Remedies, Revisited

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Abstract

Private law—contract, property, and tort—faces a choice between two appealing but apparently incompatible approaches to remedies. On the one hand remedies redress wrongs. This formal imperative demands that remedies should vindicate the rights that the wrongs have violated. On the other hand, remedies create incentives for parties to respect rights and to take precautions against doing harm. Because remedies affect parties' behavior, a functionalist imperative also exists—to use remedies to promote the common good.

These competing imperatives cause conflict among courts because the narrow precision required to vindicate rights apparently eliminates the flexibility needed to make good policy. The current state of private law—both in practice and in theory—is therefore trapped in a "remedial dilemma". Both judges and scholars have been unable, over hundreds of years, to reconcile the demands of form and function: to choose between a vindicating, or V-remedy, approach to remedies and a policy-based, or P-remedy, approach. The dilemma affects both practice and theory. In practice, choosing one remedy requires courts to reject the other. In theory, a court must first commit to V-remedies or P-remedies before it can reason intelligibly about how to relate a remedy to a wrong.

The choice between V-remedies and P-remedies is broader and deeper than the more familiar choice between property rules and liability rules. A court can't make the conventional choice without first deciding whether to vindicate a plaintiff's entitlement or, instead, to use the defendant's wrong as an occasion to make policy. An owner's property right, for example, can be vindicated only by an injunction against a trespasser; but some violations of property rights are efficient, and limiting an owner's remedy to damages might encourage them. A court must choose whether to embrace vindication or policy before it can begin to reason about which remedy to award. But neither courts nor scholars have come to terms with this choice.

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The choice between V-remedies and P-remedies is also more fraught. Courts and scholars who disagree about whether property rules or liability rules are best in a particular case typically agree about the benefits and costs of each choice and differ only concerning the balance between them. By contrast, courts and scholars committed to V- and P-remedies typically each deny the values that motivate the other camp and flatly ignore the arguments that the other camp advances. The conventional choice between property rules and liability rules depends on the balance of consequences involving a shared set of considerations; the choice between V-remedies and P-remedies invites a clash of legal world-views.

We dissolve the remedial dilemma. Private law typically gives private parties the power to construct entitlements. Sophisticated parties—the focus of our argument—will construct their entitlements to maximize their private and (absent externalities) social welfare. Parties, moreover, construct entitlements bearing in mind what remedies will likely be awarded in case the entitlements are breached. It follows that courts that wish to use remedies to make good policy will do this best by acting indirectly, to vindicate whatever entitlements the parties have constructed. Moreover, this judicial approach to remedies reinforces the parties' incentives to construct optimal entitlements. P-remedies and V-remedies therefore converge. We develop this synthesis of V- and P-remedies across a range of doctrines, especially in contract and property and also, although less thoroughgoingly, in tort.

Dissolving the remedial dilemma would have beneficial real world consequences. Private law now faces parties with the real prospect that the entitlements they create will not be vindicated by the remedies courts award. When parties anticipate that rights and remedies may not align, they respond by retreating from transactions that create entitlements and by underinvesting in the entitlements that they do create. Courts that embrace our synthesis will therefore both promote the freedom of parties to manage their own affairs and increase social welfare.

1. Introduction

Private law—contract, property, and tort—faces a choice between two appealing but apparently incompatible approaches to remedies. On the one hand remedies redress wrongs. This underwrites a formal imperative that remedies should vindicate the rights that the wrongs have violated. An injunction against a trespasser, for example, vindicates a property owner's right to exclude. On the other hand, remedies influence how people treat one another concerning their rights, establishing incentives to respect rights and affecting the relationship between the parties following a wrong. These incentive effects underwrite a functionalist imperative, encouraging courts to enlist remedies in the task of promoting the common good. Strict products liability in tort is often justified as an efficient and just way of spreading the cost of defective consumer goods across a wide range of persons.

Sometimes—in fact, often—these two imperatives appear to conflict; the narrow precision required to vindicate rights seems to eliminate the flexibility required to make good policy. The current state of private law—both in practice and in theory—is therefore trapped in a remedial dilemma. Both judges and scholars remain unable to reconcile the demands of form and function, to choose between *vindicating*, or *V-remedies*, and *policy-based*, or *P-remedies*. Courts sometimes award V-remedies and sometimes award P-remedies; and when a court takes one approach, it commonly acts as if the other approach did not exist. Indeed, judicial opinions typically do not acknowledge, and some courts may not recognize, the dilemma in which they are trapped: that to choose one remedial approach is to reject the other.

We illustrate how the remedial dilemma functions in practice with an example that spans property and tort. During the latter part of the nineteenth and into the early twentieth century, railroads negotiated a national web of easements with landowners, which permitted the railroads to lay their network of tracks connecting the country's cities and towns. Then, towards the end of the twentieth century, a series of technological innovations (which created new ways of transmitting large quantities of data at high speeds) and regulatory reforms (which opened the domestic long distance communication market to competition by new entrants) together encouraged long-distance telephone companies quickly to construct nationwide networks of fiber-optic cables. Building the new networks required the telecommunications companies to obtain easements across the thousands of parcels of land that the cables would traverse. Many of the companies, rather than bargaining with individual landowners or exercising state statutory or constitutional rights of eminent domain, purchased the needed easements from the railroads. It was less costly to deal with a few railroads than to deal with many, many landowners. Importantly, running silent and thin fiber-optic cables along existing tracks created the needed networks without interfering with the adjacent landowners' uses of their lands.

The fee simple owners, however, claimed that the fiber-optic cables fell outside the scope of the existing easements, so that the railroads lacked the legal right to allow the telecommunications companies to lay their cables along the tracks, making the companies trespassers. A mass of litigation came before both state and federal courts: a recent Lexis-Nexis search of the terms "fiber optic," "railroad", and "easement" produced 168 federal and 100 state cases, including class actions and multi-district litigations.[1] Outcomes varied widely. Most claims were resolved through settlement,

[1] The search confronted the LexisNexis database of all U.S. Court cases with the search terms "easement and railroad and fiber optic."

but the litigated cases divided. Some found that the cables fell outside the railroad easements and some found that the cables fell within them.[2]

Even as some courts ruled for the landowners and others for the telecommunications companies, the outcomes shared a view: the cases presented an intractable problem—framed by the remedial dilemma. On the one hand, the formal imperative to vindicate rights favored the landowners. Ownership includes the right to exclude; and a person who, without permission, enters, remains, or places things on the land of another commits a trespass "irrespective of whether he thereby causes harm to any legally protected interest of the other."[3] The harmless trespass, beloved of legal theory,[4] found a concrete, practical expression in the fiber optic cable cases. Moreover, because ownership, under this regime, conveys a right to exclude, full stop, and not just a right not to be harmed, remedies can vindicate the owner's right to exclude only if they include injunctions to expel the trespasser and orders to disgorge any gains he has made through his unauthorized entry or occupation. Applying these remedies here, however, would have ended the telecommunications companies' business: requiring restitution of the profit that the companies had already earned and, by enjoining the continued presence of the cables, rendering the companies' project untenable going forward.

On the other hand, the functional imperative to make good policy favored the telecommunications companies. Their networks created enormous social value (which was the foundation of the telecommunications companies's profits), at a trivial social cost. In addition, the equities favored the telecommunications companies. The networks were the consequence of their efforts and inventiveness; the adjacent landowners contributed nothing to the telecommunications revolution. Protecting valuable ongoing businesses and respecting entrepreneurial efforts recommended ruling against the landowners.

Remedies that vindicated the landowners' rights would therefore produce extremely bad outcomes; but good remedial policy would betray the landowners'

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[2] *See, e.g.*, In re AT&T Corporation Fiber Optic Cable Installation Litigation, Multi-District Litigation No. 1313 (settlement); Kershaw Sunnyside v. Interurban Lines, 156 Wash. 2d 253 (2006) (cables outside scope of railroad easement); International Paper Co. v. McI Worldcom Network Servs., 202 F. Supp. 2d 895 (W.D. Ark. 2002) (cables within scope of easement). The cases also considered whether the easememts were acquired (by the railroads) by agreement or by eminent domain; and whether the fiber-optic cables were being put (by the telecommunications companies) to uses that might properly be cast as falling within a railroad purpose. *See, e.g.*, *Kershaw supra* note 2; *International Paper*, *supra* note 73.

[3] Restatement (Second) of Torts §158 (1965). See also Restatement (First) of Torts §163 (1934).

[4] See, e.g., Arthur Ripstein, Beyond the Harm Principle, 34 Phil. & Pub. Aff. 215 (2006).

rights. This dilemma contorted judicial reasoning in the cases, regardless of which way courts came down. Formalist courts followed their draconian remedies—required to vindicate the propertry rights they had just identified—with prayerful proposals that the telecommunications companies might take new easements pursuant to their powers of eminent domain, without having to remove the already-laid cables or disrupt their ongoing business.[5] Functionalist courts, for their parts, were pushed by their policy-based refusal to award any meaningful remedies into flatly denying that the landowners had any rights or that the telecommunications companies had committed a trespass at all. Some of these courts found that use by the railroads of a tiny fraction of the cable's bandwith for railroad communications placed the entire cable within the railroad's easement because the cable then would serve a "railroad purpose." Other courts interpreted century-old easements to include rights to deploy technologies and serve commercial purposes that had not been invented nor even contemplated when the easements were drafted.[6]

This remedial dilemma, moreover, is broader and deeper than conventional legal theory recognizes. Cases like the fiber optic cable disputes present courts with a choice between awarding damages (a merely nominal payment for harmless trespass) or issuing injunctions (ejectment and disgorgement). This choice has received a famous, and now-conventional, theoretical elaboration—based on the distinction, introduced in 1972 by Guido Calabresi and Douglas Melamed—between liability rules and property rules.[7] The liability-rule remedy permits an actor to violate an entitlement, over an owner's objection, provided that the violator reimburses the owner for any loss in the entitlement's value, as determined by a third party, typically a court.[8] By contrast, the property-rule remedy prohibits the agent from expropriating an entitlement without the owner's consent. Courts enforce this prohibition with an injunction that requires a violator, such as a trespasser, to restore the entitlement itself, or, where this isn't possible, to disgorge any gains the violator realized from his wrong.

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[5] See, e.g., Kershaw Sunnyside v. Interurban Lines, 156 Wash. 2d 253, 274-5 (2006).
[6] International Paper Co. v. McI Worldcom Network Servs., 202 F. Supp. 2d 895, 903 (W.D. Ark. 2002).
[7] Guido Calabresi and A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089 (1972).
[8] This statement follows Calabresi's and Melamed's initial presentation. Guido Calabresi and A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089 (1972). Most importantly, it formulates the distinction between property-rule and liability-rule remedies as two ways of protecting antecedently established and independently specified rights, so that the choice of remedy is what Calabresi and Melamed call a "second-order decision." Id. at 1092.

The choice between V-remedies and P-remedies, however, is more fundamental than the choice between property rules and liability rules. This is because a court must first commit to the V-remedy or the P-remedy approach before it can reason intelligibly about the more familiar choice between property and liability rules. As we will explain, the choice between V-remedies and P-remedies determines which considerations are admissible in deciding whether to deploy property rules or liability rules in any particular case. Both formalist courts (embracing V-remedies) and functionalist courts (embracing P-remedies) will deploy property rules sometimes and liability rules other times; but they will choose different remedies for different reasons in every particular case.

The choice between V-remedies and P-remedies is also more fraught. Courts and scholars who reason, in the conventional frame, about whether property rules or liability rules are best in a particular case typically agree about the benefits and costs of each rule; they differ only concerning the balance between them. By contrast, courts and scholars who begin by committing to either the V-approach or the P-approach typically each deny the values that motivate the other camp and flatly ignore the arguments that the other camp advances. The conventional choice between property rules and liability rules depends on the balance of consequences involving a shared set of considerations; the choice between V-remedies and P-remedies invites a clash of legal world-views.

We elaborate, explain, and attempt to dissolve the remedial dilemma. The next Part lays out the basic cases for V-remedies and for P-remedies, respectively, in both doctrine and theory. Both courts and scholars have single-mindedly embraced one account of remedies, while neglecting the other. This parochialism renders existing approaches to private law remedies unsatisfactory. Part 3 outlines a synthesis that dissolves the remedial dilemma. We also introduce some basic economic ideas, neglected in the literature, that illuminate our synthesis. Part 4 then uses Part 3's legal and economic analyses to show how our synthesis clarifies a range of doctrines, especially in contract and property and also, although less thoroughgoingly, in tort.

Our main purpose is to set out and resolve the remedial dilemma as we have framed it—in terms of a dispute between vindicating and policy remedies—but our arguments also have consequences for the more familiar debate between property rules and liability rules. In some cases (the default preference for expectation damages, the law of adverse possession), we provide new justifications for current law. In others (clauses that opt into specific performance, the law of good faith purchasers), we suggest modest revisions or resolve ongoing uncertainties in current law. And in still others (the impact of new technologies on property rights), we propose more sweeping legal reforms. Taken together, our case studies show that welfarist considerations favor liability-rule remedies more extensively than conventional accounts, which remain trapped in the remedial dilemma, can recognize. Along the way, we also introduce considerations regarding freedom, arguing that our way out of the remedial dilemma highlights the liberty in liability rules.

2. The Remedial Dilemma

2.1 The dilemma in outline

V-remedies are closely associated with formalism. The V-approach holds that rights—whose metes and bounds are fixed before the occurrence of the wrongs that have triggered a lawsuit—determine remedies. Private law disputes arise among persons: promisor and promisee; owner and trespasser; injurer and victim. The legal regime accords these persons entitlements: to the benefits of their contractual bargains; to the possession and quiet enjoyment of their property; and to protection from harm. A formalist court deciding a private law dispute therefore begins by identifying the right that has been violated and then awarding the remedy that vindicates the right. V-remedies, derived in this way, are, as Learned Hand explained, "obligation[s] destined to stand in place of the plaintiff's right, and be, as nearly as possible, equivalent to him for his rights."[9] Hand's characterization repeated the conventional wisdom of his day. As Blackstone had written long before, remedies "redress the party injured, either by restoring to him his right, if possible, or by giving him an equivalent."[10] Similar formulations, moreover, endure into the present. John Gardner, for example, has embraced V-remedies as giving the wronged party "the next best thing" to not having been wronged.[11]

The case for V-remedies follows a simple but powerful logic. Remedies redeem rights by redressing or correcting wrongs. This has direct consequences for the substance of what remedies offer to people who have been wronged. Every V-remedy, to borrow a formulation from Ernest Weinrib, "integrates the injustice and its rectification by construing the latter as undoing the former,"[12] so that "structurally, the remedy is the mirror image of the injustice."[13] A V-remedy constitutes what Peter

[9] Learned Hand, Restitution or Unjust Enrichment, 11. Harv. L. Rev. 240, 256 (1897).
[10] Blackstone, IV Commentaries 9 (1769).
[11] John Gardner, What is Tort Law For? Part 1. The Place of Corrective Justice, 30 Law and Philosophy 1, 48 (2011).
[12] Ernest J. Weinrib, Corrective Justice 84 (2012).
[13] Ernest J. Weinrib, Corrective Justice 88 (2012).

Birks has called "the same thing as the right, looked at from the other end."[14] The remedial form thus narrowly constrains—in effect, it determines—the substance that V-remedies might have. Only awards that mirror the rights whose violations they redress can possibly constitute remedies, properly understood.

P-remedies are associated with functionalism. The P-account of remedies denies that rights exclusively determine remedies. Thus, Calabresi and Melamed separate private law disputes into two *distinct* stages. In the first stage, the decision-maker fixes rights, deciding to whom to allocate the relevant entitlement and what the metes and bounds of that entitlement are. In the second stage, the decision-maker must "make a series of equally difficult second order decisions" that "go to the manner in which [violated] entitlements are protected"—decisions concerning remedies.[15] In every private law dispute "the state must decide not only which side wins but also the kind of protection to grant."[16] Moreover, the two decisions—about rights and remedies—are, in this way of thinking, independent of each other; and courts should chose remedies not by asking what is needed to vindicate rights but rather based on considerations of policy.

The case for P-remedies again follows a compelling logic. A wrong doesn't end the relationship among the parties or even just set the world in aspic. Instead, remedies, as Calabresi and Melamed observe, "shape the subsequent relationship between the winner and the loser,"[17] including in ways that make the world better or worse. Moreover, because parties can backwards induct, remedies influence how people generally treat one another in respect of their rights. Effective P remedies take account of these incentive effects. Calabresi and Melamed thus argued that courts should choose between liability-rule and property-rule remedies by considering which remedies best promote the general welfare, paying specific attention to the costs to courts of setting accurate damages and the costs to parties of bargaining around injunctions.[18] Calabresi's and Melamed's article is famous for introducting this distinction between liability rules and property rules and its transactions-costs-based way of choosing between them. But the institutional and economic considerations that they stress arise downstream from the more fundamental distinction between V-remedies and P-remedies, in the literal sense that, as we shall see, a court confronting a wrong can choose to embrace either the V-remedy approach or the P-remedy

[14] Peter Birks, Definition and Division: A Meditation on Institutes 3.13 in Peter Birks, ed., THE CLASSIFICATION OF OBLIGATIONS 1, 24 (1997) .
[15] CM 1092.
[16] CM 1092.
[17] CM 1092.
[18] CM 1092.

approach and then, following this choice, award either a property rule or a liability rule remedy in the instant case.

To summarize, the V- and P- accounts of remedies are severally appealing but jointly incompatible. Existing practice and theory concerning private law remedies ignores this remedial dilemma. Courts and theorists embrace one of the dilemma's horns—either V- or P-remedies—while repressing the other: sometimes inconsistently across circumstances but almost always singlemindedly in each circumstance. But ignoring questions doesn't make them go away, and repressed values return to unsettle accounts of remedies that try to do without them. V-remedies, which tailor remedies narrowly to rights, constrain courts' freedom to render private law socially useful. Meanwhile, P-remedies, which treat wrongs as occasions for devising freely adjustable remedies that make law more useful, fail to redress or even fully to recognize the wrongs that occasion them.[19] A vindicating thesis and its policy-based antithesis thus battle, and undermine, each other, but without reaching any satisfying synthesis. This is the current state of doctrine and theory in private law.

The remedial dilemma also poses practical problems for parties. Because courts move uneasily, and sometimes unpredictably, between formalist and functionalist approaches to remedies, parties to a litigation may not know the type of court they face and thus may inefficiently litigate disputes that the parties would have been better off settling.[20] In addition, the possibility of incurring "mismatch costs" reduces the expected return from economic activity.[21] As a result, party incentives to make contracts and reconfigure property efficiently are reduced, and parties may underinvest in the transactions they do make. The dilemma thus imposes significant costs on the real economy. The synthesis we will suggest materially reduces those costs because it unifies the two approaches to remedies. Before we develop our synthesis, however, we devote the remainder of Part 2 to developing a more detailed account of the doctrinal and theoretical problems that constitute the remedial dilemma that we aim, eventually, to dissolve.

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[19] We note that a pure P remedy approach is seldom seen in practice. Because a necessary condition for a court to rule is a rights violation, courts are constrained not to act as if they were writing on a blank slate; their result must link in some sense to the triggering wrong. But that link can be very loose.

[20]The possibility that uncertainty abut court types can induce parties to make inefficient litigation choices is extensively analyzed in Alan Schwartz and Simone M. Sepe, "Midstream Contract Interpretation", 99 Notre Dame L. Rev. 611 (2023).

[21] Parties incur a mismatch cost when a court awards a remedy that does not vindicate the parties' entitlement. See TAN at notes ___.

2.2 The dilemma in doctrine

The remedial dilemma arises throughout private law and commonly takes the same form. On the one hand, a court that has identified a wrong may be inclined to vindicate the violated right by awarding a V-remedy. On the other hand, the court may believe that a V-remedy would be inefficient or burdensome; and these concerns may incline the court to award a P-remedy, even when that remedy does not vindicate the right. The common law thus wavers between the two horns of the remedial dilemma: and while courts have articulated coherent doctrines to govern V-remedies and P-remedies within each horn, doctrinal coherence across the two approaches remains elusive.

In contract, expectation damanges make V-remedies the standard response to breach, vindicating the promisee's interest in contractual performance by putting the promisee "in as good a position as he would have been in had the contract been performed."[22] The echo of Hand's language—"as nearly as possible, equivalent to [the plaintiff] for his rights"—is unmistakable. As we show below, the expectation remedy vindicates contractual entitlements when and because parties contract to accord the promisee either the contractually specified performance or its value.[23] Because this contract is common, courts justifiably reject supercomensatory remedies in the usual case: punitive damages "are not recoverable for breach of contract,"[24] nor are penalty clauses enforceable.[25] As one court has explained, "[t]he stated goal of the damages remedy is compensation for the plaintiff for legally recognized losses. … [H]e should be fully indeminified for his loss, but … he should not recover any windfall." Similarly, specific performance remains an exceptional remedy, which "will not be ordered if damages would be adequate to protect the expectation interest of the injured party:"[26] Because expectation damages are sufficient to vindicate contractual rights, specific performance is disapproved as unnecessary. Even nominal damages, typically "awardable to vindicate a right where compensatory damages

[22] Restatement (Second) of Contracts §344 (1981).
[23] See Markovits and Schwartz, "New Defenses of the Expectation Interest". Va. L. Rev. (2011).
[24] Restatement (Second) of Contracts §355 (1981).
[25] Restatement (Second) of Contracts §356 (1981). Even judges who believe that enforcing penalty clauses would make contract law more efficient—as P-remedies that would make the world a better place—nevertheless decline to do so. Perhaps the most famous example is Richard Posner's opinion applying Illinois law to invalidate a penalty clause agreed between sophisticated parties in Lake River Corp. v. Carborundum Co., 769 F.2d 1284 (7th Cir. 1985).
[26] Restatement (Second) of Contracts §359 (1981).

cannot be proven," become "not necessary" when "[c]ompensatory damages have been properly awarded to vindicate … [a plaintiff's] right."[27]

In spite of this formalist imperative, functionalist logic remains present in contract law; courts' policy preferences also shape contract remedies. Expectation damages systematically undercompensate promisees. The certainty doctrine sets positive but unquantifiable expectations stipulatively at zero.[28] And the rule of *Hadley v. Baxendale*,[29] which limits recovery for consequential losses to those that would either ordinarily follow from breach or that the party in breach had reason to anticipate when the contract was made,[30] imposes a much more demanding standard of foreseeability on plaintiffs in contract than in tort.[31] These rules depart from what V-remedies require to reflect functionalist considerations: certainty prevents open-

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[27] Haller v. Daily, 2003 WL 1894540 (Ohio Ct. App.). The doctrines just summarized state mandatory rules. Penalty clauses are unenforceable even when sophisticated parties expressly agree to them, See, e.g., Lake River Corp. v. Carborundum Co., 769 F.2d 1284 (7th Cir. 1985), and "the parties cannot vary by agreement the requirement of inadequacy of damages" Restatement (Second) of Contracts §359 cmt. [a] (1981), or otherwise contract to replace the expectation remedy with specific performance. "[D]amages," as a court reasoning in this way has observed, "is an instrument of corrective justice, an effort to put the plaintiff in his or her rightful position." Shelby City. Health Care Corp. v. Baumgartner, 2011 WL 303249 (Tenn. Ct. App. 2011) (citation to Dan B. Dobbs, Dobbs Hornbook on Remedies omitted). And the principles of corrective justice, this reasoning imagines, are not terms in the parties' contract, alterable at their discretion, but rather rules of law.

Nevertheless, one of has recently argued that both a policy based and a formalist approach support reducing mandatory contract law rules to defaults. See Simone M. Sepe and Alan Schwartz, "Deregulating Contracts", forthcoming Notre Dame L. Rev. (2025).

[28] See Restatement (Second) of Contracts §352 (1981).

For a familiar judicial application, see Freund v. Washington Square Press, 34 N.Y.2d 379, 357 N.Y.S.2d 857, 314 N.E. 419 (N.Y. 1974), in which a professor was denied damages against a press that breached a contract to publish a manuscript, although the professor would have benefited from publication.

A less familiar, but especially revealing case is Freidus v. Eisenberg, 123 A.D.2d 174, 510 N.Y.S.2d 139 (N.Y.A.D. 2 Dept. 1986). In *Freidus*, a court deployed the certainty requirement to deny recovery to a buyer-plaintiff whose seller had breached a contract to convey undeveloped land, thereby depriving the plaintiff (a professional developer) of title to and use of the land for 15 years. The court held that the plaintiff couldn't establish the profits that it would have made by developing the land with the requisite certainty, and so set the plaintiff's contract damages at zero. Contrast this doctrine and result with the regime that would have governed if the plaintiff had held title to land that the defendant had occupied as an intentional trespasser. Instead of having to prove its losses with certainty, the plaintiff in that case could prevail apart from any harm and require the defendant to disgorge its gains from the trespass.

[29] Hadley v. Baxendale, 156 Eng. Rep. 145 (Court of Exchequer, 1854).

[30] See also Restatement (Second) of Contracts §351 (1981).

[31] Compare Hadley v. Baxendale to Overseas Tankship (UK) Ltd. V. Morts Dock & Engineering Co. (The Wagon Mound) [1961] AC 388.

ended liability for speculative damages from discouraging efficient contract formation and facilitates renegotiation when circumstances change; and foreseeability gives promisees an incentive to reveal unusual vulnerabilities, so that promisors can charge accurate prices and take efficient precautions against the inability to perform.[32]

Some courts also hold that functionalist considerations concerning inefficient waste *preclude* a V-remedy, even as they acknowledge plaintiffs will suffer unredressed wrongs. A famous example is Judge Cardozo's opinion in *Jacob & Youngs v. Kent*,[33] which refused to order a builder to replace Cohoes pipe mistakenly installed in a completed home, even as it acknowledged that the construction contract specified using pipe exclusively "of Reading manufacture," on the grounds that the cost of replacement "would be great" while the home's diminution in value because of the substitution "would be either nominal or nothing."[34] The apparent irrationality of the homeowner's preference, and the consequent economic waste, persuaded the court to reject a V-remedy.[35]

Courts also inconsistently apply V- and P-remedies in property law. V-remedies vindicate property rights by undoing their violations, or coming as close to this as possible. Because ownership confers on owners an absolute right to exclude, even a harmless trespass is a wrong.[36] In contrast, a private nuisance wrongs the owner only if it substantialy interfers with the owner's use and enjoyment of his land. Courts thus issue injunctions to prevent (especially intentional) trespasses, even where the costs that a trespass imposes on an owner are dwarfed by the costs of removal for the

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[32] See, e.g., Gwyn D. Quillen, Contract Damages and Cross-Subsidization, 61 S. Cal. L. Rev. 1125 (1988).

[33] Jacob & Youngs v. Kent, 230 N.Y. 239, 129. N.E. 889 (N.Y. 1921).

[34] Jacob & Youngs v. Kent, 230 N.Y. 239, 244 129. N.E. 889, 891 (N.Y. 1921). Cardozo's effort to render his judgement consistent with the V-account of remedies, by treating the builder's promise to use Reading pipe as independent rather than a condition of the homeowner's promise to pay, collapses because the contract in the case contained a tear-down clause, expressly stating that the remedy for failing to use Reading pipe was to tear down the house as necessary to install Reading pipe. CITE.

[35] An argument that the court misunderstood the parties' contract, and that a correct understanding would have supported the V-remedy, is in Alan Schwartz and Robert E. Scott, "Market Damages …," 2016 Colum L. Rev. (2016).

[36] Bradley v. American Smelting & Refining Co., 709 P.2d 782, 787 (Wash. 1985). Scholars explain that property, as Arthur Ripstein obsevers, gives owners a kind of sovereignty over the things that they own—what Larissa Katz has called an "agenda-setting authority" over these things, the "authority to make decisions about things," or the "standing to say so." Arthur Ripstein, *Beyond the Harm Principle*, 34 Phil. & Pub. Aff. 215, 21; (2006); Larissa Katz, *Property's Sovereignty*, 18 THEORETICAL INQ. IN LAW, 299, 305 (2017).

trespasser.[37] As one court has said, "the necessities of the defendant cannot measure the rights of the plaintiffs."[38] Vindicating possessory rights is so important that courts will issue temporary injunctions to prevent an alleged ongoing trespass: "Even if the injunction effectively disrupts, rather than preserves, the status quo," the temporary injunction may be entered to vindicate, "a property owner's right to use its land."[39] Where a trespass has already occurred, and so cannot be enjoined, courts award to owners disgorgement of the trespasser's gains and sometimes punitive damages, although the trespass may have caused only nominal harm.[40] All of these results are again intelligible only on the V-account's directive that remedies should vindicate rights, specifically, the property owner's right to exclude.

As in contract, however, so also in property functionalist concerns lead courts sometimes to issue P-remedies, including in ways that simply do not address—even when they contradict—the formalist logic of vindication. For example, though an owner enjoys the right to exclude even harmless trespassers, courts are reluctant to issue the injunctions necessary to vindicate this right against encroachments—i.e., continuing trespasses—done with reasonable care or in good faith, especially where the encroachments are costly to remove and impose a lesser, or even *de minimis*, burden on the owner.[41] Rather, courts reflexively grant injunctions to remove encroachments only when "irreparable harm will flow from a denial of injunctive relief" *and* "balancing the hardships" that "removal or failure to remove [an

[37] See, e.g., Pile v. Pedrick, 31 A. 646 (Pa. 1895).

[38] Kasuba v. Graves, 109 Vt. 191, 203, 194 A. 455, 460 (1937) Because the disputants in that case, as neighbring riparian owners, could not help impacting each other's property, the court qualified its result: "Our holdings herein do not mean, however, that the defendant is necessarily without right to pump any water from his quarries so that it comes into the brook. As a riparian owner, he has a right to a reasonable use of the stream. To the extent that pumping from his quarries is absolutely and indispensably necessary for their beneficial use, and can be done without substantial injury to the plaintiffs, he is within his rights." Id. at 407, 462.

[39] Annux Indus. Park, LLC v. Corner Land, LLC, 206 So. 3d 739 (Fla. Dist. Ct. App. 2016).

[40] On disgorgement and constructive trusts, see, e.g., *Gassner v. Lockett,* 101 So.2d 33 (Fla. 1958). On punitive damages, see, e.g., Jacque v. Steenberg Homes, Inc., 208 Wis. 2d 605, 563 N.W.2d 154 (Wisc. 1997).

[41] See. e.g., *Arnold v. Melani*, 75 Wash. 2d 143, 152, 437 P.2d 908, 914 (1968) ("[A] mandatory injunction can be withheld as oppressive when, as here, it appears (and we particularly stress), that: (1) The encroacher did not simply take a calculated risk, act in bad faith, or negligently, willfully or indifferently locate the encroaching structure; (2) the damage to the landowner was slight and the benefit of removal equally small; (3) there was ample remaining room for a structure suitable for the area and no real limitation on the property's future use; (4) it is impractical to move the structure as built; and (5) there is an enormous disparity in resulting hardships."). For similar holdings, see, e.g., *Proctor v. Huntington*, 169 Wash. 2d 491, 500, 238 P.3d 1117, 1121 (2010); Golden Press, Inc. v. Rylands, 235 P.2d 592, 595-96 (Colo. 1951).

encroachment] would inflict on each party" would favor the injunction.[42] Moreover, policy considerations incline courts to classify an invasion as either a trespass, which may be enjoinable as of right, or a nuisance, which is often not enjoinable. Nuisance law protects an owner's use and enjoyment of property only against substantial and unreasonable interference.[43] Courts thus sometimes reject injunctive relief when it would cost the defendant much more than the nuisance would cost the owner. Instead, the owner is relegated to damages, even when the harm to its property is nontrivial and the nuisance was intentional.[44] These conflicting results have produced a dense doctrinal thicket—described by one court as "the most impenetrable jungle in the entire law."[45] But although the details remain tangled, the basic point behind the encroachment and nuisance doctrines is straightforward: In defiance of an owner's clear right to exclude, courts ignore the V-remedy in favor of a P-remedy if enforcing the right would block a disproportionately more valuable venture.

Tort doctrine also vacillates between V- and P-remedies, without offering a satisfactory, or generally even an expressly articulated, principle for choosing between the two incompatible approaches. V-remedies in tort take their measure from the calculus of redressing tortious wrongs. Thus "[r]ecovery in tort seeks to restore the plaintiff to where he was before the defendant's wrongful conduct injured him."[46] This principle renders the defendant's interests irrelevant to tort remedies, as in the rule that "consideration of the affluence of the defendant, his ability to pay, or his liability insurance coverage is improper, irrelevant, prejudicial, and beyond the legally

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[42] Amkco Ltd. Co. v. Welborn, 31 P.3d 24, 27 (N.M. 2001).
[43] Bradley v. American Smelting & Refining Co., 709 P.2d 782, 790 (Wash. 1985).
[44] See, e.g., Harrisonville v. W.S. Dickey Clay Mfg. Co., 289 U.S. 334, 338, 53 S.Ct. 602, 603 (1933) ("Where substantial redress can be afforded by the payment of money and issuance of an injunction would subject the defendant to grossly disproportionate hardship, equitable relief may be denied although the nuisance is indisputable. This is true even if the conflict is between interests which are primarily private."). Note that when the costs of enjoining a nuisance become big enough—and especially when they fall not just on the defendant but also on the broader public—courts may refuse to enjoin even a nuisance that they acknowledge causes substantial harms to a plaintiff, and may instead award "permanent damages" set at the total economic loss suffered by the plaintiff on account of the defendant's present and future conduct. See, e.g., Boomer v. Atlantic Cement Co., 26 N.Y.2d 219, 223, 309 N.Y.S.2d 312, 315, 257 N.E.2d 870, 872 (N.Y. 1970) ("The ground for the denial of injunction, notwithstanding the finding both that there is a nuisance and that plaintiffs have been damaged substantially, is the large disparity in economic consequences of the nuisance and of the injunction."). See also N. Ind. Pub. Serv. Co. v. Vesay, 210 Ind. 338, 200 N.E. 620 (1936) (refusing an injunction against a gas plant where "the continued operation of the defendant's gas plant is necessary *in the public interest*, and … less injury will be occasioned by requiring the defendant to pay the plaintiff … damages … than by enjoying the operation of the defendant's … gas plant.")
[45] *Brown v. County Commissioners of Scioto County, 87 OhioApp.3d 704, 712, 622 N.E.2d 1153 (1993).*
[46] *Detroit Edison Co. v. NABCO, Inc.,* 35 F.3d 236, 239 (6th Cir.1994) (citing *Neibarger v. Universal Cooperatives Inc.,* 439 Mich. 512, 486 N.W.2d 612 (1992)).

established boundaries."[47] Rather, the plaintiff's loss provides the exclusive and essential ground for redress: Unlike an owner in property, a plaintiff can recover remedies "under a tort theory only when he has suffered a present injury."[48] Courts that embrace V-remedies in tort therefore refuse to award damages, even for clearly dangerous and wrongful conduct, where harms remain prospective. Although plaintiffs in such cases may "obtain declaratory judgment" announcing their rights; they "may not, however, seek compensatory damages for an injury that has not occurred."[49] This is because "[f]undamentally, compensatory damages are designed to undo the harm that the defendant caused," so that '[i]f the damage has not yet occurred, there is nothing to restore."[50]

Again, however, the logic of vindication doesn't exhaust the courts' interest in tort remedies. Tort law, after all, is at least partly concerned with reducing what Guido Calabresi called "The Cost of Accidents" and understood, capaciously, as the total cost, including both the costs imposed by accidents that happen and the costs incurred to avoid accidents that don't happen.[51] And while the first set of costs trains judicial attention on plaintiffs, as V-remedies recommend, the second set of costs trains judicial attention on defendants and invites courts to reason functionally; that is, to employ P-remedies to creat efficient incentives for defendants to take precautions. This P-remedial logic comes out most clearly in the doctrines that govern punitive damages in tort. Punitive damages expressly reject the logic of V-remedies: they give plaintiffs acknowledged windfalls;[52] and they focus on punishing and deterring defendants, especially defendants who consciously disregard known risks.[53]

Accordingly, and in express contrast to compensatory damages, punitive damages calibrate themselves to the defendant's broader circumstances, including their ability to pay. "Obviously," one court has noted, "the function of deterrence … will not be served if the wealth of the defendant allows him to absorb the [punitive damages award] with little or no discomfort."[54] Both departures abandon the strictures of V-remedies in order to shore up optimal deterrence: in cases in which

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[47] Trimble v. Merloe, 413 Pa. 408, 410, 197 A2d 457, 458 (Pa. 1964).
[48] *Henry v. Dow Chemical Co.,* 473 Mich. 63, 701 N.W.2d 684, 689 (2005)
[49] Shaheen v. HSBC Bank, 23 F.R.D. 344, 349 (E.D. Mich. 2012)
[50] Shaheen v. HSBC Bank, 23 F.R.D. 344, 350 (E.D. Mich. 2012).
[51] See Guido Calabresi, The Cost of Accidents: A Legal and Economic Analysis (1970).
[52] In re Collins, 233 F.3d 809, 812 (3d Cir. 2000).
[53] CITES.
[54] Doe v. Lee, 79 Cal. App. 5th 612, 294 Cal. Rptr. 3d 441, 446-47 (Cal. Ct. App. 3d dist. 2022). Even cases that emphasize the rule that damages may not be adjusted to a defendant's ability to pay limit the scope of the rule's application to cases "in the absence of punitive damages." Trimble v. Merloe, 413 Pa. 408, 410, 197 A2d 457, 458 (Pa. 1964).

injurers calculate that some deserving victims—perhaps because they become exhausted by litigation costs or never even initiate claims—will fail to recover damages;[55] and in cases in which an injurer's wealth affects his responsiveness to financial penalties going forward.[56] These and myriad analogous effects are again too powerful, and too consequential, for practically-minded courts to ignore: failing to use remedies to serve broader ends simply leaves too much value on the table. Courts deciding tort cases therefore once again reject V-remedies in favor of P-remedies when the functionalist stakes grow sufficiently high.

2.3 The dilemma in theory

All across private law—in contract, property, and tort—courts pulled by the competing logics of V-remedies and P-remedies become entangled in doctrinal inconsistencies and confusions. The state of the doctrine constitutes an invitation to scholars: to articulate and defend a rule of decision that can guide courts in choosing between V-remedies and P-remedies in a principled way; or perhaps even to elaborate a synthesis that releases the tension between V-remedies and P-remedies and so dissolves the remedial dilemma. Scholars, however, have almost universally declined this invitation. Instead of balancing or synthesizing the two remedial logics, the leading scholarly approaches to private law remedies simply embrace one horn of the remedial dilemma and reject, typically by just repressing, the other. Scholarly approaches to private law remedies thus trap themselves in theoretical bubbles. Formalists insist on V-remedies and ignore the demands of good policy; and functionalists insist on good policy and ignore the demands to vindicate rights. In the end, however, the repressed horn of the dilemma returns, to burst the theory bubbles of the scholars who ignore it.

Formalist theorists insist on V-remedies and articulate the theoretical logic that explains both how and why remedies must vindicate rights. V-remedies in contract illustrate the theory behind "how" they vindicate most directly, announcing their vindicating nature straightforwardly on the face of the doctrine. The expectation interest remedy restores to a disappointed promisee the "benefit of his bargain by being put in as good a position as he would have been in had the contract been performed."[57] V-remedies in property vindicate in an analogous, even if less doctrinally self-conscious, way. Property, as Arthur Ripstein obsevers, gives owners a

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[55] CITES.
[56] CITES.
[57] Restaement (Second) of Contracts §344. The Uniform Commercial Code adopts almost precisely the same language, saying that contract remedies should put a disappointed promisee "in as good a position as if the other party had fully performed." U.C.C. § 1-305(a) (2011).

kind of sovereignty over the things that they own[58]—what Larissa Katz has called an "agenda-setting authority" over these things, the "authority to make decisions about things," or the "standing to say so."[59] This authority, formalists argue, explains the distinction between remedies for trespass and for nuisance. In contrast to private nuisance, which requires a substantial interference with an owner's use and enjoyment of their land, trespass requires only a violation of the owner's sovereignty-like right to exclude.[60] The owner's "objection," in the case of the harmless trespass, is to the trespasser's "deed … not to its effects."[61] And vindicating ownership therefore requires remedying trespasses through injunctions that eject the trespassers, even where the trespasses have no tangible effects.

Finally, formalist theorists argue that V-remedies in tort also vindicate, although here the "how" of vindication can become more complex (and along the way reveal complexities that arise in property and contract also). Tort remedies are calibrated to undo the injuries that they redress—to negate wrongs and, as near as possible, to leave the plaintiff, in Arthur Ripstein's evocative phrase, as well off "as if it had never happened."[62] But in tort, where personal injuries figure prominently, V-remedies obviously cannot take the concept of correction and the metaphor of the mirror image too literally or concretely. The example of a bone that cannot be unbroken drives home that sometimes a wrong cannot be physically or literally undone. (In this way, tort makes vivid a complication that in fact arises in property and contract also: a trespass can't "unhappen"; and even an unpaid debt can't be repaid on time.) But even in these cases, V-remedies purport to make rights the measure of remedies, including even of general or nominal damages—that are paid to compensate for harms to interests that cannot be priced. This explains, for example, how courts reason when providing a V-remedy for lible, awarding damages to compensate for "injury to feelings, mental suffering, injury to character and reputation, and similar injuries, incapable of definite money valuation," in an express (if perhaps vain) effort to undo admittedly unquantifiable losses.[63] As this language reveals, V-remedies should avoid literalist quibbles about the inevitable gaps between rights and the means that redress their violations. The idea that a remedy vindicates a right by restoring what a wrong took away retains force even when the remedy and

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[58] Arthur Ripstein, *Beyond the Harm Principle*, 34 Phil. & Pub. Aff. 215, 215 (2006).
[59] Larissa Katz, *Property's Sovereignty*, 18 THEORETICAL INQ. IN LAW 299, 305 (2017).
[60] Bradley v. American Smelting & Refining Co., 709 P.2d 782, 787 (Wash. 1985).
[61] Arthur Ripstein, *Beyond the Harm Principle*, 34 Phil. & Pub. Aff. 215, 218 (2006).
[62] See Arthur Ripstein, As if It Had Never Happened, 48 WM. & MARY L. REV. 1957, 1979–82 (2007). See also Arthur Ripstein, *Civil Recourse and the Separation of Wrongs and Remedies,* 39 Florida State University Law Review 163 (2011).
[63] Walsh v. Trenton Times, Inc., 124 N.J. L.23, 10 A.2d 740 (1940).

right are incommensurable. In these cases, vindicating remedies give the wronged party what John Gardner called "the next best thing" to not having been wronged.[64]

Focusing on *how* V-remedies can vindicate introduces a deeper theoretical account of *why* V-remedies should vindicate. "The identity of right and remedy," Ernest Weinrib insists, "is not one of content but of normative ground."[65] The juridical conception of the right at issue can therefore endure even as that conception takes on different physical manifestations before and after a wrong: "[t]he plaintiff's right [even if not his material good] survives the injury intact and continues to be the normative marker of the parties' relationship,"[66] so that "the existence of the right remains constant" even as "the way in which the right exists changes,"[67] and the concrete content of the remedy reflects the change. The remedy may not be able to erase or even to undo the harm, but it can right the wrong. Hence, which vindicating remedy would be apt is a function of what the wrong was. And even when wrongs can't be literally undone, it remains true, as Weinrib says, that "[i]n corrective justice the nature of the right and its correlative duty determines the nature of the remedy."[68]

The formalist approach therefore elegantly connects remedies back to the rights that they vindicate. But the price of elegance is exclusivity. As Weinrib insists, the "internal connection between the right and the remedy precludes instrumental conceptions of remedial policy," so that "[f]rom the standpoint of corrective justice the remedial issue never involves inquiring into the prospective disadvantage to be imposed on the defendant in order to achieve a desirable social goal."[69] V-remedies thus exclude P-remedies. This remains so "even if the social goal in question is the protection of the plaintiff's right or the deterrence of defendants from infringing such rights."[70]

This limit on V-remedies is worth dwelling over, because it illustrates the remedial dilemma in action. In order for the right to determine the remedy, as a

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[64] See John Gardner, What is Tort Law For? Part I: The Place of Corrective Justice, 30 Law & Philosophy 1, 33 (2011). See also Arthur Ripstein, As if It Had Never Happened, 48 WM. & MARY L. REV. 1957, 1979–82 (2007).
[65] Ernest J. Weinrib, Corrective Justice 109 (2012).
[66] Ernest J. Weinrib, Corrective Justice 92 (2012).
[67] Ernest J. Weinrib, Corrective Justice 91 (2012).
[68] Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55, 57 (2003).
[69] Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55, 61 (2003).
[70] Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55, 61 (2003).

figure determines its mirror image, there cannot be any policy space inserted between them. The V-account thus regards every outside influence as a distortion—a flaw in the mirror—which compromises the correctness of the image. Precisely because the right determines the remedy, "considerations of policy that are extraneous to the relationship of right and duty play no role."[71] Perhaps most importantly, the "[d]etermination of the remedy is not the instrumental operation of a remedial policy designed to secure particular behavior on the part of the defendant."[72] Defendants aren't absent from the formalist picture: their intentions, for example, might determine whether an injury amounts to a wrong; and their responsibility explains why corrective justice always makes it essential that defendants (rather than, say, a social insurance fund) supply plaintiffs' remedies. But as long as the exclusive point of remedies is to redress wrongs rather than to prevent them, the content of remedies will depend on the plaintiff's entitlement rather than the defendant's incentives. The formalist embrace of V-remedies proudly inhabits the bubble it has made.

The formalist bubble, however, is punctured by the functionalist reality that legal actors backwards induct. Although V-remedies are awarded *ex post*, they influence behavior *ex ante* because the actors consider the cost of violating others' rights when choosing actions. Remedies therefore not only redress wrongs; they also possess the power to prevent them … or not. Contract remedies influence promisors' decisions whether to perform or breach, for example; property remedies influence how intensively owners invest in improvements, and in fences and locks to protect them, and also how much care others take to avoid trespassing; and tort remedies influence how much people invest in protecting themselves against others and also the level of care that people devote during undertakings that might cause accidents. These are only the most famous among myriad analogous mechanisms through which function punctures form. They make remedies into wide-ranging policy tools and drive a practical imperative to deploy remedial levers effectively to promote values apart from vindicating the narrow and specific rights whose violations remedies redress.

Formalists can't accommodate these imperatives—certainly not in ways that accept the values that the imperatives answer on their own terms. The exclusivity that formalist elegance demands commonly consigns formalists to insisting that cases that frame remedies in policy terms are wrongly decided, without engaging the

[71] Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55, 57 (2003). Weinrib uses this formulation to argue against disgorgement for breach of contract, including even as an alternative to specific performance.
[72] Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55, 61 (2003). Remedies may not aim to influence a defendant's conduct ex ante even in order "to achieve particular protections for the plaintiff" ex post. Id.

considerations that lead courts to decide as they do. For example, formalists typically reject punitive damages *tout court*, on the ground that punishment answers public considerations—punitive damages, the US Supreme Court has said, "are aimed at deterrence and retribution"[73]—that lie outside vindicating a plaintiff's private rights. And although some courts insist that "[n]onetheless, [punitive damages] also serve to vindicate a personal right,"[74] V-remedies can't escape the cold logic that correcting a wrong cannot justify giving a plaintiff a windfall.[75] The V-account of remedies therefore must ignore the many reasons that favor punitive damages: that not every plaintiff sues permits possible defendants to optimize against a fraction of the harms they may cause, for example;[76] or that egregious and depraved conduct can merit public condemnation even when it isn't criminal. As it happens, the V-account also ignores the most powerful reasons against punitive damages: that they encourage opportunistic claims-making among potential plaintiffs; and that their inherent unpredictability leads risk-averse potential defendants to abandon activies that have a positive net social product.

The rare cases in which formalists try to accomodate P-remedies by reframing them in formalist terms—as correcting wrongs and vindicating rights—in the end further expose the brittleness of the formalist position. That courts remedy nuisances (and might even remedy certain trespasses) with damages rather than injunctions when the balance of equities skews against plaintiffs illustrates the formalist failure. Weinrib tries to accommodate this preference for damages, even at the cost of neglecting the right to exclude, within his corrective justice V-remedy framework. He attempts to reframe the rule as a friendly amendment to the rule that property rights are vindicated by injunctions, by saying that even on the formalist view, "the remedy reflects the right not in isolation but as a component of the system of rights."[77]

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[73] State Farm Mut. Auto Ins. Co. v. Campbell, 538 U.S. 408, 416, 123 S.Ct. 1513, 155 L.Ed. 2d 585 (2003).

[74] Laramie v. Philip Morris USA Inc., 488 Mass. 399, 406, 173 N.E. 3d 731, 742 (2021).

[75] See, e.g., Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-Kent L. Rev. 55 (2003).

[76] As Guido Calabresi has argued (in his judicial role), "Punitive damages can ensure that a wrongdoer bears all the costs of its actions, and is thus appropriately deterred from causing harm, in those categories of cases in which compensatory damages alone result in systematic underassessment of costs, and hence in systematic underdeterrence." *Ciraolo v. City of N.Y.*, 216 F.3d 236, 243 (2d Cir. 2000).

[77] Weinrib, Corrective Justice 111 (2012). Sometimes Weinrib is a little more successful, as when he answers Fuller's and Perdue's classic challenge to the expectation remedy—that by insuring the promisee's value of performance even beyond their lost reliance they give promisees a windfall that can't be accommodated to corrective justice—by arguing that even if a contract doesn't give the promissee a property interest in performance, it does give him ownership of the promisor's choice to perform. Ernest J. Weinrib, Punishment and Disgorgement as Contract Remedies, 78 Chicago-

Weinrib asserts that "[t]he relationship between the plaintiff's right and the entire system of rights" brings "fresh considerations" to bear on the choice of remedy.[78] He suggests that these considerations can reveal that "the substitution of damages for an injunction prevents the plaintiff from abusing his or her right."[79]

But this argument is plainly *ad hoc* and damningly conclusory. Weinrib thus invokes abuse of rights, but this doesn't justify the exception to the injunctive remedy so much as reveal that the exception is hostile to the general corrective justice rule. That a corrective remedy that vindicates a right might nevertheless abuse that right requires extraneous values to sustain. This makes it necessary to explain what those values are and why they should come into play just when and where they do. If some values can justify constraining the plaintiff's vindication of her rights, and thereby distorting the right-relation between plaintiff and defendant, why can't broader considerations of policy do this also? And why should the system of rights weigh in to re-construct the remedy, even as it was blocked from weighing in to determine whether the right was violated to begin with and therefore whether any remedy is necessary at all? The internal structure of the formalist argument prevents formalists from developing satisfactory answers to these questions. The formalist insistence that all remedies must be V-remedies thus can't survive its encounter with the functionalist horn of the remedial dilemma.

Functionalist theorists, for their parts, single-mindedly embrace P-remedies, Their arguments therefore display an almost mirror image set of virtues and face a mirror image set of challenges.

Where V-remedies focus on the plaintiff—on what is needed to redress the wrong that the plaintiff has suffered and restore the plaintiff's rightful position—P-remedies focus at least partly on the defendant. They ask (among other analogous questions) what remedies will induce defendants to display an optimal respect for rights. And where V-remedies address the *ex post* perspective, to right wrongs that have already occurred, P-remedies address parties in general, including *ex ante*, to prevent wrongs from being committed in the first place (or to limit rights violations to

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Kent L. Rev. 55, 68 (2003). The expectation remedy corrects for the deprivation of this right over the promisor's choice. Id. Even in this case, however, Weinrib stops his argument short in ways that are difficult to rationalize. Why, for example, does Weinrib refuse to allow parties to contract for specific performance, backed by disgorgement remedies under a contructive trust? Id. at 81-82. After all, this regime would also vindicate the promisee's right over the promisor's choice; and it would do so without presuming that the promisee has any property interst in performance (since the beneficiary of a trust has no legal title in the trust's property).

[78] Weinrib, Corrective Justice 110 (2012).

[79] Weinrib, Corrective Justice 113 (2012).

circumstances in which their social benefits exceed their social costs). Functionalists frame remedies, in effect, as prices—designed to establish incentives to balance the social benefits and costs of respecting and violating rights in an optimal way. (Even sanctions, at least for functionalists, embrace this basic structure, only with the added twist that optimal deterrence requires expanding the measure of costs of violating rights to include costs to society at large and not just to the rightsholder.) This framing pervades functionalist accounts of remedies in private law. Contract remedies should be designed to promote optimal contracting, including efficient reliance and efficient breach. Property remedies should promote optimal respect for ownership and especially optimal investment. And in tort, "[t]he possibility of being found liable … and ordered to pay compensatory damages … acts to deter individuals from committing tortious conduct in the first place."[80]

Calabresi and Melamed expressly expressly tied their analysis of property rules and liability rules to P-remedies, and this policy-orientation has made their article into a well-spring of functionalist thought and writing concerning remedies. For themselves, Calabresi and Melamed proposed that policy considerations would generally favor P-remedies that protect entitlements through property rules. On the one hand, they argued, property rules promote economic efficiency and social welfare by encouraging entitlement holders to make optimal investments in their property and, should they determine to sell their property, to seek out the highest-valuing buyers.[81] On the other hand, property rules also best respect the freedom of the agents governed by private law, because administering property rules requires only one legal intervention from the state, whereas administering liability rules requires two. "Property rules," Calabresi and Melamed observed, "involve a collective decision as to who is to be given an initial entitlement but not as to the value of the entitlement," and therefore "give rise to the least amount of state intervention." Liability rules, by contrast, "obviously . . . involve an additional stage of state intervention: not only are entitlements protected, but their transfer or destruction is allowed on the basis of a value determined by some organ of the state rather than by the parties themselves."[82] Where formalists see state intervention to determine the value of an entitlement (and the cost of breach) as essential to specifying a V-remedy, Calabresi and Melamed saw only a functionalist transaction cost.

When Calabresi and Melamed turned from prescription to the positive law, they concluded that doctrine generally followed their recommendation. As they wrote, "[i]n our framework, much of what is generally called private property can be

[80] Haarhuis v. Cheek, 255 N.C.App 471, 480-81, 805 S.E.2d 720, 727-28 (2017).
[81] CM GET CITE.
[82] Id. at 1092.

viewed as an entitlement which is protected by a property rule."[83] Indeed, Calabresi and Melamed went so far as to wonder, at very start of their discussion of the choice between property rules and liability rules, "[w]hy do we need liability rules at all?"[84] They answered that transaction cost considerations are "a very common reason, perhaps the most common one, for employing a liability rule rather than a property rule to protect an entitlement."[85] Sometimes—especially when the unanimous agreement of many parties is needed to effectuate voluntary transfers of entitlements—property rules erect too many veto points to efficient allocation, and when this happens, policy favors swallowing the costs (to efficiency and freedom) of administering liability rules in order to avoid the greater costs of sclerosis under property rules. As one court has said, in an almost literal echo of Calabresi's and Melamed's analysis, "the creation of a liability rule rather than a property rule avoids the worst of the collective action problems associated with granting diffuse parties the ability to block a value-enhancing transaction."[86]

In this way, Calabresi's and Melamed's theory achieved three goals with a single argument: first, their initial separation of rights and remedies freed courts to use remedies as policy tools; second, their distinction between property rules and liability rules gave courts a framework for doing that policy analysis; and third, their invocation of transactions costs taught courts how to choose property rule or liability rule remedies in concrete cases. Together, these features made Calabresi's and Melamed's article enormously influential—one of the most widely cited and especially most intensively discussed law review articles ever published.

The functionalist bubble has thus become very large—so large that it can seem, in US legal thought, that all remedies should be P-remedies. But no matter its size, the bubble still embraces only one of the two perspectives that private law remedies must address, and it still gets punctured by the ignored formalist horn of the remedial dilemma. P-remedies may figure prominently in legal practice and dominate legal theory, but the imperative of vindicating rights is not so easily cast aside. Even the subtlest P-remedies don't vindicate rights so much as present an opportunity to be used in improving the overall situation, including most notably by providing incentives in respect of rights. Wrongs therefore don't cause or determine P-remedies, which "are not concerned—or at least not concerned only—with responding to whatever aspect of the parties' interactions forms the basis for liability."[87] Instead,

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[83] CM GET CITE.
[84] Calabresi & Melamed, at 1105.
[85] CM. at 1110.
[86] *Marblegate Asset Mgmt. v. Educ. Mgmt. Corp.*, 75 F. Supp. 3d 592, 616 (S.D.N.Y. 2014).
[87] Ernest J. Weinrib, Corrective Justice 85 (2012).

wrongs merely present the occasions on which the policy tools associated with P-remedies become available. But no amount of functionalist sophistication can cure P-remedies' neglect of the formalist imperative that remedies should redress wrongs.

If remedies are just policy tools, courts should not have to find that the defendant has committed a wrong as a precondition for making policy. The requirement of a wrong is familiar in public law: the severity of punishment may properly be adjusted to serve policy ends (deterrence, incapacitation); but no punishment, no matter how useful and no matter how benign, may ever be imposed except in response to adjudicated guilt for a crime (as retribution). Any other regime abandons the basic ideas of innocence, guilt, and responsibility in favor of opportunistic ideas of usefulness and therefore ceases to be punishment at all and becomes instead what John Rawls, coining a useful term, once called telishment.[88] The same principle applies in private law also, to insist that remedies must be awarded not simply because they are useful but also, as a condition for their being awarded at all, because they respond to wrongs. Functionalism about P-remedies, no matter how sophisticated, can't explain why policy considerations that dominate the application of remedies become categorically inadmissible where there is no wrong to remedy. The functionalist account of P-remedies therefore fails in the face of the perfect mirror image of the objection that burst the formalist bubble of V-remedies.

Ironically, what is commonly regarded as one of Calabresi's and Melamed's greatest triumphs in fact exposes functionalism's inability to resolve the remedial dilemma. Calabresi's and Melamed's two central innovations—that specifying rights and specifying remedies are independent tasks, and that remedies may protect rights through property rules or liability rules—immediately suggest that right-remedy constellations may take on one of four patterns. When, for example, a landowner claims that another person's venture unreasonably burdens her enjoyment of her property, the disputed entitlement may be allocated to either the landowner or the venturer and, in each case, the entitlement might be protected by a P-remedy styled as a property rule or styled as a liability rule. Three of the four possibilities are familiar, in fact commonplace: (1) the landowner can have the entitlement, protected by a property rule, in which case she can enjoin the venturer's nuisance; (2) the landowner can have the entitlement, protected by a liability rule, in which case she can collect damages to recover the losses caused by the nuisance; and (3) the venturer can have the entitlement, protected by a property rule, in which case he can pursue his venture unless the landowner, by buying him out, receives his contemporaneous consent to desist. But the fourth possible pattern of right and remedy is less familiar: the venturer can have the entitlement, but protected by a liability rule only, in which case

[88] See John Rawls, *Two Concepts of Rules*, 64 Phil. Rev. 3 (1955).

the landowner can enjoin the nuisance, without the venturer's consent, on condition that she pays damages, set by a court, equal to the harm that the injunction causes to the venturer. This possibility—called "rule four"[89] by Calabresi and Melamed and more revealingly called an "indemnified injunction"[90] by others—hadn't been identified before Calabresi and Melamed developed their account of P-remedies; it was, one might say, an empirical prediction born of their theory.

Calabresi and Melamed defended the indemnified injunction's appeal on policy grounds. They explained the relative rarity of the regime based on speculations about the balance of transactions costs. Along their way, Calabresi and Melamed also observed that transactions costs explain why indemnified injunctions typically occur, where they do occur, through public rather than private law mechanisms: through legislatively or administratively implemented takings (the injunctions), followed by payments of just compensation (the indemnification).[91] But Calabresi and Melamed also proposed that the indemnified injunction should sometimes be embraced by courts in private law disputes: arguing that it might occasionally be the most efficient combination of right and remedy;[92] that in other circumstances it produces the most appealing distributional consequences;[93] and, most compellingly, that in still other circumstances indemnified injunctions "enable us best to combine efficiency goals with distributional goals . . . [as well as with] other goals that are often described in justice language."[94] And by a happy coincidence, the Supreme Court of Arizona, in the very same year in which Calabresi and Melamed published their article, made their prediction a reality in a case called *Spur Industries v. Del E. Webb Development Co.*, issuing an indemnified injunction in precisely the circumstances in which Calabresi and Melamed had proposed it would be optimal policy.[95] This seemed to give Calabresi's and Melamed's theory an empirical vindication—hence the common view that the indemnified injunction is one of the theory's greatest triumphs.

But in fact, the indemnified injunction is the functionalist exception that proves the formalist rule that remedies must vindicate rights—the P-remedy that reveals why V-remedies remain essential; and, as the indemnified injunction's rarity shows, the formalist rule passes the test. The problem with the indemnified injunction is that because, by its own terms, the entitlement lies with the venturer, "no viable wrong can

[89] CM, 1120.
[90] Ernest J. Weinrib, Corrective Justice 98 (2012).
[91] CM, 1122.
[92] CM, 1121.
[93] CM, 1121.
[94] CM, 1123.
[95] Spur Industries v. Del E. Webb Development Co., 494 P. 2d 700 (Arizona, 1972).

be established" to provide a reason or justification for any remedy to be issued at all.[96] The conditions that led Calabresi and Melamed, and also the Arizona Supreme Court, to embrace the indemnified injunction—that the landowner's socially valuable investments created the circumstances in which the venturer's activites cost the landowner much, much more than they benefited the venturer—might well be what Weinrib has called "conditions that trigger the remedy."[97] But by the remedy's own construction—that the venturer has the entitlement to pursue her venture—they cannot provide "a normatively coherent reason" for the remedy.[98] Indeed, the suggestion that the owner wrongs the venturer (or violates the venturer's entitlement to pursue her venture)—the ground for awarding the indemnification payment under Calabresi's and Melamed's Rule 4—is hardly intelligible in cases like *Spur Industries*. The owner hasn't, after all, used private threats or force to block the venture. Instead, she deploys the state and its courts as the mechanism of her rights infringement: the only thing that blocks the venture is the injunction itself. This leaves the indemnified injunction normatively divided against itself: *the injunction* must be—it is the only candidate for being—the wrong for which the indemnification is meant to be a liability-rule remedy.

This normative nonsense—that the indemnified injunction can't coherently be framed as a V-remedy—rather than the empirical patterns of transactions costs mentioned by Calabresi and Melamed—explains why indemnified injunctions are rare in private law. It illuminates the indemnified injunction's fundamentally public normative structure—that, as Weinrib puts the point, "the Calabresi–Melamed analysis treats the causative event merely as the preliminary to a response that is independent of the reason for considering the event an injustice."[99] Proceeding in this way, the indemnified injunction abandons private rights and instead reflects public justice claims. It arises in the shadow of reallocations of previously settled entitlements rather than, as private remedies do, reaffirming settled entitlements by correcting wrongs that breach them. Finally, in case any doubts remain, they are

[96] Ernest J. Weinrib, Corrective Justice 102 (2012). Weinrib thus writes: "The wrong is not the reason for the [indemnified injunction] remedy, because no viable wrong can be established that would match so curiously structured a remedy. The court states the circumstances in which this remedy is available—the developer's bringing in of a population that makes the injunction foreseeably necessary—but these circumstances are merely the conditions that trigger the remedy without providing a normatively coherent reason for it. … Like a door swinging without the hinges that attach it to anything, the remedy is both conditioned by and normatively independent of the events that give rise to it." Weinrib then charges, of Calabresi and Melamed, that "Their analysis [of remedies] . . . is indifferent to the normative character of the entitlements involved." Id. at 103.
[97] Ernest J. Weinrib, Corrective Justice 102 (2012).
[98] Ernest J. Weinrib, Corrective Justice 102 (2012).
[99] Ernest J. Weinrib, Corrective Justice 107 (2012).

settled by the fact that indemnified injunctions—in the form of compensated takings (including regulatory takings)—aren't rare at all in public law, where the state's authority to redistribute entitlements eliminates the need to find an independent ground for the indemnification.

Legal theory has thus failed to achieve a synthesis that supercedes the contradictions in legal practice. Instead, and for all their appeal, both formalist theories of V-remedies and functionalist theories of P-remedies suffer fatal flaws, which grow, in each case, directly out of the side of the remedial dilemma that the theory neglects. Formalists embrace the requirement that V-remedies should vindicate rights, but they find themselves unable to accommodate the imperative to use remedies as policy tools, including to prevent wrongs. When the formalists try to relax their single-minded emphasis on correcting wrongs in order to accommodate the considerations of policy that courts manifestly embrace, they import ideas that undermine the broader account of private right from which they set out. Functionalists, on the other hand, embrace the new degrees of freedom that P-remedies give courts, but they find themselves unable to explain why the use of such valuable policy tools is, in legal practice, largely confined to the shadow of wrongs. In particular, functionalists can't explain why remedies (like the indemnified injunction) that their theory explains as native to private law in fact remain almost vanishingly rare, even as they are common in public law.

* * *

Private law thus is divided and confused at its core. Dissolving the dilemma requires formulating remedies that are, at once, precise enough to be vindicating and flexible enough to make good policy. Might a single remedial regime achieve this double purpose? If a unified solution is possible in principle, is there a path along which a divided legal system might realize the solution in practice?

3. Our Synthesis

3.1 Dissolving the Remedial Dilemma

The current state of affairs concerning remedies is undesirable. Doctrine remains theoretically incoherent, and this imposes substantial costs on the parties who use private law to construct and protect their entitlements. These costs, we eventually show, provide every court—both functionalist and formalist—with a reason to embrace V-remedies. In addition to vindicating rights, V-remedies reduce party costs and otherwise produce good policy outcomes—better outcomes than courts can reliably achieve using P-remedies. Our argument therefore recommends V-remedies to both formalist and functionalist courts. We develop this synthesis using illustrations from both contract and property (tort, we will see, raises complications).

It is helpful to analyze the parties and the courts as playing a game.[100] Courts move first, choosing their remedial "types": C_v court types award remedies to vindicate rights; C_P court types award remedies to implement preferred policies. Because courts move first, they choose their types without knowing which parties have created entitlements or what entitlements—which parcels of property, which contracts—they have created. Parties move second, specifying property parcels or contract terms. The parties, however, cannot know whether their case, if any, will be adjudicated by a C_v or a C_p court; and, and if the latter, the parties cannot know what policy the C_p court will pursue. The parties, that is, cannot tailor the entitlements that they create to a particular court's remedial approach. An equilibrium of this game exists because neither player has an incentive to vary its actions in response to the other: courts choose fixed types in ignorance of entitlements; and parties construct entitlements in ignorance of the type of court they will face.

This equilibrium is undesirable. Insofar as C_p courts choose remedies that do not match the entitlements the parties have created, the equilibrium will include unredressed wrongs and fail to satisfy the formalist imperative to vindicate rights. The equilibrium also is inefficient and so fails to satisfy the functionalist imperative to make good policy. Because the parties cannot anticipate the remedies that will be awarded in case their entitlements are violated, they cannot construct their entitlements to be optimal in light of these remedies. Instead, the parties risk incurring "mismatch costs," which arise whenever a court awards a remedy other than what would, *ex ante*, sustain an efficient entitlement-remedy pairing. The possibility of incurring mismatch costs reduces every party's expected return from the entitlements that it creates. As a result, parties have a lessened incentive to invest to maximize the the gains those entitlements could produce. Also, otherwise marginal parties will not enter the market. A second inefficiency arises from the costs of adjudication itself and is illustrated by the example, now from property, with which we introduced the remedial dilemma. That example concerned a massive, national infrastructure project—building the cross-country network of fiber optic cables needed to support a modern telecommunications system. The common law's state-based character, combined with the diversity of remedial types, caused disputes over the project to be adjudicated before many judges pursuing divergent and difficult-to-predict remedial strategies. The more than 150 distinct—and differently resolved—lawsuits that

[100] We assume that the parties and courts are sophisticated, so that they can recapitulate our analysis of their circumstances and decisions, and also that they are risk neutral.

consequently arose made a mockery of private right, leaving many substantial entitlements unvindicated, on any accounting. The lawsuits also made the infrastructure project much more costly to implement. Doctrinal confusions therefore have real world consequences, such as raising project costs and suppressing socially valuable projects.

This suboptimal equilibrium is not the only possible equilibrium in the remedial game, however. Better equilibria—in which rights are respected, and incentives are efficient—can also arise. We now characterize these equilibria and provide a credible path along which the law might practicably move towards them.

3.1.1 The First-Best Solution

A pair of stylized examples from property introduces the first-best solution to the remedial dilemma.

To begin with, consider an entitlement in a personal effect, say a family heirloom. Such personal property is not held for sale but rather for use or even for the peculiar meaning that the property has for its owner.[101] My cufflinks, made from the buttons of my grandmother's baptismal dress, matter to me in a thousand ways, none related to how much money I might raise by selling them—they are, literally, priceless to me. Moreover, my mother, who gave them to me when I acquired my first dress shirt, did so on the understanding that I would keep them for my whole life, until I gave them to one of my children; and our broader culture shares and reaffirms my mother's and my belief that heirlooms stay in the family and aren't money-wealth. All these understandings, created by my mother, by me, and by other families living in parallel to ours, make clear that my property right in the cufflinks runs to the things themselves rather than to their market-price or even to their more general economic value. The only remedies that could vindicate such an entitlement are the property-rule power to exclude others from that property or, where exclusion is no longer possible, the power to recover property from a taker. Moreover, enforcing my right to exclude others from my cufflinks, including through an injunction ordering a converter to return them, is good policy. My mother, and I, and our broader culture concerning family heirlooms all agree that no court can possibly know what money damages would make me whole or set a price that gives third parties efficient incentives not to convert my cufflinks. Indeed, the very act of setting the price strips my cufflinks of their distinctive value. The V-remedy and the P-remedy for conversion of my cufflinks converge.

[101] See, e.g., Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982).

A second example illustrates that the same structural logic can lead V-remedies and P-remedies to converge on a very different result. Imagine that a person owns a sum of money—say, $10—held as ten $1 bills. The bills belong to their owner as property. But their value is understood by their owner, and by everyone else, to inhere not in their material particularity (these bills rather than others), but rather in their designating a generic money sum. In fact, a token of fiat money held as money just *is* its face value: it is literally confused (Marx would have called it commodity fetishism[102]) for its owner to value the token in any other way, since money, in a modern economy, is an accounting system for keeping track of relations of constraint, which allow owners to exchange the abstract money for concrete goods at prevailing prices.[103] (An owner who did value the token apart from its face value would become, simply for this reason, a numismatist, whose interest in the token, now understood as collectible, begins to resemble my interest in my cufflinks). It follows from this that if somone else takes the owner's $10, then vindicating the owner's right requires only an award of $10 in damages, which may be paid using the same $1 bills that the converter took, or any other $1 bills, or for that matter a single $10 bill. Moreover, enforcing the owner's right to her $10 through money damages rather than through an injunction ordering the taker to return the particular bills she took is, again, good policy. The owner, and everyone else in our society, understands that paper money is just a way of keeping track of who owns wealth, and that only the sum matters, not how the sum is memorialized, so that every particular bill is totally interchangeable with every other, and indeed with digital or other forms of money.[104] There would be literally no point to incurring the costs—of identifying the particular bills taken and specifically enforcing their return—that would arise if money damages were replaced by an injunction. The remedy for taking the $10 is very different from the remedy for taking the cufflinks, but once again, the V-remedy and the P-remedy converge.

We now generalize these examples from property to show that an equilibrium of the court/party game exists that also converges to a single first-best remedial regime. To emphasize that our synthesis applies across private law's doctrinal departments, we illustrate our more general approach using not property but contract. Suppose that (i) all courts choose to be C_v types, for whatever reasons move them; (ii) all parties know, when they make contracts, that any disputes that arise will be adjudicated by a vindicating court; and (iii) courts know that parties know the courts' type—C_v. These assumptions—especially the first—are unrealistic; we will relax them

[102] See G.A. Cohen, "Back to Socialist Basics," *New Left Review* Sept./Oct. 1994.
[103] For an analysis of why fiat money has value and for other functions that money serves, see Mark S. Peacock, *The Ontology of Money*, 41 CAMBRIDGE J. ECON. 1471 (2017).
[104] Note the contrast between this case and the case in which a numismatist has put 10 collectible $1 bills into a safe deposit box as a bailor, rather than lent them to a bank as a depositor.

in a moment. But before we move towards greater realism, we show how these assumptions support an efficient equilibrium.

Begin by considering the strategy of contracting parties in the idealized model—the terms that contracting dyads will adopt when the three asumptions hold. Let there exist "T_{PR} terms" (a contract analog to my property right in my cufflinks), which have the character that a vindicating court will award a property rule remedy if it observes those terms, and "T_{LR} terms" (a contract analog to the person's property in ten $1 bills), which have the character that a vindicating court will award a liability rule remedy if it observes those terms. Because every court vindicates, each contracting dyad will pursue the same strategy: choose terms $t_{PR} \in T_{PR}$ that will induce the court to choose a property rule when the dyad prefers a property rule; and choose terms $t_{LR} \in T_{LR}$ that induce the court to choose a liability rule when the dyad prefers a liability rule. This strategy is a dyad's best response to the courts' strategy of always vindicating, because the dyad will have its most preferred contract—the contract that generates the greatest joint surplus—efficiently enforced.

Next, consider the courts' strategy, which is a little more subtle. Assumptions (iii) and (i), operating together, imply that courts know that parties will choose terms that anticipate judicial vindication—that are optimal for the parties when courts vindicate them. As a result, no court has an incentive to deviate from its assumed choice of being a C_v type. Formalist courts that embrace vindication directly will of course continue to award vindicating remedies; and functionalist courts, drawn to using remedies to make good policy, will conclude—because V-remedies implement the parties' contract goals and therefore maximize joint surplus—that it would be good policy to toggle between liability-rule and property-rule remedies however needed to vindicate the rights that the parties have created.[105]

The parties' strategies thus support an equilibrium in which all courts (whatever their ultimate motives) behave as C_v types and so always award V-remedies, and all parties select contract terms, from either T_{LR} or T_{PR}, whose purposes are best realized when courts vindicate them. The equilibrium is first best—the most desirable outcome—because parties are maximizing their return from contracting and courts are inducing parties to behave as the courts prefer. In this equilibrium the remedial dilemma dissolves: V remedies and P remedies are compatible.

[105] Another way to put this conclusion is that, under our assumptions, parties' contracts, regarding remedies, will be first best, and a policy preferring court could not do better than facilitate a first best outcome. We note that sophisticated parties will take enforcement costs into account when making their contract, and we assume that those contracts do not create negative externalities.

This result has profound consequences. On the one hand, the usual formalist arguments for V-remedies apply in the shadow of privately constructed entitlements; but because rights are designed by parties who desire remedies to be efficient, the imperative to vindicate rights now leads courts, following the parties' lead, to award optimal policy remedies. On the other hand, the realization that the parties have specified right-remedy pairings with optimal incentives in mind gives functionalist courts, awarding P-remedies, reason to decline to make their own direct assessments of good policy and instead, for policy-based reasons, to award remedies that vindicate the rights that the parties have constructed. Courts that commit to vindicating remedies still make policy, but they do so not directly but indirectly: through the influence that the prospect of vindicating remedies has over the parties' specification of their private law rights. Form follows function and function respects form so that V-remedies and P-remedies converge; and the division of labor allows the law to have its vindicating cake and to eat good policy, too. These considerations also explain why our synthesis doesn't apply as straightforwardly to torts, where entitlements are set not by private parties but by the state, making it less clear that the state should limit its policy-making to specifying rights and tie its hands, at the remedial stage, in the manner that V-remedies require.

Our synthesis, though so far idealized, illustrates two general truths about private law. First, private law rights in liberal, democratic, market societies are typically and rightly specified by the parties—especially in contract and in property, and to a lesser extent in tort. Persons, not the state, are the principal architects of their private entitlements, which they construct to reflect their prefences and promote their well-being. Public law frameworks influence which private law entitlements persons create and trade, and at what prices, and rightly so. Nothing in liberalism, democracy, or capitalism rejects such public intervention in private law, *tout court*, and contrary suggestions—especially when based on the idea that private law has a natural shape or is somehow more fundamental than or normatively prior to public law—are ideological nonsense. Nevertheless, it remains a bedrock principle that private law entitlements are not simply instruments of public law—tools of policy to be deployed by governments to suit their fancies, in a manner indistinguishable from the other mechanisms of public administration. Even though the state's public laws—enacted in pursuit of the common good—will limit the private rights that people can construct and influence the ones they do construct, these effects are indirect, and run through the choices of the parties themselves. People retain substantial discretion to determine what private-law entitlements they have—what property they own, what contracts they make, and even (although much less so) what duties of care they owe and are owed. Critically, as we shall explain in detail below, parties often can—and they should generally be empowered to—specify whether their contract and property rights create entitlements to an abstract and general money value or, instead, create entitlements to concrete and particular things. Someone who has ten $1 bills can, for example, choose whether to deposit them into her bank account, as fiat money held purely for its face value, or to make a bailment of the particular collectible bills, perhaps by putting them into a safe deposit box. They retain this liberty on account of being free agents, who possess the rational capacity to arrange their affairs to promote their projects and plans.

The second truth is that remedies are ultimately and necessarily for courts. Remedies are imposed after respect for rights has broken down; which means that if remedies were consigned to the discretion of the private parties whose rights they protect, then rights-violators could simply reject remedies alongside rights, rendering them ineffective. The only way to avoid an infinite regress, therefore, is to for courts to require a remedial core to exist, which parties cannot reduce. At the same time, this logic doesn't require courts to deploy their authority over remedies to exercise individualized policy-based discretion in particular cases. Instead, courts can and should decide, universally, to embrace vindicating remedies; leaving them then to adjust remedies in particular cases as required to vindicate the specific rights that those cases involve. A depositor whose bank refuses a request to withdraw a $10 deposit will have her rights vindicated by an award of $10 in damages—a liability-rule remedy. Meanwhile, a bailor whose bank refuses a request to retreive ten collectible $1 bills placed in a safe deposit box will have her rights vindicated by an injunction ordering the bank to return the bills—a property-rule remedy. In each case, the court's commitment to remedies that vindicate rights isn't up to the parties; but the question which remedies are vindicating in a case is determined by the way in which the parties have specified the particular rights that the case concerns. Even as remedies remain, formally, for courts, parties (by varying their entitlements) can determine the substance with which courts fill in the remedial form.[106]

3.1.2 A Practicable Path towards a Remedial Synthesis

In the first-best equilibrium, all courts commit to awarding vindicating remedies. Formalist courts pursue the logic of vindication on its own terms. Functionalist courts join them because they understand that remedies are more effective as indirect than as direct levers of policy. Current law, however, does not support the first-best equilibrium because both C_V and C_P court types exist. As we have shown, when parties recognize that a positive probability exists that a court they

[106] As we elaborate in Part 4 below, this insight has practical consequences for law reform, including that courts should enforce contracts for specific performance—not because contracting parties have the power to instruct courts about remedies, but rather because courts should vindicate the entitlements that the parties have constructed, and the parties have the power to construct contractual entitlements that only specific performance can vindicate.

may later face will not vindicate, parties behave inefficiently. Thus, even if everyone agreed that all courts would vindicate in the first-best world, the question would remain how we can get there from here. An apex court might command all courts below it to become C_v courts in practice; but because private law is mostly state law, no such apex court exists in the United States. In any event, commentators can't command courts, so our role is limited to persuasion. We therefore now argue that policy-driven courts should embrace vindicating remedies in our less-than-first-best world also. We seek, in other words, to persuade those that administer current law to converge on the first-best equilibrium.

Our argument makes two standard assumptions: (i) both court types exist with positive probability and (ii) sophisticated parties know better than courts how to maximize their own welfare. Under these assumptions, some C_P courts would defer to the parties' construction of their entitlements and so embrace vindicating remedies on policy grounds. These courts would reason that parties would construct efficient entitlements if the parties anticipated that those entitlements would be vindicated. We therefore ask whether parties do have this incentive. This amounts to asking whether a virtuous, self-reinforcing cycle, in which parties and courts cooperate in using vindicating remedies to make good policy, can get going. We answer that it can.

What strategy for constructing entitlements would a contacting dyad that knows it faces diverse courts pursue? The dyad faces a positive probability of incurring mismatch costs, whatever it does, because it cannot predict the type of court it could later face. Nevertheless, the dyad's best response to uncertainty is to act as if it will face a vindicating court: that is, the dyad will choose either T_{LR} or T_{PR} terms depending on whether liability-rule or property-rule remedies would maximize the value of its commercial project. Intuitively, this strategy will produce a positive, though possibly low, expected payoff for parties because some vindicating courts exist. The payoff will be *increasing in the probability* that the dyad would later face a vindicating court because the probability of a mismatch must fall as more courts vindicate. Because we assume that parties are alike in their preference for efficient remedies, aggregate welfare also will increase in the probability that courts vindicate. The policy implication is that the state *should attempt to increase* the number of vindicating courts.

We now formalize this intuition. Let the probability that a dyad will face a C_v court be p(v); the complementary probability that the dyad will face a C_p court is 1 - p(v). We denote the payoff a contracting dyad would realize if it constructed its entitlement to be optimal were it protected with a vindicating remedy as π^*, which (by assumption) is optimal. The payoff—the mismatch cost—if the court that they face is policy preferring is π^m. We characterize π^m by supposing that parties in general cannot gain and likely lose if they create entitlements that would be vindicated by a remedy that the court they later face will not award. The loss will be some negative real number. Dyads thus face a distribution of mismatch costs that is bounded between the lowest realistic negative real number and zero. We assume the distribution is normal with π^m the mean mismatch return and q^* its associated probability. The dyad's expected payoff $\prod$ from choosing terms as if courts will vindicate them is therefore $\prod = p(v)\pi^* + (1 - p(v))[q^*\pi^m] - c_v$, where the middle term is the expected (negative) mismatch cost and the last term is the cost of writing the contract.

Differentiating this expected payoff with respect to $p(v)$ yields $p'(v)\ [\pi^* - q^*\pi^m] > 0$. The term in brackets is positive because $\pi^m < \pi^*$ and $1 \geq q^* \geq 0$. Therefore, the dyad's payoff from acting as if courts vindicate—from pursuing its best response—*is increasing in the probability that courts vindicate.* This means that policy-driven courts can increase efficiency by deviating from the equilibrium in which courts pursue policy directly to pursuing it indirectly by switching from awarding P-remedies to awarding V-remedies. Again, we cannot command courts to change remedies doctrine, but we can persuade. And even in our current world—characterized by a diversity of judicial opinion about the ultimate purpose of private law remedies—we have shown that every court, whether its inclinations are formalist or functionalist, will do best according its own lights by shifting remedial doctrine in the direction of vindicating remedies. Insofar as courts follow our advice, this will establish a virtuous cycle that converges on the first-best equilibrium, in which all courts vindicate, and all parties construct entitlements with this remedial regime in mind.

To summarize, remedies best serve policy goals without giving up on, and indeed *through* vindicating, rights. Private law establishes a division of labor between rightholders and courts: Rights are for the parties; remedies for the courts. This division of labor shapes both the form and the content of private law remedies. It teaches courts that vindicating rights is good policy. Function can exploit form to dissolve the remedial dilemma, as V-remedies and P-remedies converge.

This synthesis transforms *the theory* of private law remedies. Where formalists, including Weinrib, insist that vindicating remedies must ignore considerations of efficiency or general welfare, our approach embraces these considerations, but only indirectly, through the interplay between remedies and rights. And where functionalists, including Calabresi and Melamed, insist that rights and remedies present courts with two independent policy choices, our approach divides the labor of private law between parties and courts, whose coordinated efforts produce a single, integrated policy program. The new approach also transforms *the practice* of private law remedies. Courts should concern themselves not with the *ex post* choice between policy-based and vindicating remedies but rather with the *ex ante* question of understanding the entitlements that the parties have created, whose violation remedies redress.[107] Remedial decisions thus confront courts with *questions of interpretation* rather than independent doctrinal choices.

The central challenge for courts therefore becomes how to interpret rights in order accurately to track party-created entitlements. And the task for legal theory becomes how to elaborate general considerations to guide courts in interpreting party-constructed entitlements—to help courts to discern when parties, who look to optimal incentives in respect of remedies when constructing their entitlements, will construct entitlements such that they are vindicated by liability rules, and when they will construct entitlements such that they are vindicated by property rules. We commence this task in the next section by identifying some foundational considerations that parties would take into account in constructing their entitlements. These considerations also should guide courts in identifying vindicating remedies. Part 4 then deploys these considerations to dissolve the remedial dilemma in more specific doctrinal contexts.

3.2 Two Types of Economy and two Information Structures

V-remedies and P-remedies can converge because parties construct private law rights with an eye to the remedies that courts will order in case these rights are violated. The rights themselves are a function of party preferences and the economic environments in which parties function. We therefore elaborate our synthesis of V- and P-remedies by identifying two kinds of economies—characterized by different ways in which owners use their entitlements—and also the information structures in which parties might operate. These distinctions establish a basic framework that courts can use to interpret how parties have constructed their rights and therefore to craft remedies that make good policy by vindicating those rights. We outline and explain our framework in this section.

Parties acting in an *exchange economy* profit by trading assets from lower-valuing to higher-valuing owners. Markets for goods, commodities, and companies are primarily exchange economies. Parties acting in an *investment economy* apply labor and capital to their property, in order to increase its value. Manufacturing, mining, and

[107] Henry Smith has recently noted that: "It is the entitlement structure itself that typically receives too little attention in the economic analysis of property law." Henry E. Smith, Economic Analysis of Property Law, *in* OXFORD HANDBOOK 148, 164. We share this view concerning property and take the same view of contract.

intellectual property are primarily investment economies.[108] Parties—who aim to maximize the value of their entitlements—will construct their entitlements differently in the two sorts of economies, including in ways that affect the remedies that vindicate them.

Both exchange and investment economies can arise in two different information structures. *Symmetric information* exists when parties know payoff relevant variables, such as cost and value. A*symmetric information* takes two forms: (a) parties do not know payoff relevant values, such as a seller's not knowing the value its buyer would derive from a sale; or (b) the parties are symmetrically informed, but face prohibitive costs in verifying what they know (such as value) to a court.

Analysing each type of economy in the shadow of each type of information structure explains much about how parties construct entitlements, as always with courts and remedies in mind, and therefore also about what remedies courts should award to vindicate entitlements, so constructed. These insights outline the concrete terms of the synthesis by which we dissolve the remedial dilemma.

3.2.1 Efficiency in exchange economies

Social efficiency and private efficiency can conflict in exchange economies. Social efficiency is realized whenever assets transfer from lower-valuing to higher-valuing owners. A party realizes private efficiency, by contrast, whenever it maximizes its gain from trade. To see how these efficiencies could conflict, suppose that an owner constructs an entitlement that is best protected with a property rule. Now let a potential buyer make an offer for the entitlement. The owner's private goal is to maximize his share of any surplus that a sale would create. Social welfare, by contrast, has no special concern for the existing owner's surplus (as opposed to a new owner's). Rather, social welfare would be served by a sale whenever the buyer has the higher value.

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[108] The text describes paradigm cases. In some contexts, the state is concerned with production *and* exchange, so that entitlement creation poses a tradeoff between these efficiency concepts. Economic theory, however, has not made much progress characterizing optimal tradeoffs between exchange and investment efficiency. For example, "no existing research combines the allocative efficiency costs of private property with the investment efficiency benefits." E. Glen Weyl & Anthony Lee Zang, *Ownership of the Means of Production* 2 (Univ. of Chicago Coase-Sandor Inst. for Law and Econ. Working Paper No. 765, 2016); *see also* ERIC A. POSNER & E. GLEN WEYL, PROPERTY IS ANOTHER NAME FOR MONOPOLY (2017) (suggesting exchange and investment efficiency may be harmonized by self-assessed taxes that would reduce property owners' incentives to hold out for deal killing high prices). Our goal is to make the two efficiency concepts relevant to the issue of entitlement creation and modification. For this, using paradigm cases is sufficient..

The two goals—private and social—are jointly realized whenever the parties trade the asset. Such a "made trade" occurs when the owner/seller prefers the price to the asset and the buyer prefers the asset to the price. When information is symmetric, so that the parties know each other's values and costs, every opportunity for an efficient trade will result in a made trade. But when potential parties are asymmetrically informed, exchange efficiency remains elusive. Because parties are concerned only with their private gains, they may pursue strategies that would preclude certain efficient trades. To be sure, parties still would trade when the seller's best offer is below the buyer's willingness to pay. But the asks and bids that maximize each party's returns *ex ante*, we show below, may not satisfy this condition. It thus is possible that parties will not agree even when a potential buyer values an asset more than its current owner. The owner's maximizing offer may exceed the buyer's willingness to pay; similarly, a buyer's maximizing bid may be below the seller's cost to part with the asset. In asymmetric information environments, therefore, *made* trades remain efficient *just because they are made*, but *unmade* trades are not efficient *just because they are not made*. Strong property rights—rights that can be vindicated only through property-rule remedies—therefore produce *too little trade*. This result, we will see, influences how parties construct entitlements, and thus how courts should interpret them.

To see how parties' privately efficient behavior can produce social inefficiency, begin by considering a market populated with potential buyers who make bids and potential sellers who make offers. Some parties will trade if a "trading interval" exists: an interval within which at least one bid exceeds at least one offer. Sellers want the trading interval to skew toward the buyers' willingnesses to pay—the buyers' valuations—because then the market price will approach those valuations; that is, the price will be high. This would enable the sellers to realize the greater share of the trading surplus, which is the *difference* between buyer value and seller cost. Similarly, buyers want the trading interval to skew toward the sellers' costs because then the market price will approach those costs; that is, the price will be low. This would enable buyers to capture much of the trading surplus. These preferences affect the parties' behavior: sellers strategically will make offers *above* their costs to pull the trading interval up while buyers strategically will make bids *below* their valuations to pull the interval down. As a result, some offers may exceed every buyer's value; and some bids may be below every seller's costs. These outliers will not trade because the market price will be lower than the highest offer and higher than the lowest bid. Some excluded parties would have traded, however, had every market participant bid truthfully. Individually rational but strategic behavior thus may yield too little trade.

This inefficiency declines as the number of buyers and sellers increase because the more potential parties there are, the less influence any one bid or offer can have on the width of the trading interval and thus the location of the market price. Parties who recognize their inability to influence the market's trade terms will bid and ask truthfully.[109] It follows that exchange inefficiencies created by asymmetric information are not a concern in competitive markets, because competition drives sellers and buyers towards truthful bids and asks. In modern markets, however, products and services often are differentiated so that there can be few sellers and buyers on each side of every potential deal. In such cases, inefficiency may arise.

It is illuminating to consider the limit (but realistic) case in which one seller and one buyer exist for a particular entitlement. Here, asymmetric information entails that *there always exists* a positive probability that the parties will fail to agree. Each party's optimal strategy is to accept a lower probability of trading in order to gain a higher payoff from a made trade. For example, the higher the seller's offer the lower is the probability the buyer will accept it, but the greater the seller's gain if he does. Following this strategy, the seller's optimal offer will be above her cost because her profit is the difference between price and cost. Similarly, the buyer's optimal bid will be below his valuation because his profit is the difference between value and price. As a consequence, the parties may fail to agree even if their value and cost would have made trade efficient.[110] This "bargaining inefficiency" can arise in haggling over a differentiated good, a real property easement, a job, and so forth.

An example helps to illustrate this possibility. Let Tom own a widget that Susan would like to buy. Tom believes that Susan's value for the widget is uniformly distributed between 75 and 125 but Tom does not know Susan's actual value, which is 90.[111] Susan believes that Tom's cost—his loss from parting with the widget—is uniform between 50 and 100 but Susan does not know Tom's actual cost, which is 70. These agents should trade the widget because Susan's value—90—exceeds Tom's cost—70. The gain from trade is in fact substantial, fully 25% of the parties' average valuation of the traded good.

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[109] For a technical but illuminating derivation of this result, see Aldo Rustichini, Mark A. Satterthwaite & Steven R. Williams, *Convergence to Efficiency in a Simple Market with Incomplete Information*, 62 ECONOMETRICA 1041 (1994).

[110] The first, and most famous, proof of this result is Roger Myerson & Mark Satterthwaite, *Efficient Mechanisms for Bilateral Trading*, 29 J. ECON. THEORY 265 (1983). An extensive, but technical, summary and generalization of the literature is Ilya Segal & Michael D. Whinston, *Property Rights and the Efficiency of Bargaining*, 14 J. EUROPEAN ECON. ASSOC. 1287 (2016).

[111] Each realization in a uniform distribution is equally probable. The results above hold for other symmetric distribution such as the normal. Analysts often use the uniform because it makes the arithmetic simple.

Nevertheless, *they will not trade*. To see why, suppose that Tom can make a take-it-or-leave-it offer to sell the widget to Susan. First consider an offer of 80. Given the distribution of Susan "types"—from 75-125—Tom would expect the actual Susan to accept this offer with a 90% probability (there is a 90% chance given the uniform distribution that her value exceeds 80). Tom's expected gain would be .9(80-70) = 9: that is, Tom would realize the difference between his $80 offer and his cost—10—with a .9 probability. Next let Tom offer $110. There is a 30% probability that the Susan he faces would accept this offer (there is a 30% chance that her value is above 110). Tom's expected return from the 110 offer would be .3(110-70) = 12: the higher offer generates a lower probability of trade, but a greater expected gain. Tom's maximizing offer turns out to be 100. He would expect the actual Susan to accept this offer half the time (there is a 50% chance her value is above $100) and Tom would realize .5(100-70) = 15. However, the real Susan's value is $90, so she will reject Tom's maximizing offer to sell for $100. Tom behaves privately rationally, but the result is that both he and Susan lose the gains from a socially profitable exchange. [112]

The example teaches that when asymmetric information exists between potential parties, there can be less trade than the parties' costs and values would support—and less than is socially optimal. Thus, in our example Susan's value is 28.5% above Tom's cost but Tom's maximizing offer is 43% higher than that cost. As a consequence, these parties will not make an efficient trade. [113]

Economists have developed bargaining mechanisms that might yield efficient trade among owners whose property remains protected by property-rule remedies. These mechanisms—unrealistically—involve subsidizing potential bargains. For

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[112] To show that the example generalizes consider a simple proof. The buyer's value, v, is drawn from a distribution of possible valuations G(v), and the seller's cost, c, is drawn from a different independent distribution. The seller does not know v, but she does know the distribution of v, and she can make one take it or leave it offer, s, to the buyer. The probability that the parties trade is the probability that v > s. The *ex ante* probability of this outcome is 1—G(v). The seller chooses her offer s to maximize her ex ante gain, or Max_s (1—G(v))(s—c). The solution is $s* = \frac{1}{G'(v)} + c = 1.$ Because $\frac{1}{G'(v)}$ is positive, s* > c: the seller's optimal offer exceeds her cost. As a result, it could turn out that c < b < s*. Trade would be efficient because the buyer's value exceeds the seller's cost but these parties will not trade because the seller's maximizing offer is above the buyer's valuation.

[113] For experimental verification of results such as this, see Abraham M. Othman & Thomas W. Sandholm, How Pervasive is the Myerson-Satterthwaite Impossibility? *in* PROCEEDINGS OF THE INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE (2009). The paper concludes: "… the Myerson-Satterthwaite impossibility did hold more than 65% of the time—i.e., agents failed to make efficient trades in two thirds of the cases—with ten possible [buyer] valuation points for all of the schemes of generating distributions we tried." *Id.*

example, consider a game in which the seller does not know the buyer's value and the buyer does not know the seller's cost. Under the game's rules, the seller announces a cost c*, which is either 0 or 1; and the buyer announces a value v*, which is either 0 or 1: there is trade if v* > c* (i.e., if the agents announce v* = 1 and c* = 0). When there is trade, the buyer pays the seller c* and the seller receives v*. The buyer in this game will report truthfully because if there is trade, the buyer gets the item, which he values at v*, but pays only c*: the buyer, that is, gets the entire surplus if there is trade. The seller also will report truthfully because she too gets the entire surplus from trade: she yields the good, which she values at c*, but she receives v*. Hence, under this bargaining protocol the parties trade whenever the buyer's value exceeds the seller's cost. But there's a catch: The mechanism requires a subsidy, because the buyer pays only c* but the seller receives v*; the subsidy must equal the difference.[114]

Much of the economics literature speculates on the size of the efficient subsidy and asks how to design an optimal subsidy mechanism. But analysts have yet to identify an implementable—that is, realistic—subsidy strategy. To be sure, independent agents sometimes do agree jointly to invest to develop a particular good—a drug or software program—the rights to which they later plan to allocate between themselves, and these common arrangements may create sufficient surplus for the parties themselves to finance an allocation mechanism such as the one just described.[115] But in an exchange economy, to ensure that agents *always* trade efficiently some third party must subsidize the trading mechanism.[116] No one has been able to explain where this benevolent third party would come from and how she would know the optimal subsidy's size.

To summarize, when asymmetric information exists, agents' *trades* are exchange efficient but agents' *refusals to trade* may be exchange inefficient. This result creates an incentive for parties to construct entitlements that reduce the probability of bargaining inefficiencies. And this incentive, in turn implies a party preference for liability rule protected entitlements, because liability rules facilitate the parties' ability to reallocate resources to higher valued uses without having to bargain, as we will illustrate in Part 4.

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[114] A fuller explanation is JOHN NACHBAR, THE MYERSON-SATTERTHWAITE THEOREM (2015) (licensed under the Creative Commons Attribution-Non-Commercial-ShareAlike 4.0 License).

[115] For the theory and some evidence, see Tracy R. Lewis & Alan Schwartz, *Pay for Play: A Theory of Hybrid Relationships*, 17 AMER. L. & ECON. REV. 462 (2016).

[116] A recent analysis by Posner & Wyle, *supra* note 108, also claims that the monopoly—i.e., bargaining—inefficiency is very large, and proposes a tax on entitlements to reduce their value and so reduce a seller's incentive to demand an excessive price. We consider more limited private law solutions below.

3.2.2 Efficiency in investment economies

Insofar as the too little trade problem has been solved, property will be exchanged until it is held by the owner who values it most highly. Often, this owner will value the property not to consume it but to improve it, as if acting in an investment economy. Owners in an investment economy hold property, as the name indicates, for investment: they mix new capital or labor with what they already own in order thereby to increase its value. An efficient owner would invest in improving her property until the marginal return of additional investment equalled the marginal cost. Suppose, however, that an "outsider" could take a portion, up to all, of the owner's property. Call this portion β, where $\beta \leq 1$. Anticipating such a taking, the owner would invest only until the marginal cost of investment equals $(1 - \beta)$ of the marginal gain—why incur costs to build what others will simply take away? The threat of a taking therefore causes owners to underinvest. The too little trade problem that plagued exchange economies is supplemented, in investment economies, by the problem of *too little investment.*

Remedies address the problem of too little investment by enabling owners to recapture returns expropriated by takers. We therefore ask whether liability-rule remedies or property-rule remedies support efficient investment. Once again, our analysis invokes the information structure of the economy in which entitlements arise.

Asymmetric information structures straightforwardly require property-rule remedies to sustain efficient investment. Owners in asymmetric information structures ordinarily would have difficutlty verifying to a a court the value their property would have if an owner invested efficiently. As a result, damages—paid to owners by takers—cannot adequately protect the owners' investments. Investment efficiency under asymmetric information therefore requires giving owners the right to exclude takers rather than just the right to recover damages for losses imposed by takings.

Moreover, investment efficiency requires property-rule remedies even in symmetric information structures. It might seem that symmetric information—under which all parties know one another's valuations of the entitlement—would sustain Coasean bargains between owners and potential takers that support efficient investment even under liability-rule protection. After all, the taker (and not just the owner) can also invest in increasing the asset's value, so that efficiency turns on which agent is the more productive investor. Moreover, because owners in a symmetric information structure can verify their returns from investment to courts, they can recover fully compensatory damages from takers. The prospect of paying these damages will deter all takers other than those who are better (more efficient) investors than owners and can therefore profit from takings even after paying compensatory damages to owners. Finally, because the parties know what courts know, and therefore what courts will do, they will answer the question who is the most efficient investor for themselves. Accordingly, there will be no takings, as the owners and potential takers instead trade the asset so that it is ultimately held by the agent who can best maximize its value: that is, by the agent who can invest in the asset most productively and therefore give it the highest expected valuation. It seems, therefore that under symmetric information, liability rules and property rules can both sustain investment efficiency.

But this argument neglects that even symmetric information structures do not eliminate all transaction costs or sustain every Coasean bargain. Even when symmetric information allows a higher-valuing owner to recover damages from a taker or to buy the property back from the taker, the owner's return will therefore still be reduced by the cost of recovering the damages, including the cost of bringing her lawsuit. Indeed, it may be cheaper for the owner to pay the potential taker a sum less than this litigation cost in order to refrain from taking in the first place—to bribe potential takers rather than to sue them. In any event, these costs—of suing or bribing potential takers—again reduce the owner's return from investment relative to a no-taking world. Hence, the owner would continue to underinvest, even under symmetric information. Moreover, if more than one potential taker exists, the owner would need to sue or to bribe each one; and even where each individual litigation cost or bribe is low, her entire investment gain might be exhausted in paying them all.[117] Liabilty-rule remedies will therefore lead to inefficient underinvestment even in symmetric information structures.

A property-rule remedy, by contrast, would permit the owner to enjoin prospective takings, to capture a taker's gains as disgorgement damages, and to recover taken property without having to pay any compensation. These remedies would reduce the owner's loss from the possibility of a taking below the loss that liability rule protection would permit. Therefore, property rule protection is (relatively) more investment efficient than liability rule protection. And owners (and society) in investment economies thus prefer property to be protected with property-rule remedies.

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[117] See generally Louis Kaplow & Steven Shavell, *Property Rules versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996) for an argument along this line. Bar Gill and Persico argue that the first taker would moderate his bribe demand in anticipation of another outsider taking from him. When there is an infinite number of takers, all of whom want the same property, the first taker would be driven toaccept a nominal bribe to go away. See Oren Bar-Gll & Nicola Persico, *Exchange Effciency with Weak Property* Rights, 8 AM. ECON. J. MICROECONOMICS 230 (2016). This qualification to the "too many to bribe" probem is unlikely to hold in practice.

Again to summarize, efficiency in investment economies favors constructing entitlements to include the right to exclude, so that they are vindicated by property rules. This is straightforwardly so when information is asymmetric. And even when information is symmetric, investment efficiency likely requires giving owners the right not just to recover damages, but to exclude. Private parties operating in investment economies will therefore construct their entitlements so that they can be vindicated by property-rule remedies, and courts will simultaneously vindicate rights and make good policy by awarding these remedies.

4. Our Synthesis Applied

In exchange economies, the too little trade problem leads parties to construct their entitlements so that V-remedies and P-remedies converge on liability rules. In investment economies, the too little investment problem induces parties to construct their entitlements so that V-remedies and P remedies converge on property rules. We next step down from this abstract level to ask two questions: (a) what enitlements would parties prefer in particular areas such as contract and property; and (b) to what extent does current doctrine vindicate or deviate from those entitlements? The answers to these questions have normative implications, including for law reform, which we also pursue. Throughout, we address curated examples rather than elaborate a comprehensive menu of all private law rights and remedies. Our purpose is to illustrate the depth and flexibility of our approach in order to spur further work, rather than ourselves to exhaust the field.

4.1 Contract

Parties create contractual entitlements with remedies in mind. Our synthesis consequently holds that when a court adjudicates a breach, its task is not to choose a legal rule but rather to resolve an interpretive question—how to understand the contract entitlement at issue in order to award the remedy that vindicates it. Contract law coincides with this prescription in important ways, but not in all ways. When it does not, the law imposes mismatch costs on parties who create efficient entlements that courts fail to vindicate.

Contract law primarily regulates exchange economies, because most contracts concern transfers of goods, services, or real property for money. Efficient contracts therefore facilitate value-increasing transfers. Parties prefer to make these efficient contracts because a value-increasing transfer creates a surplus in which the parties can share. We thus sketch the set of contracts parties prefer on the assumption that the law does not constrain the parties' choices.[118] We then ask to what extent existing doctrines vindicate the entitlements that these efficient contracts construct. Our analysis is novel in two respects. First, we begin by asking what parties want rather than by asking what the law should be. Second, we take—i.e., our parties take— the information structure into account. We conclude that current doctrine's preference for expectation damages is generally salutary but also excessively strict: most contracts should be enforced through expectation damages; but parties should be free to contract for other remedies, including specific performance

The parties to a contract can construct their entitlements, with respect to features that determine the nature of vindicating remedies, according to one of three feasible "templates":

> <u>The value contract</u>: The buyer agrees to purchase the contract goods' value to him; the seller agrees *either* to trade the goods, so the buyer could directly realize his value, *or* to transfer a sum that would equal the value the buyer would have derived from the goods.
>
> <u>The liquidated contract</u>: The buyer agrees to purchase the goods or to accept the transfer of a sum the parties specify in the contract in lieu of the goods; the seller agrees *either* to trade the goods *or* to transfer the liquidated sum.
>
> <u>The goods contract</u>: The buyer agrees to purchase the goods themselves rather than their value; the seller agrees to trade the goods.

The value contract permits the seller to perform in either of two ways—to trade goods or to transfer a sum of money a court sets if the parties cannot agree. The liquidated contract also permits the seller to perform in either of two ways—to trade the goods or to transfer the contracted sum. Hence, when the parties make either the value contract or the liquidated contract, the seller *does not breach by refusing to trade*; she breaches only by refusing to trade *and* by refusing to transfer. [119] The goods contract

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[118] We rule out penalty contracts—perform or pay $10 million—because in exchange economiesparties have no incentive to write them. See text at note ???, infra, and Aaron Edlin and Alan Schwartz, *Optimal Penalties in Contracts*, 78 CHICAGO KENT L. REV. 33 (2003). In the absence of externalities, which are generally absent, party preferences are coextensive with society's preferences.
[119] The analysis is symmetric when the buyer wants not to sell. For prior explanations of contracts that permit a seller to trade goods or to transfer money (or not) see Daniel Markovits, Sharing Ex Ante and Sharing Ex Post:The Non-contractual Basis of Fiduciary Relations *in* THE PHILOSOPHICAL FOUNDATIONS OF FIDUCIARY LAW (Andrew S. Gold and Paul B. Miller, eds., 2014) ; Daniel Markovits & Alan Schwartz, *The Expectation Remedy Revisited*, 98 VA. L. REV. 1093 (2012); Daniel Markovits & Alan Schwartz, *The Expectation Remedy and the Promissory Basis of Contract*, 45 SUFFOLK

alone requires the seller to trade; hence, it is breached when the seller withholds the goods. Parties will choose contracts from among these three templates, taking the applicable information structure into account.

In symmetric information environments—in in which parties can verify the gains from trade[120] —the value contract realizes exchange efficiency by allocating the power to redirect the goods to to the seller, who can deploy it without incurring the costs of an *ex post* renegotiation. The seller, however, must transfer the buyer's valuation of trade to the buyer if the seller deals elsewhere. The value contract ensures that the highest valuer always receives the goods because the seller only would deal with the third party if that party had a higher valuation for the goods than the contract buyer. In that case, the seller could protect the buyer's expectation and still profit. But when the contract buyer has the highest valuation, compensating it and dealing elsewhere would generate a loss for the seller. Finally, buyers benefit from granting the seller the option to trade or to transfer because they share, through a lower price, in the gain that the freedom to reallocate the seller's goods creates.

The value contract, however, is optimal only when the parties can observe and verify costs and values. When information is asymmetric between the seller and buyer or between the parties and the court, either the liquidated or the goods contracts can be optimal.

The liquidated contract mimics the efficiencies of the value contract in asymmetrical information structures, as long as the the buyer is able, *ex ante*, to estimate the true value that trade would have for him *ex post*. In this case, the parties can set the specified transfer to equal (approximately) the buyer's expected value. Even though this value is private to the buyer, he has no incentive to lie. Under the

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LAW REVIEW 79 (2012) (symposium in honor of the 30th anniversary of the publication of *Contract as Promise*); and Daniel Markovits & Alan Schwartz, *The Myth of Efficient Breach: New Defenses of the Expectation Interest*, 97 VA. L. REV. 1939 (2011). These papers both advance new functionalist reasons for generally favoring the expectation remedy over specific performance and embed the functionalist account of expectation damages in the formalist arguments needed to dissolve the remedial dilemma, thereby connecting contract to broader ideas in private law.

[120] A party can verify a datum of information when the cost of proving the information in a legal proceeding would be lower than the party's gain from informing the decision maker—usually a court. A version of the value contract also would be efficient when the promisee could not directly verify his value, if there is a thick market for the contract goods. Under this version, the promisor would transfer the goods or transfer the difference in money between the goods' contract and market prices. Both the price and the difference are verifiable and the difference, when added to the promisee's gain from buying substitute goods on the market, sums to the promisee's expectation: value less contract price. For an analysis, see Alan Schwartz & Robert E. Scott, *Market Damages, Efficient Contracting, and the Economic Waste Fallacy*, 108 COLUM. L. REV. 1610 (2008).

liquidated contract, the seller insures the buyer's gain (either trading the goods or transferring their liquidated value), and the buyer pays for this insurance through adjustments to the contract price. A buyer who overstates his value thus would purchase more insurance than he needs, while a buyer who understates his value would purchase less. Because the buyer cannot gain by either strategy, he would report his true expected value. Hence, the liquidated contract also is exchange effficent: the seller trades the goods to the contract buyer when the specified sum exceeds her gain from dealing elsewhere; and she deals elsewhere otherwise.

The goods contract requires the seller to trade the goods themselves rather than transferring any sum of money. Parties have an incentive to make this contract when they cannot or do not want to communicate the buyer's value, either because an estimate is too costly for the buyer to make or because the buyer has an interest in keeping her value private. This can occur when goods are unique, so that even buyers don't know how they might substitute in case they lose them, or, as in mergers, when performance requires many complex steps over a long period of time, which introduces intricate path dependencies into valuation. In addition, a buyer facing a seller who possesses market power has an incentive not to report his value truthfully, because the seller could then price discriminate against him.[121] In these cases, goods contracts share the property that the entitlement they create can be vindicated only through a property-rule remedy.

The goods contract responds directly to the asymmetric information concern but has material disadvantages. When a seller's cost (including the opportunity cost of forgoing a deal with a higher valuing third party) comes to exceed a buyer's value *ex post*, the parties to a goods contract can achieve efficiency only through a renegotiation, in which the seller secures the buyer's release from the property-rule remedy to which the buyer would otherwise be entitled. But under asymmetric information (and we have seen that under symmetric information, rational parties always prefer the value contract), such renegotiations frequently fail. Further, an order of specific performance is more costly to police and enforce than an order to pay damages, because the relatively greater complexity of trade compared to transfer (which requires only the payment of a specified sum) entails that buyers (and courts) must incur additional monitoring costs to ensure that sellers actually perform.[122] These *ex post* costs reduce the expected surplus that a goods contract generates, relative to the value or liquidated contracts. And although buyers might benefit *ex post*

[121] See Jason Johnstone, GET CITE.

[122] When these costs get too great, canonically because the required performance requires sellers to perform an intricate and ongoing series of act, current doctrine permits courts to deny specific performance on account of the excessive costs of supervision.

from charging the seller an exit fee, they lose more *ex ante*, by paying a price increase that exceeds that fee in expectation.

These disadvantages lead parties to make the goods contract less frequently than the other contract types.[123] Neverthless, that contract embodies our resolution of the remedial dilemma. When parties write a goods contract, they construct entitlements that can be vindicated only by specific performance—a property rule remedy. Moreover, parties write this contract only when a particular information structure makes this remedy optimal. Courts that enforced contract clauses calling for specific performance thus would be ordering the remedy that vindicates the right that the parties have created and also, although indirectly, making optimal policy. Once again, form and function would converge.

Our synthesis therefore spans the full range of contractual practice. A court adjudicating a contract dispute should begin with interpretion and then award the remedy that the interpreted contract implies. Parties, free from legal constraints, would usually make the value contract or the liquidated contract, both of which create entitlements that a liability rule would vindicate; but parties may sometimes make the goods contract, which only a property rule can vindicate. In each case, courts make optimal policy, though indirectly, by following the parties' lead and adopting liability-rule or property-rule remedies, not based on the court's judgment but as required to vindicate the entitlements that the parties have constructed.

The positive law sometimes tracks this logic but other times departs from it. Current doctrine reaches the right result as long as the parties' preference for the

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[123] Legal systems that include a liberal allowance for specific performance but allow parties to forswear the right *ex ante* open a window onto just how uncommon goods contacts are. For example, specific performance is available as of right in Israel. A study of Israeli practice found that plaintiffs opt out of specific performance much more than two thirds of the time. Yonathan Arbel, *Contract Remedies in Action: Specific Perdformance*, 118 WEST VA. L. REV. 369, 373, 399 (2015). Specific performance is available as of right but is rarely sought in France and Germany. Henrik Lando and Casper Rose, *On the Enforcment of Specifi Performance in Civil Law Countries*, 24 INT'L REV. OF LAW AND ECON. 473, 486 (2004).

Empirical studies of contexts that involve the narrow cases in buyers can't anticipate, or want to conceal,their valuation of trade reveal that rational parties write goods contracts in these cases. For example, firms routinely include specific performance clauses -- requesting courts to grant the remedy -- in acquisition agreements. See Theresa Arnold, et al, *"Lipstick on a Pig": Specific Performance Clauses in Action*, WISCONSIN L. REV. (over 80% of merger agreements collected had specific performance clauses); Theodore Eisenberg and Geoffrey Miller, *Damages versus Specific Performance: Lessons from Commercial Contracts*, 12 J. EMPIRICAL LEG. STUD. 29 (2015) (53.4% of merger agreements had specific performance clauses). Parties similarly commonly attempt to enforce long term contracts with specific performance.

value contract *and* the law's preference for the expectation remedy coincide. In these circumstances, the positive law awards a vindicating remedy and simultaneously creates efficient incentives. But current doctrine creates mismatch costs when legally available remedies fail to vindicate the contractual entitlements that sophisticated parties prefer to create. These mismatch costs arise when courts refuse to enforce contract clauses that liquidate damages at levels different from (and especially greater than) a promisee's contractual expectations. Mismatch costs also arise when courts refuse to enforce specific performance clauses, even though these evidence a party preference for the goods contract. To remind, the value contract that the law always imposes is efficient *only* in the limited case when information is symmetric and verifiable.[124] Current doctrine therefore sometimes puts the law's remedies out of step with the parties' contract entitlements, with the result that the law fails to vindicate the parties' rights and, along the way, makes bad policy.

Current legal theory does little to correct these doctrinal errors and, in many cases, instead compounds them. On the one hand, familiar economically-inflected arguments defend the law's sticky preference for expectation damages on the functionalist grounds that this remedy encourages "efficient breach" of contract.[125] On the other hand, a rising countermovement of moralists criticizes the expectation remedy on the formalist ground that damages, because they give promisees only the value of performance rather than performance itself, fail to vindicate contractual rights.[126] The moralists further claim, variously, that the expectation remedy is immoral (because the norms of promising require performance rather than breach-plus-damages), that the expectation remedy prices rather than sanctions the "wrong" of breach (and that it sets the price wrongfully low, at a level designed affirmatively to

[124] Early version of these arguments are in Schwartz (1981) and (1990).

[125] Early statements of this functionalist argument include. Robert L. Birmingham, Breach of Contract, Damage Measures, and Economic Efficiency, 24 Rutgers L. Rev. 273, 292 (1970), Steven Shavell, Damage Measures for Breach of Contract, 11 Bell Journal of Economics 466 (1980), Steven Shavell, The Design of Contracts and Remedies for Breach, 99 Quarterly Journal of Economics 121 (1984). The efficient breach concern has become so familiar that it is now presented in textbooks aimed at first-year law students. See, e.g., Jeff Ferriell, Understanding Contracts 715–17 (2d ed. 2009); Robert A. Hillman, Principles of Contract Law 140–41 (2d ed. 2009).

[126] The moralists sometimes emphasize a stray comment from the Uniorm Commercial Code, which proposes that "the essential purpose of a contract between commercial [parties] is actual performance and they do not bargain merely for a promise, or for a promise plus the right to win a lawsuit." U.C.C. § 2-609 cmt. 1 (2003). The U.C.C. is not alone in adopting this formulation. A recent example is Melvin Eisenberg, Actual and Virtual Specific Performance, the Theory of Efficient Breach, and the Indifference Principle in Contract Law, 93 Calif. L. Rev. 975, 1007 n. 71 (2005). Eisenberg cites an influential treatise on restitution, which claims that "[i]n most contracts, . . . [t]he expectation that deserves protection is the promised performance." 3 George Palmer, The Law of Restitution § 15.9, at 440 (1978).

encourage efficient breach), and that this undermines the immanent normativity of contract (by giving legal encouragement to breach of an obligation that the law purports to respect).[127]

These positions frame both sides of conventional arguments about contract remedies in terms on which function and form do not align. The expectation remedy's functionalist champions implicitly accept the accusation that the remedy fails

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[127] *See, e.g.*, Seana Shiffrin, Could *Breach of Contract Be Immoral?*, 107 MICH. L. REV. 1551, 1565-66 (2009); Seana Shiffrin, *The Divergence of Contract and Promise*, 120 HARV. L. REV. 708, 710 (2007); Richard R. W. Brooks, *The Efficient Performance Hypothesis*, 116 YALE L.J. 568, 572–73 (2006); Melvin Eisenberg, *The Disgorgement Interest in Contract Law*, 105 MICH. L. REV. 559, 562 (2006); Melvin Eisenberg, *Actual and Virtual Specific Performance, the Theory of Efficient Breach, and the Indifference Principle in Contract Law*, 93 CALIF. L. REV. 975, 977–78 (2005); Daniel Friedman, *The Efficient Breach Fallacy*, 18 J. LEGAL STUD. 1-2 (1989). Some of these critics also, and for much the same reasons, attack other conventional doctrines that operate in conjunction with, and support, the expectation remedy—including most notably that disappointed promisees must mitigate damages or risk not being made whole. The debate between moralists and efficiency theorists is extensively summarized in Matthew A. Seligman, "Moral Diversity, Efficient Breach, and the Regulation of Contracts," (unpublished manuscript 2018) (on file with author) (suggesting that when agents intend the contract we classify as A, the contract should make clear that paying the promisee's expectation is an alternative performance in order to prevent naïve promisors from believing that they must always transfer the goods (i.e., that they have made Contract B)).

These moralisms have begun to influence the positive law to move away from its traditional embrace of expectation damages for breach of contract. The U.C.C. liberalizes the right to specific performance. See U.C.C. §2-716. The recent Restatement of Restitution allows a court to award disgorgement in preference over expectation damages when the expectation remedy is inadequate. See Restatement (Third) of Restitution and Unjust Enrichment § 39(1) (2011). See also Andrew Kull, Disgorgement for Breach, the "Restitution Interest," and the Restatement of Contracts, 79 Tex. L. Rev. 2021, 2028–29 (2001). And England and Israel are experimenting more broadly with "gain based damages." For England, see Ralph Cunnington, The Assessment of Gain-Based Damages for Breach of Contract, 71 Mod. L. Rev. 559–60 (2008). For Israel, see Adras Building Material Ltd. v. Harlow & Jones Gmbh, 3 Restitution L. Rev. 235, 240, 242, 246, 249, 261, 268 (1995). Our analysis shows that disgorgement is unwarranted, even in the face of "willful" breaches, unless parties have written the goods contract. But when parties have written the goods contract, disgorgement becomes appropriate, especially when a seller's actions have rendered specific performance impossible. We note that the U.C.C. approaches this conclusion. Section 2-501 (1) of the UCC gives the buyer "a special property and an insurable interest in goods by identification of existing goods as goods to which the contract refers …." Section 2-502(1)(b) gives the buyer the right to recover goods in which he has a special property if the seller becomes insolvent "within ten days after receipt of the first installment on their price." Further, Section 2-711(2)(a) provides that the buyer has the right, "when the seller fails to make delivery … if the goods have been identified [to] recover them". And Section 2-716(3) gives the buyer "a right of replevin for goods identified to the contract if after reasonable effort he is unable to effect cover …." Buyers thus have rights that are sufficiently tangible as to support a disgorgement action. The parties also can contract to give the buyer a right to disgorgment if the seller sold the goods elsewhere to vindicate contractual rights, but they support "breach" on efficiency grounds.[128] Formalist critics of the remedy ignore the efficiency costs of broadly awarded specific performance and supracompensatory remedies. The very name of the theory that the two sides argue over—*efficient breach*—crystalizes the disconnect: good policy apparently requires sacrificing vindication.

Both sides of the argument fail to engage actual contract law and practice and instead aim at a mirage. The moralists' critique of a seller's failure to trade imagines that parties typically make the goods contract, but this is the contract that informed, sophisticated parties *are least likely to make*. And again, when parties make the value or liquidated contract, a seller who declines to trade the contract goods but rather makes a contractually specified transfer does not breach; and courts that vindicate these contracts with expectation damages neither encourage breach nor provide merely substitutionary relief. Instead, the court directly enforces the contract by ordering the seller to provide the one version of performance on which the parties agreed: the transfer of money. The moralists, in sum, passionately seek to vindicate imaginary entitlements.[129]

Economists, for their part, share in the moralists' fundamental error, even though it leads them to an opposed conclusion. Economists typically embrace policy remedies.[130] They further recognize that it is exchange efficient to make the seller the residual claimant on the parties' contract—to have the power to choose between trading the goods to the buyer or making an appropriate money transfer—and so they

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[128] The Restatement (Second) of Contracts § 361 cmt. a (1981) recognizes that certain contracts give promisors a privilege to transfer rather than to trade but also characterizes the transfer as a breach. Robert Birmingham, introduced the efficiency-argument for the expectation remedy by writing that "*[r]epudiation* of obligations should be encouraged where the promisor is able to profit from his default after placing his promisee in as good a position as he would have occupied had performance been rendered." Birmingham, supra note **Error! Bookmark not defined.**, at 284 (emphasis added). S imilarly, Richard Posner argued that "[i]f [a promisor's] profit from breach would . . . exceed the expected profit to the other party from completion of the contract, and if damages are limited to loss of expected profit, there will be an incentive to commit a *breach*. There should be." Richard Posner, Economic Analysis of Law 57 (1st ed. 1972) (emphasis added).

[129] Nothing in our analysis concludes that genuine breaches are morally or legal neutral or forecloses more aggressive rules to discourge such true breaches—in which sellers refuse either to trade or to transfer—including by awarding punitive damages, in appropriate cases. We express no view about when punitive damages would be appropriate.

[130] Even when they observe that the expectation gives the promisee the "benefit of his bargain," the reference to the bargain is for economists a coincidence only. As Richard Craswell has observed, when economists embrace the expectation remedy, the formal category *expectation damages*, "will not have played any role in the analysis leading up to that conclusion." *See* Richard Craswell, *Against Fuller and Perdue*, 67 UNIV. CHI. L. REV. 99, 107 (2000).

created the theory of efficient breach, explaining that it is desirable (good policy) to allow the seller sometimes to violate the buyer's contract entitlement to the goods by trading elsewhere. Although the economists reject the moralists' conclusion, they share the moralists' premise—that transfer constitutes a breach because the parties have made the goods contract. But once again, sophisticated parties seldom make the goods contract, typically preferring instead to make the value or the liquidated contract. And once again, sellers who transfer rather than trade do not breach but rather *perform* those contracts. The economists' dalliance with immorality—the feature of the theory of efficient breach that has trained the moralists' ire on expectation damages—is unnecessary and misplaced—another unfortunate byproduct of remaining trapped in the remedial dilemma. Our sythesis shows that when sellers transfer money rather than goods or services, they perform.

Finally, we re-emphasize two implications of our argument. First, our synthesis resolves the puzzle over why freedom of contract ends with the contract's substantive terms while the power to choose remedies lies with the court. The solution is to cut the knot: the parties' freedom should not be restricted to the substantive terms because the terms and the remedies that would vindicate them are one and the same.

Second, courts award gain based damages—i.e. disgorgement—too frequently. Regarding why, realize that gain based damages generate the same (approximate) payoff for the buyer that specific performance does. Under specific performance, the buyer can deprive the seller of the entire gain from selling to a third party by demanding the goods. The buyer, however, would not make this demand when trade elsewhere would be efficient. Because the third party valued the goods more than the buyer valued them, a trade between the seller and the third party would create a gain above the gain the contract parties could make by trading with each other. The buyer thus would not insist on his contractual rights but rather would permit the seller to deal elsewhere in return for a share of the additional surplus the third party trade would create. Gain based damages also give a buyer the ability to capture the entire gain the seller could make by trading with the third party, this time by seeking money. The buyer, however, would not insist on that gain either because, anticipating this move, the seller would perform under the contract. To forestall performance, the buyer thus would permit the seller to profit by selling to the third party in return for a share of the additional surplus. Thus, gain based damages yield the same payoff for the buyer as specific performance yields. Note that the buyer would be entitled to specific performance *only* if he made the goods contract. Similarly, the buyer should be entitled to gain based damages only if he made that contract. Courts, however, sometimes mistakenly award gain based damages even when parties have made (or preferred) the value contract or the liquidated contract.

4.2 Property

Contract law regulates trades. The parties who trade and the state have a common interest: to create contract entitlements that maximize exchange efficiency. The parties share the increased surplus that efficient trade creates; and, as long as no material externalities exist, the state values the welfare gain. We earlier observed that exchange efficiency generally favors constructing entitlements so that they are vindicated through liaibility-rule remedies, and we have applied this general principle to specific areas of contract doctrine.

Property, by contrast, regulates ownership. Owners commonly are less interested in trade than in maximizing the value of their property. Owners and the state, however, continue to have a common concern: this time, to create entitlements that maximize investment efficiency. When there are no externalities, the owner captures, and the state values, the gain from efficient investment.[131] We earlier observed that investment efficiency generally favors constructing entitlements so that they are vindicated through property-rule remedies. We therefore now ask what implications this general principle has for the efficient design of specific doctrines in property.

Courts and theorists commonly assume (an assumption built into Calabresi's and Melamed's very language) that these implications are straightforward: an efficient law will generally protect property with property-rule remedies. We revisit this generalization and show that it is too broad: When private agents (and the state) take the likely existence of asymmetric information into account, difficult tradeoffs arise, and important contexts exist in which property entitlements should be constructed to be vindicated with liability-rule remedies.

We illustrate our approach by analyzing three "testing" cases. In each of them, the owner and an "outsider" both have a credible claim to the owner's property: (a) the outsider has occupied and invested in the owner's property; (b) the outsider has purchased the owner's stolen property from an apparently legitimate seller; and (c) a technological advance, which only the outsider can realistically exploit, facilitates the emergence of compelling new uses for the owner's property.

[131] We are primarily concerned with commercial environments. Property has been justified as protecting liberty -- i.e., freedom from the state -- protecting privacy and protecting other noneconomic benefits. These justifications aare beyond our scope.

In cases (a) and (b) we reconfirm the conventional doctrine, although for new reasons.[132] In case (c), we depart from standard doctrine to argue that efficiency favors vindicating the owner's entitlement through a liability-rule remedy. In all three cases, we proceed by inquiring how parties would construct property entitlements in order to maximize their expected value and then asking what remedies would vindicate the entitlements, so constructed. Each argument therefore again illustrates our broader remedial synthesis, in which courts make optimal policy indirectly, by choosing remedies that vindicate the entitlements that rational parties have constructed, with vindicating remedies in mind.

4.2.1 Adverse Possession

Adverse possession presents an apparent anomaly in property law. The doctrine applies when an outsider—the adverse possessor—takes possession of property in the original owner's absence. The adverse possessor obtains a good title by operation of law if "her possession was actual, hostile, open and notorious, and continuous for the period of the statute of limitations."[133] An investment to improve the property's value often satisfies these requirements. Under these conditions, the law permits an outsider to take an owner's property and become its new owner. The original owner cannot take the property back, nor can he recover damages for any value he has lost. The adverse possession rule therefore appears to betray—simply to abandon—private law's basic commitment to the principle that wrongs should be redressed by remedies: "no remedy at all" cannot be vindicating.

The anomaly is only apparent. Adverse possession law is in fact in step with property law generally because original owners have good reasons to construct their entitlements so as to permit the adverse possessor to get a good title.

To see why, first consider the strategy of the possessor. She will consider that a reappearing owner can recover the property during the period of the statute. The possessor thus will invest in the property's value until the marginal return, *discounted* by the possibility of a retaking by the owner within that period, equals the marginal cost of investment. The resulting underinvestment is the social cost of respecting the

[132] Lee Anne Fennell argues that the state should construct property entitlements by grouping resources that are complements in production. Appropriate grouping would facilitate investment efficiency. *See* Lee Anne Fennell, Property as the Law of Complements *in* RESEARCH HANDBOOK ON PRIVATE LAW THEORIES (2020). We argue that entitlements should be property rule protected in investment economies to facilitate efficiency. Fennell's approach to entitlement creation and our approach to entitlement protection thus are consistent.
[133] Jeffrey E. Stake, *The Uneasy Case for Adverse Possession*, 89 GEO. L.J. 2419, 2423 (2001). *See also* RESTATEMENT (THIRD) OF PROPERTY § 7.

owner's property right. After the statutory period ends, however, the possessor will continue to invest in the property *without discounting* for any possibility that the owner will herself retake the property. The law—by giving the possessor title—has erased that possibility.

Now suppose that the owner could recover the property without compensating the possessor *whenever* the owner appeared. The possessor's best response would be to discount the return from investment by the possibility of an owner's ever retaking at any point before the end of time. The adverse possessor will reduce her investment accordingly. The magnitude of the underinvestment and associated loss will vary depending on the time and place, but this loss seldom will be trivial. In the limit, the possessor will decline to invest at all and instead operate the property much as she finds it.

Now consider the owner's strategy, first under the current rule, which allows for adverse possession, and then under a rule that rejects adverse possession and instead permits an owner to retake whenever he reappears. That the owner has abandoned the property for at least the statutory period indicates that he values it at no more than its unimproved market price. Nevertheless, he will materially revise his value upward when, on returning, he observes property that reflects the possessor's improvements. The reappearing owner and the possessor will therefore bargain over ownership. Under current law, the owner who returns after the end of the limitation period cannot retake the property, but he can attempt to buy it back. If the owner turns out to be the high valuer he will therefore recover the property and, after compensating the possessor for selling, realize a share of the surplus that the possessor's improvements have produced.[134]

Now consider the owner's strategy under the alternative rule that rejects adverse possession and instead allows owners always to recover the property, regardless of how long others have occupied and improved it. Once again, this rule will lead possessors dramatically to reduce their investments in the property that they occupy, often forswearing investment entirely and instead settling for extracting whatever rents can be got from unimproved land. The property that the owner

[134] A simple example illustrates the bargaining game under this rule. Suppose the owner's valuation for the improved property is X_o; the possessor's valuation is X_p. We let the probability that the possessor is the high valuer be .5. Assuming that information is symmetric, the parties will split the surplus from a trade equally; the owner thus will realize half the gain. The owner's expected payoff from bargaining for the property thus is $.5[(X_o - X_p)/2] = \frac{X_o - X_p}{4}$. The owner, though without an entitlement to the property, will realize in expectation 25% of a surplus that is nontrivial because the property has been materially improved.

recovers may therefore be in the same state as the property he earlier abandoned, reflecting continual underinvestment. The owner won't have to pay to retake, but he'll get only what he doesn't have to pay for.

An owner who can construct his property-entitlement with respect to adverse possession thus faces a choice: between the current regime, which incentivizes the possessor to make improvements but requires the owner to buy back the property if he returns only after the limitations period has elapses; and an alternative rule that allows him to retake the property whenever he likes, but dramatically reduces the possessor's incentive to make any improvements. Since the owner can't have placed any material value on the unimproved property, else he would not have ignored it, the owner's choice is, in effect, between getting all of nothing and part of something. And while the details of the optimal rules governing adverse possession—the nature of the possessor's occupation and the length of the limitations period—will vary across owners, owners seldom would find it optimal to construct their entitlements such as to eliminate adverse possession entirely.

Adverse possession law thus instantiates our systhesis. Owners have reason to construct their property entitlements to allow adverse possessors to take title by investing in property that the owners have neglected. And when courts recognize the doctrine of adverse possession, and decline to eject possessors, they do not abandon vindication in the name of policy but instead make optimal policy by vindicating the entitlements that owners have constructed.

4.2.2 Good Faith Purchase

Adverse possession applies only where owners neglect their property. For owners who assert their rights, private law typically protects personal property with a property rule. An owner thus can obtain an injunction commanding an unauthorized taker—a thief—to return her property. But let an owner's stolen property come into the hands of an apparently legitimate seller, such as a merchant who deals in goods of that kind. A buyer from such a seller would be a good faith purchaser. This possibility brings two competing principles into play: (i) an owner cannot be deprived of her interest in property without her consent; (ii) a buyer in good faith gets title to the goods.

American law protects the original owner's right: she is entitled to recover stolen property from the good faith purchaser. European law, by contrast, protects the good faith purchaser if he purchased on the market or from a merchant.[135] This superficial disagreement sits atop a shared foundation—both Amerian and European courts suppose that they cannot protect both agents' rights simultaneously and see the choice between them as a dilemma. Our synthesis again dissolves this dilemma. We show that sophisticated parties would construct property rights so that a subsequent buyer's good faith doesn't extinguish the original owner's entitlement to exclude. It follows that the owner can require the good faith purchaser to return the property. In addition to dissolving the dilemma, therefore, our remedial synthesis best supports the American rule.

To see why, consider consider initially the incentive effects of the two approaches. The American rule encourages the original owner to search optimally for stolen property because she is entitled to its return on finding it. The European rule reduces this incentive because it denies the owner's recovery of "found property" from the good faith purchaser. The American rule also encourages the ultimate buyer to invest optimally in ensuring that he is purchasing a good title, because he loses previously solen goods. The European rule reduces this incentive because it shields the good faith buyer who has not made an efficient title search.

With these incentives in mind we analyze three cases that span the possible relationships between the original owner's ("O's") and the good faith buyer's ("B's") value for stolen and resold property. In the first case, O and B value the goods equally.[136] In this (unrealistic) case, transaction costs dictate the efficient result because no other consideration could matter. The European rule thus is preferable because it is less costly. The European owner invests less in search for his stolen property than an American owner would, because the European owner can seldom recover the property from the ultimate purchaser; and the European purchaser checks title less exhaustively than her American counterpart, including because the European owner searches less. The additional transaction costs—to search and to check—that the American rule induces agents to incur constitute a dead weight loss because there is no utility gain from re-transferring equally valued goods.

In the second case, we assume that valuations are unequal and information is symmetric: the two agents know each other's valuations. On this (again largely unrealistic) assumption, if O and B come to find each other, the high-valuer of the

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[135] A more extended analysis of the good faith purchase issues we consider here is Alan Schwartz & Robert E. Scott, *Rethinking the Laws of Good Faith Purchase*, 111 COLUM. L. REV. 1332 (2011).

[136] Landes and Posner assume equal valuations in their interesting analysis of the market for stolen art. *See* William Landes & Richard E. Posner, The Economics of Legal Disputes Over the Ownership of Works of Art and Other Collectibles *in* SELECTED ESSAYS (V.A. Ginsberg & P.M. Menger eds., 1996).

pair will buy out the lower valuer and own the property. The law thus achieves exchange efficiency by creating optimal incentives for O to search for his stolen property. An owner with the property right has a positive payoff to searching *both* when she is the high valuer (because then she will buy her property back); *and* when she is the low valuer (because B would have to bribe her to yield her right). By contrast, when the law gives the good faith purchaser a title that is good against the owner, O will realize almost no gain from searching. If B is the higher valuer, then O's search costs will be wasted because she cannot buy the goods back; her maximum willingness to pay falls below B's valuation. And if O is the high valuer, her return from search will be reduced by the bribe required to induce B to part with the goods. It follows that under symmetric information, O will have an optimal incentive to search for the stolen property only if the law gives O the power to recover the goods from B; and that if the law gives O this remedy, then O's finding B will lead the parties to bargain to the exchange efficient outcome. In the symmetric information case, the American rule thus is superior (interestingly, not because it enables O to recover the property, but because it gives O incentives that will lead O and B to bargain towards an efficient allocation of the property).[137]

Values are unequal in the third case also, but now information is asymmetric; even if O and B find each other, there is no no guarantee that the parties will bargain to give the goods to the high valuer. Nevertheless, although O's and B's finding each other is no longer a sufficient condition for the property's reaching the high valuer, it remains a necessary condition. Efficiency therefore turns, in the asymmetric information case, on whether, even in the shadow of potential bargaining falures, it remains optimal to give O the entitlement to an injunction requiring B to return the property. It does. If O cannot obtain an injunction, then she will benefit from finding B only if she is the higher valuer and bargaining to buy the goods back from B suceeds; and even then O will gain only a share of the difference between her value and B's. This gives O an inefficiently small incentive to search for B. On the other

[137] The situation is symmetric: giving O the property right reduces B's incentive to check title. In the usual case, however, it is much more costly for the owner to search for stolen goods than for the buyer to check title. For example, B can assume the title is not good when he is offered products from the trunk of a person's car and assume the title is good when he is offered products from a department store. In contrast, O has to find a stranger. Thus, the law should create incentives for O to search rather than for B to check title. Observe also that, under the American rule, O's rights are property rule protected. She could enjoin a taking or recover back the property without paying compensation. Protecting O's rights with a liability rule, in contrast, would reduce O's return from search because she would have to prove damages were B not to return the good voluntarily. On the assumption that information is symmetric O would win her case, but when information is asymmetric—the case we consider—property is best protected with a property rule for the reasons we have already developed.

hand, if O can obtain an injunction, then O will recover the goods whenever she finds B and is the high valuer, because B will not make an offer higher than his value. An O who is not the high valuer but who can obtain an injunction will realize a bribe from B to yield her right. These possibilities give O a powerful incentive to search for B. They also lead to the property's ending up in the hands of the highest valuer, except in the single case in which O finds B and recovers the property, and although B is the higher valuer, the too little trade problem causes the bargain needed for B to repurchase the property to fail. This pattern is possible, but it is much less likely than the others put together; and it is made less probable still by the fact that O's original ownership, combined with B's irregular (even if good faith) purchase, make it likely that O is in fact the high valuer.[138]

To summarize, the American rule vindicating the original owner's entitlement to stolen goods is preferable to the European rule because only the American rule creates a nontrivial incentive for the owner to search for his property. Search is valuable because it may produce a surplus-maximizing bargain allocating the property to the higher valuer. Sophisticated parties will therefore construct property rights so that vindicating remedies extend property rule protection for owners not just against takers but also against good faith purchasers, something that B will know and understand. Hence, when the law permits O to obtain an injunction ordering B to return the property notwithstanding B's good faith, it does not betray any entitlement that B actually has. In addition to directing courts to the better outcome—in this case, the American rule—our synthesis also frames that outcome in a way that dissolves the remedial dilemma.

4.2.3 Technological Change

Technological innovation can change how property is best used and therefore who is best placed to use it, either in the property's current state or by investing to increase its value. When this happens, the too little trade problem becomes pressing: an efficient response to a technological shock may require reallocating property rights, but private parties can fail to make the necessary trades. Moreover, trading barriers can dampen the incentive to invest by reducing the likelihood that the most efficient investor in the property will come to own it.

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[138] O would value the goods more than the thief does because the thief steals only to exchange while O has an incentive to maximize the property's value. The thief also will charge a merchant a low price for the goods because the thief cannot establish a good title. Competition would cause the merchant to charge a low price to consumers. The ultimate buyer thus may be in good faith, but he likely knows he is getting a bargain. This reasoning suggests that the original owner has the higher valuation of the two.

Even though innovations, and especially their specific details, can't be known in advance—if they could, they wouldn't be innovations—parties can anticipate that innovation will happen, that it will create opportunities for efficient transfers of property to new owners who can best exploit the innovation, and that the too little trade problem might block such transfers. This gives parties a reason to construct entitlements so as to overcome the problem of too little trade and thereby facilitate future innovations. Entitlements constructed with this possibility in mind will be vindicated by liability rules. Entitelment holders will forswear the power to exclude in order to achieve exchange efficiency in some possible futures and, through this prospect, encourage efficient investment in the present.

The example with which we introduced the remedial dilemma—the lawsuits concerning railroad easements and fiber optic cables—illustrates these concerns. The lawsuits arose, recall, because railroads had, in the nineteenth century, assembled a nationwide network of easements from city-center to city-center. Other firms, responding to late-twentieth century innovations that created new possibilities in telecommunications, sought to build their own long-distance networks by paying railroads for the right to lay fiber-optic cables along their tracks. Many adjacent landowners sued, claiming that the cables fell outside the scope of the easements, and courts applying conventional reasoning to adjudicating these claims faced the unpalatable choice between holding (implausibly) that telecommunications cables constituted a railroad use within the easements or holding (imprudently) that cables constituted a trespass that the landowners might enjoin. These bad alternatives exemplified the remedial dilemma: good policy required betraying the owner's property right to exclude, while vindicating this right required an extremely bad outcome.

Our synthesis lights a better way forward. When the railroads constructed their networks of easements, they overcame the problem of too little trade, so that an entitlement—in this case, the right to lay railroad tracks across the land—ended up in the hands of the highest valuer. Having assembled the network, the railroads are now better placed than the underlying fee owners to exploit subsequent innovations and to make new investments that might increase the value of crossing the land in the future. This is why the telecommunications companies dealt with the railroads rather than the landowners when they wanted to lay their cables. (The owners could exploit such innovations only after overcoming the too little trade problem afresh, which is why it was prohibitively difficult for the telecommunications companies to deal directly with them.) At the same time, the fee owners remained best placed to realize the value of their underlying land, including by investing in their individual parcels to increase their value going forward.

The nineteenth century parties therefore faced the challenge of how to construct easements in order best to promote efficient investment by both the railroads and the landowners. Both of the holdings reached by the twentieth century courts in the cases discussed earlier failed this challenge, although they stumbled over different hurdles. On the one hand, courts that give the fee owners a right to enjoin all new uses that fall outside the nineteenth century easements leave the railroads with inefficiently low incentives to invest in innovations that increase the easements' value. In order to deploy such innovations against the backdrop of these rulings, the railroads would have to solve the too little trade problem all over again. On the other hand, courts that expand the scope of the 19th century easements by treating telecommunications cables as "railroad uses" that don't constitute a trespass leave the fee owners with inefficiently low incentives to invest in their land. Expanding the easements exposes the landowners to uncompensated harms when railroads deploy new technologies that interfere with the landowners investments in their land, and this risk suppresses the landowners' incentive to invest.

A third approach—protecting the landowners against trespass by alternative uses of the easement network with a liability rule—avoids both inefficiencies at once. Replacing property rule remedies for trespass with liability rule remedies prevents the landowners from enjoining new uses and thereby protects the railroads' incentives to innovate and invest in their easement networks. At the same time, awarding damages when new uses fall outside the railroads' easements and therefore violate the landlords' entitlements protects the landlords' incentives to invest in improving their land. If courts set damages equal to the costs that a new and encroaching use would impose on the underlying land if the landowner had invested optimally, then landlords will internalize the full marginal costs and benefits of their investments (since their damages depend on optimal rather than actual investments) and, in equilibrium, the railroads will internalize the full marginal costs of their innovative uses of the easements (since the landlords will have invested optimally). Constructing the initial entitlements surrounding the easement network so that the landowners' entitlements are vindicated by liability-rule rather than property-rule remedies therefore simultaneously promotes exchange efficiency and investment efficiency.

Contemporary courts have missed this possibility because they remain in the grip of the remedial dilemma—caught between the formalist assumption that vindicating property entitlements against trespass requires property rule remedies and the functionalist imperative to avoid enjoining obviously valuable new uses for the easments. Our synthesis allows the parties and the law to escape both horns of the dilemma at once. When parties reconstruct the underlying landowner's entitlement to receive only liability rule protection against new network-related trespasses that overstep the bounds of the old easements, they allow courts to marry form and function, vindicating the entitlements that the parties have created by awarding damages that simultaneously sidestep the problem of too little trade and give both the landowners and the railroads optimal incentives to invest.

A different techological innovation, involving finance, provides another illustration of our synthesis. Companies are bought and sold in the market for corporate control. This market is exchange efficient insofar as higher valuing companies commonly buy lower valuing companies. A potential acquirer ("A") can purchase a target company ("T") in two ways. First, A can negotiate the price and terms with T's board of directors. The price could be in A shares or in cash. A target board that accepts an acquirer's bid recommends that its shareholders, who have the final right of approval, tender their shares to A. Second, A can bypass T's board, by making an all-cash bid directly to T's shareholders to purchase their shares. If a majority of T's shareholders tender to this "hostile" offer, A acquires voting control, which it can then use to replace T's board with new directors of its chosing. The two companies, now under common control, would then merge, so that only A survives.

Prior to the 1980s, hostile takeovers were unusual because they were difficult to finance. A hostile takeover requires large amounts of cash, and the potential acquirer commonly had to borrow the funds. Banks and insurance companies had the money, but they are regulated companies. Persuading them and their regulators to finance large deals was a long, costly, and sometimes unsuccessful process.

These barriers to hostile takeovers created an opening for financial innovation. Entrepreneurs, in the 1980s, developed a new financing technique: the "junk bond". Junk bonds are securities issued, in this case by the acquiring company, to the investing public. The securities represent a loan to A from the bondholders who buy them. The bondholders' debt is typically subordinated to A's other debt, including bank debt; but the junk bonds pay a commensurately higher interest rate. Surprisingly, the investing public was willing to purchase the bonds. It thus became possible for potential acquirerers to finance all-cash bids by borrowing in the public credit market. As a result, many hostile takeovers became newly viable.

The boards and managers of potential targets were reluctant to be displaced by their shareholders, and they retaliated with a financial innovation of their own—a new security called the "poison pill". In its simplest form, the poison pill floods the market with new shares of a target company's stock, made available at a discount to existing shareholders, but not to the acquirer. The new shares reduce the value of existing shares and dilute the acquirer's ownership stake, defeating the takeover. The boards of potential target companies could issue poison pills without their shareholders' consent, dissuading acquirers from making takeover bids that would "trigger" the pills. Target boards could also withdraw the pills after the threat of a hostile takeover receded. A new pattern therefore emerged. A board whose company became a target for a hostile takeover would issue a poison pill. The board would then negotiate with the acquirer to engineer a friendly takeover. If negotiations failed, the board would retain the pill and defeat the takeover; if they succeeded, the board would withdraw the pill and recommend that its shareholders accept the friendly takeover offer. Poison pills therefore effectively prevented hostile takeovers, and the result was to restore the status quo (the status before the financing innovation): most deals were again negotiated between the acquirer and the target board; and a target firms' shareholders were again prevented from independently deciding whether to accept a hostile takeover bid or not.

The inventions of the junk bond and the poison pill—two new financial technologies—taken together presented the Delaware courts with a novel question. Traditionally, the ownership of a share in a publicly traded company included a right to decide whether or not to sell the share. The invention of the junk bond increased the shareholders' opportunity to exercise this right because it increased the number of bids from newly empowered acquirers. The poison pill, by contrast, reduced the shareolders' opportunity to sell—specifically by empowering the incumbent board of the shareholder's company effectively to prevent the shareholder from accepting an offer to buy issued in connection with a hostile takeover. The pill thus effectively deprived the target company's shareholders of a right—to sell their shares to any buyer they choose—that prior to the invention of the junk bond, the shareholders enjoyed in principle but had fewer opportunities to exercise in practice.

Delaware courts had to decide how to interpret the shareholders' entitlement to sell their shares in the shadow of the dual financial innovations: the junk bond, through which acquirers increased target firm shareholders' opportunities to exercise the right to sell; and the poison pill, though which the target firm's board blocked the shareholders' exercise of this right. The standard equity contract between shareholder investors and their company—the contract that fixed the shareholders' entitlements and the target board's responsibilities—was created decades before the market for corporate control took its current form. Similar to the easements between the landowners and railroads, it was highly unlikely that the drafters of this contract specifically addressed market conditions—in which hostile takeovers were easy to finance but incumbent boards could render them impossible to implement—that did not yet exist.

Delaware courts therefore had to decide whether, in the new context created by these financial innovations, shareholders' entitlements under their equity contracts included a right that the target board not interfere to block hostile takeovers and, if the shareholders did have such a right, whether it was vindicated by a property rule (an injunction ordering the target board to forswear poison pills), or vindicated by a liability rule (so that the board could issue poison pills, and deprive shareholders of the right to sell, subject to compensating the shareholders for losses sustained on account of the deprivation).[139]

The Delaware courts acknowledged the shareholder's right to sell; but the courts interpreted this right so as not to preclude a target's board from making an independent and determinative decision to not sell.[140] The courts, that is, protected the shareholder's entitlement with a liability rule. Some courts[141] defended this result with the implausible argument that the institutional shareholders who own much of modern corporations cannot evaluate takeover bids.[142] But the root justification for the courts' outcome was quite different: namely, that target-board control, including the target board's power to block shareholders from selling directly to the acquirer, generates higher takeover prices.

Widely dispersed shareholders cannot coordinate bargaining with an acquirer, while the centralized board can, with the result that shareholders who can sell directly will accept lower takeover bids than the target boards could negotiate for them.[143] This justification is plausible where a symmetric information structure ensures that the acquirer knows the target board's reservation price and the board knows the acquirer's expected value of the target. Under symmetric information, the acquirer and target would agree to a takeover if A values the target firm more highly than T's board, but not otherwise. And as long as T's board is a faithful fiduciary, it will have the same reservation price as T's typical shareholder, so that (setting aside the complication that poison pills deter bids) T's shareholders will accept their board's decision. The hostile takeover thus illustrates the Coasean result that under symmetric information, parties will trade an asset to the high valuer regardless of where the initial property right in the asset lies.

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[139] Shareholders could sue for their board's failure to accept a good bid or for selling at too low a price.

[140] The board has a fiduciary obligation to maximize the sale price if it does agree to a bid. See Revlon. [Citations]

[141] CITES.

[142] Political economy considerations also influenced the Delaware courts. Some companies threatened to leave the state if takeovers were easy to effect.

[143] The best argument for this view is Lucian A. Bebchuk, *The Sole Owner Standard for Takeover Policy*, 17 J. LEGAL STUD. 197 (1988). For a critical response, see Alan Schwartz, *The Fairness of Tender Offer Prices in Utilitarian Theory*, 17 J. LEGAL STUD. 165 (1988).

The symmetric information assumption is unrealistic, however. A target board is unlikely to know the value the acquirer places on the target, and the acquirer is unlikely to know the reservation price of a particular target board.[144] This transforms the problem because asymmetric information bargains often fail. A faithful target board will attempt to maximize the price, just as an ordinary owner will. But the price that maximizes the target's expected gain, we have seen, may exceed the acquirer's willingness to pay *even when* the acquirer's value for the target exceeds the target's value as an independent company. The too little trade problem again rears its head, and it is a commonplace among corporate lawyers that potential targets reject too many offers. Some rejections probably stem from an unfaithful board's desire to remain independent, and these might be undone by enforcing the board's fiduciary obligations; but others are likely caused by bargaining failures that result from a target board's making rational but inefficiently high offers to sell.

Informed shareholders will construct their entitlements vis-à-vis the board bearing the too little trade problem in mind. Such entitlements give shareholders the power to enjoin the board from issuing poison pills, so that the shareholders can accept the offers for themselves. The numerous and dispersed nature of shareholding in large public companies helps to mitigate the too little trade problem. Because an acquirer faces many target-company shareholders, the acquirer can't bargain individually with each of them. Instead, the acquirer makes a take-it-or-leave-it offer for all outstanding shares. At the same time, because the target-company shareholders are too dispersed to coordinate their responses to the acquirer, each individual shareholder's decision whether or not to accept the offer cannot affect the acquisition's ultimate success. This impotence actually helps to mitigate the strategic problem that trips up the target board, as each individual shareholder (being unable to stop the acquisition or bargain for a higher offer) will accept a tender offer as long as it non-trivially exceeds her allotment of the target's value (i.e., the target's current price per share). Shareholders will therefore tender to acquisition bids that their boards would reject, and made deals are exchange efficient.

Giving shareholders the power directly to reject or accept hostile takeover bids, by protecting the shareholder's entitlement with a liability rule, therefore mitigates the problem of too little trade. [145] Again, our synthesis instructs courts to make remedial

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[144] If the target would be worth the same to every acquirer—the common value case—the board may know that value. If potential acquirers would value the target differently—the independent private value case—the board could only know the distribution of buyer values, but not the value of a particular bidder. A faithful fiduciary board would then run an auction for the company. See Alan Schwartz and Peter Crampton, *An Auction Theory Approach to Takeover Regulation JLEO* (1991).

[145] For an extensive analysis of these issues. *See* Ronald J. Gilson & Alan Schwartz, *Defensive Tactics: A New Approach,* HARV. J.L. & BUS. (2020).

policy only indirectly, by asking how agents would construct their entitlements, and then choosing vindicating remedies for them. Had the Delaware courts proceeded in this way, they would have seen that vindicating and policy remedies converge on allowing shareholders to enjoin boards from issuing posion pills, which would increase social and private value by increasing exchange efficiency in the market for corporate control.

4.3 Corporate Assets at the Nexus of Property and Contract

Our arguments concerning contract and property emphasize an evaluative stance. We ask how rational parties would construct their entitlements, in order to get critical leverage on the question what remedies courts *should* award in each department of private law. Our approach also enables descriptive insights, making it possible to see more clearly how private parties actually *do* construct their entitlements and what remedies our legal system, writ large, actually *does* provide to vindicate entitlements so constructed. In this section, we deploy our synthesis to re-interpret the existing pattern of private law rights and remedies. We reveal that contract and property interact, in modern economies, to cast ownership in a surprising new light.

Calabresi and Melamed began their discussion of the choice between property rules and liability rules by asking, "Why do we need liability rules at all?"[146] They imagined that "[i]n our framework, much of what is generally called private property can be viewed as an entitlement which is protected by a property rule."[147] Indeed, this assumption is built into the very language that Calabresi and Melamed used to present their remedial theory: *property* rights are vindicated by *property* rules.

What we call *personal property* is indeed typically held as an entitlement that can be vindicated only by property rules. When a natural person owns clothes, or a car, or furniture, or even a house, the right to exclude others—and not to be expropriated without her contemporaneous consent—is an essential facet of ownership. An analogous regime applies to corporations understood as artificial persons that own corporate assets. The corporation's assets are what might be called "corporate personal" property for the corporation. The corporation does not consume as natural persons do but instead deploys its assets exclusively to make a profit. Profit-generation, and hence production, is the corporation's consumption good, as it were, the ultimate use that the corporation has for property.[148] And when a corporation

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[146] Calabresi & Melamed, *supra* note ___, at 1105.
[147] Calabresi & Melamed, *supra* note ___, at 1105.
[148] There is no necessity in this, and a corporation may be constructed to "consume" assets in the ordinary sense, for example by acquiring and destroying them. Few shareholders would have an

owns raw materials, or factories, or land, its ownership of this corporate-personal property again includes a right to exclude and is vindicated by a property rule, which empowers the corporation to enjoin the taking or, where that is impossible, requires the taker to disgorge her gains, as under a constructive trust.

Rational parties would construct their entitlements to personal property in just this way. Natural persons hold their personal property for investment, although in a human rather than economic sense. They invest their personal property with their personhood, forming attachments to particular things through which they express their personalities and construct the narratives that make sense of their lives.[149] Corporations, for their parts, hold their personal property for economic investment—mixing it with new capital and labor in order to generate profits. It follows that both natural and artificial persons will rationally construct their entitlements in personal property in a manner designed to promote investment efficiency. As we have shown, this requires that the owners have the right to exclude others from their property and therefore that owners' rights in personal property be vindicated by property rules. Calabresi's and Melamed's assumption that most property receives property rule protection turns out to capture our synthesis—simultaneously implementing the remedial logics of vindication and good policy—with respect to personal property, whether held by natural or artificial persons. There is (in contrast to constitutionally circumscribed public powers of eminent domain) generally no private power of efficient conversion of personal property.

So far, our analysis confirms Calabresi's and Melamed's assumption. But their suggestion that property is protected by property rules incorrectly generalizes from personal to what we call "impersonal" property, which is held by its owner to profit from the efforts of others who work on it.[150] And most property, in modern economies, is impersonal. Such impersonal property is embedded in webs of contracts—most notably corporations, that issue stocks and bonds—that are structured so that the owners' entitlements are best vindicated by liability-rule remedies. Our synthesis plays a pivotal role in bringing this more accurate map of the landscape of private ownership into focus.

The core case of impersonal property is an investor's interest in the assets of the corporations she invests in. The investors don't hold legal title to the

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interest in owning shares of such a firm, but this is because of the typical substantive interests of the natural persons who in the end own shares in corporations rather than because of the inner logic of the corporate form.

149 See generally Margaret Radin, Property and Personhood, 34 Stan. L. Rev. 957 (1982).

150 This formulation borrows from SEC v. W.J. Howey Co., 328 U.S. 293 (1946), for reasons that will become plain in a moment.

corporation's property but rather hold contractual rights on that property's output—they are (speaking only a little loosely) the beneficial (although not the legal) owners of the corporation's property. Creditors have a claim on the income stream that the corporation generates from its property, up to the face value of the debt. Shareholders have a claim on the residual income that remains after the creditors have been satisfied. The creditors have no ownership stake in the firm, and even though the shareholders own *the firm*, they do not legally own *the firm's property*. Instead, shareholders are owners on terms that expressly deny them legal authority directly to control the firm's assets or otherwise administer the firm.[151] Their authority is limited to electing directors and, at least *de jure*, to voting on such end game issues as whether the firm as a whole should be sold. The firm's assets are, in our sense, the investors' impersonal property.

Bondholder and shareholder investors thus hold impersonal property through *contract rights*, with the corporation as promisor. The bondholders' and the shareholders' contractual claims take tangible forms: the bond and the stock certificate. But a person who buys a bond or a share of stock does not purchase one of these tangible things: they are pieces of paper. If the corporation breaches the contract associated with a bond by, say, not paying a debt, the promisee bondholder sues for money. And if the corporation breaches the contract associated with a stock—say, by permitting the manager to appropriate an opportunity that is the company's—the promisee shareholder sues to recover for her company, and hence indirectly for herself, the gains that this opportunity would have produced. Finallly, bondholders and shareholders agree to permit the corporation's managers to trade in the corporation's property—reconfiguring it, and even selling it where appropriate—in ways reasonably calculated to maximize the income streams that bonds and stocks reflect. These characterizations may be expressed in more revealing way: the beneficial owners of the assets corporations hold have constructed their entitlements, through their bond and stock contracts, as entitlements to the value of these assets rather than to the tangible assets themselves, and the law vindicates these entitlements by protecting them with liability rules.[152]

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[151] See DEL. CORP. CODE § 141: A corporation is managed by its board of directors.

[152] It is illuminating to contrast a shareholder's remedy against her corporation with a stock buyer's remedy against an agent who breaches a contract to sell shares. The holder of a share of stock in a company owns two things: the right that the company administer its property to maximize profits and the right to vote on important decisions, such as who should be directors. Hence, a buyer of that share purchases both rights. If there is a liquid market in the stock, and the seller fails to tender, the buyer is adequately compensated by giving him the difference between the market price of the share and the contract price; for then, a buyer could purchase company shares elsewhere and acquire the shareholder's rights. But if the market is illiquid or the buyer bought a controlling block, money damages would compensate him only for the lost value. He could not purchase other shares and so

Moreover, most individual investors organize their ownership of impersonal property through further layers of contractual arrangements. The investors who own American companies commonly do not own shares of individual corporations directly, or own bonds directly, but rather own shares in investment funds that themselves own shares of stock or corporate bonds. Often funds own shares of funds that own shares of stocks and bonds, and so on. Fund managers stand, with respect to fund investors, in a relationship analogous to the relationship in which a corporation's directors and managers stand with respect to shareholders: that is, they are charged with maximizing the value of the fund. The fund managers thus in effect insert another layer of liability-rule structure between natural persons and the property—now held by a corporation whose shares are held by a fund—that they beneficially own. To return to our contract typology, individuals make contracts with funds to manage the individuals' financial assets. An individual would not write the goods contract with the fund, because individuals lack the time, and often the expertise, to monitor manager performance. Instead, individuals write the value contract: a manager who is careless or disloyal is liable for the value decline he caused.

The terms that we employ in distinguishing between personal property and impersonal property thus permit us to correct Calabresi and Melamed's error that most property ownership is property-rule-protected. To the contrary, in the United States today property that is deployed for productive purposes is overwhelemingly owned as impersonal property, subject to contracts that give the natural persons who are its beneficial owners entitlements to value rather than entitlements to things. Nearly 85 percent of all non-residential private fixed assets in the US are held on terms that leave them under non-owner management.[153] Moreover, perhaps two-thirds of all equities are held in portfolios that are professionally managed by others than their beneficial owners[154] and are thus again owned by these beneficial owners as

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have the right to participate in the affairs of the company. In these latter cases, the buyer purchased an entitlement to value *and also* an entitlement to a thing: the right to vote. A damages remedy would be inadequate to vindicate this entitlement, and so the vindicating remedy must be an order to transfer the share.

[153] *See* Tbls. 4.1, 5.1, *Fixed Assets*, Bureau of Economic Analysis, https://www.bea.gov/iTable/index_FA.cfm

[154] "The proportion of U.S. public equities managed by institutions has risen steadily over the past six decades, from about 7% or 8% of market capitalization in 1950, to about 67 % in 2010. The shift has come as more American families participate in the capital markets through pooled-investment vehicles, such as mutual funds and exchange traded funds (ETFs). Institutional investor ownership is an even more significant factor in the largest corporations: In 2009, institutional investors owned in the aggregate 73% of the outstanding equity in the 1,000 largest U.S. corporations." Commissioner Luis Aguilar, U.S. Securities and Exchange Commission, Speech, "Institutional Investors: Power and Responsibility, https://www.sec.gov/news/speech/2013-

entitlements to value. Contrariwise, in the United States today, property whose beneficial owners hold entitlements to things is seldom deployed in investment or production but rather is held as personal property, for consumption or, purely passively, for savings. Owner-occupied housing, for example, accounts for nearly a third of household net worth in the United States and for a much greater share of the net worth of households in the bottom 90 percent of the income distribution.[155] Personal property enjoys property-rule protection. But while such property might be emotionally and culturally central to ownership even today, it has become economically marginal. Most productive property is impersonal; and it has been liabilitized.

An unappreciated reason why natural persons prefer to liabilitize their impersonal property sounds not in efficiency but in liberty, and while we have so far emphasized efficiency-based values in evaluating private law entitlements and remedies, we take this case as an opportunity to observe that parties also construct their entitlments with an eye to the liberty-effects of the remedies that will vindicate them.

Our analysis once again goes against the grain of current wisdom. Calabresi and Melamed contended that property rules promote liberty by reducing the occasions on which the state regulates behavior. Liability rules require two exercises of state power: one to allocate entitlements and a second to determine their value. But when the state protects an entitlement with a property rule, it eliminates the second intrusion. The entitlement-holder himself values the entitlement by setting the price for selling it. Calabresi and Melamed thus conclude that property rules best serve liberty by freeing entitlement holders from having the state impose valuations on them.[156] We argue, against this now-conventional wisdom, that liability rules actually are liberty-enhancing relative to property rules.

Calabresi's and Melamed's correct observation that property-rule protection empowers owners to set the price of their entitlements for themselves has an underappreciated flip side. When an entitlement is property-rule protected, its owners put their mouths where their money is. If they sell their entitlement, they value it less highly than the money the buyer offered; and if they do not sell, they thereby express that they value the entitlement more highly than a potential purchaser's best offer. In

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spch041913laahtm#P21_2800 (Data in the speech is quoted from CONFERENCE BOARD, THE 2010 INSTITUTIONAL INVESTMENT REPORT).

[155] *See* Matteo Iacoviello, Housing Wealth and Consumption, (Bd. of Governors of the Federal Reserve System Int'l Finance Discussion Papers, No. 1027, April 2011), https://www.federalreserve.gov/pubs/ifdp/2011/1027/ifdp1027.htm.

[156] Calabreis & Melamed, *supra* note __, at 1092.

this way, owners who construct entitlements so that only property rules vindicate them implicate their personal values in their ownership. To know what a person cares about, you need look no futher than what he owns.

But when an entitlement is constructed so that it is best vindicated with a liability rule, the association between ownership and evaluation dissolves. Liability rule protection for impersonal property deracinates entitlements. This is to say that reconstructing entitlements so that they are vindicated through liability rules transforms the entitlements from entitlements in things, as valued by their owners, into entitlements to value as set by others. Because owners can be expropriated at the resulting prices, their holdings don't constitute or betray their values or commitments, but only the balance of market valuations. This gives owners the liberty to capture value without forming any *personal* evaluative entanglement with the thing they own.[157] Constructing entitlements to be vindicated with liability rules therefore allows owners to hold their entitlements at an evaluative distance—to benefit from an asset or activity but also to construct their personal identities independently of their entitlements' properties.

Familiar examples illustrate how liability rules allow owners to detach from the concrete particularities of the things that they own. The corporate form permits persons to own entitlements to the value of an economic activity without managing—or becoming identified with or enmeshed in—the activity itself. A shareholder can play the role of investor without also having to play the role of owner in its concrete, moral detail or assume social responsibility for the thick cultural meanings of the assets she invest in. A person who owns shares in Monsanto, say, can hold an economic interest in agriculture without becoming a farmer; and a person who owns shares in General Motors can hold an economic interest in cars without becoming a cartwright. Similarly, wage labor constructs a worker's interest in her labor as an entitlement to be paid a share of her marginal contribution to her firm's output. That an employee's entitlement is to a wage rather than to a part of the firm permits the employee to separate her personality from the personality of her employer or her work, so that she she may draw her wage without assuming a thick social role. Perhaps a more familiar way to put this point is that the worker owns her labor but not the job (being an *employee* is the deracinated version of having a trade or profession). That the employee's entitlement is so restricted is costly: the employer may fire her.[158] But it also has an important benefit: the worker can choose whether

[157] Walther Rathenau thought this the most important innovation associated with the corporate form. *See* WALTHER RATHENAU, VON KOMMENDEN DINGEN (1917).

[158] In some states, background law limits at-will employment, giving workers protections against being fired without cause. But even workers protected by a cause-requirement can still be fired in a

to associate herself with the job—be a Google person—or not associate herself with the job—detach herself from the values and social roles Google occupies. The worker's labor may become alienated, but her evaluative life becomes freer.

This freedom has practical and moral limits. For example, an owner cannot avoid moral responsibility for certain pernicious consequences of her ownership. A shareholder in a firm that uses child or slave labor can't launder her profits simply by saying that she didn't control the decisions whose economic returns she now enjoys. But by allowing for ownership of entitlements to value rather than just entitlements to things, modern legal and economic arrangements massively expand practical opportunities for ownership—by eliminating constraints other than an agent's wealth—and substantially reduce the moral responsibilities of ownership—by displacing the thick responsibility associated with managerial control and constitutive social relations with the thin responsibility of cause and effect, means and ends. In this way, the arm's length relation between an owner and her entitlements to value renders the full panoply of economic life accessible to every person.

The exceptions to the deracinated, liability-rule regime that endure even today—including in the remaining professions—produce a contrast that highlights the liability-rule regime's benefits for liberty. When the law requires that entitlements be to things, an agent experiences such an entitlement as a forced association, or a compelled identification, between the agent and the practices that he owns. Once, workers took their identities, even their names, from their entitlements: cartwrights were called *Cartwright*. Even today, restrictions on the corporate form, including through the enduring rules against non-lawyer ownership of law firms, retain something of this quality. They preclude taking a deracinated interested in the value of lawyering and thus construct the lawyer—exceptionally in the present social and economic order—as a thick role. It remains impossible, even today, to capture the economic value of lawyering without becoming a lawyer, with all the evaluative and ethical commitments that this entails. Whatever else might be said in favor of such regimes, they restrict an important kind of freedom.

Finally, liability rule protected liberty is as real, and as morally consequential, as the forms of liberty that liberals champion. The transformation in how ownership entitlements are constructed—as entitlements to value—and protected—with liability rules—has freed people to benefit from economic arrangements that older property regimes—which emphasized entitlements to things, property rules, personhood, and

commercial downturn and, more important still, get only money damages rather than re-instatement for wrongful termination. Even protected workers don't own their jobs, and this allows them to work without having their personalities instantiated in the jobs.

the connection between property and caste—had closed off to them. The ubiquity of wage labor and of the corporate form emphasize that the liberty of liability rules pervades modern life. There is a liberalism in neo-liberalism.

4.4 Tort

We conclude our applications by turning to tort. There is a structural difference between contract and property, on the one hand, and tort, on the other. Viewing this difference through the lens of our account of remedies will illuminate the relationship between private and public law.

There always exists a distribution of entitlements. Tort is conventionally understood—as the etymology of the word *tort* suggests—as the law of wrongs, committed against these incumbent entitlements. Vindicting remedies in tort aspire to preserve the entitlements by correcting injuries against them: the remedies, that is, require the violator to compensate the victim for the injury the violator caused, which would be to restore the status quo ante.[159] This is why corrective justice theories of tort generally support vindicating remedies.[160]

But vindicating remedies in tort also face a complication. Where do the entitlements—against which tort identifies wrongs and measures vindicating remedies—come from? In contract, and even (although to a lesser extent) in property, the private parties who own entitlements can, negotiating with one another, determine the contents of their entitlments—the substance of what vindicating remedies must vindicate. But in tort, this is impossible. As Calabresi famously observed, pedestrians cannot bargain—with drivers or even amongst themselves—regarding how much or how carefully cars should be driven.[161] Entitlements must therefore be determined elsewhere. Several sources for entitlements naturally suggest themselves. Two cause no trouble for tort remedies: the entitlements that tort remedies vindicate might be set by tradition or by legislatures; in both cases, by processes that are independent of the courts whose remedies vindicate them. But a third source of entitlements complicates the remedial picture: the entitlements that tort remedies vindicate might be fixed by the same courts that choose which remedies to award.

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[159] *See generally* ARTHUR RIPSTEIN, PRIVATE WRONGS (2016).
[160] *See generally* ERNEST J. WEINRIB, THE IDEA OF PRIVATE LAW (Rev. ed. 2012).
[161] See Guido Calabresi, "The Decision for Accidents: An Approach to Nonfault Allocation of Costs," 78 HARVARD L. REV. 713, 731 (1965).

Courts that assume this dual role can blur the crisp distinction that we have drawn between vindicating and policy remedies. What courts in tort cases call remedies may, as Jules Coleman and Jody Kraus have argued, be "devices for specifying the *content* or *meaning* of … rights."[162] A tort remedy that might be described, in one way, as declining fully to vindicate a right on policy grounds might also be redescribed, in another way, as influencing the content of the right and then fully vindicating the right, properly re-understood. Coleman's and Kraus's observation thus identifies a new possibility for the relationship between rights and remedies. Remedies might be neither subservient to rights, as on the vindicating view, nor independent of rights, as on the policy view. Instead, remedies and rights might be inextricably intertwined—mutually constitutive of each other, with neither determining or determined by the other.

Tort remedies for personal injury illustrate the mutual constitution of rights and remedies in action. Rights to ordinary personal property are, as we have seen, commonly property-rule protected. And there is nothing as personal to an owner as her own body. But in spite of this, tort law typically doesn't protect bodies with property rules, at least not against negligent invasions. When a negligent driver injures a pedestrian, for example, the victim typically recovers only damages. Moreover, tort law gives entitlements to the body liability-rule protection against negligence all the way through. Courts grant injunctions to prevent irreparable injuries to ordinary personal property, but they will not, in general, enjoin threatened injuries to a person's body. In addition, and again in contrast to irreversible injuries done to property-rule protected rights in things, a tort victim cannot require her negligent injurer to disgorge any gains from his harmful activity.[163] These limitations seem at odds with an entitlement to one's body and with the importance people attach to this entitlement—indeed, the limitations seem impossible to justify, on either vindicating or policy grounds. On the one hand, such stingy remedies—which seem to encourage risk-taking that amounts to efficient conversion of other people's bodies—could not possibly vindicate the entitlement to bodily integrity. On the other hand, it requires substantial contortions, and many contingent claims about facts, to justify this mysterious regime as policy-based, declining to vindicate the victim's entitlement in his body in favor of promoting the common good.

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[162] See Jules Coleman and Jody Kraus, "Rethinking the Theory of Legal Rights," 95 Yale L. J. 1335, 1342 (1986). As Coleman and Kraus say later in their article, "In the economic conception of them, property and liability rules protect rights. We have argued that they do not, that instead they specify the content of rights over the transactional domain." Id. At 1369. A more recent version of the same basic view is Hanoch Dagan, "Remedies, Rights, and Properties", 4 J. of Tort Law 3, 4 (2011) ("one way we understand the meaning and content of a right is by looking at how we protect it.").
[163] For a discussion of the contrast and its historical context, see Mark A. Geistfeld, The Principle of Misalignment: Duty, Damages, and the Nature of Tort Liability, 121 Yale L.J. 142, 161-62 (2011).

The third approach—which understands remedies and rights as mutually constitutive—solves the personal injury mystery. People do have entitlements in their bodies, but these are market-inalenable:[164] a person might give her kidney away; but she cannot contract to sell it. When courts and legislatures structure people's entitlements to their bodies in this way, they create entitlements that run only to their bodies themselves, *to the exclusion of the bodies' (or body parts') market value*. Because people don't own their bodies in a way that supports a right to sell them, personal injuries shouldn't yield remedies—property rule remedies—designed to vindicate or protect their choice whether or not to sell. Tort law's treatment of remedies for personal injury—its refusal to order injunctions or award disgorgement—thus helps to constitute people's entitlements to their bodies as inalienable, as entitlements to the bodies exclusive of their value. An analogous logic governs the money damages that tort law does allow for personal injury: once again, these can't be set by attempting to find the price that the injured body part would have commanded on the market—the selling opportunity lost on account of the injury—because the tort victim never possessed the right to sell in the first place. Instead, money damages for personal injury torts reflect a collective judgment of the value to the plaintiff of what has been destroyed (the sum needed to leave the plaintiff as well off as having her inalienable body uninjured).[165] This pattern realizes Coleman and Kraus's insight: market inalienability isn't a side-constraint that the law imposes externally on property—in the person's own body—that people otherwise own in the usual way. Instead, market inalienability is part of the nature and terms of the entitlement that persons have in their bodies to begin with. Market-inalienability therefore goes much deeper than a statute or doctrine that forbids selling body parts. Instead, the "remedies" that tort law offers for personal injury help to constitute people's entitlements in their bodies in terms of inalienability from the get-go.

In property (to some extent) and especially in contract, where private parties are sovereign over their entitlements, courts should not use constitutive remedies to shape entitlements anymore than they should use policy-based remedies to pursue extraneous ends. That would undermine, in remedial doctrine, prerogatives allocated to parties with respect to rights-creation. But in tort, at least insofar as rights are also creatures of the courts, constitutive remedies step on no toes save for the courts' own.

[164] Calabresi and Melamed also note that some entitlements are inalienable, including in the title of their article: "Property Rules, Liability Rules, and Inalienability …". This is apt but also fits confusingly into their framework, because inaliability concerns limits on how owners may use their rights rather than judicial responses to other people's encroachment on the rights.

[165] The damages might also serve to give defendants efficient incentives to take care to avoid injuring others, but knowing what incentives are efficient depends initially on determining the value that the injuries destroy.

And courts may find it convenient to fix the content of rights with the benefit of hindsight, through what appear (but only appear) to be rulings concerning remedies.

This is how things are with remedies for personal injury torts. When courts use an accident jointly to reconstitute remedies and rights, they fundamentally transform private law adjudication, rendering unintelligible the idea of deciding bilateral disputes between private parties in respect of antecedently determined rights. In its place, the rights-constitutive view of remedies erects a framework, in the case of tort damages for personal injury, that identifies peoples' freedoms to do important actions even though the actions might harm others. At the same time, the framework protects victims from bearing the full cost of their injuries when others exercise their freedoms. Calabresi's famous proposal that negligence law should minimize the sum of the cost of accidents and of accident avoidance is just a special case of this general approach.[166] Accident law's prominent role in the practice and especially the theory of private law remedies is therefore deeply misleading, because accidents, so understood, in fact represent problems for *public* law.

5. Conclusion

The legal world, for over a century, has pursued two inconsistent theories of adjudication: formalist and functionalist.[167] This divide produces two opposing approaches to private law remedies, in both doctrine and theory: the V-account insists that remedies must redress wrongs, so that rights determine remedies; the P-account treats wrongs as occasions on which courts might, reasoning independently, advance good public policy.

We dissolve the dilemma through a synthesis that renders form and function compatible. Our synthesis is possible because of a division of labor that gives private parties the authority to fix entitlements and courts authority over remedies. When courts commit to awarding V-remedies, this enables parties to determine remedies as the parties specify rights. Parties, because they can backwards induct, will adjust their rights with an eye to the remedies that vindicate them, to produce efficient rights-remedies packages. And because parties are better placed than courts to choose these packages, courts will make better policy indirectly, by committing to V-remedies, than they could make directly, using P-remedies. Functionalist courts produce the best outcomes by embracing form, and formalist courts make optimal policy by vindicating rights: V-remedies and P-remedies converge.

[166] *See generally* GUIDO CALABRESI, THE COSTS OF ACCIDENTS (1970).
[167] Formalist: Williston, Langdell, Dworkin (read broadly)? Realist: Cardozo; Corbin

We elaborate this synthesis across the several departments of private law, with arguments that sometimes rationalize existing doctrine and sometimes promote doctrinal reforms. Finally, our synthesis also suggests that not all departments of private law are equally private. In particular, while private parties can fix the metes and bounds of their entitlements in property and especially in contract, they can't practicably do so in tort. And insofar as the entitlements that torts violate are fixed not just by tradition or by legislation but also by courts—the very same courts that award remedies when they are violated—the distinction between rights and remedies breaks down in tort. The breakdown infuses tort with a flavor not of private but of public law.

Finally, our synthesis does not rest on producing doctrinal coherence, valuable as that is. The synthesis also materially improves the efficiency of private law. Today, parties construct entitlements subject to the threat that the remedies that best vindicate them are not the remedies that courts will actually award. The possibility of incurring these "mismatch costs" reduces parties' expected returns from investing in property and trading it and thus dampens economic activity. Our solution to the remedial dilemma therefore yields significant real-world gains. The probability of incurring mismatch costs declines, and the joint gains that parties might realize in specifying their entitlements therefore rises, as the number of courts that vindicate rights increases. We therefore hope to persuade functionalist courts that they will best promote their own values—that they will best make good policy—by joining their formalist colleagues in embracing V-remedies.

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