PROPERTY RIGHTS IN TWO STATES OF NATURE

BY

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How the Origin of Property **Rights Relates to Environmental Protection** The question of property rights has been at the forefront of serious political discourse since ancient times. Classical writers usually approached the topic from state of nature theory. When all people are just plunked down on earth, what principles decide which persons own what external resources, and why. In modern times, however, state of nature theory takes on a different coloration. Given our collective concern with nature, what system of property rights and or/regulation best preserves our environment for the present inhabitants of the world, and posterity. These two questions are more closely related than is commonly supposed, for any accurate account of how property rights emerge from a state of nature tells us much about what *use* rights any property owner shoud have vis-à-vis his neighbors and the public at large. Defining these use rights clarifies the role of state enforcement, and helps answer one key question of institutional design: what restrictions may the state impose on an owner's the use of property as of right, and which restrictions require the payment of compensation. These issues here are broadly theoretical and their proper analysis does not depend on the constitutions or laws of any nation, including the United States.[1]

State of nature theory first asks how any person gains any rights in land good against the rest of the world, without the consent of anyone else. There are really only

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[1] For a fuller exposition from a theoretical and American perspective, see Richard A. Epstein, Nuisance Law: Corrective Justice and Its Utilitarian Constraints, 8 J. Legal Stud. 49 (1979); Richard A. Epstein, Takings: Private Property and the Power of Eminent Domain (Harvard UP, 1985); Richard A. Epstein, Simple Rules for a Complex World (Harvard UP, 1995).

two basic approaches to this problem. The first holds that all property is unowned in a state of nature, so that any individual keeps what he can take. That system usually works best with the slow migration of populations into new territories. First-comers typically space their holdings, but with time, the remaining land is slowly occupied. With time all persons have *neighbors,* some of whom are strangers with whom the original owners have no ongoing consensual arrangements. In contrast, the second approach assumes that all property is held in common, so that some central authority must convert part of that land to private property. This second device will work better within cohesive societies. In modern times, gated communities and condominium associations use elaborate governance mechanisms that stem from a common landlord whose function is, to paraphrase Harold Demsetz, to "internalize the externalities" from inconsistent land uses. Understanding how these wo regimes work give us a window into organizing modern environmental law.

Bottom Up, Not To Down The top-down creation of rights is not feasible in the chaotic circumstances of primitive times. Locke makes that point most vividly when he observes that the acorn belongs to the person who takes it from the tree. Note his reasons: "Was it robbery thus to assume to himself that what belonged to all in common? If such a consent as that was necessary, man had starved, notwithstanding the plenty God had given him."[2] Locke well understood that a system of universal consent is so clumsy that people take first and ask questions later. The decentralized system of bottom-up rights was a historical necessity that cannot be denied or undone several thousand years later. Possession by unilateral is strictly necessary, but hardly perfect. Once it is in place, what rules minimize its imperfections?

Temporal Externalities The first simple question asks, when a person takes possession of an acorn or an acre of land, what does that possession give? The short answer was, and is, that possession gave (and gives) ownership of an indefinite duration, for both chattels and land. This assignment of rights meant that people did not have, in order to preserve their rights, keep their acorns in hand, or prowl the boundaries of their

[2] John Locke, SECOND TREATISE OF GOVERNMENT § 28.

land. They retained ownership of land and chattels until they either consumed it, sold it, or evinced some clear and unambiguous sign of abandonment.

Permanent ownership for land has positive implications for environmental protection. Its long time horizons allow owners to make intelligent choices between investment, consumption and saving. A farmer would sow seed could harvest the crops. As owner of both crops and the land, he fully internalized any decision to compromise the value of the land to increase crop yield. The environmental soundness of the temporal decisions of private owners is evident when one looks at the harvesting programs allowed today on government owned land. Commercial firms have a built-in incentive to clear-cut land because the reduction in land value falls on the public at large. The same timber companies operate more prudently on their own private lands, because the needed internalization does take place.

Boundary Disputes: *Two Cases* Externalities arise not only over time but between neighbors, with respect to lands and waters, both public and private. Traditional legal systems used three bodies of law to deal with these problems: trespass (i.e. unlawful entrance) into the land of another; cattle trespass (unlawful entrance by one's animals); and nuisance (creation of noxious conditions—discharges, odors, noise and the like). These bodies of law set the stage for determining the appropriate scope of government regulation.

To see why, examine first two separate states of the world. The first involves *perfect symmetry* in the positions of two or more landowners. In its most exacting conditions, landowners take possession of their neighboring properties at the same tome, and also have identical land use patterns. Neither party is higher or lower, or upstream or down stream, from the other. The more difficult cases introduce some asymmetry between the two parties on use, timing or physical descriptions of the property. Solving these problems pave the way for dealing with the more complex problems involvingt multiple parties (as in pollution cases) where private litigation is less effective.

Symmetrical Cases The first task of land law is to settle the boundary conditions between two individuals who take possession of neighboring lands for the same use at the

same time. A brute fact of nature makes it impossible for either party to move away to avoid potential land use conflicts. Abandoning property or restricting use both carry real costs. The laws trespass and nuisance control these conflicts. Both bodies of law are generalizable. No one, consistent with the rule of law, can harm a neighbor in ways that the neighbor cannot harm him. So the first inquiry is, if n person each own identical plots of land, what rules would they choose, if it were possible for them to bargain, to maximize the value of their holdings subject to this equality constraint. In each case, the assumptions of this model put them behind a perfect Rawlsian veil of ignorance. Any effort to expand their rights as land users hurts them when others make parallel uses of their own lands. So all persons have the proper incentive to make honest revelations of value.

This simple model explains why the rules against trespass to land enjoys such widespread support. Free entry to the land of others makes it unlikely that anyone will invest in clearing land, planting crops or building structures. Good fences turn out to make good neighbors. Even factoring in the (relatively low) costs of enforcement, each neighbor will be better off with an injunction against trespass except in rare cases where entry onto the land of another allows a person to escape some imminent peril to life or limb. It is easy here to see why people could not damage chattels or animals either: again the negative impact on investment is too great across. So boundaries matter.

Cattle trespass, both to and by animals, is also critical in early agrarian societies. Hence the law quickly evolved to hold owners strictly liable for cattle that entered other people's property. In addition, landowners could hold cattle as security for payment of the damages so caused, thereby lowering the costs of enforcement. Netting out gains and losses, the prohibition against cattle trespass reads positive also reads positive aross the board.

Nuisance cases are the most difficult because no one answer covers all cases. Actual nuisances come in all sizes and shapes, for odors, discharges and noise are consistent can all be big or small. In practice it makes sense to differentiate between size nuisnces. In major cases o f runoff that fouls soil and blocks agriculture prompt action is

needed. The same is true of stench and sledgehammers. The basic legal rule treats these high-level nuisances just like trespasses and subjects them to a per se prohibition, which allows the owner to collect damages for past harms and to obtain an injunction against future ones.

But injunctions for nuisance are more complex than those against trespasses for reasons that are not nation-specific. Demanding a complete cessation of harm places a huge crimp on productive activity. Across the board, the extreme precautions needed to stop that last tiny bit of pollution dwarf the gains obtained. The strong on/iff switch that works for actual entry fails in nuisance cases. Hence at some point, most legal systems require an injured party to tolerate small levels of harm. From behind the veil of ignorance this rule works because, given the symmetrical position of the parties, no one knows which side of the dispute he will be on. Denying complete injunctions thus increases the value of all land from the ex ante perspective, which obviates any distributional worries.

This treatment of small residual harms in major nuisance cases helps explain the proper treatment for minor nuisances. If any smell, noise, or discharge counted as a nuisance, no one could barbecue in the back-yard, talk on his front patio, or farm. To head off those results, a strong live-and-let live principle allows all low-level nuisances to continue, without compensation, creating a uniform Pareto improvements that should be welcomed on all sides. As Baron Bramewell wrote in 1862:

> It is as much for the advantage of one owner as of another for the very nuisance the one complains of, as the result of the ordinary use of his neighbour's land, he himself will create in the ordinary use of his own, and the reciprocal nuisances are of a comparatively trifling character. The convenience of such a rule may be indicated by calling it a rule of give and take, live and let live. . . .[3]

Thus far the analysis has covered only those cases of physical invasions of another's property. Often times *noninvasive* conduct causes serious dislocations. Here

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[3] 122 Eng. Rep. 27, 32-33 (Ex. 1862).

are two examples that call for different solutions. The first situation involves lateral support. Dig out your land and the nearby land will fall over. The same logic that governs the live-and-let live cases takes over, so that both landowners on level land cannot dig out to the boundary line if nearby land will fall. That obligation, however, does not extend to cases where the support is required for structures built close to the boundary, for here the fear is that the unilateral action will give the first builder rights over a neighbor who is for all practical purposes powerless to stop their creation. Hence the law only requires an excavator to give notice before his work begins so that his neighbor can shore up his own foundations. Once the rule is in place, the first builder can negotiate for a covenant of support, or build back from the property line to minimize the risk. The this use of noninvasive nuisances improves overall social welfare.

The second instance deals with claims for an easement of light or view. When one person builds so as to block the light and view of another, should that be treated as a nuisance to neighbors whose land value declines? That cointention has been widely rejected in the judge-made law tradition of most countries and for good reason—namely that this rule encourages premature development. That rule allows the first to build to stop the second to build. If som, then why couldn't the neighbor stop the original building? The explanation lies in the parity in position, which can only be preserved if either both, or neither have the right to build. In general both plots of land are worth more with development rights. What is true for two neighbors also applies to many. Could the first to build stop 20 nearby owners from exercising the like privilege? Clearly no.

The overall analysis, however, is not complete. Even if parties are in identical positions at the outset, their differential investment strategies could easily alter that balance. Clear rules governing boundary disputes usefully sets a baseline for further negotiations that allows one landowner to buy out rights from another. The simplest way to avoid conflict is an outright purchase of land so that the sole owner suffers the harm when runoff or pollution from one portion of the land harms another part of his land. The purchase internalizes the externality.

Sometimes, however, an outright purchase is not feasible because the neighbor has made distinctive investments in own his land that are of little value to a potential purchaser. To deal with that problem, most legal systems allow owners to partition their assets by selling off only part of the land rights, retaining the remainder. Thus the law of easements allows one person the right to walk or ride over the land, to pollute, or to impose height or setback conditions to preserve light and view. These transactions do not allow either party to increase burdens on third persons, so that any mutual gain between the parties creates a social benefit. Since land use arrangements are of long duration, virtually all legal systems allow any easements or covenants so created to bind subsequent buyers who have notice of the restrictions. Voluntary contracts help correct any misallocations of resources created by the basic system of land law.

Frequently, neighboring landwoners find it difficult to negotiate these deals, especially if the cooperation of many parties is needed, for example, to preserve views. Nonetheless in planned unit developments, a single owner can at low cost divide property among many private owners, often reserving areas for common use. These projects will reflect the income preferences of the prospective buyers, which typically offer more environmental amenities to purchasers with high income levels. Generally speaking, these agreements rarely, if ever, cut down on the protection between neighbors from the background nuisance. Yet typically these agreements add many restrictions on land use in order to maximize owner satisfiaction at low cost. Since these deals all involve contracting parties, all externalities are internalized. The single initial owner adopts a development strategy that maximizes sale value to all potential buyers, so that private incentives are aligned with social ones. In addition, any external effects on third persons are likely to be *positive* as the public can free ride on the stricter land use practices, while retaining all their previous protections against what few nuisances remain. The substantive provisions of these agreements give an instructive clue as to the optimal public land use regimes, a topic to which we shall turn later.

Asymmetrical Initial Position. Let us now turn to cases of asymmetrical land use. These harder cases make it more difficult to apply the the basic rules of nuisance and trespass outlined above. When all parties engage in the same activities—say industrial—a greater

tolerance of neighboring nuisances generally works to the advantage of all parties. Yet once the different parcels of land are amenable to different use patterns, should the level of reciprocal harm be calibrated to the high-intensity or the low-intensity nuisance-type use. Usually, the low-level interference dominates, but if a single low-intense user in a district with high-intensity users may not prevail. Don't shut everyone else down; but give the low-intensity user an incentive to sell to someone who wants to make a use compatible with the basic regional pattern. The legal rule sensibly induces a greater homogeneity of uses, which in turn allows other areas to impose stricter uniform standards. In effect, the right live-and-let-live rule sort land uses by neighborhoods.

Temporal Asymmetries Temporal asymmetries arise, for example, when one of two established landowners develops his property before the second. The most common version of this "coming to the nuisance" problem has one party, D, engage in an intensive land use with negative spillovers, such as running a mine or a pig farm. At the inception of the activity, his neighbor, P, is doing nothing with her land that is compromised by that normally noxious use. Subsequently, P changes her use, so that D's conduct now has a negative effect, as when a neighbor builds a private home next to the piggery. Can the home owner close down the piggery?

The usual and correct answer is yes, subject to a transitional period to phase out the piggery. The explanation for this rule covers both periods of development. Thus the law could let P to enjoin the use before she suffers any physical harm: all invasions are nuisances, period. But now we have the unhappy specter of stopping a high-valued use to protect a no use at all. So it makes sense to postpone any injunction until the time of actual conflict, which may never occur. Yet the law cannot ask P to stop her action if she will be time-barred at some later time. So the statute of limitations starts to run only with actual conflict in neighboring uses. Looked at only from that later time, it appears as if the dislocations of an injunction are excessive. But that rule is surely preferable to the two alternatives: shutting down the piggery before any harm happens, or letting the operate, unless P decides to build a house that is not needed to day to preserve the option to use it tomorrow. On balance, the current rule makes sense.

Physical Asymmetries One common definition of fairs speaks of games played on a level playing field, so that neither side gets the upper hand. Unfortunately nature does not always provide that level-playing field for upstream and downstream riparians, or for landowners on the top and bottom of the hill. How should the nuisance law respond?

One possibility is to make no allowance at all. The party at the top of the hill, T, has a more limited set of uses because of the harm his conduct causes to L at the bottom of the hill, B. The legal system thus offsets T's natural advantage. As a partial offset, B gets no protection against any flood or natural natural disaster that starts on T's land. One objection to this view asks why the entire burden of precaution should fall on T when B may be in a better position to take cheap and effective steps to avoid harm above. Thus in one situation, T could install a larger drain at the bottom of the hill or building her property above the ground. T could buy out B even if B has full rights. Yet buyouts are not likely to work when many people are in B position at the bottom of the hill. Hence there legal systems divide on whether the law should require B to take those precautions with her land that she would take if she owned both the upper and the lower portions. The problem is even more complex if B builds before T, for precautions against natural runoff will often not suffice against the increased run off after construction. Again the question is close, but the more numerous the parties, the stronger the case for putting modest affirmative duties, perhaps by statute on B and others similarly situated.

Movement into the Public Sphere

Nuisance Regulation The last question is how these principles translate into a coherent policy of environmental law. In dealing with this issue, one obvious parallel is to public nuisances, a well developed head of law, that arise when a private party pollutes say a river or lake. Here one possibility allows all riparians to mount a class action with its immense procedural complexities. Alternatively, the state could sue to enjoin the nuisance. The emphasis here should be on substance, and the key rule of transformation from the private to the public space is this: *the state has the same rights, no more no less, as any private owner under the law of trespass and nuisance*. The efficient rules for dealing with private/private interactions set the stage for private/public interactions.

Similarly, air pollution is the combination of many low-level nuisances. Again the social response could use either class actions or direct regulation. But again the procedural issues are second order. The first order considerations involve the interaction between damages and injunctions. On this issue, the total elimination of all pollution makes no more sense in the public arena than in the private. The trick is to reduce the pollution to acceptable levels, which are positive and not zero. What that proper level is may often be a subject of disputation. As the discussion of gated communities and subdivision suggests is that higher levels of affluence call for lower levels of pollution. That same principle should apply to public nuisances. And as with live-and-let-live regimes, regional variations in pollution levels make sense if they lead to intelligent groupings of high and low-intensity activities. Again modern environmental law should be a sound descendant of ordinary private law principles.

The problems in the public sphere are also compounded by temporal and spatial asymmetries. But again the private law offers useful guidance. If the state wants to impose emissions control on a piggery or a foundry because new development has taken place in the neighborhood, the coming to the nuisance cases supply useful precedents, so that these restrictions (subject to a caveat about transitions) could be imposed without compensation, as they generally are.

Yet in other cases the temporal and physical asymmetries can lead to major environmental distortions. The US Supreme Court case of *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*[4] raised both forms of asymmetry. The incumbent landowners had built first on hillsides from which excessive runoff polluted Lake Tahoe (known for its dark blue) for great environmental loss. But which landowners, the early arrivals or late comers, should bear the heaviest burdens? The principles discussed earlier give a clear clue. Earlier polluters should receive no preference, for that just creates an incentive for them to engage in the nonstop excessive paving that generated the excessive pollution. If therefore they wish to resort to the political system to force their neighbors to leave their plots unbuilt, or to adopt expensive

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[4] 535 U.S. 302 (2002).

construction techniques (build on stilts) for modest building, they should be required to compensate for regulatory losses imposed. Why? To create the proper rate of substitution between early and late uses. Thus if the early builders laid down extensive asphalt of little value, they will dig that up and restore the land to its original condition rather than pay a fortune to block a neighbor from using a buildable lot. But the US Supreme Court, which had no grasp of these intertemporal issues, upheld the extra regulatory burdens on the latecomers that gave no one any incentive to undo any inefficient overdevelopment. This broad use of regulatory power places enormous stress on the issues of taking and just compensation up next.

Takings and Just compensation Any system of public enforcement should respect the difference between nuisances that may be enjoined as of right and land use restrictions that private parties must acquire by easement (to cause nuisances to neighbors) or covenant (to enjoin conduct, such as that pertaining to air and light). This one principle has enormous implications for the entire field of environmental law, because it reduces range of cases in which state regulation should be allowed without just compensation to the aggrieved owner. Some examples follow.

Should the state should be able to impose height and setback restrictions on individuals in order to improve the views or light of others? To resolve this question, we have to distinguish between two pure types, recognizing that some intermediate cases will occur. The first situation involves the so-called "average reciprocity of advantage" where each party benefits from the restrictions imposed on others. At that point, the regulation itself contains, as I am fond of saying, *implicit-in-kind* compensation. All group members are left better off than before, so that the regulation overcomes the transactional obstacles that prevent cooperation without disadvantaging some individuals for the benefit of others. The prospect of uniform improvement across all class members thus sharply reduces the danger of factional struggle.

In the second situation the regulations hurt some landowners but help others. Now the danger is that cohesive interest groups will seek through regulation, for which they pay nothing, benefits that would require compensation if done privately. No private

landowner can tell his neighbor not to build in ways that block his view of the sea. Why then allow a zoning ordinance to achieve that result in the public arena, without paying compensation? The shift if arenas should not put the development rights of all landowners up for grabs. The no-compensation rule also aggravates all the temporal issue by giving the first to build a first-mover advantage over the second, which the private law has systematically denied, and for good reasons. Hence the basic rule should enjoin regulations with disproportionate impact unless the losers receive full compensation. That compensation rule has more than simple distributional effects. It also sets prices and creates incentives for beneficial political behavior, here by aping rules that work in the private sector.

This general approach questions today's dominant view that allows regulations—without compensation—to restrict the ability to build ordinary homes in coastal areas, to require habitat to be set aside for endangered species, to limit construction in or drainage of wetlands, or to require no-growth or development zones. The objection here does not go to the *Kelo* question of whether these regulations may be imposed. We can freely concede that the regulations are intended to advance a public use. But the absence of compensation encourages government regulators to push for regulation with positive value to a political majority because the regulators will perceive any cost to the regulated parties as carrying a zero price. Yet any sound social calculus cannot ignore costs to the losers and look solely at gains to winners. Yet that is exactly what uncompensated regulations do.

This is not just theoretical, and a real life story helps put matters into context. In the 1992 famous American decision, *Lucas v. South Carolina Coastal Council*,[5] the Court struck down a regulation that prohibited a landowner from building on coastal dunes counted when it reduced the value of a plot from $250,000 (a real social loss) to zero. In consequence, the Coastal Council was required to purchase the land outright, for its market value. It now had to internalize the full costs of its decision. What did it do next? It sold the land of course. And to whom? Not to the neighbor who would pay

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[5] 505 U.S. 1003 (1992).

$150,000 because it could use it as a side yard. But to an outsider, for the full $250,000 who was allowed to build just like Mr. Lucas. The moral. Talk here is cheap. People will talk expansively about benefits they get from quiet and solitude. But not when they have to pay for them. And that is what environmental law is about: getting the right incentives. How: by following the patterns developed with care and sensitivity in private disputes.