entitled to the added value component. Locke used this reasoning to provide a natural rights basis for ownership; Marx used it to argue for empowerment of proletariat. The labor theory of value was at one time very influential; however, its importance has declined. As should be clear to the reader, our value theory does not rely on the labor theory, and the labor component of value has no independent importance for us.

B. Value and Personhood

The contrast between our approach and that of Radin warrants more elaboration. Working from a personhood perspective, Radin divided the world of objects into two categories: nonfungible and fungible. Nonfungible goods are those that are instrumental in constituting their owners’ personality. As a result, nonfungible objects, such as a wedding ring, create special value for their owners above and beyond market value. Fungible objects, by contrast, lack uniqueness and serve no purpose in constituting the self. Radin suggested that property law should track this distinction and treat

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113 See supra Introduction, and Part I.D.
114 For an overview of the Marxian labor theory of value, see Fernando Vianello, Labour Theory of Value, in THE NEW PALGRAVE: MARXIAN ECONOMICS 233 (John Eatwell, Murray Milgate & Peter Newman, eds. 1990)
115 LOCKE, supra note 19, at Chapter V, Part 26.
116 See KARL MARX, I CAPITAL, part III (1867).
117 Radin, supra note 71 at 960.
118 Id.
119 Id. at 986.
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goods differentially based on their classification as nonfungible or fungible. For example, Radin proposed to restrict injunctive relief, or property rule protection, to cases involving nonfungible goods, and in all other cases, to offer only compensatory damages, or liability rule protection. Furthermore, while Radin acknowledged the possibility that owners may ascribe idiosyncratic value to fungible objects, she derided this phenomenon as "object fetishism" that should not be condoned.

Our model sheds new light on Radin’s theory and permits the translation of some of Radin’s insights into the language of an economic approach. In essence, Radin’s insight regarding the distinction between “personal” and “fungible” property may be viewed as a subset of a larger phenomenon: the gap between reserve price and market price. This gap may be due to the sentimental reasons related to what Radin calls “self-constitution” or “personal embodiment.” Such, for example, may be the case with a wedding ring, which if lost “causes pain that cannot be relieved by the object’s replacement.” In the cases of sentimental attachment, the owner finds emotional utility in the asset that is not accessible to other market participants, and, therefore, will not be reflected in the market price. In other words, the price at which the owner will agree to sell the asset (the reserve price) will exceed the price that ordinary market participants will pay (the market price). However, other elements besides sentimental value may also account for this gap between reserve and market prices. An owner, for example, may have a unique skill that allows her to extract greater utility from a rare commercial asset. For instance, Alice may be a musician who is particularly adept at playing period harpsichords from the early 18th century. Since the market for such harpsichords is exceptionally thin and Alice’s ability to extract utility exceptionally high, if Alice’s harpsichord is destroyed, Alice’s loss may well exceed the catalogue price of the harpsichord. A different example is provided by goods whose enjoyment necessitates a learning period. Consider again the automobile with the oversensitive acceleration pedal; the learned skill regarding the automobile’s operation creates a unique ability in the owner to extract utility from the asset at a low cost. As with the case

120 Id.
121 See id. at 988 (“[T]here would be a nice simplicity in hypothesizing that personal property should be protected by property rules and that fungible property should be protected by liability rules.”).
122 See id. at 961 (arguing that the idiosyncratic value people might ascribe to fungible property does not deserve the same level of protection as personal property because “anyone who lives only for material objects is considered not to be a well-developed person, but rather to be lacking some important attribute of humanity”).
123 Id. at 958.
124 Id. at 959.
of sentimental value, the essential feature of all these assets is that they have unique qualities that make them lack perfect substitutes in the marketplace. This lack of substitutes engenders a rational gap between the owner’s reserve price and the market price.

An important distinction must be made here between the rational values that inhere in stable ownership, on the one hand, and misperceptions in value that are often used to exemplify the “endowment effect,” on the other. The endowment effect causes individuals to value goods in their possession more than the identical goods in someone else’s possession. At its most basic level, the endowment effect may be viewed as a decisional heuristic that is sometimes rational, and sometimes not. Thus, for example, participants in one famous study were randomly awarded either lottery tickets with a payoff of $50, or, alternatively, $3 in cash. The lottery recipients were then given the opportunity to sell the lottery tickets for $3, and the cash recipients the chance to buy the lottery tickets for $3. Remarkably, while 38% of the cash recipients opted to buy lottery tickets, a whopping 82% of lottery ticket recipients rejected the cash offers and kept their tickets. The cause of this disparity between the perceived value of the lottery ticket depending on possession was the endowment effect, and, at least in this experiment, it reflects a decision-making quirk or a misperception, rather than any rational protection of value. By contrast, there are cases where the valuation embodied in the endowment effect reflects a rational assessment that “a bird in the hand is worth two in the bush.” For instance, as Richard Posner noted, persons in possession of an object may capitalize potential replacement costs in its valuation where the object lacks ready substitutes. Indeed, even where the object would ordinarily be thought to have close substitutes, the development of habit and familiarity, or sentimental connection may have created rational idiosyncratic value. Likewise, owners and possessors may have better information about the object’s value.

Our value theory addresses all the situations in which a rational gap exists between the owner’s reserve price and the market price.

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127 RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 95-96 (5th ed. 1998).
128 Where there are only close, but not identical substitutes, there may be substantial costs involved in learning how to enjoy the full value of the substitute item, whereas all such costs in the currently possessed item have already been sunk. As a consequence, the marginal cost of continuing to use the possessed item will no longer include the cost of learning how to use it, while such costs will continue to be reflected in market prices.
The emphasis our theory places on the value of stable ownership implies, inter alia, greater protection to people who derive unique value from assets. It is noteworthy that two effects of legal property rights—status conferral and enforcement—not only protect the unique value owners derive from certain objects, but also facilitate the creation of such value by enabling owners to develop certain value-enhancing expectations and patterns of behavior.

Before turning to the differences between our and Radin’s understandings of value, we must underline a significant point of convergence. Radin’s important insight, for our purposes, is that a center of property analysis must be how owners relate, in practice, to the asset protected by law, rather than merely upon the details of the relationship dictated by law. Radin’s treatment expanded preexisting legal analysis by highlighting the need to take account of how people value objects irrespective of the legal protection afforded to property. Consequently, in evaluating the desirability of property law, it is necessary to pay heed to the broader network of valuable relationship between objects and owners.129

However, our conception of value diverges from Radin's in several important respects. First, Radin's account recognizes no independent importance in the economic value of stable ownership. She is only concerned with a special category of objects that promotes the owner's sense of self. Thus, her use of value is much more limited than ours. Second, and perhaps most importantly, Radin's use of value involves a normative value judgment. Radin believes that idiosyncratic value is desirable only with respect to nonfungible goods; in all other cases, she rejects it as object “fetishism.” Our account of value is descriptive. It makes no judgments as to the desirability or provenance of idiosyncratic value—it simply recognizes that it exists, and it seeks to protect this value. Third, and consequently, Radin's view lacks the explanatory power of property law in its current form that our account offers. Finally, for Radin, value provides a means for creating a particular subset of property. In our view, value has a much broader role; it provides the unifying theme for all property law.

C. Value and Economic Property

A different contribution to the academic discourse on value in property was made by Barzel. Barzel preceded us in placing value in the center of property. Indeed, in some ways, Barzel’s theory may be viewed as a radical version of our property theory. The touchstone of Barzel’s analysis is “economic rights,” a very broad conception that

129 Notwithstanding these criticisms, our model does incorporate some of Radin’s insights.
leads him to view the role of the law as almost trivial. To him, an economic property right is the ability to derive value from an asset. The law’s function is merely to recognize or fail to recognize this ability. In keeping with the tradition of Coasean law and economics, Barzel views contracts as the primary legal institution for extracting value, with property serving as a mere background for exchange.

The gist of Barzel’s conception may be illustrated by a brief discussion of his approach to theft. Barzel views ownership as residual claimancy on the value that may be derived from an asset. The legality of the claimancy is of no consequence to Barzel. Thus, for example, an automobile is “owned” not only by Betty, whose legal “ownership” is registered with the state, but also by any person who sees potential value in the asset. The list of such people, on Barzel’s view, may be endless. Even legally owned assets generate “value spillovers” for third parties, and all potential value claimants vie for the opportunity to extract value from the asset. As the residual claimant, Betty, the legal owner of the automobile, has only a limited right to appropriate the value that “remains” in the asset after other claimants, including thieves like Charles, satisfy their claims on the automobile. Barzel does not ignore the law. But to him, the law only affects the relative positions of the multiple claimants vis-à-vis one another, making value extraction easier for some, and more difficult for others. Thus, legal protection may “enhance” the value held by a specific owner and change the relative positions of the various “owners” vis-à-vis one another, but legal protection has a strictly secondary role.

We contend that Barzel’s view fails to take full account of legal property rights. The property system, in our view, not only allocates value among claimants, it also creates new value that has not previously existed. As we showed, the creation of the status of legal property, in and of itself, enhances the value of assets. Yet, property law clearly does not confer the same status on all potential claimants of assets, whom Barzel dubs “owners.” The point and purpose of property law is to separate rightful owners and from unlawful claimants. And it is only for the former that property status creates value. Moreover, as Barzel acknowledges, the provision of legal enforcement further enhances the value of assets for their owners. As

130 See BARZEL, supra note 68 at 3.
131 Id. at 4.
132 Id. at 33.
133 Id. at 3-9.
134 See id. at 141.
135 Id. at 141-142.
136 Id. at 4.
we discussed earlier, explained, legal enforcement of property rights is designed to keep assets in the hands of legally recognized owners by deterring nonconsensual takings. As a general rule, the legal system makes nonconsensual takings prohibitively costly. Of course, the legal system cannot guarantee a detection rate of one hundred percent—which means that some non-consensual abuses of property will go unpunished. Yet, the legal system can offset imperfect detection by imposing harsher penalties to apprehended offenders.

To be sure, some of Barzel’s important insights, while contrary to legal-centric scholarship, cannot be denied. Barzel is correct in noting that, even after the law defines ownership, assets continue to have spillover effects, such that value is still available to many other claimants. Moreover, Barzel is right in stating that the law is simply one of a number of possible tools involved in protecting the value in an asset. The fact that the law identifies Betty as the owner of her automobile does not prevent Charles from successfully stealing her car when Betty absent-mindedly leaves the key on the front seat. The protection offered by the law is limited to the ability to invoke the law enforcement system, and even this ability is often limited. The result, as we discuss in the next section, is that legal protection should be viewed as neither absolute, nor as costless. As we show, there may be

137 See supra Part II.B.
138 Barzel makes much of the fact that even those not legally designated to have any status regarding an asset—such as thieves—may nevertheless illicitly enjoy some of the value of the property with some degree of certainty. BARZEL, supra, note 68 at 141. Certainly it is true that the harm occasioned by certain violations of property rights may simply be too small to warrant legal action. For example, it does not make economic sense for homeowners to pursue legal action against the occasional driver who trespasses on their property to make a U-turn. Nonconsensual tastings of fruit in supermarkets probably fall in this category too. See id. at 6. The fact that not all violations of property rights are being litigated or prosecuted, however, does not turn the violators into legal owners of the relevant property. The fruit-tasters do not enjoy any legal protection for their ill-gotten gains, or any cognizable legal status. They may rely on no stability in ownership; indeed, they have no legally recognized “ownership” at all, and must hide their gains and restrict them to levels beneath the true owner’s marginal cost of protection. Thus, the distinction between legal property and economic property relies not simply on the obtuseness of the state in failing to recognize certain types of ownerships; rather, legal property is a distinct category with important value-creating aspects.
139 See Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169, 183 (“A reduction in [the probability of apprehension] ‘compensated’ by an equal percentage increase in [the level of punishment] would leave [the number of offenses] unchanged, but would reduce the loss, because the costs of apprehension and conviction would be lowered by the reduction in the probability of apprehension.”).
140 BARZEL, supra note 68 at 7-9, 85-104.
141 Infra Parts IV.A., D.
times where it is not cost-effective to rely upon the law of property to defend value.

Yet, more broadly, we reject Barzel’s approach to the domain of legal property. Our conception of property is one in which a legal property system is a substantial source of creating and protecting value. For this reason, in focusing solely on the contractually allocated value in assets (or what he terms the “economic rights” in property), Barzel elides the essential contribution of a legal framework to the value that inheres in property. In our view, property law does more than simply allocate and recognize values produced by “economic property.” Rather, the law’s recognition and protection of property rights creates value for owners. It is the stability in ownership afforded by the law that creates the possibility for developing new kinds of valuable relationship with, and uses of, the property that would otherwise be unavailable. Legal property must, therefore, be at the center of property analysis, rather than simply an adjunct. To Barzel, property owners must share their gains with all other claimants from contract-holders to thieves. Our value theory, by contrast, sees the owner as the primary beneficiary of value, and others merely as the beneficiaries of positive externalities. The owner is not merely the main beneficiary from legal protection, but also the one who decides how much to develop the property and how much to invest in self-help measures. These combined means determine how much value is left to others and the ease with which they can capture it. Under the value theory, then, Barzel has the relationship between property owners and other claimants precisely reversed.

D. Value and Information Theory

Next, we compare the results of our value theory of property with those of an information-based conception. As we noted earlier, building on the assumption of the centrality of in rem rights in property, Merrill and Smith argue that property rights come in a fixed number (numerus clausus) in order to promote easy and cheap distribution of information about the rights pertaining to assets. Under Merrill and Smith’s theory, property law aims at an optimal standardization of forms, in order to reduce the cost of investigation

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142 Paradoxically, the owner may even occasionally want to reduce the value of property to herself when doing so effects an even greater proportional reduction in the attractiveness of the property to outside claimants. Douglas W. Allen, The Rhino’s Horn: Incomplete Property Assets and the Optimal Value of An Asset, 31 J. LEG. STUD. 339 (2002). For example, students on college campuses where bicycle theft is a common problem have been known to intentionally deface their own bicycles by scratching the paint or removing decals. The intention, of course, is that by so defacing, their bicycle will appear less attractive to would-be thieves when sitting next to a shiny new bicycle with a well-known brand’s decals.
an asset’s provenance and its attendant rights. Contracts, on the other hand, create only rights *in personam*. Accordingly, they generally do not affect third parties, and thus, do not require standardization.

We posit that the value theory offers a different perspective on the contract-property distinction. To see this, consider the case of form contracts. Dataholic Software Company sells its software application in the following package: the software is encoded upon a CD-ROM, which is sealed within an envelope, which, in turn, is enclosed within a shrink wrapped package. On the outside of the envelope is printed a standard form contract which, *inter alia*, informs the purchaser Elaine that by opening the envelope, she is agreeing to the contractual licensing terms printed upon it. Obviously, there is no opportunity for Elaine to bargain with Dataholic about the terms of the contract, or even to inspect them before consummating her purchase. With such a wide information gap between seller and buyer, there is a strong argument for legal policing of the contract terms, or mandatory disclosure, in order to produce optimal standardization of the contract. Yet, the fact that the need for information necessitates a rule of *numerus clausus* does not alter the fact that a form contract is not property. The form contract is not governed by the law of property, and it does not need *in rem* protection. This result is fully consistent with our value perspective. Employing our nonconsensual taking test, one can see that standard form contracts need not receive *in rem* protection. Stealing the preprinted form that specifies the contractual terms does not substantially deprive the software owner of value. In fact, since the software company prints the contract in the thousands (or millions),

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143 This description of the location of the contract terms within the package closely approximates industry practice. See, e.g., *ProCD v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996) (describing the popularity of “shrink wrap licenses,” and upholding their validity). For criticism, see Julie Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of “Rights Management”*, 97 MiCh. L. REV. 462, 487 (criticizing the 7th Circuit’s reasoning in *ProCD* because “the opportunity to engage in comparison shopping, so important to the court in theory, does not seem particularly attractive if one must purchase each product to learn the terms governing its use”).

144 It is important to note that the laws of many foreign countries provide for regulatory pre-approval of form contracts. See, e.g., Standard Contracts Law (Isr.) 1982, 37 L.S.I. 6 (1982-1983) (allowing users of form contracts the opportunity to obtain government approval of certain types of “restrictive terms,” and immunizing such approved terms from judicial invalidation for a limited time.). See generally, Larry Bates, *Administrative Regulation of Terms in Form Contracts: A Comparative Analysis of Consumer Protection*, 16 EMORY INT’L L. REV. 1, 44-90 (discussing treatment of form contracts in the United Kingdom, Germany, Sweden, and Israel); Arthur Lenhoff, *Contracts of Adhesion and the Freedom of Contract: A Comparative Study in the Light of American and Foreign Law*, 36 TUL. L. REV. 481 (1962) (discussing the approaches that various foreign countries have taken to form contracts).
the evidentiary value of any given envelope is nil, and the replacement cost is restricted to the value of the paper.

This is not to say that Smith and Merrill err in demonstrating the link between information and optimal standardization. However, it is our claim that this link has little to do with the law of property, per se.

IV. REORDERING PROPERTY

As we showed in the Part I, confusion now reigns regarding all aspects of property: its purpose, its nature and its enforcement mechanisms. In Parts II and III, we sought to reintegrate property by proposing a unified conception of property based on the idea that property is a legal mechanism designed to create and defend certain types of value. Our aim in this Part is two-fold: First we identify the chief concerns of any theory of the law of property, thereby providing a centralized framework for evaluating competing claims. Second, we show that careful attention to the importance of value – and particularly, the value that inheres in stable ownership – to the theory and law of property can supply answers for all four of the central property questions in our centralized framework.

Our exposition here begins by explicating the four foundational questions of property theory. To understand what distinguishes property from other legal fields, it is first necessary to enumerate its essential characteristics. By contrast to the seeming aim of current scholarship to fragment the field, our goal is to discern a unifying logical structure. We posit that the field of property, of necessity, addresses four interlocking questions. Specifically, we show that the law of property must address these elements: (1) what things are protected by property law, (2) vis-à-vis whom, (3) with what rights, and (4) by means of what enforcement mechanism. We discuss them in order, with two central aims. First, we demonstrate that our framework provides an indispensable prism for evaluating the fit of

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145 See, for example, Stephen R. Munzer, A THEORY OF PROPERTY 31 (1990) (decrying the "claim that ... the notion of property is too fragmented to allow for a general theory").

146 We should make several semantic notes here. First, in using the term “thing,” we do not seek to restrict property only to physical items. Rather, as we shall show, any item which can be the locus of the types of value with which property is concerned can be labeled an “thing,” including intangible items such as ideas. Second, in referring to a person in our analysis, we do not mean only a “natural person”; as in other fields of law, corporations and other types of organizations may be considered persons. Finally, to avoid excessively cumbersome formulations, we generally refer to both person and thing in the singular, even in cases where the property relationship could also apply to multiple persons or things. On this last point, however, the reader should bear in mind that, as we show, in many ways the ideal property relationship is between a single owner and a thing. Where the subject of property is fragmented among many owners, inter-property conflicts may arise.
extant scholarship with a holistic understanding of property. Second, we show that the concept of value illuminates each of the four elements in the holistic perspective we construct.

Before turning to our discussion of the four questions, it is paramount to emphasize that it is the combined discussion of all four questions which shapes the realm of property. The particular discussion of each question adds an element to the property edifice we seek to construct. As befits a holistic approach, each question is a step towards the ultimate goal of redefining property as a field; none of them alone can accomplish this task.

A. Which Assets

As we noted in Part II, the traditional conception of property as thing ownership faded in the last century and has been replaced by the new conception of property as an “abstract bundle of legal relations.” And, indeed, time has proved that a “thingness” oriented conception of property poses real difficulties in a world where the law of property is often applied to legal abstractions such as patents and copyrights. In the information age, where the most valuable property rights are often in intangible goods, “thingness” is ever more remote from the law of property.

Yet, as many scholars have noted, the idea of property as “things” has continued to maintain its hold on the popular imagination. The importance of this phenomenon extends beyond the semantic confusion created by popular usage of “property” as a term for things, and technical usage of the term “property” to denote legal rights related to those things. The popular view, in fact, reflects the accurate perception that the law of property has an important relationship with things. This means not only that the layperson sees property as a right in rem – a characterization we address in the next section – but also

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149 See Munzer, supra note 145, at 22, 74 (finding that in light of the “essential materiality of property … the popular conception, which views property as things, is not, as some philosophers and lawyers might think, wholly misguided.”). Cf. Grey, supra note 4 at 76-79 (suggesting that although lay people naively cling to a unitary, objective, physicalist ideal, they will eventually accept the specialist view of the disintegrating nature of property, and property will lose its traditional inspirational role).
that property rights do not exist in the absence of a *thing* to which they can attach.\textsuperscript{150}

It is crucial to clarify that in the context of property, the term "thing" extends beyond physical objects. The property usage is capacious, including not just tangible items, but also ideas and qualities, as per some dictionary definitions.\textsuperscript{151} Accordingly, intangible goods, such as ideas, expressions\textsuperscript{153} or symbols\textsuperscript{154} may be proper subjects of property law. Moreover, as we will show, while the restriction of property to things is not meaningless, in practice, there do not appear to be real assets in the world to which property categorically cannot apply merely due to the absence of a "thing." This may be demonstrated by employing our theory of value.

To remind the reader, our value theory of property maintains that the institution of property is designed to create and protect the value that inheres in the stability of ownership of assets. This definition implies the first limitation on property law: where stable ownership of assets provides no greater value, protection of rights in the asset lies beyond the ken of property law, and no one should be able to claim property rights in them. In theory, this means that no property rights should be recognized in any abundant assets, i.e., where the assets may be obtained costlessly and all conceivable demand for them may be met. In practice, however, infinitely available and costless obtained goods are not to be found.

Consider the example of air. At one time, we might have thought of air as the infinitely available, costlessly obtained asset. One might think of air as an inexhaustible resource; Frances may breathe all she wants, without ever reducing the air supply available to Gloria or to future generations. It could seem pointless to the point of absurdity, therefore, to allow for the possibility of property rights in air. However, as it turns out, air is not infinitely available, nor always costlessly obtained. If Heavyhanded Enterprises should decide to open several large coal-fired plants, Ivy who lives nearby may find that her air is no longer so freely available. Similar observations

\textsuperscript{150} See Wendy Gordon, *An Inquiry Into the Merits of Copyright: The Challenges of Consistency, Consent, and Encouragement Theory*, 41 STAN. L. REV. 1343, 1380 (1989) (describing the need for a physical embodiment in copyright with works of authorship fixed in a tangible medium of expression).

\textsuperscript{151} See *The American Heritage Dictionary of the English Language* 1864 (3d ed. 1992) (among the definitions of "thing" are "1. An entity, an idea, or a quality perceived, known, or thought to have its own existence.... 2.b. An entity existing in space and time..... 3. Something referred to by a word, a symbol, a sign, or an idea; a referent....")


might be made about other apparently abundant resources, such as water. As a general rule, it seems unlikely that any resource can be found in the world, that is inexhaustible and costless obtained.

Economically minded readers may notice the similarity with the concept of public goods. The term public goods denotes goods whose consumption is nonrivalrous, and whose benefits are non-excludable.¹⁵⁵ Nonrivalrous consumption means that consumption of the good by one person does not rival the consumption by another. In practice, this means that the good is inexhaustible, like the air in our example of Frances and Gloria. Non-excludability refers to the inability of the good’s owner to exclude consumers. The result of these two features of public goods is understood to create the need for government provision; other than altruists, private persons would provide only those goods from which they could enjoy sufficient benefits to warrant the provision. In saying that inexhaustible goods are not a good subject of property law, we are implying that pure public goods would not properly be considered property.

However, as economists have noted, pure public goods do not exist in the real world. As Buchanan observed, “the elements of demand for any good whether this be classified as wholly, partially, or not at all ‘public’ by the standard criteria, may be factored down into private and collective aspects.”¹⁵⁶ Air, in other words, has aspects of both a private good and a public good. As such, it cannot be excluded categorically from the realm of assets to which the law of property can apply.

To be sure, as we shall see, not all assets fall within the realm of the law of property. However, this is not due to their intrinsic unsuitability as improper “things” to be viewed as property. Rather, as we shall see in our discussion in the following section, it is due to their inability to be properly protected by a regime of in rem rights.

B. Vis-à-vis Whom

When Blackstone described property as the law of things,¹⁵⁷ he was reflecting the historical understanding of property as creating

¹⁵⁵ Not all agree on the precise definition of public good. Harold Demsetz has argued that a good is a public good solely on the grounds of non-rivalrous consumption. To Demsetz, a public good which satisfies the additional condition of non-excludability is a “collective good.” Harold Demsetz, The Private Production of Public Goods, 13 J. Law & Econ. 293 (1970). See also Richard Cornes & Todd Sandler, The Theory of Externalities, Public Goods, and Club Goods 6-7 (1986).
¹⁵⁷ Blackstone, supra note 43 at book 2, chapter 1.
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rights in rem, i.e., against the rest of the world. In time, however, the in rem characterization was eclipsed by Hohfeld’s argument that any in rem right is essentially a multiplicity of in personam rights. In time, Hohfeld’s analytical move was seen to have stripped the in rem characterization of any particular importance in property law. Thus, property law could be described as a collection of rights that vary not only in the “sticks” included in the bundle, but also in the persons against whom such “sticks” are effective.\textsuperscript{158}

Recently, Merrill and Smith have sought to revive the primacy of the in rem aspect of property law.\textsuperscript{159} As the reader may recall, Merrill and Smith’s theory posits that property is a right in rem and expounds the informational implications of this characterization. It is critical to note, however, that Merrill and Smith do not explain why property creates rights in rem; they simply assume that it is. While we commend Merrill and Smith’s attempt to highlight the informational component of property law, and join in their effort to restrict the law of property to in rem rights, our aim is broader. Our goal is to step back and provide an explanation for why property rights must be in rem. We show that in rem rights are important to property not simply for taxonomic reasons a la Hohfeld,\textsuperscript{160} nor for reasons of notice a la Merrill and Smith;\textsuperscript{161} rather, we demonstrate that in rem rights are crucially important for defending value that lies at the heart of property protection.

As a result, we are able to show that the value theory of property indicates why protection of rights in rem may be the singularly most important item in defining a legal right as based in the law of property. One important result is that a value-based explanation provides a better screen for distinguishing between property and non-property rights than does one based in information-provision.

To understand how the value theory underscores the importance of in rem rights in property law, it is necessary, once again, to reiterate the locus of value created and protected by property law under the value theory: stability of ownership. Under the value theory, in rem rights have a primarily creative force; in rem protection establishes the possibility of maintaining value in stability and, often, by sentiment.

This is best explained by way of example. Let us return to the example of air employed in the previous section. Imagine that Joyous Enterprises decides to market a new product called Summit Air. The company sends its representatives to Himalaya peaks where they

\textsuperscript{158} See \textit{supra} note 54 and corresponding text.

\textsuperscript{159} See \textit{supra} notes 79-80 and corresponding text.

\textsuperscript{160} See \textit{supra} notes 48-53 and corresponding text.

\textsuperscript{161} Merrill & Smith, \textit{Property/Contract Interface, supra} note 4 at 790-791.
scoop air into cans and hermetically seal the containers. The sealed cans are then sold in special Joyous Outlet Stores, where consumers are advised to open the cans close to their faces in order to enjoy a brief whiff of mountain air. Here, as with Heavyhanded Enterprises in the previous section, Joyous Enterprises has captured the value of air – an asset of value that may properly be the subject of property law. Our question now, is whether Joyous should be recognized as having in rem rights in its cans of air, or whether in personam rights will do. The answer, obviously, is that in rem rights are necessary to defend the value of the cans of air. If Joyous had no in rem rights, significantly fewer cans would appear on the market, if indeed any appeared at all.

In a world without in rem rights, Joyous (and the rest of us) would have to contract with all potential transferees, whether consensual or nonconsensual, in order to create a legal in personam means of transferring possession. The result would be one in which only a few persons could enjoy stable rights of possession of assets. Joyous, for example, might be able contract with all its employees not to take the cans. It might even place a security guard outside its Outlet Stores and require all entering consumers to agree to pay for any merchandise removed from the premises. However, the consumers could not possibly enter into contracts with every possible taker once they left the store. As a result, the only consumers for Joyous’ Summit Air would be those consumers who wished to breathe the air within the store, or those for whom it was cost-effective to protect the cans outside of the store without benefit of the law.

In rem rights are a mechanism for protecting value that is encapsulated in stable ownership of assets, and provide a measure of legal protection for the asset’s value that any holder may enjoy. The result is that in rem protection is indispensable for realizing the full potential value of the asset.

We may contrast this with an example an in personam right in the same asset. Yet again consider rights in air. This time, however, we focus on tradable pollution mechanism employed in various environmental protection statutes. These provisions depart from the

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162 While the example may sound somewhat exotic, we invite the reader to consider the example of Christian pilgrims who bottle water from the Jordan River in order to enjoy “Holy Land baptismal waters.” The water is entirely unremarkable except, perhaps for its lack of cleanliness – but for its provenance.

163 Without in rem rights, potential possessors of the cans would have a lower probability of retention and an increased cost of defending the object from potential takers, thus lowering the overall value of the utility function and positioning more of those possible customers to decide that it would not be worthwhile to purchase from Joyous Enterprises. See infra, Part II.B.
usual regulatory limitations on pollution emissions, and seek instead to establish a market in pollution rights by allowing polluters to purchase regulatory rights from other polluters. Imagine that both Katastrophic Kilns and Lovely Lava are manufacturers whose emissions of sulfur dioxide are regulated by the Clean Air Act. The Act establishes a nationwide a maximum of tonnage of sulfur dioxide that may be emitted every year by all factories. Individual emitting factories must possess the necessary permits to cover their expected emissions, which they may purchase from a government auction, or from other permit owners. Lovely Lava examines the market for emission permits, and determines that it would be more efficient to install new scrubbers to reduce its emissions. Katastrophic Kilns on the other hand calculates that purchasing permits is the cheaper route. Katastrophic Kilns therefore buys Lovely Lava’s permits.

Should the permits be protected by property law? As we shall see, the *in rem* nature of property law dictates a negative answer, and our value theory explains why. We can easily see that the permits themselves do not embody an *in rem* right. The relevant right to pollute is granted by the regulatory authority and it is enforceable only against that authority. Thus, were the CEO of Miserly Manufacturers to break into the headquarters of Katastrophic Kilns under cover of darkness and steal the permit documentation for Miserly Manufacturers, she would not have acquired any right to pollute nor would Katastrophic Kilns lost any. The rights embodied in the permits in other words are *in personam* rights that move not with the object but through authorized channels approved by the regulatory agency. The value theory explains why this is the right result: the permit documentation is merely paper evidence of the right, rather than the right itself. Theft of the documentation is therefore, theft only of paper, that does not convey any rights; merely possessing the paper does not take away any of the value enjoyed by the right-owner in its permit. With no value of stability in ownership at stake, there is no reason to employ the law of property. Indeed, if Katastrophic Kilns were granted no rights to possession of the paper at all, it would still not lose any of its administrative rights.

We may advance the value understanding of the importance of *in rem* rights by considering a set of additional examples. First, consider a case in which the paper permit stolen by Miserly Manufacturers actually conveyed the right to emit sulfur dioxide, rather than merely constituting evidence. Indeed, there are many instances in which papers are endowed with the power to dispose of the value which they represent. Bearer bonds, for example, pay a sum of money to the

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165 The paper, on the other hand, is an asset whose value will be lost if ownership is unstable, and, therefore, it is an asset defended by the law of property.
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bearer of the bond—the paper itself contains the right to receive the money, rather than merely constituting evidence of a debt. Bearer bonds, therefore, are best treated as property themselves, rather than as evidence of an in personam claim; bearer bonds’ transferability and value relies upon a bearer being able to rely on legally protected stability in ownership. Similarly, if the regulatory authority invested in emissions permits the power to emit sulfur dioxide, rather than merely making them evidence of the power to emit, the permits would best be seen property themselves. One could conceive of a legal regime under which any person who presents a pollution permit would be entitled, without more, to the emission units specified in the permit. In this scenario, the classification of pollution rights ought to be changed from rights in personam to rights in rem.

The broader insight provided by these examples is that the regulatory authority has the ability, by defining the administrative right, to create in rem property rights, or merely to create in personam rights. This offers an important refinement to Charles Reich’s classic The New Property. Reich observed that in modern time, a great deal of wealth is created and distributed by the government through administrative processes. He labeled such assets “new property.” Our analysis demonstrates that Reich classification is only partly accurate. While he was correct in noting that regulatory authorities may create new property, he erred in grouping all wealth-enhancing or transferring administrative rights under the heading of property.

An alternative way to employ our test is to pose the question: would a taking of the physical embodiment of the asset substantially deprive the holder of the value? If the answer is yes, then the asset should receive in rem protection, and consequently be considered property. Note that this alternative formulation does not require a taking of the entire value. Stealing a company’s pollution permit, or a taxi-cab driver’s medallion, imposes the cost of getting a replacement. But in neither case is the value of the underlying asset substantially diminished. Of course, the state may artificially create assets—such as bearer bonds, or cash—that carry their value in their physical embodiment, and consequently, necessitate in rem protection.

In rem protection may also extend to intangible items such as ideas and expression. In such cases, does our test hold? We posit that intangible property may be examined by means of our “taking test,” at least in theory. Imagine, for instance, that in the future a mind-reading device could be created. In this futuristic world, any person

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166 Charles A. Reich, The New Property, 73 YALE L. J. 733 (1964) (classifying government largess as the new property and advocating for protection for the rights associated with it).
167 Id. at 734-37. (including all forms of government largesse, from welfare benefits to federal Social Security to taxicab medallions).
in possession of the device can steal other people’s ideas at will. Assume, now, that Naïve Nancy comes up with a brilliant tune for her next blockbuster album. Excited, she calls her best friend Overbearing Otto and breaks the news to him. Before the call reaches its conclusion, Otto takes out his personal mind reader, presses the appropriate buttons and downloads the song directly into his dull mind. Otto then records the song and performs it for pay, diluting the market for Naïve Nancy. Otto has thus succeeded, by means of a taking, in reducing the value of the song to Nancy, while greatly increasing its value to him. While this example seems like a strange cross between Johnny Mnemonic and Men In Black, it teaches a valuable lesson. There are items in the world, such as the emissions permit in the previous example, whose appropriation – even in the most outlandish futuristic scenario – would not convey value. There is thus a sharp divide between assets for which in rem protection may add value, and those for which it does not.

Of course, the law of property conforms to the world as it is, rather than the world as it might be. This means, for example, that while the music in Nancy’s head is, in theory, an appropriate subject for in rem protection, there is no need to extend such protection in a world without mind-reading machines. And, indeed, the law declines to extend property protection to copyright, absent a physical embodiment of the expression.168 Admittedly, the physical embodiment of an expression does not partake of precisely the same qualities as an ordinary physical asset. For example, if Peter were to steal Quincy’s laptop, the entire value of the asset would be transferred from Quincy to Peter.169 The case of a copyright is rather different. If Ralph wanted to steal the copyright in Stephanie’s book, he would find that doing so is impossible. True, Ralph could deprive Stephanie of some of the value of the copyright by printing counterfeit copies and putting them on the market. But, of course, that would only dilute some of the value Stephanie would derive from her copyright. It is important to note that Stephanie too cannot concentrate the entire value of the copyright in a single object and protect it adequately. In general, we may say that while an asset with no tangible expression whatsoever is a poor candidate for property protection, an asset might be a worthy aspirant for property rights even in the absence of complete physical expression of the asset’s value. The question to be answered is whether the physical expression contains a substantial portion of the value – as if Overbearing Otto were to steal Naïve Nancy’s first recording of her

168 See Gordon, supra note 155. Similarly, in the real world, patent protection will not obtain in the absence of some tangible evidence of the idea.
169 We assume, of course, that, Peter need not fear that Quincy will be able to recover the stolen computer.
tune—or merely an empty symbol of the asset—as with Katastrophic Kilns’ emission permit as stolen by Miserly Manufacturers.

Most importantly, perhaps, our test offers a convincing rationale for why contracts should be considered as creating rights in personam. Assume that Toni and Ursula enter into a contract for provision of computer services. Victor, Toni’s envious competitor (and law school dropout), decides to break into Toni’s office and steal a copy of the contract in the hope of harming Toni. Unfortunately for Victor, his fiendish plan is foiled by his analytical confusion. Clearly, stealing Toni’s copy of the contract is not going to deprive her of any substantial value—in fact, it will probably deprive her of no value whatsoever. Not only is the physical contract in this case merely evidentiary, but also Toni could insure herself against Victor’s (and others’) folly by making several copies of the contract and storing them in different places. Because nonconsensual takers of contract copies cannot eviscerate the value inherent in the deal for the contracting parties, contracts do not necessitate in rem protection.

C. Which Rights

The “bundle of sticks” conception views the law of property as creating an almost random variety of rights and duties that the law recognizes in the standard owner. While Honore’s list of property “incidents” has been extremely influential, there is little agreement among scholars as to the relative importance of sticks in the bundle, and even as to the usual bundle’s contents. The

\[170\] Cf. Jeanne L. Shroeder, Never Jam To-Day: On the Impossibility of Takings Jurisprudence, 84 GEO. L. J. 1531, 1554 (1996) (arguing that despite the metaphor’s own implication, property is not a random or arbitrary collection of different rights).

\[171\] See Honore, supra note 15.

\[172\] See, e.g., Penner, supra note 11, at 713 (noting that Honore’s incidents and “[t]he bundle of rights analysis of property . . . serve[s] as a ‘dominant paradigm’ under the aegis of which working lawyers and academic theorists may attend to particular problems in the law of property”); Note, Distributive Liberty: A Relational Model of Freedom, Correction, and Property Law, 107 HARV. L. REV. 859, 861 n.5 (1994) (noting, with respect to Honore’s eleven incidents of property, that “[d]espite its oversimplicity, this conception still operates as a background understanding of property”).

\[173\] Compare Teena-Ann V. Sankoorikal, Using Scientific Advances to Conceive the “Perfect” Donor, 32 SETON HALL L. REV 583, 588-89 (2002) (“Under the ‘bundle of rights’ framework, the hallmarks of a property right include the ability to control something and the ability to prevent others from interfering with that control.”), with Sarah Harding, Justifying Repatriation of Native American Cultural Property, 72 IND. L.J. 723, 759 (1997) (“the familiar notion of a bundle which includes an abundance of rights, most prominently, the rights to possess, use, capitalize on, and exclude others”), and Arun S. Subramanian, Note, Assessing the Rights of IRU Holders in Uncertain Times, 103 COLUM. L. REV. 2094, 2098 (2003) (suggesting
confusion has arisen in particular in several specific contexts. For instance, in the field of regulatory takings, many scholars have despaired of the possibility of determining how many property rights must be “taken” by government regulation, before “property” is

that in analyzing indefeasible rights of use – a transactional form common in the telecommunications industry – under a bundle of rights framework “there are four important factors to consider: (1) use, (2) physical occupation, (3) control, and (4) economic possession”).

See, e.g., Hanoch Dagan, The Craft of Property, 91 CAL. L. REV. 1517, 1532 (2003) (“There is [not] an a priori list of entitlements that the owner of a given resource inevitably enjoys . . . .’’); Craig Anthony (Tony) Arnold, The Reconstitution of Property: Property as a Web of Interests, 26 HARV. ENVTL. L. REV. 281, 285 n.20 (2002) (citing and describing at least six different scholarly lists of the incidents of property). Compare DUKEMINIER & KRIER, supra note 11 at 86 (listing the rights to possess, use, exclude, and transfer), with Richard A. Epstein, Property and Necessity, 13 HARV. J. L. & PUB. POL’Y 2, 3 (1990) (listing the rights to possess, use, and dispose of), and Honore, supra note 15, at 113-24 (listing the incidents of transmissibility and absence of term; the prohibition of harmful use; and the liability to execution). In fact, modern statutory and judicial conceptions of certain “property” classes explicitly limit the incidents granted to those classes. For example, although the right to use and enjoyment is typically regarded as a core incident of property, no such right exists in a patent grant. See, e.g., Bloomer v. McQuewan, 55 U.S. 539, 548 (1852) (“The franchise, which the patent grants, consists altogether in the right to exclude every one from making, using, or vending the thing patented, without the permission of the patentee. This is all that he obtains by the patent.”); see also Jacqueline Lipton, Information Property: Rights and Responsibilities, 56 FLA. L. REV. 135, 171-72 (2004) (discussing the discrepancies between the traditional incidents of property and the incidents granted in intellectual property).

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considered taken such that the Constitution demands compensation.176 Scholars have frequently noted, for instance, that policing the boundaries of regulatory takings is particularly difficult in the era of the “bundle of rights” property conception.177 In this Section, we show the importance of the value theory both in shaping the list of rights attending property ownership and in determining which of the rights are indispensable. Later, in Part VI, we consider some of the implications of the value approach to such conundrums as the proper scope of regulatory takings.

The bundle of rights conception has spawned various formulations of the incidents of property. The most minimal, and possibly most widely accepted, formulation enumerates the rights to use, exclude and transfer as the constitutive elements of property.178 The most expansive one, compiled by Honore, lists as many as eleven incidents as the contents of property, yet omits the right to exclude considered by many as “one of the most essential sticks in the bundle of rights that are commonly characterized as property”179 or even its “sine qua non.”180 The view of property as a bundle of rights has difficulty,' and 'a secret code that only a momentary majority of the Court is able to understand."


177 See, e.g., Bruce A. Ackerman, Four Questions for Legal Theory, in NOMOS XXII: Property 351, 365 (J. Roland Pennock & John W. Chapman eds., 1980) ("[If she accepted the bundle-of-rights theory,] the Scientific Policymaker would have no choice but to interpret the Takings Clause as... protecting all uses once they have been legally authorized. But the [constitutional] text does not impose such an absurd command."); Michael A. Heller & James E. Krier, Deterrence and Distribution in the Law of Takings, 112 HARV. L. REV. 997, 1015 (1999) (discussing how “private property’ cannot meaningfully be defined absent context.").

178 See, e.g., DUKE MINIER & KRIER, supra note 11 at 86 (listing the incidents of property as the rights to possess, use, exclude, and transfer).


wrought more perplexity than clarity, leading J.E. Penner to conclude that “[p]roperty is a bundle of rights’ is little more than a slogan.”181

The challenge facing the property theorist is to explain why any particular list is essential to property, and why it should be preferred over its competitors. The answer to this challenge, we posit, lies in the common theme underlying the law of property: the protection of value. Begin with the right to exclude. Exclusion is essential to property owners because it protects stable possession by repelling nonconsensual takers and users of the asset. To return to our discussion of the importance of in rem rights to property, intrinsic to the nature of property is that it must defend against takings that will substantially reduce or eliminate the value owners derive from the asset. From a systemic viewpoint, the right to exclude does exactly that. It engenders the necessary element of stability of ownership across the board.

An important aspect of the value enabled by the right to exclude is sentimental or other idiosyncratic value that is not reflected in the market price. Often, owners develop sentimental relationships with assets protected by property rights such that their “reserve price” (the price at which they would be willing to sell the object) is substantially in excess of the price at which the asset is bought and sold in the market. We are by no means the first to recognize this value component, and we have already addressed at length the relevant scholarship on this topic.182 At present, we suffice by noting that gaps between reserve and market prices should be widely observed, and the value reflected by this higher reserve price can often be protected only by an in rem right that includes the right to exclude nonconsensual users.

Our value-based perspective provides an even more basic explanation of such property incidents as use and transfer. Use represents direct extraction of value for the owner, and transfer embodies the potential to extract value from the asset by conveying it to others who might value it more highly, either for consideration or as a gift. Furthermore, owners may derive value from discretionary nonuse of assets. For instance, Weepy Willa may keep in storage her grandmother’s first grade book, and derive sentimental value from her mere possession of the object and her secure knowledge that it continues to exist. Honore’s listed incidents of the right to property’s income and capital183 should be seen as corollaries of the right to use, as interpreted by the value theory.

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181 See Penner, supra note 11 at 714.
182 See supra Introduction, and Part I.D.
183 See supra text accompanying note 56.
At the end of the day, our value based theory offers an auspicious opportunity for the law of property to regain its coherence by doing away with the enterprise of endlessly compiling competing lists of incidents, and adopting, in their stead, a single focus on value. Essentially, the value theory of property posits that all property incidents are mere manifestations of a central right to enjoy and protect value. This paradigm shift has a number of important implications for property law, which we discuss later in Part V.

D. What Enforcement

Enforcement issues were not part of the classic property discourse. They have found their way into the discussion thanks to Calabresi and Melamed’s division of the legal protection of entitlements into property, liability and inalienability rules. Of particular importance was their choice of the term property rule to denote what is essentially injunctive relief. As Merrill and Smith noted, this use does not correspond to the general scholarly understanding of property. While on the surface, injunctive remedies might seem a natural expression of the right to exclude, the differences between the concepts can be seen on closer examination. The right to exclude refers to a right of property owners in the abstract; the “property rule” refers to the remedy that the courts will afford to the right claimant. Thus, for example, the fact that Xena owns a plot of land, and possesses the right to exclude others, is not dispositive of the question of how she may respond to the entry of Yvette. Generally, state laws will only allow Xena a limited right to forcibly eject Yvette; thereafter, Xena’s right to exclude may be remedied only by turning to law enforcement authorities for relief. One might easily imagine the recognition of a right to exclude whose breach gave rise only to a claim for monetary compensation (liability rule protection, under Calabresi and Melamed’s terminology) rather than injunctive relief.

Nevertheless, the value theory shows that the Calabresi-Melamedian decision to refer to injunctive relief as “property rule” protection captures a correct intuition. As law and economics scholars have noted, property rule protection enables the entitlement holder to set the price at which the item will be used or transferred. A fortiori, it also empowers her to refuse to deal altogether and keep the object. Property rule enforcement is therefore instrumental in the instantiation of in rem rights: the blocking of nonconsensual takings that may substantially deplete the value assets generate for their owners. Hence, the value theory shows that, in general, property rules are the proper enforcement mechanism for property rights.

It bears emphasis that despite the general affinity between property rights and injunctive relief, in some cases, it would be
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justifiable to deviate from the norm and employ monetary damages, or, “liability rules” in the Calabresi-Melamedian parlance. This can be seen by returning to the touchstone of the value theory. Injunctive remedies are necessary in order to protect the value derived by the owner from the assets; where the owner loses no value by having the asset taken and replaced by compensation, there is no longer any reason to demand injunctive relief. Consider, for example, Zelda’s property interest in cash. If a twenty dollar bill were to be taken from Zelda’s purse, under most circumstances, Zelda would lose no value if she were compensated with a different twenty dollar bill. This example, however, also demonstrates the limitations of the principle. If the stolen twenty dollar bill were the precise one received by Zelda for the sale of her first short story, she might have enjoyed sentimental value in ownership of the bill, such that a different twenty dollar bill would no longer constitute adequate compensation. Even in cases in which the asset is devoid of sentimental value, there may be value in protecting the stability of the property in its owner’s possession by means of injunctive relief. Obtaining compensatory relief and purchasing a replacement item are not costless actions, and judicially determined damages may often employ methods that undercompensate for property. If, for instance, Zelda needs cash, but she receives compensation in the form of a check, the cashing of which involves a fee or standing in line in the bank, then a twenty dollar damage award will not be an adequate replacement for the twenty dollar bill. Thus, when awarding compensatory damages for the loss of property, courts must take account of replacement costs and award aggrieved owners incidental and consequential damages.

The costs to ownership stability engendered by the refusal to extend injunctive relief do not constitute the only effect of liability rule (i.e., compensatory damage-based) protection. Liability rules may reduce transaction costs where private bargaining is expensive relative to litigation. Liability rules may also be helpful in overcoming strategic obstacles to successful negotiations. Thus,

184 There may also be cases where the reserve price is lower than the market price, but transaction costs bar the consensual transfer of the property.
185 See Calabresi & Melamed, supra note 67. See also, Louis Kaplow & Steven Shavell, Property Rules Versus Liability Rules: An Economic Analysis, 109 Harv. L. Rev. 713, 719, 726-27 (1996) (arguing that liability rules should be favored over property rules when transaction costs are high because the former minimize information costs as opposed to Calabresi and Melamed’s rationale of the impossibility of bargaining).
186 On strategic obstacles to successful bargaining, see Robert Cooter, The Cost of Coase, 11 J. Legal Stud. 1, 23 (1982) (showing that disagreement as to how to divide the contractual surplus is a strategic barrier to successful Coasean negotiation). See also, John Kennan & Robert Wilson, Bargaining with Private Information, 31 J. Econ. Literature 45, 46 (1993) (theorizing that differences in private information are a primary cause of delays in bargaining). On asymmetric
there may be cases where liability rule protection (or pliability rule, i.e., variable rule protection\textsuperscript{187}) may be the appropriate policy response to threats to property rights. However, in making the determination to turn away from injunctive relief (property rule protection), policymakers must take into account the likely disutility engendered by diminished ownership stability.

V. UNDERSTANDING PROPERTY WITH THE VALUE THEORY

In this Part, we move from the theoretical to the applied and demonstrate the explanatory power of the value theory in the law of property. We proceed by showing the value theory’s power to explain several broad themes and specific doctrines in the law of property.

A. Possession

“Possession is nine-tenths of the law” is a maxim familiar to every first year law student.\textsuperscript{188} And indeed, many doctrines of property embody this principle by favoring the ownership claims of prior possessors. A classic example is the rule of capture established in the chestnut \textit{Pierson v. Post}.\textsuperscript{189} There, Pierson was chasing a fox on inhabited “wasteland” aided by a pack of hounds.\textsuperscript{190} Post, “a
saucy interloper," espied the fatigued fox, and swooped in to “kill the beast’ and seize the carcass. The court ruled that Post was the true owner, since only he had “occupied” the animal by taking physical possession. As for the hunter, said the court, “mere pursuit” creates no property rights in wild animals.

Another example of the primacy of prior possession is provided by the rule of find. The classic rule is that the finder of a lost chattel has a paramount right in the found object against every other person, save the true owner. The finder, by dint of having possession of the object, has legal recourse against other potential takers. Thus, for example, in Armory v. Delamirie, the court decreed a chimney sweep’s claim to a found jewel was superior to that of the jeweler to whom the chimney brought his find for appraisal. While the court recognized that the chimney sweep was not the “true owner,” it also placed his rights as a prior possessor above those of others, including the appraising goldsmith who sought to seize the jewel for himself.

Carol Rose, and subsequently Henry Smith together with such collaborators as Thomas Merrill, developed an information-based theory to explain the centrality of possession to property law. These scholars analyzed the communicative role of possession in conveying information to third parties. Rose, for instance, explained that property doctrines, to function effectively, must take account of the intended audience and the symbolic context. Thus, in Pierson v. Post, for example, the court had to choose between the rule of “hot pursuit” that was popular among hunters and the rule of capture that was more accessible to a broader audience, extending beyond the community of hunters. This choice, according to Rose, determines which audiences win and which lose. Possessory rules, in other words, are designed to convey context specific information about the rights of duties of competing claimants over assets. Writing alone, and then with Merrill, Smith put a slightly different emphasis on the informational role of property. Smith and Merrill tackled the
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problem of how property may be protected and transferred efficiently in a world of uncertainty regarding ownership and rights. To them, property doctrines including the preference for possessors, are designed to convey information efficiently to third parties. This is important not only in reducing the costs of discovering ownership prior to transfer of personal property, but also in reducing evidentiary costs should disputes arise about ownership.

Beyond the informational theorists, however, scholars have had great difficulty in explaining the primacy of possession. Richard Epstein, perhaps the foremost proponent of a rule of first possession, is surprisingly lukewarm in his normative support for possession in the abstract. To Epstein, the primary virtue of first possession as a rule of ordering property is the fact that it is already dominant, and therefore lends property rules stability. Epstein is less sure that possession would provide a good primary rule in property, were it not already in use and popular.

Even more troubling, informational theorists have not devoted much attention to two important caveats to the emphasis on possession. First, rules of possession are subsidiary, not primary. That is, rights of owners are preferred to those of possessors, and for possession to be important, ownership must be unclear or the owner must be, for some reason, unavailable to assert her rights. For example, while the finder has rights superior to those of subsequent takers, the true owner will still prevail over the finder. Second, the

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201 See Smith, The Language of Property, supra note 199 at 1115-1125 (discussing the communicative effects of possession).
202 See, e.g., Richard A. Epstein, Addison C. Harris Lecture (Nov. 9, 2000), in 76 IND. L.J. 803, 809 (“… an advantage to the first-possession rule that … offsets its evident disabilities … [is that it] gives property a single owner.”); Richard A. Epstein, Too Pragmatic by Half, 109 YALE L.J. 1639, 1655 (2000) (book review) (“The first-possession rule has the virtue of assigning a single owner to a valuable asset …[b]ut as with all legal rules, its strengths should not blind us to its weaknesses”).
203 See Richard A. Epstein, Class Actions: Aggregation, Amplification, and Distortion, 2003 U. CHI LEGAL F. 475, 483 (suggesting that early societies adopt the rule of first possession by default); Richard A. Epstein, Property Rights Claims of Indigenous Populations: The View From the Common Law, Stranahan Lecture (Sep. 8, 1999), in 31 U. TOL. L. REV. 1, 15 (“I … will happily defend [the first-possession rule] … [but] I give equal weight to the rule of prescription, the validity of treaties, and the principle of finality.”)
204 See, e.g., Sabariego v. Maverick, 124 U.S. 261, 298-299 (“[P]ossession is always presumption of right, and … stands good until other and stronger evidence destroys that presumption. … [Until a claim of title by possession has] matured … [it] may be removed from one side to the other, toties quoties, until one party or the other has shown a possession which cannot be overreached, or puts an end to the doctrine of presumptions founded on mere possession by showing a regular legal title ….”) (emphasis added). An important exception to this rule for some kinds of good faith purchasers for value is discussed in the next Subsection. See, infra, Part V.B.
modern trend is to deemphasize the primacy of possessors’ rights. For instance, modern find statutes require finders to deposit the found object with the nearest police station, leaving the finder without any rights until the statutory period elapses.\textsuperscript{205} Both these points demonstrate the limited range of possessory rules.

The value theory provides a better explanation of possessory rules, and especially of its limitations and new trends limiting the importance of possession. The value theory explanation also stresses the importance of possessory rules in promoting stability, but it adds an explanation of why stability is best achieved through limited possessory rules. Moreover, it shows why, notwithstanding the informational aspects of possessory rules, an informational theory cannot provide a complete explanation for the possessory aspects of property law.

The value theory views possessory rules as oriented, like all property rules, toward the protection of value that inheres in the stable ownership of an asset. Possession affects value in two different ways. First, property protection is especially valuable for possessors since it reduces the cost of acquiring a replacement object; obviously, this source of value applies only to possessors. A non-possessor, by contrast, will have to incur transaction costs in order to obtain the primary object as well, making replacement a relatively less costly affair at the margin. Second, possession often enhances the subjective value that people attach to objects. The longer one is in possession of an object the greater the potential for development of subjective value. This observation is instrumental in Justice Holmes’ justification of adverse possession. Holmes famously argued, “[a] thing which you have enjoyed and used as your own for a long time, whether property or an opinion, takes root in your being and cannot be torn away without your resenting the act and trying to defend yourself.”\textsuperscript{206} Whatever one may think of the strength of the claim regarding adverse possession, Holmes’ logic certainly has purchase well beyond cases of adverse possession. The length of possession is often positively correlated with the wealth of the possessor’s experiences.

Yet, the value theory also shows why possessory rules must be subsidiary to ownership rules. Since the value of stability in ownership would be seriously compromised by permitting current possessors to defeat the claims of owners, the law must properly assign a lower priority to possessors’ claims. Moreover, where realistic steps can be taken to assist the rights of the prior owner at the

\textsuperscript{205} \textit{E.g.}, N.Y. PERS. PROP. LAW § 252 (West, 2003).

\textsuperscript{206} Oliver Wendell Holmes, \textit{The Path of the Law}, 10 HARV. L. REV. 457, 477 (1897).
expense of those of the possessor, such as by requiring deposit of a find at a police station, the law of property should defend the stability of ownership, rather than of current possession. However, where prior possessors compete with subsequent takers, and the “true” owner is nowhere to be found, the law should favor the prior possessor, thereby promoting and defending the value of stable ownership.

Consequently, the value theory provides an alternative explanation for many of the possession-related property doctrines discussed above. Consider first the rule of capture. The value theory seeks to protect, first and foremost, the value that results from stable ownership. This value is fully developed only once an asset is appropriated and held stably. While the pursuit of such an object may give rise to a portion of this value in the hands of the pursuer, the value, naturally, cannot yet be complete. For the pursuer, the marginal replacement cost remains relatively low because while obtaining replacements is costly so is the successful completion of the pursuit. Thus, while hot pursuit as a rule of acquisition might just as easily serve the purposes of conveying information, it would not serve as well as a rule for maximizing the value that inheres in stable ownership.

Similarly, arguing for the importance of possession on the basis of the value theory, rather than information or historical accident, provides the key to understanding the law of find. The value theory posits that the value of stability of ownership should be protected by allowing the owner to prevail against all, and that the prior possessor should prevail against subsequent takers in order to protect the value of stable possession. The information theory, by contrast, has some trouble establishing why and when current possessors should lose. The importance of possession, for information theorists, depends on its ability to convey information, and, in the absence of alternative information sources (such as registries), there would seem to be little reason not to give primacy to the current possessor. For example, the information theory would seem equipped to explain why a finder who loses the object should prevail against a subsequent finder.207 Indeed, if possession rules are intended to convey to potential transferees of the object that they may rely on the title of the possessor without costly investigations, the better rule would be to favor the current, rather than the former finder.

207 And first finders do typically prevail. Lawrence v. Buck, 62 Me. 275, 1 (1877) (“[L]ost … property belongs to the first finder as against all persons but the loser.”); In re Seizure of $82,000 More or Less, 119 F. Supp. 2d 1013 (W.D. Mo., 2000) (“[T]he first finder who acquires dominion over the property becomes its owner.”).
B. Chain of Title

A related property concept explained by the value theory of property is the notion of chain of title. Briefly stated, property views rights of ownership as being transferred from owner to owner in a chain. A transferee receives only such title as the transferor conveys, and, generally, under no circumstances may the transferee receive title superior to that owned by the transferor. Thus, in order to determine to what extent any purported owner actually holds title over an asset, one must trace the provenance of the title to its “root,” i.e., the original owner and grantor in the chain.208

The chain of title rule is instrumental in maintaining the value of stable ownership by ensuring that loss of possession – voluntary or involuntary – will not, of itself, endanger the ownership right. Consequently, the status and benefits of ownership may be enjoyed without excessive investment in the asset’s protection.

The importance of chain of title is particularly noticeable with respect to marketplace transactions between non-owning possessors and good faith purchasers. In much of the world, a good faith purchaser obtains good title to personal property bought in a market setting, even though the seller did not actually own the object. Thus, for example, in many European countries, a good faith purchaser of a painting in an art gallery will obtain good title even though it may turn out that the gallery stole the painting from the artist.209 This is not the law in the United States. Here, the general rule of chain of title dictates that a purchaser may obtain no more rights than the seller has and wishes to convey.210 Only where a seller has “voidable” title – meaning that she obtained the object through fraud or mistake,211 or where she obtained possession by way of some kinds of owner

208 For practical purposes, the “root of title” in land transaction is generally traced back 60 years. See, e.g., N. J. STAT. ANN. § 2A:62-11 (West, 2003); Archer v. Saddler, 12 Va. 370 (1808).
209 See, e.g., Kuopila v. Finland, 33 EUR. CT. H.R. 25 (2001) (reporting that the Finnish court below, while convicting the art dealer of conversion, nonetheless ordered the painting returned to the good faith purchaser from whom it had been confiscated; n.b., the painting turned out to be a forgery); National Employers' Mutual General Insurance Association Ltd. Respondent v. Jones Appellant [H.L., 1990] 1 A.C. 24 (appeal taken from Bridgend County Court) (English courts dismissing appeal of decision favoring good faith purchaser of a stolen automobile).
210 See, e.g., Schrier v. Home Indem. Co. 273 A.2d 248, 250, 251 (D.C. App., 1971) (“[A] possessor of stolen goods, no matter how innocently acquired, can never convey good title … [because] a sale of such merchandise … does not divest the person from whom [the property was] stolen, of title.”).
211 See, e.g. obiter dicta in O'Keefe v. Snyder, 416 A.2d 862, 867 (N.J., 1980) (“N.J.S.A. 12A:2-403(1)… part of the Uniform Commercial Code … does not change the basic principle that a mere possessor cannot transfer good title… [but] permits a person with voidable title to transfer good title to a good faith purchaser for value in certain circumstances).
entrusting.\textsuperscript{212} does the good faith purchaser for value obtain title good against everyone in the world, including the original owner.

For information theorists, these rules are somewhat puzzling. Merrill and Smith, for example, suggest that the good faith purchaser rules are designed to promote transferability by reducing the buyer’s cost of obtaining information about the object’s provenance. However, they offer no explanation as to why this interest does not compel following the European rule of transferring ownership where the item is taken from the owner by theft, for example, rather than fraud. Indeed, Merrill and Smith concede that, under their explanation, the good faith purchaser rules in the United States may not be ideal.\textsuperscript{213}

The value theory, however, explains that the common law rules regarding “voidable” title protect the stability of ownership unless the owner herself manifests that she no longer demands ordinary protection of the value she enjoys in her ownership. For example, where the owner parts with her object in exchange for a bad check, she has voluntarily relinquished ownership, as far as she knows, for what is presumably an agreed-upon price. Thus, while the law must protect her interest in receiving her full payment, there seems little reason to emphasize the value of a stable ownership relationship that has already been voluntarily sundered. Indeed, this legal strategy of compromising the property rights of the original owner, while leaving intact that right to recover in tort for fraud underscores the importance of an analysis that focuses on the special value protected by property law, while leaving to other legal fields the task of utility-enhancing regarding other values.

As to transferring title to an “entrusted” object, the value theory concedes that the rule is based upon an assumption that the rule’s cost to the value of stable ownership is less than the potential transaction costs that would be engendered by requiring verification of title. However, a full explanation of the entrusting rule requires an examination of property law’s exclusion rules, which is the subject of the next Section. Thus, we will return to the subject of entrusting shortly.

C. Exclusion

The right to exclude others from use or entry onto one’s property is generally seen as one of the most important rights in property;\textsuperscript{214}

\textsuperscript{212} See Scrier, 273 A.2d at 250.
\textsuperscript{213} Merrill & Smith, Property/Contract Interface, supra note 4 at 840.
\textsuperscript{214} See, e.g., Kaiser Aetna v. United States, 444 U.S. 164, 179-180 (1979) (“In this case, we hold that the ‘right to exclude,’ so universally held to be a fundamental
Merrill and others have gone further and argued that the right to exclude is the defining characteristic of property. The right to exclude spills over into many adjacent fields of law, encompassing criminal and tort actions for trespass and trespass to chattels, constitutional rights to have one’s property be free of unwarranted entry and search, and procedural rights to injunctive relief in defense of the right to exclude. Indeed, so powerful is the notion of the right to exclude in property conceptions, that Calabresi and Melamed comfortably labeled the injunctive defense of entitlements as a property rule.

The primary justification for the preeminence of the right to exclude is that it indirectly confers upon the property holder the right to determine the price for using the property, and to “hold out” for greater compensation where others seek entry. Since compensation is the element of the property right, falls within this category of interests that the Government cannot take without compensation.

215 Merrill, supra note 180 at 748.
216 See, e.g., Penner, supra note 11 at 742-743; Richard A. Epstein, Takings, Exclusivity and Speech: The Legacy of Pruneyard v. Robins, 64 U. Chi. L. Rev. 21, 22 (1997) (“[I]t is difficult to conceive of any property as private if the right to exclude is rejected”); but cf. Cynthia L. Estlund, Labor, Property, and Sovereignty after Lechmere, 46 Stan. L. Rev. 305, 345 (1994) (“the right to exclude has traditionally been broader than justified by the … benefits … [it] secures.”).
217 See, e.g., eBay, Inc. v. Bidder’s Edge, Inc., 100 F. Supp. 2d 1058, 1067, 1069 (N.D. Cal. 2000) (“If eBay were a brick and mortar auction house with limited seating capacity, …[it] would … be entitled to reserve those seats for potential bidders … and to seek … relief against non-customer trespassers … [The evidence of] BE’s ongoing violation of eBay’s fundamental property right to exclude others from its computer system … support[s] a trespass cause of action.”) (emphasis added) (citing Thrifty-Tel v. Bezenek, 46 Cal.App. 4th 1559, 1566, 54 Cal. Rptr. 2d 468 (1996)).
218 Id.
219 U.S. Const. amend. IV. The Fourth Amendment provides: “The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.” See also, United States v. Karo, 468 U.S. 705, 714-15 (1984) (“Searches and seizures inside a home without a warrant are presumptively unreasonable absent exigent circumstances.”); Mincey v. Arizona, 437 U.S. 385, 393-94 (1978) (“[W]arrants are generally required to search a person’s home or his person unless ‘the exigencies of the situation’ make the needs of law enforcement so compelling that the warrantless search is objectively reasonable under the Fourth Amendment.”).
220 See Weeks v. United States, 232 U.S. 383 (1914) (establishing the “exclusionary rule” which maintains that evidence obtained through an illegal search is inadmissible in court).
221 Calabresi & Melamed, supra note 67 at 1105-1106.
222 Id. at 1105.
223 Id. at 1106-1107; Richard A. Epstein, A Clear View of the Cathedral: The Dominance of Property Rules, 106 Yale L.J. 2091, 2092-2093 (1997); Merrill & Smith, What Happened to Property, supra note 7 at 382.
rules generally recognize only losses to market value of the property, the right to exclude protects the owner’s ability to preserve idiosyncratic values, such as her subjective attachment to the property. In other words, the right to exclude defends the owner’s ability to extract the full value of the ownership right before departing with it.

The value theory of property thus explains cases like *Jacque v. Steenberg Homes, Inc.*, in which the court approved a jury award of $100,000 in punitive damages for an intentional trespass on real property which caused no actual compensatory damages. In *Jacque*, the trespassing Steenberg Homes decided to deliver a mobile home to one of the Jacques’ neighbors by plowing a path through the Jacques’ snowy field. Though the Jacques refused permission, Steenberg Homes went ahead with the trespass, knowing that the regular road was covered by up to seven feet of snow, and contained a tricky curve. As Keith Hylton explained in defense of the punitive damage award, the substantial damage award was warranted by the “probable substantial secondary costs resulting from intentional invasions of property rights,” notwithstanding the absence of any direct damages of the kind normally compensated in such cases. In other words, the need to protect the value of stability in ownership warranted a large damage award notwithstanding the lack of any permanent physical damage to the field.

Conversely, the value theory of property explains why the right to exclude is less vigorously enforced against the “good faith improver.” Here, the general rule created by “betterment statutes” is that where a trespasser improves another’s property in good faith and under color of title or a mistaken belief of ownership, the encroaching improver may recover the value of the improvements from the true owner. Courts may also order special remedies such as permitting or requiring the true owner to sell the improved part of

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224 United States v. Miller, 317 U.S. 369, 373-374 (1943) (“In an effort ... to find some practical standard, the courts early adopted, and have retained, the concept of market value. The owner has been said to be entitled to the ‘value’, ...the ‘market value’, and the ‘fair market value’ of what is taken. The term ‘fair’ hardly adds anything to the phrase ‘market value’, which denotes what ‘it fairly may be believed that a purchaser in fair market conditions would have given”, or, more concisely, ‘market value fairly determined’.”) (footnotes omitted).

225 563 N.W.2d 154 (Wis. 1997). The jury also awarded $1 in nominal damages.

226 Id. at 157.


229 Alternatively, courts may impose an equitable lien on the improved property, in order to avoid liquidity problems for the true owner. See id. at 45.
the property to the trespasser, or even forcing a co-tenancy. In permitting such remedies for the improver, betterment laws go against the general trend of enforcing the owner’s right to exclude even in the case of such apparently trivial trespasses as in *Jacque*.

Yet, there are two important reasons why affording better treatment to the good faith improver does not seriously undermine the goals of property. First, since the betterment defense is predicated upon an “improvement” or “betterment” of the encroached-upon land, one can already be sure that at least the market value of the affected property will increase. While the encroachment may well deleteriously affect the non-market value to the owner, including the stability of ownership, the increased market value ensures at least a partial offset. Second, the good faith requirement for trespasser recovery ensures that the negative effect on stability value will be minimized. Only rarely will a trespasser be able to demonstrate that her improvement was the result of a good faith mistake or good faith reliance on color of title. Consequently, the damage to stability value can be expected to be quite small.

By contrast, on the other side of the ledger, assessing harsh penalties for the trespass could result in substantial loss to the good faith improver. Given the likely small magnitude of lost value to the property owner, the limited circumstances in which the trespass will be excused, and the likely great loss engendered by strict enforcement of the right to exclude, the value theory posits that injunctive relief—the standard remedy for violations of the right to exclude—may safely be withheld in such cases.

A similar phenomenon can be seen in the case of “entrusted” objects transferred to good faith purchasers. Again, while disallowing the usual owner rights reduces the value of the property, the loss to ownership value is likely to be relatively small, and the gain produced by allowing the purchaser to prevail is much greater in magnitude. Here, the harm produced by strict enforcement of a chain of title approach includes a likely large increase in transaction costs since all purchasers would have to invest heavily in examining the provenance of title. Conversely, the harm to stable ownership is reduced by the factors of the true owner’s voluntarily relinquishment of possession by entrusting the object to another’s care, and the limitation of the rule to good faith purchasers from a seller that ordinarily sells goods of the kind.\(^\text{230}\)

\(^{230}\) U.C.C. § 2-403 (2) (1988) (“Any entrusting of possession of goods to a merchant who deals in goods of that kind gives him power to transfer all rights of the entruster to a buyer in ordinary course of business.”).
D. Co-Tenancies

Co-tenancies involve a slightly different type of application of our property analysis since they generally involve disputes among several owners.231 One of the rights generally enjoyed by co-owners is the right to partition, allowing the co-owners to end their co-tenancy, and, thereby, their property partnership.232 Co-tenancies may be partitioned in two ways.233 One option is partition by sale; the co-owned property is sold on the market, with the proceeds divided among co-owners in accordance with their relative shares. The other option is partition in kind. In such cases, the co-owned asset is itself divided among the co-owners in accordance with relative shares. Partition in kind often poses practical challenges, requiring careful examination of the value of the various components of the co-owned assets.234

Rhetorically, the courts have long exhibited a preference for partition in kind.235 This has been manifested in the rule that partition in kind will be imposed unless partition in kind is both impracticable and will lead to serious prejudice to co-tenants’ interests. In practice, however, courts have often favored tilting the balance toward partition by sale, in which the property is sold on the open market and the proceeds are distributed among the co-tenants.236 The courts have done so by collapsing the two part test for partition in kind into a one step examination of whether value would be lost by opting for partition in kind.237

In view of the value theory, the courts have reached precisely the right result. Questions of practicality in the ordinary partition in kind test match the issue of ideal asset size noted above.238 As the value theory would suggest, in practice the courts determine the question of asset size and forced sale by reference to value, rather than to property abstractions like Honore’s incidents. Moreover, even where partition by sale is favored, co-tenants may bid for the sold property; thus, partition by sale allows a co-tenant who has developed enough of a subjective attachment to have become the highest value user to take control of the property by submitting the appropriate bid. Partition in kind, by contrast, may result in destruction of value in all those cases.

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231 We examine the issue of conflicts among property owners again in the context of leaseholds, infra, Part VII.C.
232 See, e.g., Delfino v. Vealencis, 181 Conn. 533, 536-537.
233 Id.
235 Id. at 607.
236 Id.
237 See Delfino, 181 Conn. at 543.
238 Id. at 537.
where preservation of value is incompatible with changes in the underlying physical nature of the property or its division among many users.

Our analysis has an even greater force when the asset to be partitioned is a single movable object or indivisible real property. An heirloom dish, for example, will lose its value if it is shattered in order to distribute the pieces among its co-owners.\(^{239}\) Similarly, when the co-owned asset is the family home partition it may not be partitioned in kind. Thus, the *de facto* practice is fully consistent with our theory.

VI. **Revising Property With the Value Theory**

In this part, we discuss various areas of the law that should be revised in light of our value theory of property. As the reader should have discerned by now, our analysis favors substance over form. Specifically, we seek to do away with the “bundle of sticks” characterization and similar lists of property incidents, and focus, instead, on the goal of maximizing the value inherent in stable ownership. To this end, we review several of the least coherent doctrines of property law, nuisance and takings, and show how they may be rendered coherent by analyzing them through the value prism. We begin our exposition with the law of nuisance.

A. Nuisance

Nuisance doctrine represents an important point of convergence between property and torts. A cause of action for private nuisance arises from “negligent or otherwise wrongful activity [that causes] unreasonable interference with use and enjoyment of land.”\(^{240}\) The first part of the definition draws heavily on the law of torts, while the latter relies on property law. Notwithstanding the relatively straightforward definition, nuisance doctrine ranks among the most confused areas of property law. As Dean Prosser famously stated, nuisance is “an impenetrable jungle” and a “legal garbage can.”\(^{241}\) Our goal here is not to recount the various intricacies of nuisance doctrine, but rather to show how the doctrine’s narrow focus on the incidents of use and enjoyment offers incomplete protection to property owners.

\(^{239}\) See Lon F. Fuller, *The Forms and Limits of Adjudication*, 92 HArv. L. REV. 353, 394 (1978). In the article, Fuller discusses a New York case in which a valuable collection of paintings was bequeathed to two museums "in equal shares" and the museums could not agree as to how to divide the paintings.

\(^{240}\) Dukeminier & Krier, *supra* note 11 at 747 (defining cause of action for nuisance).

At first glance, it seems that nuisance law’s protection of the owner’s use and enjoyment right is fully consistent with our value theory of property. A closer examination reveals that this is not the case. True, use and enjoyment rights enhance the value of assets for owner. Yet, third parties may unreasonably lower the value of property without interfering with use or enjoyment. Consider, for example, the construction of a large industrial plant near a residential neighborhood. While the proximity to the plant may unreasonably lower the value of all neighborhood property, it is possible that only a small portion of homes will be directly exposed to the smoke emitted from the plant stacks—presumably because the stacks are very tall. Under these circumstances, no owner would be able to bring an action in nuisance against the plant. This, despite the fact that the market value of the neighboring property has dropped considerably. Thus, under current nuisance law the plant may effectively destroy the value of the remaining houses, since their owners have not suffered unreasonable interference with the “use and enjoyment” of property.

By contrast, a value-oriented jurisprudence of nuisance law would recognize the rights of all homeowners to the value of their property. Rather than focus on the effect of the activity on use and enjoyment, the value theory would direct the court to examine impact on value. After all, most owners are concerned about the effect of various activities by third parties on the value of their property, and not on specific incidents.

B. Takings

The power of the government to take property through eminent domain, and the constitutional requirement that government pay whenever it abridges property rights in a manner labeled a “taking” are two of the most controversial and puzzling subjects in the law of property. They also apparently send contradictory signals about the importance of our value theory. On the one hand, the government’s eminent domain power seems to be completely at odds with our value theory of property. On the other hand, the government’s ability to seize property directly undermines the stability of property rights. The other limitation of the compensation requirement to “ takings of property” seems directly to support our argument that the value of stability in ownership is a value of itself that warrants special protection. Here, the noteworthy fact is that government actions that

242 We are not suggesting, of course, that all factory activity will necessarily constitute a nuisance; rather, we assume unreasonableness for purposes of the example.
adversely affect a person’s wealth are only compensable where they burden property but not when they do so by non-property means.

Yet, we show that there is a place for both these parts of takings law in our value theory. While we do not argue that current takings jurisprudence is consistent with our theory—indeed, as many scholars have noted there is not much consistency in takings law no matter how you look at it—the takings power poses a much smaller challenge to our theory than one might initially think.

The ability to take by eminent domain is an option of which government actors will generally avail themselves where negotiations to purchase private property break down. In such cases, the government may take the private property without the owner’s consent provided that it does so for public use and in exchange for payment of just compensation. As a “privileged taker,” with the power of eminent domain, the government may set aside many of the usual protections of private property and transfer ownership to itself. Scholars explain that this expansive power is necessary since the government often engages in large scale projects that require coordinated development such as paving roads, building parks, and constructing infrastructure. In all these instances, the government must deal with multiple property owners, each of which has an effective veto power over the entire project. For this reason, negotiations between the government and property owners may often breakdown, as each individual owner would seek to secure rents above and beyond her reserve price.

In Calabresi-Melamedian terms, the eminent domain power enables the government to suspend the standard property rule protection the owner enjoy and substitute it temporarily for liability rule protection. With fewer tools to defend her property rights, naturally, the property owner enjoys less stability in her ownership, and presumably, may extract less of the value. Importantly, under current takings law, just compensation for exercises of eminent domain consists of the payment of market value. Consequently, it may be said that the net effect of government exercises of eminent

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244 As we shall discuss presently, the question of exactly what burdens on property are considered takings is one of the most insolvable puzzles in the law. See supra note 175.
245 But see Richard A. Epstein, Unconstitutional Conditions, State Power, and the Limits of Consent, 102 HARV. L. REV. 4. (arguing that the compensation requirement of the Takings Clause should apply more broadly to wealth transfers).
246 See supra note 175.
247 Cf. Abraham Bell, Private Takings (noting that many public takings are for private actors, and urging greater use of a private taking power) (on file with authors).
248 See Bell & Parchomovsky, supra note 187, at 59-60.
249 See supra note 224.
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domain is to deprive property owners of that portion of the value they have attached to their property that exceeds market price. This will include not only sentimental value, but the stability value that lies, we have posited, at the heart of the property system.

In the lights of the value theory, the power to seize property by eminent domain may be justified only if viewed as severely limited by the circumstances in which it may be exercised. And, indeed, in practice, eminent domain is quite limited. Studies have shown that the government generally prefers to negotiate a consensual transfer with private property owners whose land may become subject to a taking. Given the high cost of eminent domain litigation for the government—both in monetary and political terms—the government will often choose to secure consensual agreement with affected property owners, and avoid being dragged to court. Thus, the eminent domain power is likely to be invoked only where there is a very surplus to be obtained by public ownership of the property, and there are significant and costly barriers to successful negotiations. Yet, since compensation is restricted to market value, there is a significant risk that too much property will be taken from owners with rational high reserve prices.251


251 We presume, as does much of the literature on takings, that government actors contemplating takings are influenced by “fiscal illusion,” i.e., they discount costs imposed on the public that are not reflected in their own budgets. The aftermath of Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992) provides a cogent example in support of this presumption. In 1988, South Carolina enacted the Beachfront Management Act, S.C. Code Ann. § 48-39-250 to-360. (Law. Co-op. 1990), prohibiting development of certain coastal properties. As a result, David Lucas was unable to develop two lots that he had purchased two years earlier for $487,500 each. After extended litigation, the Supreme Court upheld Lucas’s claim that the legislation worked a taking, and that he was therefore entitled to compensation. Faced with a court order to compensate Lucas for the taking, South Carolina settled the case by buying the lots from Lucas for $425,000 each and paying his legal costs. The total settlement, costs came to $1.5 million. H. Jane Lehman, Case Closed: Settlement Ends Property Rights Lawsuit, CHI. TRIB., July 25, 1993, at G3. The state then repealed the preservation statute that had occasioned the lawsuit and put the two lots up for sale. Astonishingly, South Carolina rejected an offer from Lucas's former neighbors to purchase one of the lots for $315,000 and preserve it undeveloped. Instead, it sold the lots to a developer for $392,500 each. FISCHEL, supra note 11 at 61. The numbers reveal that the South Carolina government was content to require beachfront preservation at a cost of $487,500 per lot to Lucas, but not at a cost of $77,500 per lot to itself. Less anecdotally, the empirical data can be said to support the presumption of “fiscal illusion.” Id. at 96-97. See also Louis Kaplow, An Economic Analysis of Legal Transitions, 99 HARV. L. REV. 509, 569 (1986); Abraham Bell & Gideon Parchomovsky, Givings, 111 YALE L.J. 547, 581 (2000); but cf. Barton H. Thompson, Jr., Judicial Takings, 76 Va. L. REV. 1449, 1489-1490 n164 (1990).
The value theory suggests that higher compensation may be in order than that dictated by the ordinary market value standard. In order to ensure that the damages paid more closely resemble the actual value of which the owner is deprived, owners must be able to argue for exemplary damages \textit{a la} trespass in order to recover idiosyncratic value, or damages should be raised in order to include a penalty reflecting the expected gap between the actual value enjoyed by the owner and the lower market value.

Closely related to the question of the ideal quantum of compensation is the question of what government actions should be deemed takings, giving rise to the duty to pay compensation. While straightforward exercises of the power of eminent domain are easily identified as takings, other categories of government action are less easily classified. The government may affect property through the exercise of many of its powers, giving rise to a category of “regulatory takings” which go “too far” in adversely impacting property rights while not formally exercising the power of eminent domain. Additionally, the government may undertake other actions, such as improving schools or reducing police protection, that will impact positively or negatively upon an individual’s welfare, without directly affecting property or invoking the obligation to pay compensation for takings.

While the value theory cannot resolve all the difficulties plaguing the perennially puzzling field of regulatory takings, it can point the way toward several important insights. First, the value theory explains why there may be particular need to deter government actions that reduce wealth by adversely affecting property rights as opposed to other government actions that reduce wealth by means of


\footnote{See discussion of Jacque v. Steenberg Homes, Inc., supra text corresponding to notes 225-227.}

\footnote{Other scholars have suggested amplified damage payments as well. See Kaplow, supra note 251, Burney, supra note 252, and Schill, supra note 252.}

\footnote{The possibility that a regulation may work taking was first recognized by the celebrated case of Pennsylvania Coal v. Mahon, 260 U.S. 393 (1922). Writing for the majority, Justice Holmes famously stated that “while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.” \textit{Id.} at 415. ., David A. Dana & Thomas W. Merrill, Property: Takings 135 (2002) (noting that “short of 100 percent loss in value [] the degree of diminution is just one factor to be considered [in deciding whether a taking has occurred]. “)}
other mechanisms. The Fifth Amendment protects property (and only property) against governmental takings. As various scholars have noted takings of property are only one way out of many in which the government can affect the wealth of its citizenry. Various types of regulation and taxation impact unequally amongst the different parts of the population, and yet, the Fifth Amendment poses no barrier to such actions. Yet, the value theory posits that government actions that diminish the value of stability in ownership of property are different in kind. This is because the government’s power to take property not only threatens expropriation of the market value of an asset; it also reduces the stability of all property, and seizes the non-market subjective value that inheres in the asset. Consequently, there may be reason to push the government toward acquiring its revenue and assets by means that are likely to have this less welfare-reducing impact.

Second, the value theory suggests that of the many different rules that have been suggested and used throughout the years to identify regulatory takings, the one most suited to property protection may be the “undue diminution of value” standard first suggested by Justice Holmes in Pennsylvania Coal v. Mahon. Indeed, if property is to be seen as oriented toward defending value, there seems no better way to tell whether property has been unduly hurt by government action than to examine the effect on value. By contrast, other tests either fail to address the core concern of property law, or address impacts on traditional “incidents” of property. Consider, for instance, the physical entry test, which views any physical entry on the owner’s property as a compensable taking. While the entry certainly violates the right to exclude, the effect on value may be trivial, as in Loretto v. Teleprompter Manhattan CATV Corp., where the court ruled that forced access to a cable box in an apartment building constituted a taking. This result seems a glorification of form over substance. A different objection may be leveled against the multi-factored balancing test introduced in Penn Central v. New York City. Penn Central creates an ad hoc inquiry that attempts to balance three factors in determining whether a regulatory taking has occurred: the owner’s reasonable investment-backed expectations, the nature of the

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257 260 U.S. 393, 415.
258 Mahon left open the question of the baseline from which the diminution must be measured; we too leave that question for other analyses. See Bell & Parchomovsky, supra note 251 at 552.
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government action, and the degree of diminution in property value. While the focus in value is certainly laudable, neither the nature of the government action, nor the investment-backed expectations of the owner have much to do with the core concern of property rights – the protection of value inhering in stable ownership. Thus, even were the *Penn Central* test workable, it would make a poor candidate for a universal test of regulatory takings according to the value theory. In establishing that a complete destruction of property’s value necessarily constitutes a regulatory taking, *Lucas v. South Carolina Coastal Council* certainly accords with the value theory. However, it is not clear what *Lucas* adds to the undue diminution test.

VII. THE BOUNDARIES OF PROPERTY

Our analysis, thus far, has laid out a theory of property and illuminated the contours of property law. In this Part, we look beyond property law to other legal fields, and attempt to provide answers to two questions. First, when should property law bow to the needs of other legal fields dealing with assets? Second, how should property react when it comes in conflict with its own imperatives, such as, when incompatible property rights clash with one another? Some of these questions have already been partially addressed by our discussions of such topics as eminent domain. We now address these questions explicitly by examining several specific examples that are typical of situations in which the two questions arise.

A. Bankruptcy, Mortgages and Sureties

Property is intimately tied up with the practice of granting sureties for indebtedness. Indeed, in primitive property systems that centered property rights on possession, many forms of property developed specifically in order to permit systems of pledges, or extraction of profit for the provision of credit. For example, some have argued that leaseholds developed in England in order to provide for the taking of interest for loans secured by land. Although sureties law involves assets and may use some of the same forms that are familiar from the law of property, it is clear from our analysis that the underlying goals of sureties law differ from those of property.

261 *Id.* at 124.
264 See Roger A. Cunningham, William B. Stoeback & Dale A. Whitman, The Law of Property 80 (2nd Ed., 1993) (stating that leaseholds “seem originally to have been designed to avoid the ecclesiastical prohibition on usury in connection with loans.”)
Consider a loan from Lender to Debtor of $10,000 secured by a pledged automobile. The aim here is not to enhance value by creating a stable ownership relationship between Lender and the automobile. Rather, it is to ensure that Lender can extract the market value of the automobile in order to satisfy the loan. Clearly, loan transactions often sacrifice some of the value inherent in stable ownership in order to increase the likelihood of repayment. For the lender, maximizing the value to be derived from the asset is less important than ensuring that such asset value as there is will be used to secure the loan.

Concretely, the pledging of the automobile in the above example is likely to destroy value in several related ways. It weakens the personal attachment of the owner to the vehicle; it transfers possession of the car to an arguably less efficient user; and it may even diminish what Dan-Cohen labeled ownership value by loosening the ownership bond. For the lender, however, all this value lost is irrelevant so long as the remaining value is sufficient to repay the debt. Indeed, since the lender is unlikely to want the pledged asset herself, her real interest will be in those asset values that can be realized in a market transaction.

To be sure, the lender will be interested in a stable relationship with the asset. Greater stability ensures greater likelihood of repayment. However, this stable relationship is not one of ownership and it does not entail the same value creation of ownership as defended by the law of property. There are instances where the law attempts both to ensure repayment and preserve the value of stable ownership. Such an attempt can be found in debtor-in-possession schemes in the law of bankruptcy, for example.265 However, these attempts are the exception that prove the rule; the difficulty in reconciling the two goals of repayment and value through stable ownership can be seen in the extreme measures necessary to ensure that the debtor-in-possession does not act to the detriment of creditor interests.266

It is against this background that one can understand the controversies surrounding mortgages in property law. Formally, when a mortgage is executed by a debtor, the debtor conveys title to the underlying property asset to the creditor as security for the loan. And, formally, the creditor agrees to reconvey the mortgage and title back to the debtor upon the loan’s repayment. In substance, however, the parties intend only to grant the creditor a security interest in the property, rather than full title. As a result, most jurisdictions reject the “title theory” which interprets a mortgage transaction in

266 Id. at 1350-1351.
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accordance with their formal meaning. Rather, most states now treat mortgages in accordance with the “lien theory,” which views mortgages as merely conveying a security interest or lien on the property, while title remains in the hands of the debtor.

How ought the law to deal with an interest denominated as property but actually intended as a surety? The answer, unfortunately, very much depends on the context. Where repayment of the loan is likely without levying upon the secured asset, the law has a great interest in maintaining the stable ownership value resulting from the debtor's property interest. However, once levying on the asset is more likely, this interest is greatly diminished. Indeed, it is highly likely that the ownership relationship will soon be terminated in order to allow repayment. This means that many of the values of stable ownership will be greatly reduced in magnitude. Conversely, the value of stability in surety will correspondingly rise. Accordingly, as a debtor edges closer to filing for bankruptcy, the law should diminish its protection of debtor's stable ownership and increase the protection of the creditor's ability to have the debt repaid.

Hence, for example, bankruptcy law empowers courts to set aside transfers of assets that occurred within one year of the filing date in order to improve the creditors' likelihood of recovering the debt. Although generally the law seeks to promote transferability of assets, in the case of bankruptcy, there exists a countervailing interest in ensuring the stability of the surety by restricting assets. In bankruptcy cases there is a high probability that the asset owner, knowing full well that the termination of the ownership relationship is imminent, will attempt to transfer her assets not to a higher value user, but, rather, to a person who will "shelter" the asset from the creditor and return it to the debtor at a later date. Sanctioning such practices would make it more costly for all property owners, including those who do not default, to borrow money against their assets, and will, therefore, reduce the utility of property owners as a group.

Much of the ambiguity in secured transactions arises from the apparently common perception that the law guarantees stability in property law better than it guarantees stability of surety. Thus, creditors will often insist upon clothing a security guarantee with the form of a property transfer, in order to enjoy the benefits of property law. This occurs, for example, in “sale and leaseback” arrangements. A sale and leaseback involves conveyance by sale of property from the seller to the buyer, and then reconveyance by lease of the property

267 DUKEMINIER & KRIER, supra note 11 at 645 n. 19.
268 Id.
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back from the buyer to the seller. The result, at least formally, is that title passes from seller to buyer, while the seller retains use and possession of the asset and pays a leasing fee to the buyer. However, the UCC dictates that the substance, rather than the form, of a transaction governs whether it will be viewed as a security interest. Thus, even where parties purport to sell and then lease back an asset, courts following the UCC may disregard the conveyance, and view the arrangement as a loan accompanied by conveyance of a security interest in the asset, while title stays in place.

The value theory of property fully endorses this focus on substance rather than form. Under the value theory of property, one does not examine a list of “incidents” to determine where a property right resides. Rather, one looks to the party that is designated to enjoy the value of the asset, in particular the value of stability in ownership. Where it is clear that the purported seller of title is in fact the person who will enjoy all the value from the asset unless there is a default of payment on the loan, the value theory dictates that the “seller” should continue to be viewed as the owner of the property. Of course, the continued attempts by creditors to place themselves under the canopy of property law may indicate that bankruptcy and surety laws systematically fail to provide sufficient protection for stable surety.

B. Marital Property

Like issues of security interests, marital property questions arise in endgame situations. Marital property, in this context, is a term used to refer to assets to be divided equitably (or equally) between divorcing spouses. Our theory suggests that the term “marital property” is a misnomer. The issue facing the court in divorce cases is not property ownership; on the contrary, it is usually clear who owns the assets to be divided. For instance, while the state laws of property may dictate that only one of the spouses is the sole owner of a certain asset – say, a book – the doctrine of equitable (or equal) division may still consider the book “marital property” to be divided between the spouses. Moreover, some potential assets subject to division under “marital property” rules are not really property at all.

271 See U.C.C. §§ 1-201(35), 9-408 (West 2002).
274 Id. at 115-118.
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For example, some states consider qualifications recognized by professional degrees to be marital property subject to division, notwithstanding that they are not property under the ordinary property laws of the state.

Our theory shows not only how, but also why, the definition of marital property should diverge from that of ordinary property. Property doctrines, as we have said, create and defend value in stable ownership. The doctrine of equitable (or equal) distribution, by contrast, aims at achieving a just distribution of existing value. Accordingly, the underlying goals of property law and marital property law are widely divergent. Moreover, these goals come into conflict in many cases where a court, in order to achieve just division, must decree that certain assets be sold at market value or allocated to a divorcing spouse who is a lower value user.

This insight leads to two important consequences. First, distribution laws should cover those assets necessary to achieve a just distribution of wealth, irrespective of the suitability of the assets to property law. For example, while a university degree is not a suitable candidate for property under our theory, it may very well represent a source of wealth that is appropriate for equitable or equal distribution. Thus, courts that have attempted to determine whether degrees are subject to distribution by examining whether they are “property” have approached the question from the wrong perspective. Second, distribution laws should be applied so as to separate, as much as possible, questions of distribution and ownership. In other words, a decision that a just distribution requires allocation of the value of a certain asset to one spouse should not lead automatically to the conclusion that that spouse should be awarded ownership of the asset. For instance, where a divorcing husband is determined to be justly entitled to the value of a family business, that should not preclude a decision that ownership should be awarded to the divorcing wife.

C. Property vs. Property Conflicts: Leaseholds

Conflicts between properties or between owners of properties are endemic. For example, earlier, we considered the tort of nuisance, which is designed to curb property uses that unreasonably interfere with use and enjoyment of another’s real property. In our

275 Under the test we developed in part IV.B., supra, the taking of the diploma in this case will not deprive the recipient of the value represented by it.
277 Of course, such decisions will rely upon having sufficient assets to “reimburse” the husband for the business.
examination, we focused on the narrow question of whether the tort should address loss of value, rather than interference with use and enjoyment.\textsuperscript{278} However, more broadly, nuisance must be seen as raising the perennial question of how the law should treat conflicts between properties or between owners of those properties. Similarly, property vs. property conflicts may arise in cases of encroachment and co-tenancies, which we previously discussed,\textsuperscript{279} as well as in landlord-tenant law, which is the subject of this section.

Ironically, in property vs. property conflicts, the question of protecting the value of stable ownership becomes less pressing, just as it does in cases at the boundary of property, such as marital property. This is due to the fact that property vs. property conflicts will almost certainly end with one owner's stable property interest sacrificed to another. The questions are therefore similar to those raised in the context of marital property. On the one hand, the court has to determine ownership, respecting the need to enhance the value that inheres in stable ownership. On the other hand, the court must also achieve a property distribution of rights -- this time on the basis of efficient allocation of rights rather than justice.

In landlord-tenant law, the boundary problem of property raised by inter-property disputes is particularly acute. Leaseholds are generally recognized as estates in property. Thus, when a landlord rents an apartment to a tenant, the landlord conveys a property interest to the tenant by means of a contract -- the lease. The landlord, of course, retains an estate in the realty as well -- the reversion. Thus, conflicts that arise between landlord and tenant may be viewed as conflicts between their respective property interests. In recent years, courts have often resolved landlord-tenant disputes by resorting to contract law rather than property law. This is the counterintuitive result of a dispute in which both sides have well-defined property rights, but diverging interests regarding the enhancement and defense of value. Both landlord and tenant know the duration and scope of the leasehold. However, the interest of the tenant who is granted temporary possession of the asset is to maximize the utility she may derive from the asset during the duration of the leasehold even if doing so is going to diminish the value of the reversion of the landlord. The landlord, conversely, wishes to preserve the maximum total value of the reversion property together with revenues received as a result of rental of the premises during the period of the leasehold, even at the expense of the property’s value during the leasing period.

Unfortunately, no hard and fast rule may be established for the approach to the property vs. property dispute in the context of

\textsuperscript{278} See \textit{supra} notes 240-243 and corresponding text.
\textsuperscript{279} See Part V, \textit{supra}. 
leaseholds. On the one hand, because disputes are between landlord and tenant, who constitute a closed set of potential contractual parties, there is good reason to resort to the classical economic understanding of property as simply the set of default rules for contract. In leaseholds, the parties bargain with one another and thus have an opportunity to stipulate the terms that will govern their interaction. Since the contractual aspects of the relationship dominate the property aspects, the application of contract remedies and rules of interpretation is more consistent with the expectations of the parties. Thus, contract law would provide the best way of resolving disputes regarding the leasehold. On the other hand, it is clear that there is considerable value in stable ownership to be enjoyed by both tenant and landlord, in particular since tenants will often develop sentimental value in the leased premises, while landlords will frequently be better suited to extract value (due to specialized knowledge) from their premises than anyone else in the market. These factors mitigate toward the application of property law. Moreover, leasehold disputes often must consider efficient allocation of existing property rights alongside the protection of value stemming from stable ownership. The result is a situation in which neither contract nor property law should be seen as complete answers for landlord-tenant issues.

Yet, the value theory can help resolve some of the issues raised in by leaseholds. Consider, for example, the case of a rental apartment that is abandoned by a tenant 3 months into a two-year rental. A contractual approach to the lease would see the abandonment as a breach of the rental contract, and require the landlord to mitigate damages by attempting to rent the premises to another. A property approach, by contrast, would view the leasehold as having been conveyed, and would disallow the landlord’s attempt to retake possession without court order dissolving the leasehold property interest. The property approach would require no attempt to mitigate damages. Courts faced with this question have gone both ways, although the recent trend is to adopt the contractual approach and require mitigation of damages. The value theory sides with this new trend. Where a tenant has abandoned possession of her leasehold, she has manifested just how little value she receives from her ownership of the leasehold. Thus, there seems little need to use the law of property to defend the stable ownership value in the leasehold. Certainly there is reason to defend the stable ownership value of the landlord’s reversion; however, this will not be jeopardized by a mitigation of damages rule. The landlord will know how much value he attaches to the reversion, and on that basis will decide whether it is worth renting the premises to a new lessee. The law need only protect the landlord’s interest in realizing the benefit of his bargain, which is achieved by applying contract law.
Conclusion

Our project in this article has been to demonstrate that property law is neither an unintelligible “bundle of rights,” nor a mere “background condition” that facilitates exchange. Property, in our analysis, is center stage; it is a distinct and vital legal institution of its own merits with rules specifically designed to serve its purposes. We have shown that property is best understood as a legal institution designed to create and protect the value attendant in stable ownership of assets. The framework we developed in this Article should help restore coherence and consistency into property law and scholarship. Naturally, the breadth of the subject prevents a comprehensive survey addressing every property doctrine or rule. Yet, the analytical approach offered by this Article should assist policymakers and legal scholars to make progress on three central property questions: (a) which legal relationships come within the scope of property law; (b) what is the content of these rights; and (c) how should they be protected. Properly understood, property is a fairly coherent legal concept whose centrality in legal thought is completely justified.

Our analysis also has important normative implications. The value prism should prove useful for courts and legislatures in designing new property regimes and revising existing ones. Not only does it point to the core function of property law but it also delineates the limits of the field. Moreover, by offering a full account of the costs and benefits generated by the institution of property, the Article illuminates the tradeoffs involved in the field of property law. Naturally, our analysis does not settle every theoretic or practical dispute that may arise with respect to property. Yet, by providing a common basis for understanding and discussing property, the Article may pave the way for novel and insightful scholarly contributions that will carry the study of property into the future.