

## INTRODUCTION: THE DEMSETZ THESIS AND THE EVOLUTION OF PROPERTY RIGHTS

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**B**OTH conventional price theory and standard economic accounts of tort and contract law assume fixed property rights. In fact, however, property regimes are not static but change over time. Given the assumption of fixed property that otherwise prevails in economic literature, explaining the evolution of property rights is one of the great challenges for the economic analysis of law.

The point of departure for virtually all efforts to explain changes in property rights is Harold Demsetz's path-breaking article, "Toward a Theory of Property Rights."<sup>1</sup> The article is still widely cited and reproduced, especially in first-year property courses in law schools. Yet for all its deserved fame, the article contains at best a sketch of a theory and offers only anecdotal evidence by way of support. On April 21–22, 2001, the conference *The Evolution of Property Rights* was held at Northwestern University School of Law. The purpose of the conference was to reexamine the Demsetz thesis, consider possible alternatives or elaborations to it, and develop further empirical evidence either to confirm or disconfirm it. The articles in this volume, including an afterword by Demsetz, are the outgrowth of the papers presented at that conference.

The Demsetz thesis can be seen as an anticipation of the idea that the common law evolves toward efficient rules. Demsetz hypothesized that property rights emerge when the social benefits of establishing such rights exceed their social costs. In effect, he suggested that legal rules regarding resources change over time along a path that produces net benefits to the relevant community.

Demsetz broadly described the benefits of creating new types of property in terms of the internalization of externalities. On closer examination, we can see that he actually made three distinct arguments about the benefits of property, each presented in the language of externalities.

First, following Jeremy Bentham, Demsetz noted that property provides

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<sup>1</sup> Harold Demsetz, *Toward a Theory of Property Rights*, 57 *Am. Econ. Rev. Papers & Proc.* 347 (1967).

superior incentives for the development of resources relative to a system in which access to resources is open to all. Property concentrates the risks and rewards of investment on designated individuals, thus assuring a correspondence between those who sow and those who reap. Although it is possible to describe this benefit in the language of externalities—improvements that would be external benefits to the community under an open-access regime are fully captured by the owner under a regime of property—this is a somewhat idiosyncratic way to present the argument. (Indeed, this aspect of the Demsetz article is often confusing to students not well versed in the literature on externalities.)

Second, Demsetz argued that property eliminates or at least reduces rent dissipation associated with open-access regimes. If a resource is up for grabs to the first to capture it (think of a fishery), the result is often premature consumption and wasteful dissipation of resources in competition to secure the resource, a phenomenon that was labeled the “tragedy of the commons” soon after Demsetz wrote.<sup>2</sup> By allocating resources to particular owners, property overcomes these rent dissipation problems by allowing the owner to determine the optimal timing and degree of consumption. This benefit of property is more commonly described in the language of externalities: under a regime of open access, each consumer of resources imposes external costs on other potential consumers of the resource, whereas with property, this externality is eliminated.

Third, building on the work of Ronald Coase,<sup>3</sup> Demsetz noted that property reduces the number of parties who must agree on measures to control spillover effects such as flooding or pollution. Under an open-access regime, all potential users of a resource must agree to control spillovers; with property in place, only the owner of the resource and those affected by its use need agree. This insight, which was original to Demsetz, is the one most often expressed in the language of externalities.

Demsetz hypothesized that property rights emerge when some change in the relative value of resources occurs that makes it cost-effective to internalize costs that previously were experienced as externalities, understood in the broad sense encompassed by the three foregoing arguments. This might be due, for example, to the introduction of new technology or the opening or closing of particular markets. Such a change in relative values causes the benefits or costs of having a property regime in a resource to change. If the change is sufficient to alter the cost-benefit equation, an alteration in the nature of property rights will take place.

Demsetz famously illustrated his basic points by describing anthropological evidence relating to property rights among different Indian tribes. He described work by Eleanor Leacock that suggested that property in land existed

<sup>2</sup> See Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243 (1968).

<sup>3</sup> R. H. Coase, *The Problem of Social Cost*, 3 *J. Law & Econ.* 1 (1960).

among Montagnes Indians in what is now Quebec. He suggested that this was likely due to the introduction of the fur trade, which increased the value of beaver pelts and made it cost-effective to devise an institution that would encourage husbandry of beaver and reduce competitive overhunting. In contrast, the tribes of the American Southwest never developed property in land. Demsetz suggested that this is because the animals hunted by these Indians ranged over a much wider territory, making the development of property in land too costly relative to the benefits it would have provided.

As this brief summary suggests, the Demsetz article leaves a number of important questions unresolved. Demsetz was explicit about the cost-benefit criterion for change in property rights, offered a sophisticated account of the benefits of property, and included one compelling illustration of his thesis. But the article said nothing about the factors that determine the costs of a property regime. It said virtually nothing about the precise mechanism by which a society determines that the benefits of property exceed the costs, other than to disclaim any position on whether this would necessarily entail a “conscious endeavor.”<sup>4</sup> And it said virtually nothing about the form that emergent property rights are likely to take, other than to observe that whether a society adopts private property or state-owned property may turn in part on the “community’s tastes” for collectivism.<sup>5</sup> Thus, the Demsetz article leaves more than ample room for further scholarly development.

One nagging question concerns the domain of the thesis. The article is about the evolution of “property,” but at different times it offers different definitions of the institution of property that have different implications for the scope of the argument.<sup>6</sup> To consider only the polar cases: Does the thesis apply only to rules that establish private exclusion rights in resources, that is, conventional private property? Or does it apply to any institution that functions to internalize externalities, which would cover many forms of state ownership, government regulation, and private contracting as well as conventional property? If the former is the intended domain, then the thesis would assert that exclusion rights are presumptively efficient but would take no position on the efficiency of other mechanisms for internalizing externalities. If the latter is the intended domain, then the thesis would be tantamount to saying that virtually all law tends to evolve in the direction of promoting efficiency—a kind of public-interest theory of regulation.

A number of contributions to this volume touch on the question of the domain of the Demsetz thesis. Some contributors, such as Gary Libecap and

<sup>4</sup> Demsetz, *supra* note 1, at 350.

<sup>5</sup> *Id.*

<sup>6</sup> For example, compare *id.* at 347 (“An owner of property rights possesses the consent of fellowmen to allow him to act in particular ways”) with *id.* at 354 (“Private ownership implies that the community recognizes the right of the owner to exclude others from exercising the owner’s private rights”). See also *id.* at 350–51 (describing “rules for liability in automobile accidents” as a phenomenon illustrating his thesis).

James Smith and Richard Epstein,<sup>7</sup> consider the application of the thesis to both exclusion rights and government regulation. Others, such as Saul Levmore, are more careful to limit the thesis to exclusion rights.<sup>8</sup> Henry Smith, in the most sophisticated treatment of this issue, argues that the basic benefit-cost framework for overcoming externalities applies both to exclusion rights and to what he calls governance mechanisms.<sup>9</sup> He further argues that the institution of property, at least in its complex modern incarnation, includes both types of rights and hence that this broader perspective is warranted.

Ultimately, however, a theory that explains the evolution of property in a satisfactory fashion must be one that generates predictions that are unique to property and not one that would equally account for the development of other institutions, even if they perform overlapping functions. Perhaps the use of the word “property” is a distraction here, since, as Henry Hansmann and Reinier Kraakman emphasize in their contribution,<sup>10</sup> that term is a protean one of many meanings. So another way to make the point is to say that we need a theory as to when and why private-exclusion rights emerge, and ideally this theory would explain the rise and fall of exclusion rights, not the rise and fall of any and all organized efforts to “internalize externalities.”

Another question concerns the shape of the benefit and cost curves that Demsetz hypothesized determine the emergence of property. Are the curves linear, as Terry Anderson and Peter Hill assumed in their well-known re-statement of the Demsetz thesis?<sup>11</sup> Or can one or more of the curves have a different shape? Are the costs of establishing property independent of the value of resources, or do increases in value also increase the costs, for example, by creating greater returns to theft?<sup>12</sup> Do the costs of establishing property include large start-up or “fixed” costs, with lower costs of maintaining the system thereafter in terms of variable or marginal costs? The contributions of Douglas Allen and Henry Smith contain the most complete theoretical discussions of these issues.<sup>13</sup> Allen hypothesizes that marginal cost curves may often be nonlinear and that this will preclude the first-best use of resources and in some circumstances may frustrate the emergence of any type of property regime. Smith suggests that exclusion and what he calls

<sup>7</sup> Gary D. Libecap & James L. Smith, *The Economic Evolution of Petroleum Property Rights in the United States*, in this issue, at S589; Richard A. Epstein, *The Allocation of the Commons: Parking on Public Roads*, in this issue, at S515.

<sup>8</sup> Saul Levmore, *Two Stories about the Evolution of Property Rights*, in this issue, at S421.

<sup>9</sup> Henry E. Smith, *Exclusion versus Governance: Two Strategies for Delineating Property Rights*, in this issue, at S453.

<sup>10</sup> Henry Hansmann & Reinier Kraakman, *Property, Contract, and Verification: The *Numerus Clausus* Problem and the Divisibility of Rights*, in this issue, at S373.

<sup>11</sup> See Terry L. Anderson & Peter J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 *J. Law & Econ.* 163 (1975).

<sup>12</sup> See Barry C. Field, *The Evolution of Property Rights*, 42 *Kyklos* 319 (1989).

<sup>13</sup> Douglas W. Allen, *The Rhino's Horn: Incomplete Property Rights and the Optimal Value of an Asset*, in this issue, at S339.

governance present marginal cost curves with different slopes, which can explain why we sometimes see shifts from exclusion to governance and back to exclusion again as resource values rise. Still other contributors, including Levmore and David Haddock and Lynne Kiesling,<sup>14</sup> touch on the possibility that property regimes entail large start-up costs.

Two contributions shed light on the costs of developing property institutions through empirical studies of situations in which the price of a resource increases but no shift in property institutions follows. Dean Lueck examines the case of the American bison,<sup>15</sup> which became significantly more valuable as transcontinental railroads made it cheaper both to hunt bison and to transport robes and hides to market. In contrast to the beaver trade cited by Demsetz, however, no property rights in bison territory emerged; instead, in a very short span of time, the bison came close to extinction. Lueck ultimately concludes that property rights did not emerge because the costs of assembling and enforcing property rights in live bison herds were prohibitive. Libecap and James Smith explore the chronic failure of unitization proposals in many oil and gas fields. They argue that a key problem for unitization is that both oil and gas are commonly found in the same pool but are owned in different proportions by different mineral right owners, compounding the information and transaction costs of reaching a consensual agreement in support of unitization. Both studies suggest that the failure of property to emerge can often be explained once we develop a better understanding of the costs of establishing a system of property rights.

A third question is whether the Demsetz perspective can tell us anything about the form that property rights will take when they do emerge. Demsetz distinguished private property, state property, and communal property, the last of which he appeared to equate with open access. More recently, commentators have tended to differentiate between communal property, in which resources are restricted to members of a particular community and are subject to regulation under community norms or rules, and open access, in which resources are open to all takers.<sup>16</sup> Thus, "property" is now more conventionally divided into the categories of private property, communal property, and government property, and each is distinguished from an open-access regime, that is, a true commons. Most of the contributions to this volume adopt this classificatory scheme.

In his original paper, Demsetz suggested that some societies would tend to evolve toward state ownership, whereas others would tend to prefer private ownership, and he attributed this to cultural differences ("community tastes").

<sup>14</sup> David D. Haddock & Lynne Kiesling, *The Black Death and Property Rights*, in this issue, at S545.

<sup>15</sup> Dean Lueck, *The Extermination and Conservation of the American Bison*, in this issue, at S609.

<sup>16</sup> See, for example, Elinor Ostrom, *Governing the Commons* (1990).

In his contribution to this volume, Demsetz seeks to fill this gap in his prior study, offering a thoughtful and panoramic account of the factors that he believes have militated over time in favor of private property rather than state ownership.<sup>17</sup> Other commentators also touch on the question of what determines the particular form that emergent property takes, with a number of contributors, including Epstein, Levmore, and Henry Smith, giving consideration to when some type of communal property regime is likely to emerge rather than a full-blown private-exclusion regime.

A fourth question concerns the mechanism by which a society moves from a state of open access to property (or vice versa). The original Demsetz article was an exercise in comparative static analysis, offering before-and-after snapshots of a society in which changes in relative resource values give rise to changes in property institutions. But the actual process that leads from one state to another was a black box. A number of contributors attempt to pierce the box and offer more particularized suggestions for how such a transition takes place. Their suggestions tend to fall into two categories.

By far the most common approach among the contributors is to seek to illuminate the causation puzzle by injecting distributional considerations into Demsetz's simple wealth-maximization model. For example, Anderson and Hill suggest that property rights emerge because of the entrepreneurial efforts of individuals who have superior ability (based on either human or natural resource endowments or both) to capture economic rents from the creation of property rights.<sup>18</sup> Stuart Banner offers a similar idea but couched in less flattering terms:<sup>19</sup> he suggests that property rights emerge when powerful oligarchs control both the largest share of resources whose value would be maximized by the creation of property and the political system through which such a transition is effectuated. Other contributors, including Epstein and Levmore, draw on interest-group theory as either a supplement or replacement of the social efficiency explanation offered by Demsetz. Of those who stress distributional issues, Levmore stakes out the most pessimistic position in terms of the explanatory potential of the Demsetz thesis, arguing that "for every transaction-cost story about changed access or other property rights there is a suspicious—or even pessimistic—interest-group explanation."<sup>20</sup>

A second approach to the causation puzzle, which is presented most fully through an example discussed by Epstein, is that property rights emerge as a norm widely shared among the members of a close-knit community with

<sup>17</sup> Harold Demsetz, *Toward a Theory of Property Rights II: The Competition between Private and Collective Ownership*, in this issue, at S653.

<sup>18</sup> Terry L. Anderson & Peter J. Hill, *Cowboys and Contracts*, in this issue, at S489.

<sup>19</sup> Stuart Banner, *Transitions between Property Regimes*, in this issue, at S359.

<sup>20</sup> Levmore, *Two Stories about the Evolution of Property Rights*, *supra* note 8, at S433.

a strong commonality of interests.<sup>21</sup> Epstein's example concerns the emergence of informal exclusion rights to on-street urban parking places after major snowstorms in Chicago. The example fits the Demsetz thesis, because the snow causes the value of parking places to spike, and the recognition of exclusion rights both creates an incentive to dig out parking places and minimizes the dissipation of rent associated with searching for available spaces. After the snow melts, the exclusion norm disappears. As Epstein recounts, the exclusionary norm applies primarily on secondary streets with single-family residences, with the understanding that every household has a claim on one parking place. Thus, the example suggests that property is most likely to emerge in situations of broad equality and consensus about the desirable use of resources within a community. This stands in sharp contrast to the distributional theories, which posit inequality of power and/or wealth as a necessary condition of creating property.

A final question concerns the symmetry of the thesis. Demsetz was concerned with the paradigmatic situation in which we start with open access and end up with property. But if the explanation for such shifts is based on a comparison of costs and benefits, and both benefit and cost functions can shift in either direction over time, then one would also expect to see movements in the reverse direction. That is, one would expect to find situations in which benefits fall or costs rise and society moves from a property regime all or partway back to an open-access regime. Levmore considers the phenomenon of reversibility at length from a theoretical perspective. Haddock and Kiesling, adopting a more empirical approach, review the evidence about the impact of the Black Death, which caused a large relative shift in the values of labor, capital, and land, on property rights. The articles by Banner and Henry Smith also touch on the possibility of reversibility. A possible generalization from these papers is that property rights are sticky in the sense that large up-front costs make it hard to create them, but once created, there is often little reason to get rid of them even if the benefits decline to the point where they would not be created *de novo*.

The articles in this volume are by no means the final word on the Demsetz thesis. Like all academic work, they probably do less to resolve issues than to suggest potential avenues for further research.

One area for further research is to develop a clearer specification of what we mean by property when we discuss the impact of changing resource values on legal institutions. Economic analysis has long been content with a very casual understanding of the institution of property.<sup>22</sup> This has not

<sup>21</sup> Compare Robert C. Ellickson, *Order without Law: How Neighbors Settle Disputes* (1991) (developing a theory of property rights on the basis of the norms recognized in close-knit communities); Robert Sugden, *The Economics of Rights, Co-operation, and Welfare* (1986) (developing a theory of property based on spontaneously evolved convention).

<sup>22</sup> See Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?* 111 *Yale L. J.* 357 (2001).

inhibited progress in understanding things such as tort and contract law, but it probably has retarded progress in understanding the evolution of property rights. For example, a clearer specification of what we mean by property could help in delineating the costs of creating property rights and might illuminate the question of what causes property rights to emerge (or recede).

Another area of promise is to do more case studies of episodes that run counter to the central Demsetz paradigm. This would include both episodes in which resource values rise or fall sharply but institutions do not change and episodes in which institutions, with or without changes in resource values, move from private-exclusion rights to communal property rights or open-access regimes. Further study of these "abnormal" episodes may be the most promising avenue for developing a more complete understanding of the costs of creating and maintaining property rights.

Finally, the contributions to this volume suggest that there are two principal candidates for the causal mechanism that translates changes in resource values into changes in property institutions: distributional or interest group theories and consensual social norm theories. It might be possible to test the relative plausibility of these theories using econometric techniques. As Banner suggests, the distributional theories imply that changes in property rights should occur more readily in inegalitarian societies. Conversely, norm theory would seem to suggest that changes in property rights will occur more readily in relatively close-knit, egalitarian communities. Thus, these theories can perhaps be tested by developing quantitative measures of social equality and of rates of change in property institutions and performing appropriate regression analyses.

A second avenue to arbitrating between interest group and social norm theories would be to undertake more microsociological studies along the lines of Epstein's study of Chicago's snowstorm/parking norms. Particularly instructive would be situations in which resources shift in and out of exclusion rights depending on their scarcity or value. Careful probing of the relevant sequence of events might reveal whether the adoption of property rights in these circumstances tends to be imposed from the top down, as the distributional theories would suggest, or tends to be more bottom up or spontaneous, as norm theory would suggest. Or such studies might reveal that both forces are at work or that one or the other tends to predominate depending on the circumstances.

The articles in this volume are divided into those devoted to theory, which appear first, and those devoted to empirical studies, which follow. The division is only approximate, however, as all of the theory pieces include multiple references to specific examples, and all of the empirical pieces contain valuable and often original theorizing. Harold Demsetz, who we honor with this issue, gets pride of place in an afterword. Financial support for the conference and special issue was generously provided by the Searle Fund and Northwestern University School of Law.