The Fearon Corollary: Private Property Rights as War

W. C. Bunting
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W.C. BUNTING*

ABSTRACT: This Article models private property rights as a conflict resolution mechanism and shows that for the Coase Theorem to be consistent on its own terms, private property rights must generate the Pareto-optimal allocation of scarce resources among all feasible conflict resolution mechanisms. This conclusion is termed the Fearon Corollary. Equating the imposition of private property rights to conflict/war, the following question is considered: if pre-conflict common ownership is socially-optimal, under what conditions will disputing parties fail to bargain around the conflict? In addition to the explanations identified by Professor Fearon, the present article offers an additional behavioral explanation evidenced in the institution of private property rights itself, and, in particular, in state “Castle Doctrine” laws that permit the use of lethal force in defense of real property. To promote the socially-optimal shared use of contested scarce resources, a role for the courts is suggested where de facto common property rights are established by rendering private property rights random or unclear—judicial behavior that stands in sharp contrast to the commonly understood normative implications of the Coase Theorem. This uncertainty weakens private property rights, reducing the expected spoils of costly conflict, and, in turn, creates an incentive for disputing parties to cooperate in the form of negotiated settlement agreements. In this way, less secure claims to private property promote social cooperation.

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INTRODUCTION

In the property law literature, the State is often conceptualized as awarding ownership of valuable scarce resources to individual members of society, with publicly-financed courts expected to adjudicate conflicts that arise in connection with this grant of private property ownership. Enforcement agencies, such as the local police force, are then presumed to enforce title and court directives against those who seek to unlawfully misappropriate these legally-assigned private property rights. And yet, this viewpoint, in many ways, reverses cause-and-effect to the extent that the exclusive use of scarce resources is a precondition to government formation, not the inevitable byproduct of such formation. ¹ That is, unless individuals privately control the returns from scarce resources (property), there is no private value to be publicly taxed. Property right-holders may form a government to safeguard the benefits derived from the exclusive use of scarce resources, but government cannot be the primordial origin of private property rights. ² At bottom, private property rights are enforced by means of credible threats against would-be infringers. ³ Although government may be preferred for reasons discussed below (e.g., economies of scale with respect to the enforcement technology), logically, government is not a necessary condition for the establishment of private property rights; instead, individuals could resolve property disputes privately, or with resort to physical violence or brute force.

The theory of private property rights set forth in this article is firmly grounded in this notion that “might makes right.” ⁴ In particular, the present article follows a literature that specifically links private property rights to the “right to exclude” and portrays this right as an

¹ See Edwin G. West, Property Rights in the History of Economic Thought: From Locke to J. S. Mill, in PROPERTY RIGHTS: COOPERATION, CONFLICT, AND LAW 20, 24-25 (Terry L. Anderson & Fred S. McChesney eds., 2003); see also ADAM SMITH, THE WEALTH OF NATIONS 291 (1776) (“Till there be property there can be no government, the very end of which is to secure wealth and to defend the rich from the poor.”).

² Of course, having been formed, government may just as readily seek to confiscate the relatively most vulnerable assets. See generally Daron Acemoglu, Simon Johnson & James A. Robinson, Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution, 117 Q.J. ECON. 1231 (2001).


exercise of power and social control,\(^5\) where this coercive pressure is most often applied by the State. Contrary to the vision typically espoused by proponents of a robust system of private property rights, the distribution of private property rights in society is modeled here, not as providing a necessary and important buffer to the dangers of overreaching State power, but, rather, as the final outcome of the coercive use of State power itself, wielded by select individuals who would otherwise impose the same distribution of property rights by brute force in a counterfactual state of anarchy.\(^6\) In other words, in the standard conception, a system of enforced private property rights is believed to serve as a crucial safeguard from broad government oppression and exploitation, where the government itself is generally conceived as acting in ways that work to improperly misappropriate the hard-earned wealth of its citizens in the name of misguided and predictably inefficient programs of redistribution and social justice, conjured up by a small cohort of detached, intellectual elites. The present article flips this story. Individuals use government as a tool, no different than the literal application of brute force or physical violence, to secure the exclusive use of valuable scarce resources.\(^7\) Although the imposition of private property rights is often social welfare-increasing (despite the fact that there are those who lose in the transition from common property to private property ownership), sometimes it is not, and in these instances where common property is socially-optimal, the question considered in this article is how to incentivize parties to share scarce resources if conflict/war benefits one of the disputing parties, where conflict/war in this context means excluding others from deriving a benefit from possession of a scarce resource, be it, directly, through the private use of violence or brute force or, indirectly, by establishing a system of private property rights enforced by means of the public exercise of State power.

The discussion below proceeds as follows: Part I introduces various economic explanations of the evolution of private property rights. A number of simple evolutionary game-theoretic models are discussed, and the article suggests an explanation of how bilateral trade might emerge from a state of anarchy. A brief primer on the Coase Theorem follows.\(^8\) Further, it is explained how a random grant of private ownership, as envisioned under the Coasean

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\(^7\) See, e.g., Miranda v. Arizona, 384 U.S. 436, 539 (1966) (White, J., dissenting) (“The most basic function of any government is to provide for the security of the individual *and of his property,*”) (emphasis added).

\(^8\) See Coase, *infra* note ___. 
framework, can be understood as a conflict resolution mechanism. The point is made that, in positing a system of private property rights as a primitive of the model, the Coase Theorem assumes a particular mechanism of conflict resolution at the outset, where it is explained how a random grant of private property rights is only one of a number of possible resolutions of a more primordial conflict over the possession of scarce resources. In order for the Coase Theorem to be consistent on its own terms then, and, in particular, with respect to the efficiency hypothesis, a random grant of enforceable private property rights must yield the socially-optimal allocation of scarce resources among all feasible conflict resolution mechanisms. To the extent that another conflict mechanism yields a more efficient outcome, the Coasean prediction that, in the absence of transaction costs, private bargaining will result in the optimal allocation of property rights is correct, but only in a qualified sense, namely, conditional upon the assumption that the random assignment of legally-enforceable private property rights is the operative conflict resolution mechanism in society.

Part II sets forth the main theoretical contribution of the present article. Equating the imposition of a system of private property rights to conflict/war insofar as private property reflects a choice not to cooperate and share the benefits of common use, the following question is considered: assuming that pre-conflict, common ownership is socially-optimal, under what conditions will the disputing parties privately bargain around the conflict, dividing the cooperative surplus such that both parties are made better-off compared to the post-conflict, private ownership regime? In other words, assuming that shared use of the resource at issue is socially-preferred to exclusive use, the question is: when will parties in mutual conflict fail to implement the socially-optimal common ownership outcome? This section introduces the Fearon Corollary as the answer to this question, which states that: In the absence of transaction costs, the allocation of private property rights and common property rights is efficient. It is explained how the term, “transaction costs,” has a natural interpretation here insofar as such costs can be readily linked to the three rationalist explanations for war identified by Professor Fearon in a seminal article. Under this interpretation, provided that common ownership is socially-optimal, private ownership can thus be understood as a failure to settle for the efficient bargain. Moreover, in addition to the three rationalist explanations for war identified by Professor Fearon, the present article offers an additional behavioral explanation for why parties

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9 See Fearon, infra note ___.
might choose not to share scarce resources in an efficient manner. In particular, conflict is modeled as the product of a longstanding social norm or “privacy ethic” that leads to a collective overvaluation of private property rights,\(^\text{10}\) and which is evidenced in the institution of private property rights itself, and, specifically, in various defense-of-premises statutes, known as “Castle Doctrine” laws, which, under varying circumstances, permit the use of lethal force in defense of real property.\(^\text{11}\)

Part III presents an argument in favor of settlement. Although private actors remain unlikely to arrive at the cooperative outcome through private bargaining on their own accord under a particular set of circumstances identified below, the claim is that the random or uncertain judicial resolution of property law disputes can provide the requisite nudge, compelling the parties to share the scarce resource at issue in a socially-optimal manner. Notably, this contention that courts should define private property rights, which are uncertain or unclear, stands in sharp contrast to the commonly understood normative implications of the Coase Theorem. This uncertainty serves to weaken private property rights, thus reducing the expected spoils of costly conflict, and, in turn, creates an incentive for the disputing parties to settle the lawsuit, as the payoffs associated with cooperation are now relatively more attractive—and thus, in this way, \textit{less secure claims to private property promote social cooperation.}

\section{The Evolution of Private Property Rights}

Formal economic theory typically assumes a pre-existing system of legally-enforceable private property rights. Property rights are not static, however, but, rather, evolve dynamically over time. This section explores various economic explanations of the evolution of private property rights.

\subsection{Symmetric Models}

This subsection provides a brief survey of economic models that are \textit{symmetric}, meaning that the payoffs of choosing a given strategy depend only upon the other strategies employed, and not upon the identity of the players choosing these strategies.\(^\text{12}\)

\begin{itemize}
  \item \textit{See} Hirshleifer, \textit{infra} note \underline{___}.\(^\text{10}\)
  \item \textit{See} Green, \textit{infra} note \underline{___}.\(^\text{11}\)
  \item \textit{See} Martin J. Osborne & Ariel Rubinstein, \textit{A Course in Game Theory} 20 (1994).\(^\text{12}\)
\end{itemize}
1. **The Demsetz Thesis**

In a seminal article entitled, “Toward a Theory of Property Rights,” Professor Demsetz sets forth the following thesis: “the emergence of new property rights takes place in response to… new benefit-cost possibilities” as resource values change, where Demsetz broadly described the benefits of creating new types of property in terms of the internalization of externalities. In particular, as Professor Merrill notes, Demsetz makes three basic claims regarding the benefits of private property in this article, each in the language of externalities. First, Demsetz contends that private property concentrates the risks and rewards of individual asset-specific investment, increasing the incentive to exert effort in order to maximize private returns, and ensures a proper correspondence between investment and returns. Second, Demsetz argues that private property reduces, or eliminates altogether, rent dissipation associated with open-access regimes; specifically, because no one owns the products of a resource until captured in an open-access regime, individuals prematurely consume the resource or engage in a highly-unproductive and socially-wasteful race to capture the resource before others do—a phenomenon later termed the “tragedy of the commons.” By allocating resources to individual owners, private property overcomes rent dissipation by allowing private property right-holders to determine the optimal timing and degree of consumption. Third, Demsetz shows that private property rights reduce the high transaction costs incurred when communal owners seek to devise rules to reduce the externalities of their own mutual overuse.

2. **Private Property Rights as the Product of Unintended Consequences**

Although Demsetz’s article is typically viewed as the point of departure for understanding the evolution of private property rights, this article, as a number of scholars have noted, in fact, articulates very little concerning the formal process by which private property

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13 See Harold Demsetz, Toward A Theory of Property Rights, 57 AM. ECON. REV. PAPERS. & PROC. 347, 350 (1967); see also Terry L. Anderson & Peter J. Hill, The Evolution of Property Rights: A Study of the American West, 18 J.L. & ECON. 163 (1975) (providing empirical support for the “Demsetzian” proposition that private property rights are established if the benefits of establishing such rights exceed the costs).


15 See id.


17 See Garrett Hardin, The Tragedy of the Commons, 162 SCI. 1243 (1968).

18 See Merrill, supra note 13, at 331.

19 See id. (noting that Demsetz’s argument built upon the earlier work of Ronald Coase).
rights originate or evolve over time. The literature has responded to this perceived gap in the Demsetz thesis with, at least, two distinct types of evolutionary accounts of the emergence of private property rights: (1) private property is “designed” and obtains as the product of “intentional undertakings”; and (2) private property arises “spontaneously” and is an “unintended consequence” of individual strategic actions. The latter approach seeks to present an invisible-hand type explanation of the emergence of private property rights, and, in particular, posits a rule of “deference to possession” as the product of biological evolution. The argument, as typically credited to biologist, John Maynard Smith, can be described, in simplified form, as follows: 

Suppose that there are two identical parties, each of whom places a value, \( V > 0 \), on possession of a scarce resource. Assume that the set of feasible action choices for both parties is as follows: (1) share the scarce resource, or (2) incur a cost of conflict, \( c > 0 \), to exclude the other party from acquiring possession of the resource. In the formal literature, the first strategy is typically referred to as “Hawk” and the second strategy as “Dove.” If both parties choose Dove, then the parties are assumed to split the payoff, \( V \), equally. On the other hand, if both

\[ \begin{align*}
V &< c \\
V &> c
\end{align*} \]

For the former case: \( V < c \), there would be little incentive to encroach, and thus it would be relatively easy to exclude, other things equal.


See Barry C. Field, The Evolution of Property Rights, 42 KYKLOS 319, 328 (1989) (“If the resource has no value, there would be little incentive to encroach, and thus it would be relatively easy to exclude, other things equal.”).

The Hawk-Dove game is an example of an anti-coordination game in which it is mutually beneficial for the players to play different strategies; i.e., playing different strategies Pareto-dominates playing the same strategies. See Richard H. McAdams, Beyond the Prisoner’s Dilemma: Coordination, Game Theory and the Law, 82 S. CAL. L. REV. 209, 230-36 (2009) (underscoring the importance of coordination/anti-coordination games in modeling the law); see also Robert B. Ahdieh, Beyond Individualism in Law and Economics, 91 B.U. L. REV. 43, 62-65 (2011) (noting how conflict enters into coordination games).

If the payoff is, instead, zero, then the game corresponds to a War of Attrition game, which is typically employed to model a contest decided by display duration. See, e.g., John Maynard Smith, Theory of Games and the Evolution of Animal Conflicts, 47 J. THEORETICAL BIOLOGY 209 (1974).
parties choose Hawk, then each party has an equal probability of success in the ensuing conflict for the scarce resource.

The payoff structure of this conflict game can be represented as follows:

**Table 1: Symmetric Hawk-Dove Game**

<table>
<thead>
<tr>
<th></th>
<th>Hawk</th>
<th>Dove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawk</td>
<td>$(\frac{V-c}{2})$, $(\frac{V-c}{2})$</td>
<td>$V$, 0</td>
</tr>
<tr>
<td>Dove</td>
<td>0, $V$</td>
<td>$\frac{V}{2}$, $\frac{V}{2}$</td>
</tr>
</tbody>
</table>

Assume that $0 < V < c$. There are three Nash equilibria in this standard Hawk-Dove game. The two pure strategy Nash equilibria are: (Dove, Hawk) and (Hawk, Dove). There is also one mixed strategy Nash equilibrium. Although three Nash equilibria exist in this game, the one that emerges as the evolutionarily stable strategy (ESS) depends upon the existence of any correlated asymmetry in the game. If no such uncorrelated asymmetry exists, then both players must choose the same strategy, and the ESS will be the mixed strategy Nash equilibrium. If there is an uncorrelated asymmetry, however, then the mixed Nash strategy is not an ESS. The standard biological interpretation of this uncorrelated asymmetry is that one player is the “possessor” of the resource, while the other is an “intruder;” specifically, Maynard Smith demonstrated that what might evolve is a hybrid Bourgeois strategy: “if possessor, then play Hawk; if intruder, then play Dove.”

Provided that the asymmetry between possessor and intruder “is unambiguously perceived by both contestants,” a rule of “deference to possessors” can develop and persists simply as the consequence of purely self-interested individual action choices. In this sense, the evolution of strategies in the Hawk-Dove game can be understood as the evolution of a type of prototypical version of private property ownership.

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29 Note that if $c \leq V$, then the game corresponds to the standard Prisoner’s Dilemma.
30 See Maynard Smith, *supra* note ____, at 10 (defining an “evolutionary stable strategy” as “a strategy such that, if all members of a population adopt it, then no mutant strategy could invade the population under the influence of natural selection”).
31 See id. at 22; see also John Maynard Smith & Geoffrey R. Parker, *The Logic of Asymmetric Contests*, 24 ANIMAL BEHAV. 159 (1976).
32 See id. at 23; see also Jack Hirshleifer, *Privacy: Its Origin, Function, and Future*, 9 J. LEGAL STUD. 649, 657-58 (1980) (depicting the emergence of private property rights as the result of a “privacy ethic,” defined as an evolutionarily “hard-wired” defensive belligerence into proprietors together with the complimentary traits of reluctance to intrude and willingness to retreat on the part of potential challengers”).
Observe that the opposite anti-property rights equilibrium outcome, where the possessor plays the strategy Dove and the intruder plays the strategy Hawk, is equally stable, however.\(^3\) Thus, in order to provide a coherent explanation for the prevalence of “property rights,” as opposed to “anti-property rights” (i.e., the intruder, rather than the possessor, assumes possession of the scarce resource), the foregoing theoretical model must be modified somehow to break this symmetry in possible equilibrium outcomes.\(^4\)

B. **Asymmetric Models**

One way in which to break the symmetry identified above is to introduce heterogeneity with respect to the primitives of the model. In particular, suppose that the two players, \(S\) and \(W\), derive a benefit \(V\) and \(v\), respectively, from possession of the scarce resource, such that \(0 < v < V\). Similarly, assume that the cost of conflict for \(S\) and \(W\) is denoted by \(c\) and \(C\), respectively, such that \(0 < c < C\). Conflict is, therefore, more costly to \(W\) relative to \(S\) (where, correspondingly, \(S\) denotes the strong contestant and \(W\) denotes the weak contestant).\(^5\)

1. **Private Property Rights as the Product of Intentional Design**

Suppose that the structure of the asymmetric conflict game can be represented as follows:

**Table 2: Asymmetric Hawk-Dove Game**

<table>
<thead>
<tr>
<th></th>
<th>Hawk</th>
<th>Dove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawk</td>
<td>(\left(\frac{v-c}{2}\right)), (\left(\frac{v-C}{2}\right))</td>
<td>(v, 0)</td>
</tr>
<tr>
<td>Dove</td>
<td>0, (V)</td>
<td>(\frac{v}{2}, \frac{V}{2})</td>
</tr>
</tbody>
</table>

Assume that \(v > c\) and \(V < C\). It is straightforward to show that there exists one pure strategy Nash equilibrium in this game: (Hawk, Dove). Dove is a strictly-dominated strategy for the strong contestant, and Hawk is a strictly-dominated strategy for the weak contestant. Under this asymmetric model, the party with a comparative advantage in conflict acquires possession of the

\(^3\) See, e.g., Herbert Gintis, *The Evolution of Private Property*, 64 J. ECON. BEHAV. & ORG. 1, 3 (2007).

\(^4\) See id. at 3-4; see also Mike Mesterton-Gibbons, *Ecotypic Variation in the Asymmetric Hawk-Dove Game: When is Bourgeois an ESS?* 6 EVOLUTIONARY ECOLOGY 1151 (1992) (recognizing that the symmetry between private property and anti-private property is a serious weakness of the model).

\(^5\) A more general model of the evolution of private property would not take the cost of conflict and the value of ownership as fixed and exogenously-determined. See Gintis, *supra* note ____, at xx; see also Alan Grafen, *The Logic of Divisively Asymmetric Contests: Respect for Ownership and the Desperado Effect*, 35 ANIMAL BEHAV. 462 (1987) (noting that the costs and benefits of possession depend upon the state of the population, the density of high-quality territories, the cost of search, and other variables that may depend upon the distribution of strategies in the population).
scarce resource.\textsuperscript{36} In this way, the distribution of private property rights, as between the two players in the game, is determined as the product of underlying coercive power dynamics.\textsuperscript{37} That is, the strong contestant acquires the private property right by virtue of an asymmetry in fighting expertise. Interestingly, observe that if the inequality, $V > v$, holds true, then the equilibrium allocation of private property rights, while evolutionarily stable, is, nonetheless, inefficient (i.e., the strong contestant is not the highest-valued user of the resource). This is not surprising, however. There is no reason to believe that expertise in conflict should be positively correlated with the intrinsic valuation of the scarce resource.

One of the limitations of the unintended-consequence approach discussed above is that, in relying upon asymmetries in conflict expertise or intrinsic valuations of property ownership, this approach cannot satisfactorily account for anything beyond very simple property rules (e.g., the right to exclude, use, and transfer).\textsuperscript{38} Contemporary common law systems of private property rights, however, are highly complex, with multiple types of possessory estates, future interests, servitudes, restrictions upon alienability, and so forth. Complicated systems of this kind are best described as the product of intentional design. In other words, while it is not true, as Hume asserted, that animals (humans aside) “are incapable of... property,”\textsuperscript{39} it is true that animals are incapable of producing anything closely resembling current systems of modern private property rights. At some point, the human condition changed such that the evolution of private property rights became, in many ways, largely a matter of intentional design, and not unintended evolution.\textsuperscript{40} Critical in this shift was the formation of centralized government, and, in particular,


\textsuperscript{37} See Umbeck, \textit{Might Makes Rights}, supra note 4, at 40 (contending that while force, or even the threat of force, might not be the actual rationing system used by individuals in society, potential force is, nonetheless, “the relevant constraint underlying any initial agreements (and subsequent agreements)” regarding the allocation of private property rights). In other words, force is “relevant in the sense that the agreement... must ration to each individual at least as much wealth as he could have through the use of his own force.” \textit{Id}.

\textsuperscript{38} See Krier, \textit{supra} note \_, at 159.


\textsuperscript{40} See Krier, \textit{supra} note \_, at 159.
a formal system of government-enforced private property rights in which such rights are established and upheld by means of public rather than private enforcement actions.\textsuperscript{41}

Although a full account is beyond the scope of the present article, the preceding model suggests one possible explanation for the shift from a state of anarchy to more structured forms of social organization. Recall that, in the asymmetric Hawk-Dove game above, the strong contestant receives a payoff equal to $v$. The strong contestant could improve upon this equilibrium outcome if bilateral trade with the weak contestant was possible.\textsuperscript{42} Specifically, the strong contestant could transfer the private property right to the weak contestant in exchange for a payment, $P$, such that $v < P < V$. The weak contestant will agree to such a trade, however, only if there exist proper assurance that the strong contestant will not afterwards reacquire the property right by violence or brute force, keeping the payment, $P$, in the process. A system of government-enforced private property rights provides this assurance. Succinctly put, the strong contestant will be willing to forego a state of anarchy, wherein this party has a natural advantage, and establish a stable government, credibly committed to the protection of private property rights (on behalf of weak contestants), if the gains from trade exceed the benefits of having a monopoly on violence.\textsuperscript{43}

To amplify, let the cost of government be denoted by $G > 0$, where such costs may include the cost of creating a government, the cost of publicly enforcing rules and regulations, the cost of public good provision, and so forth.\textsuperscript{44} Under our simple model of private property rights, a government, along with a formal system of private property rights, will emerge, as the product of intentional design, if the following inequality holds true:\textsuperscript{45}

\[ G < V - v \]

\textsuperscript{41} Note that enforcement costs are still incurred under a system of private property rights. See, e.g., Terry L. Anderson & Fred S. McChesney, \textit{Raid or Trade? An Economic Model of Indian-White Relations}, 37 J.L. & ECON. 39 (1994) (contending that conflict costs cannot be avoided when valuable scarce resources are to be reallocated—the best that can be expected is for such costs to be minimized).

\textsuperscript{42} Cf. ROBERT SUGDEN, \textit{THE ECONOMICS OF RIGHTS, COOPERATION, AND WELFARE} 89-91 (1986) (contending that, on average, those who have exerted effort to possess the resource will value the resource more than those who do not possess it, and, as a result, possessors have more at stake and are, therefore, more likely to play Hawk, resulting in the property convention).


\textsuperscript{44} See Peter T. Leeson, \textit{Efficient Anarchy}, 130 PUB. CHOICE 41, 43-46 (2006) (contending that where markets are sufficiently thin or where government is prohibitively costly, anarchy is the efficient mode of social organization).

\textsuperscript{45} Cf. \textit{id}.
Here, the emergence of more complicated forms of private property depends upon the size of $G$ and the gains from bilateral trade (i.e., $V - v$), where the size of these gains, in turn, is a function of the difference (or lack of correlation) between fighting expertise and intrinsic valuation.\footnote{46} Note that this simple model of the evolution of private property rights thus employs a social contract-type theory of government in which agents (e.g., strong contestants in our model) choose to establish a government, because this results in a relatively more efficient and socially-optimal equilibrium outcome as compared to a state of anarchy, where the key inefficiency identified in our simple model derives from the fact that conflict is inferior to free-market exchange in terms of allocating private property rights according to highest-valued use.\footnote{47}

2. Transfer Principles

Given a system of government-enforced private property rights, the private property right can be transferred from the strong contestant, who has a comparative advantage in fighting, to the weak contestant, who is assumed to be the highest-valued user of the scarce resource at issue, in a variety of different ways. This section briefly examines a few examples.

a. Centralized Intervention

Recall the dilemma faced by King Solomon.\footnote{48} As the familiar story goes, two women appear before King Solomon with a baby boy, both claiming to be the boy’s true mother.\footnote{49} King Salomon, who does not know the identity of the true mother, wishes to give the child to the true mother, but at no additional cost to her. To resolve this dilemma, King Solomon calls for a sword and decrees that the child will be cut in two, with each woman receiving exactly one half, in response to which the “true-mother” shrieks in horror and insists that the child, rather than meet such a cruel fate, be given to the “impostor-mother.”\footnote{50} Ignoring her plea, King Solomon

\footnotesize
\begin{itemize}
  \item 46 Note that part of the gains from trade includes a reduced incentive for parties to engage in a premature racing for property rights. See, e.g., David D. Haddock, \textit{First Possession versus Optimal Timing: Limiting the Dissipation of Economic Value}, 64 WASH. U. L.Q. 775, 777 (1986); see generally Terry L. Anderson & Peter J. Hill, \textit{The Race for Property Rights}, 33 J.L. & ECON. 177 (1990).
  \item 47 See \textit{DOUGLAS C. NORTH, STRUCTURE AND CHANGE IN ECONOMIC HISTORY} 24 (1981) (“Throughout history, individuals given a choice between a state—no matter how exploitative it might be—and anarchy have decided for the former.”); see also \textit{JAMES M. BUCHANAN, THE LIMITS OF LIBERTY: BETWEEN ANARCHY AND LEVIATHAN} (1975) (arguing that individuals recognize that by introducing the State they can move from a situation of conflict (or lesser cooperation) to one of greater cooperation).
  \item 48 See 1 Kings 3:16-28 (Revised Standard Version).
  \item 49 See \textit{id.}
  \item 50 See \textit{id.}
\end{itemize}
resolves the conflict by awarding custody of the child to the distraught mother on the theory that only the child’s true mother would have responded in this dramatic fashion.\textsuperscript{51}

The brilliance of the Solomonic solution to this conflict over custody of the child is that the threat to kill the child is a bluff—King Solomon never, in fact, intended to slay the baby boy.\textsuperscript{52} Yet, this aspect of the solution also implies that the tactic is useless if the disputing parties both correctly anticipate this conflict resolution mechanism in advance and, in effect, call Solomon’s bluff by both responding as did the true-mother in the original parable.\textsuperscript{53} Fortunately, there are other mechanisms that do provide the correct incentives for both parties to reveal or report their true type/intrinsic valuation.\textsuperscript{54} The disputing parties, for instance, could be \textit{required} to participate in a Vickrey or second-price auction,\textsuperscript{55} where Vickrey showed that each party, if compelled to participate in such an auction, can do no better than to bid their true intrinsic valuations, irrespective of what each believes the other auction participants will bid.\textsuperscript{56} Hence, by

\textsuperscript{51} See id.

\textsuperscript{52} But see Ann Althouse, \textit{Beyond King Solomon’s Harlots: Women in Evidence} 65 S. CAL. L. REV. 1265, 1271-72 (1992) (citing J.P. DUNN, \textit{MASSACRES OF THE MOUNTAINS, A HISTORY OF THE INDIAN WARS OF THE FAR WEST, 1815-1875} 319 (1886) (describing how if two men were locked in a dispute over possession of a captive woman (or a horse), the standard Apache method of conflict resolution was to shoot the woman (or the horse), where the threat of murder was not a bluff, but, rather, was thought to provide a strong incentive for disputants to quickly resolve the conflict over the woman (or the horse))); see also JOSEPH HELLER, \textit{GOD KNOWS} 12 (1984) (“I’ll let you in on a secret about my son Solomon: he was dead serious when he proposed cutting the baby in half, that putz. I swear to God. The dumb son of a bitch was trying to be fair, not shrewd.”).

\textsuperscript{53} Formally, the Solomonic conflict resolution mechanism is not truthfully-implementable. See infra note 99; but see also Ian Ayres & Eric Talley, \textit{Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade}, 104 YALE L.J. 1027 (1995) (showing that when two parties have private information about how much they value an entitlement, endowing each party with a partial claim to the entitlement can reduce the incentive to behave strategically during bargaining, thereby enhancing economic efficiency).

\textsuperscript{54} The intrinsic valuation of the true-mother is assumed to exceed the intrinsic valuation of the imposter-mother.

\textsuperscript{55} A Vickrey or second-price auction is a type of sealed-bid auction in which bidders submit written bids without knowing the bids of the other participants in the auction, and in which the highest bidder wins, but the price paid is equal to only the second-highest bid. See \textit{Vijay Krishna}, \textit{Auction Theory} 15 (2002).

\textsuperscript{56} See generally William Vickrey, \textit{Counterspeculation, Auctions, and Competitive Sealed Tenders}, 16 J. FIN. 8 (1961) (showing that dominant strategy in second-price sealed bid auction is to truthfully reveal one’s willingness to pay). This efficiency result, however, is subject to the same individual binding budget constraint problem identified above. To avoid this problem, an allocation rule is needed to screen the lower-valued user by having the disputants play a game designed to be unprofitable only for the lower-valued user. The lower-valued will then refuse to participate in this game; the game is never actually played; and the conflict is, therefore, resolved, with no monetary payment having ever been made. See, e.g., Cheng-Zhong Qin & Chun-Lei Yang, \textit{Make a Guess: A Robust Mechanism for King Solomon’s Dilemma}, 39 ECON. THEORY 259 (2009) (introducing endogenous fees for participating in second-price auction and showing that such fees maintain the agents’ incentives for truth-revelation and guarantee participation by highest-valued user); see also Jacob Glazer & Ching-To Albert Ma, \textit{Efficient Allocation of a “Prize”—King Solomon’s Dilemma}, 1 GAMES & ECON. BEHAV. 222 (1989); John Moore, \textit{Implementation in Environments with Complete Information}, in \textit{Advances in Economic Theory: Sixth World Congress} 182 (Jean-Jacques Laffont ed., 1992); Wojciech Olszewski, \textit{A Simple and General Solution to King Solomon’s Dilemma}, 42 GAMES & ECON. BEHAV. 315 (2003); Motty Perry & Phillip J. Reny, \textit{A General Solution to King Solomon’s Dilemma}, 26 GAMES & ECON. BEHAV. 279 (1999).
forcing the disputing parties to participate in a Vickrey auction, the highest-valued user of the scarce resource will submit the highest bid, winning the auction, and will be awarded the property right, paying a price equal to the next-highest bid submitted.\textsuperscript{57} To successfully implement this Vickrey or second-price auction, however, requires centralized intervention.

b. A Decentralization Result: The Coasean Framework

By contrast, proponents of the Coasean framework argue that intervention by a centralized authority, such as required in the Vickery auction, is unnecessary and should be minimized, and that conflicts over the possession of scarce resources, can be resolved by means of a simple random grant of private ownership, with the efficient allocation thus obtaining through mutually-beneficial private exchange, assuming transaction costs are sufficiently low.\textsuperscript{58} This connection between transaction costs and private property rights is summarized in the celebrated Coase Theorem, which can be stated as follows:

**Coase Theorem:** If private property rights are well-defined under zero transaction costs, then the allocation of scarce resources is efficient, and is invariant with respect to the random assignment of private property rights, income effects notwithstanding.\textsuperscript{59}

Observe that the Coase Theorem, as stated here, encompasses two general propositions. The first proposition—the efficiency hypothesis—corresponds to the claim that the final allocation of scarce resources resulting from private bargaining among well-informed private individuals will be efficient, regardless of the initial assignment of private property rights.\textsuperscript{60} The second

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\textsuperscript{57} See id.

\textsuperscript{58} The Coase Theorem is often characterized as a “decentralization result” in support of well-defined private property rights and private bargaining in favor of centralized authority. See Farrell, supra note ____, at 115-117, 122-125 (showing that the “first-best” decentralization result holds true only in the special, and rather uninteresting, case where there is no private information and that the “second-best” result, where property rights are more efficient than some reasonable alternative, depends on the parameters of the model (i.e., “depending on the parameters, the outcome of negotiation may be more or less efficient on average than the bumbling bureaucrat”), and concluding that private bargaining is more sensibly viewed as a “supplement” to, rather than a “substitute” for, other formal institutions).

\textsuperscript{59} See Richard O. Zerbe, The Problem of Social Cost in Retrospect, 2 Res. L. & Econ. 83 (1980); see also Ronald H. Coase, The Problem of Social Cost, 3 J. Law & Econ. 1 (1960). One of the well-known aspects of Coase’s article is that Coase himself never actually states a theorem. In fact, Professor Coase credits George Stigler with coining the term “Coase Theorem” and for first formulating it precisely. See George Stigler, The Theory of Price 113 (3d ed. 1966) (“[U]nder perfect competition private and social costs will be equal.”).

\textsuperscript{60} The zero transaction cost condition is understood to imply that there are no impediments to bargaining. Because any inefficient allocation leaves unexploited contractual opportunities, the allocation cannot be a contractual equilibrium. This is a tautology and has been referred to as the Weak Form of the Coase Theorem, with the Strong Form encompassing both the efficiency and invariance hypotheses. See, e.g., Michael Brooks, Toward a Clarification of the Block-Demsetz Debate on Psychic Income and Externalities, 10 Q. J. Austrian Econ. 223, 224-227 (2007), available at http://mises.org/journals/qjae/pdf/qjae10_3_3.pdf; see also Pierre Schlag, The Problem of Transaction Costs, 62 S. Cal. L. Rev. 1661, 1675 (1989) (“[A]n overly expansive view of transaction costs
proposition—the *invariance hypothesis*—corresponds to the claim that the final allocation of scarce resources will be invariant across alternative initial assignments of the private property rights, assuming that the change in the wealth distribution, deriving from changes in legal liability that impact demand and prices, is relatively small.\(^{61}\) Thus, in a world of zero transaction costs, a court, for example, can play no meaningful role in determining how scarce resources are, ultimately, distributed throughout the society—the final equilibrium allocation of resources is invariant across any random assignment of private property rights.

To understand how the *random* grant of private ownership, as envisioned under the Coasean framework, can be additionally understood as a conflict resolution mechanism, consider the following hypothetical. Suppose that, by the flip of a coin, exclusive use of a scarce resource is awarded to the lower-valued user of the resource (e.g., the “imposter-mother” in King Solomon’s dilemma). Because, by assumption, the higher-valued user values the resource more than does the lower-valued user, the higher-valued user can offer the lower-valued user some amount of money to make trade worthwhile, with the higher-valued user, in equilibrium, thus acquiring possession of the scarce resource.\(^{62}\) On the other hand, in the event that the coin flip favors the higher-valued user, there is no amount of money that will be offered by the lower-valued user to make trade worthwhile, and thus, the higher-valued user, again, in equilibrium, acquires possession of the scarce resource. Hence, under either *random* initial allocation of the private property right, the higher-valued user obtains possession of the scarce resource, and the conflict between the two parties is, therefore, resolved in an efficient manner.\(^{63}\)

And yet, in what sense can a court truly settle or resolve conflict with respect to the use of scarce resources by “randomly” awarding private property rights? As will be important later in Part III, it is important to recognize now that a system of property rights premised upon a random transfer principle, albeit admittedly absurd, is, in the limit, equivalent to a common property rights regime, where the purely random enforcement of a legal right is, in a sense,

\[^{61}\text{See, e.g., Herbert J. Hovenkamp, *Marginal Utility and the Coase Theorem*, 75 CORNELL L. REV. 783, 789-806 (1990) (pointing out that invariance will not hold if there is a divergence between the amount a party is “willing to pay” (WTP) to acquire an entitlement and the amount he is “willing to accept” (WTA) to give up the same entitlement—perhaps, arising out of endowment-type effects discussed in prospect theory).}\]

\[^{62}\text{This discussion assumes that neither party is subject to a binding budget constraint.}\]

\[^{63}\text{This result corresponds to the invariance hypothesis. See supra note __, and accompanying text.}\]
equivalent to no enforcement (assuming that the cost of filing a lawsuit is sufficiently low). That is, if a transfer of a property rights is valid if and only if the transferee wins a “court-administered” coin flip, then private property rights are effectively not enforced under such a legal regime. If private property rights are to have any kind of real meaning or substance, the random allocation of the property right must, therefore, apply only in the narrower, more restricted context of an initial allocation of a private property right. In other words, the conflict purportedly resolved under the Coasean framework through a random grant of private property ownership is a more primordial one in which parties are in conflict with respect to the possession of a scarce resource to which all individuals in society are, in theory, otherwise entitled. Once the private property right is properly established, however, the court must uphold transfers of the private property right predictably, and in accordance with operative property law principles.

In positing the existence of a system of private property rights as a primitive of the model, the Coase Theorem thus assumes a particular mechanism of conflict resolution at the outset (i.e., a random grant of private ownership). Because a random grant of private property rights is only one of a number of possible resolutions of this more primordial conflict over the possession of scarce resources, however, in order for the Coase Theorem to be consistent on its own terms, and, in particular, with respect to the efficiency hypothesis, a random grant of enforceable private property rights must yield the socially-optimal allocation of scarce resources among all feasible conflict resolution mechanisms. In other words, the final Coasean allocation is first-best in terms of efficiency only if a random grant of private ownership represents the first-best conflict resolution mechanism, where different conflict resolution mechanisms may yield different final allocations of the property right, some of which may improve upon the equilibrium “private property outcome” in terms of efficiency, even if transaction costs, as defined under the Coasean framework, are zero. In fact, to the extent that another conflict mechanism yields a more efficient outcome, the Coasean prediction that, in the absence of transaction costs, private bargaining will result in the optimal allocation of scarce resources is not correct, or, alternatively, is correct, but only in a qualified sense, namely, conditional upon the assumption that the random assignment of legally-enforceable private property rights is the

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64 For more detailed discussion of valid transfer principles, see generally William C. Bunting, A Transfer Principle Account of Private Property Rights (Jan. 20, 2014) (unpublished manuscript).
operative conflict resolution mechanism in society with respect to disputes over the possession of scarce resources.

II. **THE FEARON COROLLARY**

A random grant of private property rights is not the only means by which to resolve conflict over the possession of scarce resources. The government, for example, could increase any pre-existing asymmetry in conflict expertise (e.g., by supplying the relatively stronger contestant with small arms, mortars, missiles, and other weapons systems) such that there is no longer an incentive for a weaker contestant to fight, thereby removing the aboriginal source of conflict.  

Likewise, as in the case of two squabbling young children who cannot share a new toy, the government could deny both parties possession of the scarce resource at the heart of the conflict. The conflict resolution mechanism considered here is a system of common or shared property rights (i.e., “forced” cooperation).

A. **The Fearon Corollary Explained**

To start, note that the models set forth in this section apply both to limited-access commons and open-access commons, and thus, for expositional clarity, the terms, common ownership or shared ownership, will be used interchangeably to describe both types of “common” ownership.  

1. **Shared Ownership**

This subsection sets forth two models of shared ownership: (1) the stag-hunt game, and (2) the Fearon game.

a. **The Stag-Hunt Game**

The structure of the shared ownership game can be represented as follows:

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68 “Hare” corresponds to the “Hawk” strategy described above and “Stag” corresponds to the “Dove” strategy.
Unlike in Part I.A, suppose that $0 < c < V$. Under this assumption, Table 4 is an example of the well-known Stag-Hunt game.\footnote{This is an example of a coordination game. \textit{Cf. infra} note ____ and accompanying text. Other names include the “assurance game” and “trust dilemma.”} There are three Nash equilibria in this game. The two pure strategy Nash equilibria are: (Stag, Stag) and (Hare, Hare). The first Nash equilibrium, (Stag, Stag), is payoff-dominant; the second Nash equilibrium, (Hare, Hare), is risk-dominant.\footnote{Formally, a strategy pair (H, H) “payoff-dominates” (G, G) if $A \geq D$, $a \geq d$, and at least one of the two is a strict inequality: $A > D$ or $a > d$. Likewise, a strategy pair (G, G) “risk-dominates” (H, H) if the product of the deviation losses is highest for (G, G); i.e., if the following inequality holds: $(C - D)(c - d) \geq (B - A)(b - a)$. \textit{See} \textsc{John C. Harsanyi} & \textsc{Reinhard Selten}: \textsc{A General Theory of Equilibrium Selection in Games} ### (1988).} There is also one mixed strategy Nash equilibrium.\footnote{This equilibrium depends upon the payoffs, but the risk dominance condition places a bound on the mixed strategy Nash equilibrium; specifically, no payoffs (that satisfy certain conditions including risk dominance) can generate a mixed strategy equilibrium in which Stag is played with probability greater than one-half.}

The Nash equilibrium of interest here is: (Stag, Stag). This equilibrium can be interpreted as corresponding to a common property rights regime in which both contestants choose to \textit{share} possession of the scarce resource.\footnote{Note that under this model of cooperation, sharing is more likely to occur if the cost of conflict increases; indeed, if the equality, $V = c$, holds true, then cooperation is a strictly dominant strategy for both contestants.} It is important to note that, under the foregoing Stag-Hunt formulation, a system of common property rights emerges, because cooperation corresponds to a Pareto-optimal, payoff-dominated Nash equilibrium. In other words, the parties agree to share possession of the scarce resource, because \textit{both} parties are made better-off in choosing to cooperate (i.e., the cooperative arrangement represents a Pareto-improvement upon otherwise non-cooperative arrangements).

\textbf{b. The Fearon Game}

The focus of the present analysis, however, is not upon cases where common ownership represents a Pareto-improvement over private ownership. Rather, the focus of the present analysis is upon payoff structures, such as set forth in Table 4 below, in which common

\begin{table}[h]
\centering
\caption{The Symmetric Stag-Hunt Game}
\begin{tabular}{|c|c|c|}
\hline
& \textit{Hare} & \textit{Stag} \\
\hline
\textit{Hare} & $(\frac{V-c}{2})$, $(\frac{V-c}{2})$ & $V$, 0 \\
\hline
\textit{Stag} & 0, $V$ & $2V$, $2V$ \\
\hline
\end{tabular}
\end{table}

This is an example of a coordination game. \textit{Cf. infra} note ____ and accompanying text. Other names include the “assurance game” and “trust dilemma.”
ownership is socially-optimal, but private ownership is a unique pure strategy Nash equilibrium, and, importantly, is not Pareto-dominated by common ownership.\textsuperscript{73}

Table 4: The Fearon Game

<table>
<thead>
<tr>
<th></th>
<th>Hawk</th>
<th>Dove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawk</td>
<td>(\frac{(V-c)}{2}), (\frac{(V-C)}{2})</td>
<td>(V, 0)</td>
</tr>
<tr>
<td>Dove</td>
<td>0, (V)</td>
<td>(\frac{3V}{4}, \frac{3V}{4})</td>
</tr>
</tbody>
</table>

Assume that \(c < V < C\). It is straightforward to show that there is one pure strategy Nash equilibrium in the Fearon game: (Hawk, Dove).\textsuperscript{74} In this equilibrium, the contestant with a comparative advantage in fighting (i.e., the strong contestant with cost of conflict effort, \(c\), such that \(c < C\)) obtains a private property right in the scarce resource. Notice that the payoff structure here implies that a strong contestant prefers a system of private property rights to a system of common property rights (i.e., the payoff for the strong contestant under a private property rights regime is equal \(V\) as compared to \(\frac{3V}{4}\) under a common property rights regime), whereas a weak contestant prefers a system of common property rights to a system of private property rights (i.e., the payoff for the weak contestant under a private property rights regime is equal 0 as compared to \(\frac{3V}{4}\) under a common property rights regime). Thus, there exists a notion of conflict embedded, not only within the system of private property rights itself insofar as both contestants might subsequently choose to fight for legal ownership of the scarce resource by means of private civil litigation, but, also, within the very choice of the property rights regime more generally, to the extent that one player is relatively better-off under a system of private property rights (i.e., the strong contestant), whereas the other player is relatively better-off under a system of common property rights (i.e., the weak contestant).

In addition, observe that, in the Fearon game, common ownership is not a Pareto-improvement upon private ownership (i.e., the strong contestant loses an amount equal to \(\frac{V}{4}\) under common ownership relative to private ownership). Instead, a common property rights

\textsuperscript{73}The definition of a “Fearon game” is new to the present article.

\textsuperscript{74}Note that the Fearon game is not a form of the Prisoner’s Dilemma game. Specifically, the parties do not plunder the open-access resource, both playing Hawk, as in the traditional tragedy of the commons game. Instead, one party simply takes the resource by force and excludes the other from deriving a benefit. This represents a slightly different tragedy of the commons, where the strong excludes the weak from deriving any benefit from the commons.
system is socially-preferred to private ownership according to the Kaldor-Hicks criterion in that the sum of individual payoffs is greater under a system of common property rights than under a system of private property rights (where, in the discussion to follow, Kaldor-Hicks is the criterion used to assess social optimality). For expositional clarity, Table 5 restates the individual payoffs given in Table 4 under both common and private property rights systems:

Table 5: Payoffs under Common and Private Property Rights Systems

<table>
<thead>
<tr>
<th>Payoffs</th>
<th>Property Rights System</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S, W)</td>
<td>(3V/4, 3V/4)</td>
</tr>
<tr>
<td></td>
<td>(V, 0)</td>
</tr>
</tbody>
</table>

From Table 5, it follows immediately that a system of common property rights, which does not obtain as an equilibrium outcome of the conflict game, corresponds to the socially-optimal allocation of the scarce resource (according to the Kaldor-Hicks criterion); specifically, social welfare under a system of common property rights is equal to $1.5V = \frac{3V}{4} + \frac{3V}{4}$, whereas under a system of private property rights, social welfare is equal to $V = V + 0$ (where $1.5V > V$).

To amplify the payoff structure in Tables 4 and 5, consider Coase’s original example involving the farmer and the neighboring cattle rancher. Recall that the two allocations of the disputed property right contemplated in this example are: (1) the farmer is responsible for keeping stray cattle off his property (open-range); or (2) the rancher is responsible for keeping stray cattle on her property (closed-range). The property right is, therefore, viewed as indivisible: award the exclusive private property right either to the farmer or to the cattle rancher. The Coase Theorem assumes that the first-best outcome comprises one of these two exclusive uses of the scarce resource and states that the more efficient of the two will obtain through private bargaining, assuming transaction costs are sufficiently low. But, suppose that the socially-optimal use of the resource is to allow the rancher’s cattle to feed on the farmer’s crops and then to divide the profits earned from the sale of the cattle in some proportion between the cattle rancher and the farmer. The claim is not that this will always be true. The point is merely that exclusive use of the scarce resource by one of the disputing parties may not always

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76 See Coase, supra note ___, at ##.
77 See id.
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The Fearon Corollary: Private Property Rights as War

correspond to the socially-optimal use of the scarce resource in all conflict situations. In some situations, the farmer and the cattle rancher may be able to work together to maximize the joint output of their collective property holdings.

As the payoff structure in Table 4 illustrates, this type of cooperation, however, might not represent a strategic best-response given the payoffs of the underlying conflict game, and, in particular, the strong contestant might choose to fight (i.e., play Hawk), acquiring exclusive use of the scarce resource, despite the fact that shared use of the resource corresponds to the socially-optimal assignment of the property right. In this way, the Fearon Corollary is concerned with the opposite problem considered by the Coase Theorem. In the Coasean framework, efficiency requires the two parties to be “apart” in some sense, as an activity undertaken by one imposes an externality on the other (i.e., has a negative spillover effect), and a system of legally-enforceable private property rights is conceptualized as providing the requisite distance or separation. In the Fearonian framework, by contrast, efficiency requires the two parties to work together as part of a joint enterprise, cooperatively using a scarce resource, and a system of legally-enforceable private property rights is now viewed, not as a solution, but, rather, is itself a problem, creating an economic incentive for separation (i.e., destroys positive synergistic effects). In other words, under the Coasean framework, private property rights serve to reduce socially-inefficient conflict; under the Fearonian framework, by contrast, private property rights serve to reduce socially-efficient cooperation.

2. The Fearon Corollary

In the Fearon game above, even though common ownership is not Pareto-optimal, the existence of a positive cooperative surplus suggests that those who lose in the transition from a common property rights regime to a private property rights regime might be able to “bribe” those who gain to accept the socially-optimal shared-use outcome. In particular, the weak contestant could offer to make a payment, \( P \), such that \( \frac{V}{4} < P < \frac{3V}{4} \), to the strong contestant to accept the shared-use, pre-conflict outcome. In this case, the strong contestant’s payoff exceeds \( V \) (because

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78 See, e.g., Barlow F. Christensen, The Unauthorized Practice of Law: Do Good Fences Really Make Good Neighbors—or Even Good Sense?, 5 LAW & SOC. INQUIRY 159 (1980) (contending that the social benefits of enforcing rules against the unauthorized practice of law do not justify continuation of the effort).

79 Note that the applicable conflict resolution technology in this case (i.e., the court) is unable to implement this particular shared use outcome. Instead, this outcome can be achieved only through cooperation by the disputing parties themselves. See sources cited supra note 8.

80 Note that “positive cooperative surplus” is defined here as the difference in total social welfare between a common rights and private rights regime.
\[ \frac{3V}{4} + P > V \] and the weak contestant’s payoff is positive (because \[ \frac{3V}{4} - P > 0 \]). Because the strong contestant’s payoff is equal to \( V \) and the weak contestant’s payoff is equal to zero under the exclusive-use, post-conflict outcome, this offer to cooperate is, therefore, Pareto-improving, as the payoff for both contestants is now higher under a system of common property rights.

In some sense, this negotiation with respect to the very nature of the underlying property rights regime could be understood as a logical extension of the Coase Theorem. Yet, rather than extend the Coase Theorem in this manner, which, in our view, would obfuscate or understate the extent to which the Coase Theorem is properly understood as an argument in support of a system of a legally-enforced private property rights, as the appropriate institutional mechanism by which to resolve conflicts over the possession of scarce resources in society, the seminal work of Professor Fearon on bargaining in the shadow of conflict, in our view, more naturally captures the fundamental dynamics at work here.

In a seminal article, Professor Fearon develops three formal arguments explaining why state actors in conflict/war might sometimes fail to settle, ex ante, for bargains that these same actors would otherwise accept ex post;\(^81\) specifically, Fearon argues: (1) war can arise because bargains depend upon factors about which state actors possess private information, and because state actors have incentives to misrepresent this information;\(^82\) (2) wars can derive from commitment problems (i.e., state actors fight because agreements are not binding, and because actors have unilateral incentives to defect at a future point in time);\(^83\) and (3) state actors may be

\(81\) See James D. Fearon, Rationalist Explanations for War, 49 INT. ORG. 379 (1995); see also Robert Powell, Bargaining in the Shadow of Power, 15 GAMES & ECON. BEHAV. 255 (1996) (showing that the equilibrium distribution of benefits is given by the satisfied bargainer’s constrained optimal take-it-or-leave-it offer and that the probability of settlement-breakdown is zero if the allocation of benefits expected from an imposed settlement is the same as the Nash solution).

\(82\) See Fearon, supra note ___, at 395-96 (noting that states have an incentive to exaggerate resolve/capabilities (i.e., to bluff) and to hide weakness (i.e., to persuade the other to submit)); see also Robert Jervis, War and Misperception, in THE ORIGIN AND PREVENTION OF MAJOR WARS 101 (Robert Rotberg & Theodore Rabb eds., 1988); cf. Eric Gartzke, War is in the Error Term, 53 INT. ORG. 567, 574 (1999) (“Given uncertainty and incentives to bluff, there are no factors that lead the mechanisms explaining the occurrence of war to systematically produce one outcome over another. Properly understood, the causal mechanisms that explain the occurrence of war from crises in large samples are stochastic.”) (emphasis in original).

\(83\) More specifically, Fearon identifies the following three commitment problems: (1) one state possesses a “first-strike advantage” akin to confessing first in the well-known Prisoner’s Dilemma; (2) if one state is declining relative to the other, then the rising power cannot credibly commit to benign hegemony once it is dominant over the declining power, and thus, the declining power has an incentive to wage “pre-emptive war” against a rising power (as long as the expected costs of war are lower than the expected costs of further decline); (3) neither state, when bargaining over resources—the root of military capability—in an effort to avoid war, can credibly commit to use these resources exclusively for peaceful purposes, and not to increase its respective military power—and thus, the
unable to bargain, short of war, because the issues in dispute are not readily divisible.\(^8^4\)

Moreover, Fearon shows that scholars who seek to link war with mutual optimism, in effect, offer two distinct hypotheses: (1) a weak mutual optimism hypothesis, which states that it is possible for wars to result from optimism in the form of conflicting expectations, and (2) a strong mutual optimism hypothesis, which states that wars cannot occur in the absence of such optimism.\(^8^5\) Fearon demonstrates that the strong mutual optimism hypothesis is false by constructing a formal ultimatum bargaining game in which war occurs, in equilibrium, as a result of private information about the costs of war, despite consistent and complete information about the relative probabilities of victory in war (i.e., in the absence of mutual optimism).\(^8^6\)

Equating the imposition of a system of private property rights (and the private bargaining and civil litigation that ensues) to conflict/war to the extent that a system of private property rights reflects a choice not to cooperate and share the benefits of shared or common use (i.e., choosing the Hawk strategy as opposed to the Dove strategy), the question then becomes: assuming that pre-conflict common ownership is socially-optimal, under what conditions will the disputing parties privately bargain around the conflict (as described in Table 4), dividing the cooperative surplus such that both parties are made better-off compared to post-conflict, private ownership? In other words, having identified shared use of the scarce resource as socially-preferred to exclusive use, the question is: when will parties in conflict fail to implement the socially-optimal shared-use outcome?

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\(^8^4\) Fearon dismisses this third explanation as empirically trivial because states can almost always make side-payments or take other actions that resolve the problem and allow ex ante bargains to be struck. See FEARON, supra note 126; see also Powell, infra note ___, and accompanying text.

\(^8^5\) See id. (citing GEOFFREY BLAINEY, THE CAUSES OF WAR (1988); Donald Wittman, How a War Ends: A Rational Model Approach, 23 J. CONFLICT RESOL. 743 (1979)).

\(^8^6\) See id. The weak hypothesis that it is possible for war to result from mutual optimism in the form of conflicting expectations has also come under attack. See, e.g., Mark Fey & Kristopher W. Ramsay, Mutual Optimism and War, 51 AM. J. POL. SCI. 738, 750-52 (2007) (arguing that weak hypothesis explanation is mistaken on logical grounds, and that war cannot occur between two actors because of mutual optimism about the likelihood of victory). The crux of the argument is that inconsistent beliefs about the probability of victory cannot survive the self-evident, public, common-knowledge producing event of war itself; i.e., if a rational actor perceives that the opponent is willing to engage in conflict, then this actor must infer that the opponent knows something that she does not—and thus, so the argument goes, it is necessary to look elsewhere for rationalist explanations of war. See id.; cf. Branislav L. Slantchev & Ahmer Tarar, Mutual Optimism as a Rationalist Explanation of War, 55 AM. J. POL. SCI. 135, 135-148 (2010) (exploring how fragile this result is to the relaxation of key assumptions, including the validity of the common prior assumption, which holds that players’ beliefs about uncertainties can be traced back to a common origin).
The Coasean response to this question is to postulate that, in the absence of transaction costs, fully-informed private bargaining will yield the efficient property rights regime; specifically, the preceding discussion suggests the following corollary to the Coase Theorem, denoted here, for the reasons given above, as the Fearon Corollary:

**Fearon Corollary:** In the absence of transaction costs, the allocation of private property rights and common property rights is efficient.

Observe that the term, “transaction costs,” has a natural interpretation here insofar as these costs can be linked to the three rationalist explanations for war identified by Professor Fearon. Under this interpretation, provided that a system of common property rights is optimal, a system of private property rights can be understood as a failure to settle for the efficient bargain; specifically, rather than agree to the socially-optimal shared use of the scarce resource at issue, the parties choose to remain in conflict (e.g., because of commitment problems in our specific example), adopting a system of private property rights in which the final allocation of private property rights is shaped by various underlying coercive power relationships associated with a state of anarchy (where recall that the very existence of conflict itself critically depends upon the assumption that one party gains and the other loses in the transition from shared use of the resource to exclusive use—there is, of course, no source of conflict if both parties win/lose under the cooperative outcome).

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87 Observe that this definition of transaction costs does not naturally correspond to either of the two competing definitions of transaction costs that emerge in the vast literature on property rights: (1) the property rights definition, and (2) the neoclassical definition. See Douglas W. Allen, *Transaction Costs, in 1 ENCYCLOPEDIA OF LAW AND ECONOMICS* 893 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000). The present paper has employed throughout the neoclassical definition of transaction costs, which can be stated as: those costs resulting from the transfer or exchange of property, where the property rights definition, by contrast, which is broader and less limited, can be stated as: those costs associated with establishing and maintaining property rights. See *id*.; see also Douglas W. Allen, *What are Transaction Costs?, 14 RES. L & ECON. I* (1991). Under the property rights approach to transaction costs, private institutions, such as families, firms, non-profit organizations, contracts, and so forth, are viewed as sets of private property rights that specifically arise to reduce, or eliminate, the impact of non-zero transaction costs. See *id*. Indeed, as Steven N. S. Cheung has observed, transaction costs should be understood as precisely those costs that do not exist in a Robinson Crusoe world (i.e., although Crusoe faced a myriad of informational costs, he did not confront transaction costs until Friday arrived, an arrival that then creates the necessity to enforce a particular set of private property rights). See Steven N. S. Cheung, *On the New Institutional Economics, in CONTRACT ECONOMICS* 48 (Lars Werin & Wijkander Hans eds., 1992). Although it might appear, at first, as though our definition is a subset of this more expansive property rights definition of transaction costs, this is not true. In particular, in our model, the transaction cost arises when Crusoe chooses to drive Friday from the island. It is a cost created, not by the arrival of Friday, but, instead, by just the opposite; i.e., by the departure of Friday. In this sense, the definition of transaction costs is new to the literature, though it also is closely related to the idea of preventing efficiency, hence our description of our theoretical result as a corollary to the Coase Theorem.
Thus, in this way, the final distribution of property rights in society may be less a function of private mutually-beneficial exchange, with the legal system serving primarily to uphold the explicit terms and conditions of bilateral exchange in a neutral and objective manner, and, instead, may be more a manifestation of various underlying coercive power relationships, with the legal system, and its attendant enforcement agencies, such as the local police force, functioning as dispassionate public instruments of brute force in lieu of private acts of violence and hostility. In other words, contrary to the vision typically espoused by proponents of the Coasean framework, the distribution of private property rights in society, as determined by private civil litigation, may be indicative, less of rational, self-empowered individuals privately bargaining amongst themselves, free of centralized intervention, to achieve Pareto-optimal outcomes, and more of the coercive use of state power to promote private advantage by select individuals who would have otherwise imposed the same distribution by means of physical violence or brute force in a counterfactual state of anarchy.

It is important to note, however, that, unlike war, which is characterized by Fearon in his article as an unambiguously socially-wasteful reallocation of scarce resources, the reallocation of resources that occurs in the transition from a system of common property rights to a system of private property rights will generally be Pareto-improving for the three reasons identified in Part I.A.1. Unlike war, the pre-conflict state of the world (i.e., a common property rights regime) is not unambiguously socially-preferred to the post-conflict state of the world (i.e., a private property rights regime); indeed, in most cases, it will not be. Thus, the argument presented here should not be interpreted as an ambitious, far-reaching call for the wholesale abandonment of a system of private property rights in favor of a system of common property rights—this would be

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88 This corresponds to the predatory theory of government in which the State emerges out of the self-interested behavior of some subset of agents possessing a comparative advantage in conflict. See Mancur Olson, Dictatorship, Democracy, and Development, 87 AM. POL. SCI. REV. 567, 572 (1993); Martin C. McGuire & Mancur Olson, The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force, 34 J. ECON. LIT. 72 (1996); see also MANCUR OLSON, POWER AND PROSPERITY: OUTGROWING COMMUNIST AND CAPITALIST DICTATORSHIPS (2000); but see MARGARET LEVI, OF RULE AND REVENUE (1998) (contending that the consent (or social contract) and predatory theories of government are not, in fact, mutually-exclusive, because, in both cases, a ruler requires the consent of at least some subset of the population).

89 See, e.g., DAVID D. FRIEDMAN, THE MACHINERY OF FREEDOM 152-154 (1973) (“Government is an agency of legitimized coercion. The special characteristic that distinguishes government from other agencies of coercion (such as ordinary criminal gangs) is that most people accept government coercion as normal and proper. The same act that is regarded as coercive when done by a private individual seems legitimate if done by an agent of the government.”); see also Fred S. McChesney, Government as Definer of Property Rights: Indian Lands, Ethnic Externalities, and Bureaucratic Budgets, 19 J. LEGAL STUD. 297, 318 (1990) (“That whites gained from allotment is undeniable.”).

90 See supra notes 121-23 and accompanying text.
foolish. Rather, the point is simply that if a system of common property rights is socially-preferred to a system of private property rights, then, assuming that “transaction costs” are sufficiently high (i.e., for the reasons identified by Fearon), parties in mutual conflict with respect to the possession of a scarce resource will fail to implement the socially-optimal, shared-use outcome, choosing to sub-optimally remain in mutual conflict by establishing a system of private property rights in which some parties gain and others lose (as compared to a system of common property rights).

In fact, the more effective private property rights are in reducing conflict costs, the less common good provision there will be. While a common law system of private rights reduces the overall level of violence in society connected with property rights enforcement, the relatively lower costs of conflict resolution also renders shared possession of scarce resources less likely relative to a state of anarchy in which conflict is resolved by physical violence or brute force, because the violent resolution of conflicts is relatively more costly, implying a relatively larger pre-conflict cooperative surplus and, in turn, a higher probability of cooperation in the form of shared use of the scarce resource.91

To clarify this somewhat technical point, consider the following payoff structure corresponding to common and private ownership, respectively, summarized in Table 6:

<table>
<thead>
<tr>
<th>Payoffs</th>
<th>Cooperative Surplus</th>
<th>Ownership System</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S, W)</td>
<td>Positive</td>
<td>Common</td>
</tr>
<tr>
<td></td>
<td>((\frac{V}{2}, \frac{V}{2}))</td>
<td></td>
</tr>
<tr>
<td>(S, W)</td>
<td>Zero</td>
<td>Private</td>
</tr>
<tr>
<td></td>
<td>((\frac{V}{2}, \frac{V}{2}))</td>
<td>(V, 0)</td>
</tr>
</tbody>
</table>

The two parties are more likely to cooperate if the cooperative surplus is positive as opposed to zero (because, of course, the gains from cooperation are larger). By failing to cooperate and choosing, instead, to engage in a socially-wasteful conflict for exclusive use of the scarce resource, the parties forego a cooperative surplus equal to \(\frac{V}{4}\) in the case where the cooperative surplus is assumed to be positive (there is no such cost if the cooperative surplus is zero). As suggested above, this surplus difference may derive from differences in ex ante investment in

91 Note that the same theoretical conclusion obtains under the Stag-Hunt formulation of common ownership. See supra Table 3.
conflict technology (equal to $\frac{V}{4}$ in this example); specifically, the cooperative surplus may be zero because conflict in this case consists solely of private civil litigation, whereas conflict in the case where the cooperative surplus is positive may include physical violence that requires a substantial ex ante investment in conflict technology (e.g., the purchase of weapons, military training, and so forth). This investment in conflict implies a relatively larger pre-conflict cooperative surplus, which, in turn, implies a higher probability of cooperation in the form of shared use of the scarce resource. In short, by decreasing the cost of conflict, a government-enforced system of private property rights potentially produces a less cooperative society in which scarce resources are relatively less likely to be shared.

But, even if the cooperative surplus is positive, parties will fail to settle for the efficient bargain if transaction costs, as defined above, are sufficiently high. For example, the parties’ respective threat values, and the magnitude of the cooperative surplus, may be private information asymmetrically held by the disputing parties, thus creating incentives for the parties to misrepresent and distort their true capabilities and valuations. Likewise, because the disputing parties are modeled as quasi-sovereign entities, any agreement between the disputing parties is not binding, because the State, in this case, is conceptualized, not as serving the role of a neutral, third-party commitment mechanism capable of maintaining and enforcing contractual agreements between transacting parties, but, rather, in accordance with the predatory theory of government, as an extension of the dominant party in a state of anarchy and, as such, unwilling to enforce any agreement that does not promote the best-interests of the ruling party. So, for example, the weak contestant might offer the strong contestant some amount of money in exchange for shared use of the scarce resource at issue only for the strong contestant to later defect on this agreement by unilaterally implementing a system of private property rights in

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92 The difference in social welfare may derive from differences with respect to characteristics of the scarce resource itself; for example, the scarce resource at issue if the cooperative surplus is positive may be non-rivalrous. See SAMUELSON, supra note 37.

93 See, e.g., Helmut Bester & Karl Warneryd, Conflict and the Social Contract, 108 SCAND. J. ECON. 231, 232 (2006) (showing that “asymmetric information about relative strengths in an outside option conflict may cause agreement to be impossible even if it always efficient”) (emphasis in original); Cooter, supra note __, at ##: see also Kathy E. Spier, Pretrial Bargaining and the Design of Fee-Shifting Rules, 25 RAND J. ECON. 197, 206 (1994) (proving that if the exogenously-given costs of litigation are sufficiently small, then there is no incentive-compatible and individual-rational mechanism for pretrial bargaining that results in settlement with probability one).

94 This is our preferred rationalist explanation for war. See Robert Powell, War as a Commitment Problem, 60 INT. ORG. 169, 170 (2006) (arguing that war is best understood as a commitment problem and that informational explanations of war, and the models underlying them, suffer from at least two major limitations: “They often provide a poor account of prolonged conflict, and they give a bizarre reading of the history of some cases.”).
which the strong contestant benefits to the detriment of the weak contestant, and in response to which the weak contestant may have no institutional recourse insofar as the State exists mainly to safeguard and promote the private self-interests of strong contestants. Finally, as noted above, certain scarce resources in dispute, such as non-rivalrous goods, may not be readily divisible, although it is true that, in addition to Fearon’s claim that side payments are always possible,\(^95\) the payoff structure associated with such goods is unlikely to match the payoff structure in Tables 4 and 5, where recall that shared use of the scarce resource at issue represents the socially-optimal outcome (e.g., unlike a lake that can be easily shared, it is unlikely that the shared use of a toothbrush, which is not divisible in the same manner, corresponds to the socially-optimal allocation).

**B. A Sometimes Inefficient Social Norm**

In addition to the three rationalist explanations for war identified by Fearon, the present article offers an additional behavioral explanation in the specific context of private property rights, where recall that conflict/war in this context means excluding others from deriving a benefit from possession of a scarce resource, be it, *directly*, through the private use of violence or physical force or, *indirectly*, by establishing a system of private property rights legally enforced through the public exercise of State power. This subsection contends that this type of conflict/war is the result of a longstanding social norm or “privacy ethic” that leads to the collective overvaluation of private property rights, and which is evidenced in the formal institution of private property rights itself, and, in particular, in various defense-of-premises statutes, known as “Castle Doctrine” laws, which, under varying circumstances, permit the use of lethal force in defense of real property.

1. **Individual Mindset Matters**

There is an interesting literature in experimental economics showing that business and economics students are more likely to make one-sided offers in various categories of ultimatum bargaining games.\(^96\) That students of business and economics have difficulty cooperating in

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\(^95\) *See supra* note ____, and accompanying text.

\(^96\) *See* Robert H. Frank, Thomas D. Gilovich & Dennis T. Regan, *Does Studying Economics Inhibit Cooperation?*, J. ECON. PERSP. 159 (1993); *see also* John Carter & Michael Irons, *Are Economists Different and If So, Why?*, 5 J. ECON. PERSP. 171 (1991) (finding the economics majors were more likely than non-economics majors to make one-sided offers and concluding that the difference is driven by “selection” effects and not “learning” effects); Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *Fairness and the Assumptions of Economics*, 59 J. BUS. 286 (1986) (finding that business students were more likely than psychology students to make one-sided offers in ultimatum bargaining games); Gerald Marwell & Ruth Ames, *Economists Free Ride, Does Anyone Else?*.
these kinds of games is not a failure of logic or deductive reasoning or the result of transaction costs (as that term is conventionally understood), but, rather, is, in all likelihood, a reflection of a particular “mindset” that makes cooperation relatively more difficult to achieve. The past several decades of experimental research on the prisoner’s dilemma, for example, has largely confirmed that a player’s behavior is strongly influenced by subjective beliefs as to the expected action choices of the other players in the game.\textsuperscript{97} In a well-known experiment, economists were forty-two percent more likely than non-economists to predict that their partners would defect, where individuals who expect their partners to cooperate usually cooperate and, likewise, those who expect their partners to defect almost always defect.\textsuperscript{98} It would be remarkable if these differences in collective mindset were not, in large part, the result of repeated exposure to a behavioral model whose plain prediction is that strangers will defect whenever self-interest dictates, or, to put it slightly differently (or more controversially, perhaps), if exposure to the self-interest model of rational choice does not, in fact, cause individuals to behave more selfishly.\textsuperscript{99}

Thus, broadly speaking, in a society where individuals are generally made to understand that self-interest is the proper analytic framework by which to evaluate or assess social and economic behavior, either, explicitly, as in the case of economics and business students or, implicitly, insofar as individuals in society are relentlessly bombarded with messages and social cues depicting happiness as the invariable consequence of the pursuit of affluence,\textsuperscript{100} the claim set forth here is that such rational actors may not be endowed with the proper mindset necessary to cooperate in a manner implied by the Coase Theorem/Fearon Corollary. The farmer, for instance, is just as greedy and selfish as the cattle rancher, and each knows this of the other, and may be more likely, as a result, to keep at a safe distance than to attempt to conscript the other into some sort of complicated, cooperative allocation of private property rights. That is, if

\textsuperscript{98} See Frank, supra note 146.
\textsuperscript{99} See id.
\textsuperscript{100} See generally ADAM SMITH, \textit{THE THEORY OF MORAL SENTIMENTS} (1759); THORSTEIN VEBLEN, \textit{THE THEORY OF THE LEISURE CLASS} (1899); see also \textit{THE CENTURY OF THE SELF} (BBC Four 2002).
individuals are encouraged in society, through a variety of different channels, to relentlessly pursue their own greedy and selfish desires and to reject the notion that we possess certain moral obligations to one another by dint of participation in a common social enterprise, then it may be only natural for an individual, whose views are necessarily shaped and formed by existing social norms, to perceive the stranger who arrives, unannounced, at the front stoop as someone who, on a fundamental level, should not be trusted.

Under this rather dismal view of humankind, a robust system of private property rights would appear to make a great deal of sense. In search of some measure of relief from human selfishness and fear, individuals predictably bestow undue importance upon safeguarding a system of legally-enforceable private property rights, deemed essential in establishing a safe buffer from an otherwise nasty and brutish world.101 The present article, however, does not suggest that human-beings are, by nature, intrinsically incapable of overcoming and advancing beyond what Albert Einstein termed the “predatory phase of human development.”102 Rather, the contention is simply that human beings are incapable of working together absent the proper mindset, and that this mindset is necessarily formed and cultivated by various external institutions (e.g., common language, religion, social norms, image scoring, and so forth). Specifically, a politico-economic system structured, in large part, upon the maximization of individual utility and the rational pursuit of self-interest is likely to instill within its participants a particular mindset that runs somewhat counter to the idea that scarce resources should be shared with other individuals who are known to be equally egoistic and are similarly motivated by self-interest and greed (especially if this shared use requires protracted, face-to-face, cooperative interaction with otherwise strangers). The present article suggests that these psychological or behavioral impediments to shared use can be overcome only if the proper institutional structures, such as the free market, are in place and function well.104

101 See HOBSES, supra note xx.
103 See generally Claus Wedekind & Manfred Milinski, Cooperation Through Image Scoring in Humans, 288 SCIENCE 850 (2000) (finding that donations were more frequent to receivers who had been generous to others in earlier interactions and concluding that image scoring promotes cooperative behavior in situation where direct reciprocity is unlikely).
104 Interestingly, the same general principle underlies the original justifications for market-based exchange insofar as it was believed that the “invisible” forces of the market, which, of course, is itself an institutional structure, would counter people’s selfishness and inherent greediness through competition and serve to ensure that the public was not cheated by industrialists who “generally have an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it.” See SMITH, supra note 1, at 155.
2. **Social Norms Matter**

The nature of individual relationships in society is substantially informed by the institutions within which individuals interact and are embedded. Institutions, and the shared social norms or social conventions that these institutions serve to create, continually shape and fix expectations as to how various interpersonal interactions should proceed, and, as suggested above, individuals become predictably upset if these expectations prove wrong, or are not met in some way. In particular, that neighbors should keep to themselves is a deeply-ingrained social norm in modern American society, succinctly captured in a line from Robert Frost’s well-known poem, *Mending Wall*: “Good fences make good neighbors.” For a neighbor to show up, unannounced, with some convoluted plan about the shared use of what is currently privately-owned property represents, in various ways, a transgression to a larger tacit understanding that exists among those who choose to participate in a marked-based capitalist economic system, namely, that individuals should generally keep to themselves when it comes to the possession of scarce resources. An offer to jointly use, in a cooperative manner, what is currently private property constitutes a stressful intrusion upon an important sense of privacy and space, and is incongruent with a collective expectation as to how good neighbors should behave or interact.

As Professor Epstein puts it:

[W]e can be sure that a continuous ongoing deliberation about the nature of the common good is sure to get on everyone’s nerves, and to place an enormous stress on the collective decision procedures that have to be invoked to manage the common resources on which everyone depends for their sustenance.... [T]he simple and most profound influence that drives us in the direction of private property is the sense that *we would prefer to have more*

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105 See, *e.g.*, MUZAFER SHERIF, O. J. HARVEY, B. JACK WHITE, WILLIAM R. HOOD, CAROLYN W. SHERIF, *INTERGROUP CONFLICT AND COOPERATION: THE ROBBERS CAVE EXPERIMENT* (1954/1961) (showing that superordinate goals—goals so large that it requires more than one group to achieve the goal—reduced conflict substantially more effectively than other strategies (e.g., communication, contact)).

106 See, *e.g.*, *Curb Your Enthusiasm: The Doll* (HBO television broadcast Nov. 4, 2001) (depicting Larry David, the protagonist of the show, arguing with a young woman who prevents him from bringing bottled water into a screening room when he discovers that she does not, in fact, work for the theatre, but, like himself, is an invited guest to the film screening—this angry response likely explained by the fact that unilateral enforcement actions randomly undertaken by private citizens does not accord with our collective expectations as to the manner by which such rules should be properly enforced).

neighbors and fewer partners in this world. Only by drawing boundaries and creating separate spaces is it possible to do this.\textsuperscript{108}

But, whence does this social norm, or what Professor Hirshleifer has termed the “privacy ethic,” derive exactly?\textsuperscript{109} Although there are undoubtedly many distinct sources, this social norm underscoring the importance of well-defined, legally-enforceable private property rights, and the posited collective overvaluation of private property rights protection more generally to which this social norm contributes, is a reflection of this country’s longstanding tradition of viewing private property rights as the basis for the success of both its economic and political systems,\textsuperscript{110} a tradition which, in the present time period, is perpetuated by a powerful and well-organized social movement that seeks to make the protection of private property an essential element of the American social contract,\textsuperscript{111} with the right to own property, and the corresponding protection thereof, viewed as providing a necessary and important buffer to the overreaching power of the State. Contrary to our evolutionary asymmetric model of private property rights, the State, under this conceptual framework, is viewed, not as a tool by which the strong and powerful take from the weak and powerless, but, rather, as a distinct entity that re-appropriates scarce resources from private citizens for its own sovereign benefit (but, of course, these resources must eventually flow back to someone?).\textsuperscript{112} There is not the space here to satisfactorily examine how or why the protection of private property rights came to be viewed, in America, as one of the government’s principal functions.\textsuperscript{113} The present article will, instead, limit itself to an examination of one specific instantiation of this American social norm that is not only an example of this stated American tendency to overvalue the importance of protecting an

\textsuperscript{109} See Hirshleifer, supra note \textsuperscript{111}.
individual’s right to private property, but, also, likely operates as part of a positive feedback loop over time to strengthen and reinforce this asserted collective overvaluation of private property rights protection—namely, the existing legal principle that, under certain circumstances, the defense of real property is sufficiently valuable to legally justify the taking of a human life.\footnote{See Jacobs, supra note __.}

a. The Defense of Real Property by Deadly or Lethal Force

The American experience constitutes an elaborate system of shared values and beliefs that, to a far greater degree than most, if not all, developed countries, condones, and even to some extent, expects, violence in response to threatened harm.\footnote{See, e.g., Beard v. U.S., 158 U.S. 550, 561 (1895) ("A true man, who is without fault, is not obliged to fly from an assailant, who by violence or surprise, maliciously seeks to take his life or do him enormous bodily harm.") (emphasis added).} This baseline level of acceptance towards the use of physical violence is evidenced in the formal institution of private property rights itself, and, in particular, in various defense-of-premises statutes, known as “Castle Doctrine” laws, that permit (or some might say, encourage), under varying circumstances, the use of lethal or deadly force in defense of real property.\footnote{The defense of premises has strong historical roots. See, e.g., People v. Eatman, 91 N.E.2d 387, 390 (Ill. 1950) ("As a matter of history, the defense of habitation has been the most favored branch of self-defense from the earliest times."); Exodus 22:2 ("If a thief break into a man’s house by might, and he be there slain, the slayer shall not be guilty of manslaughter."); see also Rowan v. U.S. Post Office Dep’t, 397 U.S. 728, 737 (1970) ("The ancient concept that ‘a man’s home is his castle’ into which ‘not even the king may enter’ has lost none of its vitality."); see generally Denise P. Boots, Jayshree Bihari & Euel Elliott, The State of the Castle: An Overview of Recent Trends in State Castle Doctrine Legislation and Public Policy, 34 CRIM. JUST. REV. 515 (2009).} There are differing types of defense-of-premises statutes, but, importantly, all such statutes authorize the use of deadly force under circumstances where the traditional proportionality rule of self-defense—that the force used in defense must be proportional to the harm threatened—would not apply.\footnote{See Green, infra note __, at 6 (identifying four basic types of defense-of-premises statutes: (1) laws that authorize the use of deadly force against an aggressor who is attempting to make an unlawful (but not necessarily felonious or violent) entry into a dwelling, (2) laws that allow deadly force only if the aggressor’s attempted entry is felonious, (3) laws that allow a defender to kill an aggressor only if the aggressor is attempting to make a forcible or violent entry into a dwelling, and (4) laws that authorize deadly force only if the aggressor is attempting to unlawfully dispossess a homeowner of his or her dwelling).}

In an interesting and comprehensive study of these statutes, Professor Green considers five theories under which the defense of premises privilege can be construed as consistent with the requirement of proportionality: (1) the threat of deadly force should be presumed, as a factual matter, whenever an intruder unlawfully attempts to enter one’s premises; (2) a defender is particularly vulnerable and, therefore, at special risk in his or her own dwelling, which is properly conceptualized as a refuge from external danger; (3) the interest one has in one’s home
as privileged and irreplaceable property outweighs the “discounted” value of an aggressor’s life; (4) an intrusion into one’s premises involves a threat to one’s privacy, dignity, and honor that is analogous to the threat posed in crimes, such as rape and kidnapping; and (5) the use of deadly force is justified as a means to deter unjustified aggression and punish criminal behavior.\footnote{See Stuart P. Green, \textit{Castles and Carjackers: Proportionality and the Use of Deadly Force in Defense of Dwellings and Vehicles}, 1999 U. ILL. L. REV. 1, 6 (1999).}

Professor Green concludes that none of these principles, standing alone, is sufficient to satisfy the requirement of proportionality.\footnote{See id.; see generally Sanford H. Kadish, \textit{Respect for Life and Regard for Rights in the Criminal Law}, 64 CAL. L. REV. 871 (1976).} As he sees it, these theories suffer from at least one of the following shortcomings: “unsupported empirical assumptions about the danger posed by most intrusions into the home; an improper conflation of the rules of proportionality and necessity, particularly as they relate to the application of the so-called castle doctrine; an inapposite analogy to Fourth Amendment-type interests in privacy; invalid assumptions about the proper role of deadly force in the prevention of crime; and troubling comparisons between the value of human life and the value of property.”\footnote{Green, supra note 176, at 6-7.} Green concludes, however, that “some aggregation of such interests or principles might be sufficient to satisfy the requirement of proportionality.”\footnote{\textit{Id.} at 7 (emphasis in original).} The present article humbly disagrees.

To the extent that Professor Green is right, however, and some mix or aggregation of all five principles is sufficient to satisfy the proportionality requirement, the particular theory most relevant for present purposes is the principle that the interest one possesses in a home or dwelling, as privileged and irreplaceable property, outweighs the “discounted” value of a trespasser’s life. Specifically, rather than attempt to preserve proportionality by weighing the value of the trespasser’s life against the value of the innocent defender’s life, under this legal theory, when a person defends a home or dwelling, the defender is viewed as protecting, not herself (or whomever else may be present within the home or dwelling at the time), but the actual physical house itself. Commentary to the Model Penal Code explains the defense as follows:

\begin{quote}
Some courts did not find it necessary to regard the attack on the home as synonymous with an attack on the occupants but regarded the home as something peculiarly sacred because of the function it fulfills, and thought that \textit{its value outweighed that of the life of an intruder}.\footnote{\textit{MODELL PENAL CODE} § 3.06 commentary at 92 (1985) (emphasis added).}
\end{quote}
Some have attempted to support this particular theoretical justification for the use of lethal force in defense of a home or dwelling with the claim that a home or dwelling is somehow “essential to life,” and that as such, another human life could justifiably be sacrificed to keep this property, upon which life critically depends, safe—no different than if the life of an actual person was threatened or in danger.\textsuperscript{123} The problem with this argument, of course, is that a home or dwelling is, in fact, not essential to life at all. Indeed, the basic thrust of the argument is that a home or dwelling is \textit{sufficiently valuable} as a material economic interest to justify the use of deadly or lethal force in protection thereof. This contention is, at best, misguided, and is, at worst, perverse and deeply troubling. The intrinsic value of human life should not be informally equated to whatever subjective psychological pleasures or benefits happen to derive from the ownership of real property. This seems incontrovertible. And yet, these viewpoints to the contrary are not those of radical fringe-thinkers operating far outside the respectable mainstream of American jurisprudence, viewpoints otherwise shunned by the vast majority of legal scholars and judicial actors who have considered them. Rather, the notion that real property is somehow equally, if not more, valuable than the life of a single human trespasser can be found in the formal commentary to the Model Penal Code expanding upon the underlying rationale of actual state court decisions.\textsuperscript{124}

Notwithstanding the question of whether this particular factor (or some mix of the above-enumerated factors as Green contends) is, in fact, consistent with the requirement of proportionality, it is not difficult to imagine how the \textit{mere existence} of such defense-of-premises statutes, and the various justifications provided thereof (e.g., as found in the Model Penal Code), might push individuals in society towards the conclusion that the protection of private property rights is somehow very important. In fact, a license to kill in defense of any object surely alters any ex ante estimate of that object’s intrinsic value made prior to learning of such a license.\textsuperscript{125} Accordingly, in a society that, under varying circumstances, permits, or, even, encourages and publicly celebrates, the use of deadly force in defense of real property, it would be odd if

\textsuperscript{123} See, \textit{e.g.}, SUZANNE UNIACKE, \textit{PERMISSIBLE KILLING: THE SELF-DEFENSE JUSTIFICATION OF HOMICIDE} 5 (1994) (“Defense of oneself could also include the protection of goods (e.g., liberty and property) on which one’s life depends.”); \textit{see also} MODEL PENAL CODE § 3.06 c. at 92 (“[S]ince killing is permitted in defense of life, it was an easy step to justify it in defense of the home that sheltered life.”).

\textsuperscript{124} See MODEL CODE, \textit{supra} note 182.

\textsuperscript{125} That is, any prior belief as to the monetary value of the object would surely be updated and, in particular, increased, upon learning of a “license to kill” in defense of the object.
simultaneously within this society private property rights themselves were considered unimportant or not of significant value. On the contrary, it would seem perfectly reasonable to expect that the protection of private property rights would be collectively overvalued in such a society, and that individuals would tend to conceptualize private property rights as essential legal rights that must be protected and kept intact, even at significant cost, and would be reluctant to share in the common use of such rights, even if shared use was socially-optimal. Provided that this is true, the frequency with which disputing parties mutually agree to shared use of a scarce resource, in a manner implied by the Coase Theorem/Fearon Corollary insofar as shared use corresponds to the socially-optimal allocation of the property right, would, therefore, be expected to increase if the institution of private property rights was itself altered, and, more specifically, if the principles of property law were changed such that the use of lethal force in defense of real property was not legally permissible under any set of circumstances.

In short, the claim is that the predictions of the Coase Theorem/Fearon Corollary critically depend upon the underlying individual mindset of participants in “Coasean markets,” and, in turn, upon social norms and other institutional structures serving to help shape and form these individual mindsets. Parties are more willing to negotiate and agree to share possession of scarce resources if the parties themselves are not strangers and do not perceive themselves as fundamentally distant from each other. In a controlled laboratory setting, for instance, participants in experiments designed to test the validity of the Coase Theorem tend to “cooperate,” as an empirical matter, in our view, precisely because these participants are not strangers. Often, these experimental participants are students, and thus, may also be

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126 See, e.g., Kevin Dolak & Ryan Owens, Okla. Woman Shoots, Kills Intruder: 911 Operators Say It’s Okay to Shoot, Jan. 4 2012, available at http://news.yahoo.com/okla-woman-shoots-kills-intruder-911-operators-okay-091106413.html (portraying young mother who shoots home intruder as an unambiguously heroic figure); see also Bushmaster Firearms, http://www.bushmaster.com/world/our_world.asp (last visited Jan. 30, 2014) (claiming that “with a Bushmaster for security and home defense, you can sleep tight knowing that your loved ones are protected. Bushmaster offers everything you need to ensure the safety of you and your family. Our high-quality pistols, carbines, and rifles are extremely reliable, easy-to-shoot, and include lightweight carbon models that are perfect for women. And with their intimidating looks, all Bushmasters make a serious impression. Any gun will make an intruder think. A Bushmaster will make them think twice” and recommending, as the “Pick of the Month,” for “Home Defense” purposes what is best described as a military-style assault rifle).

127 See Long, supra note 166.

128 In fact, the institution of private property may be such that individuals refrain from engaging in private bargaining simply out of fear of being shot dead as an unlawful trespasser.


130 Experimental tests of the Coase Theorem provide general support for its applicability in a low transaction costs environment. See, e.g., Glenn W. Harrison & Michael McKee, Experimental Evaluation of the Coase Theorem, 28 J.L. & ECON. 653 (1985); Elizabeth Hoffman & Matthew L. Spitzer, The Coase Theorem: Some Experimental Tests,
classmates or live in the same dormitory or have mutual friends; if nothing else, these participants, by definition, are all taking part in the same experiment assembled together in the same room for the same purpose and, therefore, by dint of the very experiment itself, are no longer strangers pitted against each other in a capitalistic society that perceives the rigorous enforcement of private property rights as fundamental to the overall success of that system.

The same is true of formal settlement negotiations. The participants in a lawsuit, like the participants in a laboratory experiment, are rarely without some connection to one another, having often been mutually embroiled in the same ongoing litigation for several months, if not years. The claim set forth in Part III is that the formal institutional environment of a settlement negotiation allows individuals, locked in a conflict over possession of a scarce resource, to cast aside, in the face of a now common enemy or outside threat (i.e., an unpredictable judiciary), a collective overvaluation of the importance of private property rights protection, borne, in part, of the legal institutions surrounding property ownership itself, and to agree to a shared use of the scarce resource at issue that would otherwise not be possible in the absence of this external, credible threat to the defendant’s private property right. In other words, having provided a set


131 See, e.g., David O. Sears, College Sophomores in the Laboratory: Influences of a Narrow Data Base on Social Psychology’s View of Human Nature, 51 J. personality & Soc. Psychol. 515 (1986); Matthias Benz & Stephan Meier, Do People Behave in Experiments as in the Field?: Evidence from Donations, 11 Experimental Econ. 268 (2008); but see James N. Druckman & Cindy D. Kam, Students as Experimental Participants: A Defense of the “Narrow Data Base,” in Cambridge Handbook of Experimental Political Science 70, 71 (Donald P. Green, James H. Kuklinski & Arthur Lupia eds., 2011) (arguing that students do not intrinsically pose problems for an experimental study’s external validity).

132 The present article concedes that it is possible for individuals to act irrationally in the settlement context out of personal animus for the other side in which case our results are, of course, less likely to apply. The possibility of
of explanations, both strategic in nature (see Part I.A), as well as behavioral (see Part I.B), for why the shared use of scarce resources is unlikely, even if socially-optimal, the discussion to follow is relatively more optimistic (hopefully not inconsistently so in the mind of the reader) as to the possibility of cooperation if private bargaining takes place within an appropriate institutional environment.

III. IN DEFENSE OF SETTLEMENT

This final section presents an argument in favor of settlement. Thus far, the present article has articulated a rather dim view of the likelihood of participants in a capitalist, market-based economic system entering into socially-optimal cooperative arrangements involving the shared use of property, especially with respect to real property. The same is not asserted, however, of the capacity of private actors to arrive at the optimal shared-use outcome if compelled to bargain in the context of a formal settlement negotiation. Although private actors remain unlikely to arrive at the cooperative outcome through private bargaining on their own accord under a particular set of circumstances identified above (i.e., when the payoff structure of the underlying conflict game corresponds to Tables 4 and 5), the claim here is that the uncertain or unpredictable judicial resolution of property law conflicts can provide the requisite nudge, compelling the parties to share the scarce resource at issue in a socially-optimal manner.

Notably, this prescription that courts should define private property rights that are complicated or uncertain stands in sharp contrast to the commonly understood normative implications of the Coase Theorem.

A. The Normative Implications of the Coase Theorem

In the spirit of Hobbes, who advanced the view that individuals would seldom be sufficiently rational to agree upon a division of cooperative surplus, even if transactions costs

this sort of irrational behavior, however, is mitigated by the presence of a professional mediator and the intervening influence of legal counsel. Settlement is also not claimed to be first-best; indeed, it is second-best and one of the questions posed by this analysis, which is not expanded upon here and is left for future research, is the extent to which there should exist other such mechanisms in society and what such mechanisms might look like.
were low (or zero), Professor Cooter posits the Hobbes Theorem as the polar opposite case of the Coase Theorem:

**Hobbes Theorem:** Parties will always carry out their worst threats and never reach efficient bargains, unless a Leviathan-like entity controls strategic behavior.

Professor Cooter describes a world in which individual’s natural cupidity and greediness would lead them to quarrel and fight constantly, and in which people are capable of productively working in concert only if a powerful, third-party entity (e.g., the Leviathan) compels them to do so—a world that is purely hypothetical, however, like the Coesean world of zero-transaction costs, insofar as Professor Cooter believes that strategic behavior is not, in fact, as insurmountable as the Hobbes Theorem would suggest, and that the “gains from trade in bargaining situation are realized more often than not.” Still, even if not intended as a positive description of reality, the Hobbes Theorem is enormously useful as a conceptual tool, serving to clarify the normative implications offered by the Coase Theorem as to how the law should be structured given the likely configuration of transaction costs.

In particular, Professor Cooter states that, in a sufficiently low or zero-transaction costs environment, the law should be structured to remove impediments to private bargaining (i.e., transaction costs should be minimized). The courts can accomplish this objective by enforcing simple and well-defined private property rights—a result which Professor Cooter terms the *normative Coase Theorem*. In other words, provided transaction costs are sufficiently low, judicial actors should facilitate private bargaining by defining clear and simple property rights.

By lubricating private negotiation, the law thus enables private parties to exchange private property rights and relieves the government of the costly informational task of having to allocate scarce resources in the society in an efficient manner. On the other hand, if transaction costs are sufficiently high such that private bargaining is not feasible, then the law should now be structured to minimize the harm caused by failures to negotiate or privately bargain, and, in particular, the law should be designed to eliminate, or reduce altogether, the costs of private

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135 See id.

136 See Cooter, supra note ____.

137 See id.

138 See id.
disagreement and to limit strategic behavior on the part of disputing parties—a result which Professor Cooter terms the normative Hobbes Theorem.\textsuperscript{139} Under this normative prescription, if disputing parties fail to arrive at a private agreement, then courts are encouraged to allocate the private property right to the party who is perceived as most valuing the resource at issue, thereby minimizing the loss of cooperative surplus.\textsuperscript{140} In other words, courts should award private property rights to the party that would have otherwise acquired the property right in a hypothetical zero-transaction cost world as the result of a post-judicial privately-negotiated agreement.\textsuperscript{141}

In addition, as noted in Part I.B.2, in positing the existence of a system of private property rights more generally, as a primitive of the model, the Coasean framework implicitly makes a further broader claim about the value of a legally-enforceable system of private property rights, namely, that a system of private property rights yields the Pareto-optimal allocation of scarce resources among all feasible conflict resolution mechanisms. In his seminal article on private property rights, Demsetz makes a similar claim about a formal system of private property rights, contending that private property rights will emerge if the social benefits of establishing such rights exceed their social costs,\textsuperscript{142} anticipating the larger claim that the common law evolves toward efficient rules.\textsuperscript{143} Likewise, our discussion of the evolution of property rights in Part I.B.1 suggested a related positive principle, namely, that a system of private property rights will emerge to ensure that, unlike in a state of anarchy, possession of scarce resources is acquired, not by those with a comparative advantage in fighting expertise, but, rather, by those who most value the scarce resources at issue.\textsuperscript{144} Under this view, a state-sanctioned system of

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\textsuperscript{139} See id.; see also ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 90 (2\textsuperscript{nd} ed. 1996) (“According to the [normative Hobbes Theorem], the law should be designed to prevent coercive threats and to eliminate the destructiveness of disagreement.”).


\textsuperscript{141} See id. Note that courts relieve the parties of the transaction costs of trading legal rights but, at the same time, also incur the information costs of determining each party’s respective valuation of the private property right. See id.

\textsuperscript{142} See Demsetz, supra note ___, at #


\textsuperscript{144} See Calabresi, supra note ___; see also Steven N. S. Cheung, The Fable of the Bees: An Economic Investigation, 16 J.L. ECON 11, 19-29 (1973) (arguing that if corresponding property rights are clearly delineated or transaction
private property rights, which extends beyond the simple asymmetries upon which the unintended consequences approach to property rights depends, promotes social welfare and is required to guarantee that the possession of scarce resources in society is determined not by violence, but by unobservable intrinsic valuations. Importantly, all of these views are understood to be properly effectuated by the judicial definition of simple and clear private property rights. The weak contestant (as described above), for instance, will choose to pay cash to the strong contestant in exchange for a private property right in the scarce resource only if it can be credibly guaranteed that the strong contestant will not subsequently defect on the agreement and retake possession of the scarce resource by means of violence or brute force. If private property rights are uncertain, however, and the weak contestant cannot be credibly assured that possession obtained by means of bilateral trade is secure and legally valid, then this social welfare-increasing transaction will not take place in the first instance.

The next section introduces the normative Fearon Corollary, which states that the law should be structured to encourage communal ownership and shared possession of scarce resources. Interestingly, contrary to the foregoing normative principles of property law, it is explained how courts can accomplish this normative prescription by defining private property rights that are not simple and clear, but, rather, are uncertain or unclear.145

B. The Normative Implications of the Fearon Corollary

In a civil lawsuit, if no answer is forthcoming by the defendant in response to a complaint filed by the plaintiff, then the defendant opens herself up to the possibility of an adverse default judgment rendered against her, and the likelihood of the court directing the surrender of the private property right to the plaintiff.146 Hence, the defendant cannot simply ignore a complaint filed with the court as she might an offer to acquire the property right encountered in the open marketplace. One of several responses normally undertaken by a rational defendant to the filing of a lawsuit, where the lawsuit represents a credible threat by the plaintiff to the defendant’s private property right, is to enter into formal settlement negotiations with the plaintiff in order to

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145 Note the correspondence between these three normative principles of property law (i.e., Fearon, Coase, and Hobbes) and the three social ethics outlined by Hirshleifer: (1) the Golden Rule of “communal sharing,” (2) the Silver Rule of “private rights,” and (3) the Iron Rule of “dominance.” See Hirshleifer, supra note ___, at 655 (“These structures and ethics have evolved, each only in particular ecological contexts, because individuals so organized turned out to have a survival advantage (through group selection) over those expressing different behavioral traits.”).

146 See, e.g., FED. R. CIV. P. 55 & 60.
avert the expected costs of litigation.\textsuperscript{147} In this way, the filing of a lawsuit thus compels the rational defendant to the bargaining table.

1. \textit{For Settlement}

What about the incentives confronted by the rational plaintiff? There are certain fixed costs incurred in filing a lawsuit, such as the payment of filing fees and attorneys’ fees (as well as harder-to-measure psychic costs). If there is zero probability that the private property right will be transferred from the defendant to the plaintiff by the court, then a rational plaintiff will have no incentive to file the lawsuit in the first instance, as the expected payoff of costly litigation is negative; broadly speaking, the plaintiff’s expected payoff from filing the lawsuit can be represented by the following expression:

\[ pV - c = 0 - c < 0 \]

where \( p \) denotes the probability that the plaintiff prevails at trial, with \( 0 \leq p \leq 1 \), \( V \) is the plaintiff’s valuation of the private property right, and \( c \) denotes the expected costs of litigation.\textsuperscript{148} Not surprisingly, litigation is unprofitable for the plaintiff if the probability of litigation success is zero (i.e., if \( p = 0 \)). But, if no lawsuit is filed, then the credible threat of property loss necessary to bring the respective parties to the bargaining table is obviously missing.\textsuperscript{149}

The analysis is different, however, if judicial decision-making is now random or uncertain as a result of, say, the courts’ inconsistent (or erroneous) application of relevant

\textsuperscript{147} Indeed, the disposition of the majority of civil cases is settlement. See Theodore Eisenberg & Charlotte Lanvers, \textit{What is the Settlement Rate and Why Should We Care?} 6 J. EMPIRICAL LEGAL STUD. 111, 146 (2009) (“If a single settlement rate is to be invoked, it should be that about two-thirds of civil cases settle[,]”); see also Marc Glanter, \textit{Reading the Landscape of Disputes: What We Know and Don’t Know (and Think We Don’t Know) About Our Allegedly Contentious and Litigious Society}, 31 UCLA L. REV. 4, 28-30 (1983) (contending that the high rate at which suits are settled prior to trial provides empirical support for the Coase Theorem); but see Steve G. Medema & Richard O. Zerbe, Jr., \textit{The Coase Theorem}, in \textit{ENCYCLOPEDIA OF LAW AND ECONOMICS, VOLUME I: THE HISTORY AND METHODOLOGY OF LAW AND ECONOMICS} 836, 869 (Boudewijn Bouckaert, and Gerrit De Geest, eds., 2000) (noting that is not possible to infer on the basis of settlement data, alone, whether parties have bargained to the socially-optimal outcome, or if the parties have simply realized a smaller proportion of the potential gains from negotiation, but arrived at a point where the costs of further negotiation exceeded the expected gains, and thus, chose to settle at a suboptimal outcome that, nonetheless, improves upon the expected benefits of further litigation).

\textsuperscript{148} This statement abstracts away from the possibility of asymmetric litigation costs and/or unequal bargaining power among the litigants.

\textsuperscript{149} See generally David Rosenberg & Steven Shavell, \textit{A Model in Which Suits Are Brought for Their Nuisance Value}, 5 INT. REV. L. & ECON. 3 (1985) (showing that even where the defendant fully realizes that a claim is frivolous, plaintiff may still obtain a positive settlement, because the defendant is willing to pay a settlement up to the amount of his defense costs in order to avoid having to respond to the plaintiff’s complaint); see also Avery Katz, \textit{The Effect of Frivolous Lawsuits on the Settlement of Litigation}, 10 INT. REV. L. & ECON. 3 (1990) (explaining strike suits as the direct consequence of defendant’s uncertainty as to the merits of plaintiffs’ claims).
property law principles. This randomness or uncertainty can be represented formally by setting the probability that the plaintiff prevails at trial such that the following inequality holds true:

\[ pV - c > 0 \]

Here, the probability of success, \( p > 0 \), is now sufficiently high to induce the plaintiff to incur the expected cost of litigation, \( c \). What is the result of this modification to the model? Suppose that the defendant is the socially-optimal holder of the private property right. In this case, the non-zero probability that the plaintiff prevails at trial provides the plaintiff with a legal means by which to “tax” or “extort” the defendant property right-holder to the extent that the plaintiff is willing to agree not to initiate a lawsuit in exchange for a cash payment. In particular, in response to the filing of the lawsuit, a rational defendant, in order to insure against the loss of her valued private property right, might choose to settle the case, paying to the plaintiff a cash transfer, \( t = pV - c > 0 \), in exchange for an agreement by the defendant to drop the lawsuit.

Given that the defendant is the socially-optimal property right-holder, however, this transfer is socially-suboptimal and, in the limit, may result in a social welfare-decreasing transfer of the property right by the court to the plaintiff if the defendant decides that the private property right is no longer valuable if continuously subjected to this form of coercive or exhortative taxation and, in turn, chooses to no longer defend the private property right against such attacks.

On the other hand, randomness (or error) as to judicial outcomes, which is, to some extent, an inevitable byproduct of any human endeavor, may be social welfare-increasing insofar as the negotiated settlement agreement corresponds to a shared use of the scarce resource that cannot be implemented by court order or through private bargaining (outside of the formal

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150 Note that this type of coercion does not exist in market-based transactions where the choice of whether or not to part with the private property right resides with the valid property right-holder.

151 See Steven Shavell, Foundations of Economic Analysis of Law 415 (2004) (“Hence it may be said that an important justification for society’s having established the legal apparatus for the holding of trials is, paradoxically, not actually to have trials occur. Rather, it is to provide victims with the threat necessary to induce settlements.”).


context of a settlement negotiation), and that benefits the plaintiff while, at the same time, leaves the defendant property right-holder better-off (or no worse-off) compared to the zero-uncertainty state of the world (in which the defendant retains the right to exclusive use of the scarce resource). In other words, in the relatively limited context of property law disputes, the contention is that shared use of the scarce resource at issue will sometimes represent a Pareto-improvement upon the exclusive-use outcomes normally available as judicial relief. Failing to achieve such the shared-use outcome in the absence of centralized government intervention, however, for the reasons detailed above, the claim is that a settlement negotiation, running concurrent with ongoing civil litigation, provides a formal institutional environment allowing for a more creative and dynamic resolution of the conflict in which the disputing parties, advised by counsel and facilitated by a professional mediator, work together to develop and implement a shared use of the scarce resource at issue, with the resulting cooperative surplus sufficiently large to leave all of the disputing parties no worse-off than if the litigation had proceeded forward (or if the status quo exclusive-use outcome had endured for that matter).

In short, random or uncertain judicial outcomes create an incentive for certain plaintiffs to incur the costs of initiating and pursuing a civil lawsuit. The harm threatened by the lawsuit (i.e., loss of the private property right) posed to the defendant is credible (albeit, potentially, coercive as well), and thus, serves to induce the defendant property right-holder to enter into settlement negotiations with the aggressor-plaintiff that may result, to the extent that such an outcome exists, in the parties agreeing to share the scarce resource in a socially-optimal manner. In other words, settlement, which is modeled here as the product of uncertain judicial outcomes, provides a formal structure that allows parties, all fighting for possession of a scarce resource, to overcome certain types of transaction costs and, to the extent that a cooperative surplus exists, to

154 There is an important literature that argues against the value of settlement, originating with the seminal work of Professor Owen Fiss. See, e.g., Owen M. Fiss, Against Settlement, 93 YALE L.J. 1073, 1085-87 (1984) (arguing that settlement is unable to promote and, indeed, is likely to undermine, popular commitment to public values, defined as moral ideas about justice, rights, and social cohesion that the public should want to uphold, and which the State should be (or, alternatively, is, in fact,) obligated to enforce); see also Foreword: The Forms of Justice, 93 HARV. L. REV. 1, 44 (1979) (stating that adjudication exists “to give meaning to public values, not merely to resolve disputes”). By resolving conflict according to individual preferences as opposed to state law, Fiss argued that extrajudicial dispute resolution stands to replace public values with “individual interests or at best individual morality” and to replace state power with private social orderings. The Social and Political Foundations of Adjudication, 6 LAW & HUM. BEHAV. 121, 128 (1982). In his view, adjudication is principally about “justice, not peace,” and thus, Fiss declared himself for adjudication, and against settlement. The History of an Idea, 78 FORDHAM L. REV. 1273, 1273 (2009).
potentially agree to cooperatively use the scarce resource at issue in ways not otherwise possible absent this formal structure.\footnote{155}{The Coase Theorem has been criticized for failing to offer a negotiation method. See Hal Varian, \emph{A Solution to the Problem of Externalities When Agents Are Well Informed}, 84 AM. ECON. REV. 1278 (1994) (describing a class of simple two-stage mechanisms that implement efficient allocations as subgame-perfect equilibria for economic environments involving externalities); see generally Stewart J. Schwab, \emph{Coase's Twin Towers: The Relation Between The Nature of the Firm and The Problem of Social Cost}, 18 J. CORP. L. 359 (1993).}

That the settlement agreement represents a \emph{voluntary} arrangement is noteworthy. Contrary to a command-and-control model where a central planning bureau unilaterally allocates property rights in a manner believed to best promote the common good, state actors in our simple model of settlement do not, in any sense, foist or coerce particular cooperative arrangements upon individual private actors in the society.\footnote{156}{See, e.g., Ferrell, supra note ___, at ##.} Rather, the final cooperative outcome is agreed to voluntarily by the individual parties themselves,\footnote{157}{See, e.g., Scott H. Hughes, \emph{The Uniform Mediation Act: To the Spoiled Go the Privileges}, 85 MARQ. L. REV. 9, 72 (2001) (“Self-determination, which arises from voluntary and informed decision-making, represents the cornerstone of all mediation. To this proposition, there is no debate.”).} who are perfectly free not to settle the case, and are in no way obligated to share the scarce resource if exclusive use is preferred by any of the individual disputants.\footnote{158}{The parties can always choose to proceed to trial if the cooperative outcome is not acceptable. \textit{But see} Tim Hedeen, \emph{Coercion and Self-Determination in Court-Connected Mediation: All Mediation are Voluntary, But Some are More Voluntary than Others}, 26 JUST. SY S. J. 273, 280 (2005) (“Evidence drawn from recent case law and legal education events suggests that many mediators engage in coercion to keep disputants at the table. Such coercion may be exercised through acts of commission or omission.”).} In addition, the specific terms and conditions of the agreement are fashioned by the parties themselves, implying that the best use of the scarce resource at issue is determined, not by the legislature or by the judiciary, but, rather, by the individual disputants themselves, who are, in all likelihood, the actors best positioned to make this final assessment or determination.\footnote{159}{See generally Andrei Shleifer, \emph{Understanding Regulation}, 11 EUROPEAN FIN. MGM’T 439 (2005).}

Moreover, observe that if the defendant is compelled by the court to pay, at the conclusion of trial, a compensatory monetary damage award to the plaintiff, but, in all other respects, is free to use the scarce resource as if she were the valid property right-holder,\footnote{160}{See supra note ___, and accompanying text.} then the court has, in effect, set a price for the scarce resource. As long as the plaintiff is willing to pay this price (i.e., the compensatory damages award), the plaintiff has effectively forced a transfer of the property right from the defendant property-right-holder through the strategic use of the legal system, and, in the process, has thereby circumvented paying a potentially higher price for the property right on the free market. One of the principal benefits of a market-based
economic system of private exchange, however, is that the highly complex informational task of determining the optimal distribution of goods and services in the economy is accomplished through voluntary, impersonal, mutually-beneficial private exchange, without the need for centralized government control or oversight.\textsuperscript{161} To permit courts to award compensatory monetary damages in this manner, by contrast, is to set prices by judicial fiat, and as such, represents a significant abrogation of the important price-setting function typically performed by the free markets. Further, to the extent that the “transfer” of the property right is judicially-mandated, and, therefore, involuntary, it also infringes upon a notion of individual freedom and self-reliance considered essential to the successful workings of a free-enterprise society.\textsuperscript{162} Although this form of judicial interference is normally defended on the grounds that well-functioning markets are “missing,” or that existing markets are somehow “imperfect,”\textsuperscript{163} given these potential costs, before the court takes upon itself the complex task of identifying social welfare-increasing economic transactions in the form of compensatory damage awards, the present article contends that a serious effort should be made to replicate the conditions of private bargaining and voluntary exchange that work so well in other market-based environments. Indeed, this is one of the principal benefits of formal settlement negotiations in the shadow of the judicial resolution of conflict—settlement allows disputing parties to overcome Fearonian transaction costs.\textsuperscript{164}

Finally, although it is certainly true that this article adopts a rather optimistic view of the benefits of settlement, especially in light of the rather dismal view of humanity posited outside the context of formal settlement negotiations, the realization of the cooperative outcome in our simple model of settlement does not depend, or rely upon, a hopeful and optimistic conception of human nature in which individuals are principally motivated by warm and fuzzy feelings of

\textsuperscript{161} See generally MILTON FRIEDMAN, CAPITALISM AND FREEDOM (1962); see also FRIEDRICH A. HAYEK, INDIVIDUAL AND ECONOMIC ORDER (1935); THE ROAD TO SERFDOM (1944); LUDWIG VON MISES, SOCIALISM: AN ECONOMIC AND SOCIOLOGICAL ANALYSIS (1922); MURRAY N. ROTHBARD, CONCEIVED IN LIBERTY (1975-79); cf. OSCAR LANGE & FRED M. TAYLOR, ON THE ECONOMIC THEORY OF SOCIALISM (1938); ABBA LERNER, THE ECONOMICS OF CONTROL (1944); Oscar Lange, On the Economic Theory of Socialism, 4 REV. ECON. STUD. 60 (1936).

\textsuperscript{162} See sources cited supra note 199.


community and altruism. In fact, the opposite is true. The article has set forth a set of explanations, both strategic in nature (see Part I.A), as well as behavioral (see Part I.B), for why individuals in society specifically tend to be disinclined to share possession of scarce resources, even if shared use is socially-optimal. Rather, our defense of settlement is rooted in the idea that settlement can promote social relationships and interactions among what has been broadly characterized as a population of isolated and somewhat paranoid individuals. It is only in the face of an external threat (i.e., the random or uncertain judicial resolution of the conflict), when confronted with the very real possibility of losing a valued private property right, that these rational and otherwise self-interested parties are able to overcome a deeply-instilled reluctance-to-deal and to engage in negotiation and private bargaining—activities that lie at the very heart of market-based capitalism—to achieve shared-use outcomes that would not otherwise obtain if judicial outcomes were less random or unclear. In particular, when assembled face-to-face in the context of a formal settlement negotiation, the “transaction costs” identified in connection with the Fearon Corollary that preclude the contestants from settling for the efficient bargain do not apply with equal force, for the possibility of future judicial interference transforms the nature of the conflict, swaying the balance of power away from status quo property right-holders, and also, at the same time, provides a credible means of commitment, perhaps, otherwise unavailable to these (quasi-sovereign) contestants to the extent that any agreed-upon shared use of the scarce resource will now be enforceable by judicial mandate in the form of a consent decree/stipulated judgment or legally-binding settlement agreement.

2. The Benefits of Random Judicial Decision-Making

To connect the preceding observations more specifically to our discussion of the Fearon Corollary in Part II.B.2, consider the payoff structure summarized in Table 7:

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165. Cf. COHEN, supra note 155, at 55-58 (offering two contrasting reasons for why society-wide socialism might be thought infeasible: (1) people are, by nature, insufficiently generous and cooperative to meet its requirements; or (2) even if people are, or could become, in the right culture, sufficiently generous, it is not yet known how, through appropriate rules and stimuli, to make generosity turn the wheels of the economy, and concluding that the problem is not, primarily, human selfishness, but, rather, a lack of a suitable organizational technology; i.e., the problem is fundamentally one of design).

166. Note that a consent decree/stipulated judgment and a settlement agreement differ with respect to the mode of judicial enforcement; specifically, if the party against whom the judgment is rendered violates the terms and conditions of a consent decree, then the non-breaching party may seek enforcement through a contempt action, where ensuing enforcement actions may include judicially-sanctioned wage garnishment and/or property lien(s); failure to comply with a settlement agreement, by contrast, is enforced simply as a breach of contract. See Anthony DiSarro, Six Decrees of Separation: Settlement Agreements and Consent Order in Federal Civil Litigation, 60 AM. U. L. REV. 275, 279-288 (2010).
Table 7: Payoffs under Common and Private Ownership

<table>
<thead>
<tr>
<th>Payoffs</th>
<th>Common Ownership</th>
<th>Private Ownership to A</th>
<th>Private Ownership to B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A, B)</td>
<td>$\left(\frac{V}{2}, \frac{V}{2}\right)$</td>
<td>$\left(\frac{3V}{4}, 0\right)$</td>
<td>$\left(0, \frac{3V}{4}\right)$</td>
</tr>
</tbody>
</table>

As an initial matter, notice that the payoff structure is similar to that set forth in Tables 4 and 5 above in that common ownership is socially-preferred to private ownership.\(^{167}\) Moreover, observe that private ownership is preferred to common ownership by the party who prevails in the conflict for the private property right (i.e., by the party who acquires the private property right post-conflict) and is, therefore, the system of property ownership that would be selected by the winning party if that party had the power to choose between private and common ownership.\(^{168}\) In addition, for ease of exposition, the analysis is restricted to a static framework in which risk-neutral parties can either: (1) agree to share the scarce resource (i.e., common ownership), or (2) engage in legal conflict for exclusive possession of the scarce resource (i.e., private ownership). Finally, each party is assumed to have an equal probability of acquiring the private property right by means of civil litigation; i.e., the probability of prevailing in the ensuing legal conflict is equal to one-half for both parties.

Given the payoff structure in Table 7, it is straightforward to show that the expected payoff of legal conflict is the same for both contestants, and is equal to \(\frac{3V}{8} = \left(\frac{1}{2} \times \frac{3V}{4} + \frac{1}{2} \times 0\right)\).

Because the expected payoff of common ownership (or peace), by contrast, is equal to \(\frac{V}{2} > \frac{3V}{8}\) for both contestants, both contestants will, therefore, cooperate and agree to a system of common property rights, and will choose not to fight and risk defeat in the future legal conflict, where, under a system of legally-enforceable private property rights, note that the losing party is excluded from deriving any benefit whatsoever from the scarce resource.\(^{169}\) Hence, by defining private property rights that are uncertain or unclear (substantially so in this example), the court

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\(^{167}\) See supra Part II.B. Note that total social welfare, defined here as the sum of individual payoffs, is equal to \(V = \frac{V}{2} + \frac{V}{2}\) under a system of common property rights, and is equal to \(\frac{3V}{4} = \frac{3V}{4} + 0\) under a system of private property rights.

\(^{168}\) The payoff associated with successfully acquiring the private property right is \(\frac{V}{4} = \frac{3V}{4} - \frac{V}{2} > 0\).

\(^{169}\) Recall that this nexus between private property rights and random judicial decision-making was first introduced in Part II, where it was suggested that a random transfer principle, in the limit, effectively transforms a private property right into a common property right. See supra Part II.A.
devalues private property rights to such an extent that it is no longer profitable for either contestant to invest costly resources in the fight to obtain a private property right in the scarce resource. This is problematic, however, only insofar as private property rights are socially-optimal.\(^{170}\) If private property rights imply a social welfare loss, as in this example, then this uncertainty or lack of clarity (or, equivalently, the relative absence of simple and well-defined private property rights) is, in fact, socially-beneficial insofar as it moves disputing parties, who are otherwise incapable of privately implementing the efficient outcome as a result of Fearonian transaction costs, from a socially-suboptimal allocation of private property rights to a socially-optimal allocation of common property rights.\(^{171}\)

In sum, although uncertainty or randomness as to the judicial resolution of private property disputes devalues private property rights insofar as it provides an opportunity for those who have not acquired a private property right by means of a legally valid transfer to “tax” or “extort” those who have, in the form of a payment to settle a purely coercive lawsuit, such uncertainty can also facilitate cooperation among litigants who now have a joint incentive to work together to avoid a common outside threat, namely, an unpredictable judiciary. In other words, although uncertain (or erroneous) judicial decision-making will sometimes result in the socially-suboptimal misallocation of private property rights, this uncertainty also works to weaken private property rights, thus reducing the expected spoils of costly conflict, and, in turn, creates an incentive for the parties to share the scarce resource at issue, as the payoffs associated with common ownership are now relatively more attractive compared to private ownership. A court might create this uncertainty, intentionally and deliberately, viewing the definition of

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\(^{170}\) To reiterate, private property rights will generally tend to be social welfare-increasing for the reasons outlined above. See supra notes 121-23 and accompanying text.

\(^{171}\) In all likelihood, the court cannot resolve the dispute between A and B by imposing the cooperative common rights regime; for example, in resolving a dispute between two private parties about the use of a given parcel of land, the court will be understandably reluctant to find that the land at issue is common property (as between the two parties), especially where such relief is not sought by either litigant. In Stop the Beach Renourishment v. Florida Department of Environmental Protection, for instance, a plurality of the Supreme Court concluded that the Takings Clause of the United States Constitution prohibits the judiciary from declaring that “what was once an established right of private property no longer exists,” unless the property owner in question receives just compensation. 130 S. Ct. 2592, 2601-02 (2010) (plurality opinion) (“[I]t would be absurd to allow a State to do by judicial decree what the Takings Clause forbids it to do by legislative fiat.”); see also Hughes v. Washington, 389 U.S. 290, 296 (1967) (Stewart, J., concurring) ("[A] State cannot be permitted to defeat the constitutional prohibition against taking property without due process of law by the simple device of asserting retroactively that the property it has taken never existed at all."); see generally Barton H. Thompson, Jr., Judicial Takings, 76 VA. L. REV. 1449, 1456 (1990) ("The Supreme Court has unhesitatingly extended most of the noneconomic restrictions of the Constitution to judicial actions, even in the face of express constitutional language to the contrary."). Thus, this kind of cooperative resolution to the dispute must almost always derive from the parties themselves.
complicated and unclear property rights as one of the important normative implications of the Fearon Corollary, muddling the contours of private ownership precisely because the court believes that the facts of the case presently before it suggest that shared use of the scarce resource at issue would be socially-optimal. Or, alternatively, this uncertainty might simply evolve organically, over time,172 with the equilibrium level of judicial randomness, holding all else constant, equal to that value which equates the expected marginal social costs of diminished property rights with the expected marginal social benefits of greater cooperation (deriving from the reduced incentives to invest costly effort in the conflict to secure a claim to private property rights).173

However the exact manner by which this randomness or uncertainty is injected into the legal system, in this way, *less secure claims to private property promote social cooperation and increase social welfare*—a novel result which the present article terms the *normative Fearon Corollary*.

**CONCLUSION**

The present article has offered judicial interference as a potential counterweight to the tyranny of private property rights, and, in particular, has argued that courts can create de facto common property rights by rendering the judicial resolution of conflict over private property rights random or unclear. Although producing socially-suboptimal misallocations of the property right, this uncertainty also serves to weaken private property rights, thus reducing the expected spoils of costly conflict, and, in turn, creates an incentive for private parties to cooperate, as the payoffs associated with common ownership are now relatively more attractive. In this way, less secure claims to private property promote social cooperation. Rather than limit


173 Cf., e.g., Herschel I. Grossman & Minsong Kim, *Swords or Plowshares? A Theory of the Security of Claims to Property*, 103 J. POL. ECON. 1275, 1283-86 (1995) (finding that a relatively poor agent could be better-off in a general equilibrium with less secure claims to private property). Note that the magnitude of judicial uncertainty should increase monotonically with respect to the potential cooperative surplus (i.e., there should exist a positive correlation between the level of uncertainty with respect to judicial outcomes and the size of the potential cooperative surplus).
the possible resolution of a conflict over the possession of a scarce resource to exclusive use by one of the contestants, as is typically the case in the adjudication of property law disputes, where the court awards a private property right either to the defendant or to the plaintiff, the present article has portrayed settlement as a uniquely important institutional mechanism that allows for shared use of the scarce resource as a possible resolution of the conflict, where the shared-used outcome, under certain circumstances, may represent a Pareto-improvement upon the exclusive-use outcomes typically available as judicial relief. Identifying the optimal level of judicial randomness or uncertainty within the legal system (i.e., the optimal tradeoff between the expected costs of decreased private property ownership and the expected benefits of increased common property ownership) is an interesting empirical question left open as a topic for future research.