

The Law (and Economics) of Property Rights

**ESNIE
Cargèse**

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Overview

- Features of the NIE that are relevant to Law.
- Use of the NIE to explore the foundations of private law.

Why NIE and Law?

- NIE as the transaction cost economics of institutions.
- Institutions are the formal and informal rules of social interaction.
- Law is an important subset of institutions and is shaped by other nonlegal institutions.

Details, details . . .

- In law: skepticism about the importance of law, especially details.
- In mainstream economics:
 - Econometric studies of “rule of law.”
 - Treatment of “property rights” as “black box” entitlements.
- NIE as applied to law can be used to analyze legal detail and to flesh out content to notions of “property rights.”

Some themes

- Impediments to “full” transacting & responses:
 - Bounded rationality
 - Opportunism (bonding, trading hostages)
 - (Narrow) transaction costs (e.g. getting together, negotiating, drafting, enforcing)
 - Measurement and information (proxies, reputation)
- Cognitive constraints
- Political constraints

Nirvana would be nice . . .

What is special about the NIE approach to law . . .

- Comparative exercise, in law and beyond :
 - Custom
 - Property
 - Contracts
 - Torts
 - Regulation
 - Criminal Law
- Enforcement Institutions and their significance
 - Parties
 - Courts
 - Agencies . . .

Overview

- There are two dominant views of property – bundle of rights and right to a thing good against the world.
- Coase and later law and economics scholars presuppose an extreme version of the bundle of rights view.
- A theory of property based on information costs helps explain why property is a right to a thing good against the world.

Two Views of Property

- In American legal theory, property has fallen out of fashion.
- This may seem surprising: L & E is full of talk about property rights and property rules.
- This “property” is misleading; really talking about a thin notion of entitlement.
- Bundle of rights versus in rem rights of exclusion from a thing

Bundle of rights:

- In Legal Realism and current conventional wisdom, the concept of property has no content and can be assimilated to contract and/or tort. This view of property seems even more attractive with the increase in importance of intellectual property.
- This enthusiasm for the bundle-of-rights picture in and beyond Law and Economics is partly responsible for some (often exaggerated) differences of emphasis in U.S. versus civil law.

In rem right to a thing:

- The “lay” view has something going for it and this is no accident because quite often it is laypeople who are the *dutyholders* of a property right. (Every right corresponds to a duty).
- In rem rights impose information costs on large and indefinite class of third parties; so property is required to come in standardized packages that the layperson can understand at low cost.
- Related question: What is the difference between property and contract? Unlike in many countries, this question gets very little attention in the U.S. (Why have a property course?) Contracts do not usually present this informational burden on third parties.

The Traditional View and Its Critics

- The traditional view:
- William Blackstone, for example, famously defined property as “that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.” 2 William Blackstone, Commentaries *2.
- Why? Basic security of expectation: As Blackstone put it, “It was clear that the earth would not produce her fruits in sufficient quantities, without the assistance of tillage: but who would be at the pains of tilling it, if another might watch an opportunity to seize upon and enjoy the product of his industry, art, and labour?” Id. at *7.
- Compare David Hume, A Treatise of Human Nature 490 (L.A. Selby-Bigge ed., Oxford Univ. Press 1978) (1739); Edmund Burke, *Fragments of a Tract Relative to the Laws Against Popery in Ireland*, in 6 The Works of the Right Honorable Edmund Burke 299, 351-52 (7th ed. 1881).

The traditional view (continued):

- Adam Smith was delivering his lectures on jurisprudence at the University of Glasgow, in which he is even more explicit about the in rem nature of property. Adam Smith, Lectures on Jurisprudence 9-86 (R.L. Meek, et al., eds., 1978) (Report of 1762-3). In his classification scheme, borrowing from the civilians, he relied heavily on the distinction between real (or, in rem) and personal (or, in personam) rights, noting that “[w]e may observe that not only property but all other exclusive rights are real rights.” Id. at 11.
- Jeremy Bentham, a critical student of Blackstone and the founder of modern utilitarianism, recognized the in rem nature of property rights and emphasized the role of property in providing the security of expectation for investment. Jeremy Bentham, The Limits of Jurisprudence Defined 164 (Charles Warren Everett ed., 1945) (noting that “[t]o give a man a property” in a thing, there must be “a mandate prohibiting persons at large from meddling with it”); see also Jeremy Bentham, *Idea of a Complete Law, in Of Laws in General* 156, 177-78 (H.L.A. Hart ed., 1970).

Bundle of Rights

- Wesley Hohfeld, whose project was to analyze legal relations into smallest parts, noted that in personam rights are unique rights residing in a person and availing against one or a few definite persons; in rem rights, in contrast, reside in a person and avail against “persons constituting a very large and indefinite class of people.” Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning and Other Legal Essays* 72 (Walter Wheeler Cook, ed., 1923).
- Legal realists: Property has no fixed core of meaning, but is just a variable collection of interests established by social convention; there is no good reason why the state should not freely expand or subtract the list of interests in the name of the general welfare. Now orthodoxy.
- Example: Arthur Linton Corbin, *Taxation of Seats on the Stock Exchange*, 31 *Yale L.J.* 489 (1922) (“Our concept of property has shifted ‘[P]roperty’ has ceased to describe any *res*, or object of sense, at all, and has become merely a bundle of legal relations—rights, powers, privileges, and immunities.”)
- And . . .

Coase on Property Rights

- Ronald Coase as a hyperrealist in his view of property
- Coase's purpose in writing his article on social cost was to explore the "influence of the law on the working of the economic system."
R.H. Coase, *The Firm, the Market, and the Law* 10 (1988).
- Coase was not interested, as were later law-and-economics scholars, in using economics to explain the structure of the law itself.
- "We may speak of a person owning land and using it as a factor of production *but what the land-owner in fact possesses is the right to carry out a circumscribed list of actions.*" R.H. Coase, *The Problem of Social Cost*, 3 J.L. & Econ. 1, 8 (1960).
- In other words, Coase understood property not as any distinctive right to a thing good against the world, but rather as a bundle or collection of rights to carry out certain actions with respect to resources.

Two articles by Coase

- *The Problem of Social Cost* (1960)
- First Half:
- Transaction costs are assumed to be zero in a thought experiment. Coase begins by showing that if there were no transaction costs, the assignment of liability for social costs would have no effect on the use of resources (or at least on the efficient allocation of resources). Sometimes called the “Coase Theorem.”

Coase Theorem

- *More valuable (by \$100)*
 - *Farming* *Ranching*
 - *Entitlement in Farmer* no deal/farming R bribes/ranching
 - *Entitlement in Rancher* F bribes/farming no deal/ranching
-
- More valuable use wins out in ZTC world because a foregone bribe (costlessly effected) is a real cost (internalized).

Social Cost, Second Half:

- Positive transaction costs and review of nuisance cases
- Coase describes the reasoning of the judges in resolving nuisance cases as frequently resting on factors that seem “strange to an economist,” such as the doctrine of the lost grant, which he says is “about as relevant as the colour of the judge’s eyes.” *Id.* at 15.
- Coase notes that in a positive transaction cost world, the placing of the entitlement matters and so should be done with an eye to solving the economic problem. Mostly according to what is more valuable.
- Throughout, the assumption is that resource conflicts will be solved on a use by use basis.

The Federal Communications Commission (1959)

- Coase was directly concerned with making the case for establishing a system of property rights to allocate the broadcast spectrum, as opposed to doing so through government regulation.
- “What does not seem to have been understood is that what is being allocated by the Federal Communications Commission, or, if there were a market, what would be sold, is the *right to use a piece of equipment to transmit signals in a particular way*. Once the question is looked at in this way, it is unnecessary to think in terms of ownership of frequencies or the ether.” R.H. Coase, *The Federal Communications Commission*, 2 J.L. & Econ. 1, 33 (1959).
- Coase thought that the classic property-in-land way of thinking of the problem “tends to obscure the question that is being decided.” *Id.*
- “[W]hether we have the right to shoot over another man’s land has been thought of as depending on who owns the airspace over the land. *It would be simpler to discuss what we should be allowed to do with a gun.*” *Id.* (emphasis added).

Post Coaseans

- *(i) The Contractarian Perspective*
 - Neoinstitutionalists (e.g. Yoram Barzel)
 - Property rights as any entitlement
 - Property in the sense of residual claims is what's left over after contracting is done.
- *(ii) The Tort Perspective*
 - Cooter's double responsibility at the margin
 - Use-rights based
- *(iii) The Entitlement Perspective*
 - Calabresi & Melamed
 - Entitlements and their protection – a “right to pollute?” (Calabresi & Melamed)

BUT: Rule 3 is not parallel to Rule 1 and Rule 4 is almost non-existent . . .

TABLE 1
CALABRESI & MELAMED'S "FOUR RULES"

		METHOD OF PROTECTION	
		Injunction/ Property Rule	Damages/ Liability Rule
INITIAL ENTITLEMENT	Resident	Rule 1	Rule 2
	Polluter	Rule 3	Rule 4

Calabresi & Melamed (1972)

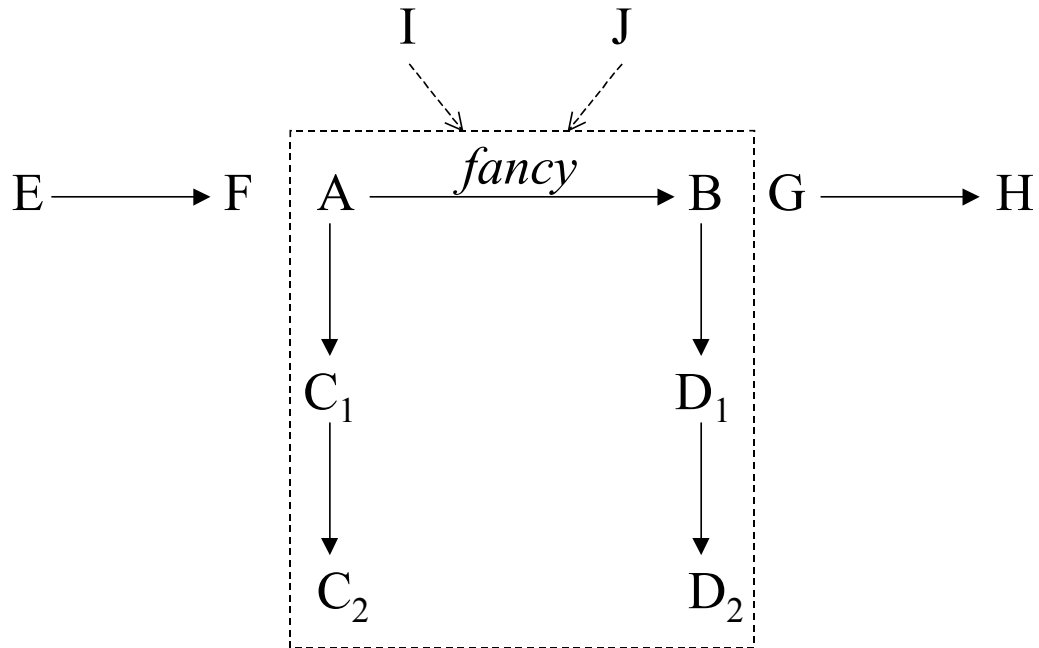
- Calabresi & Melamed: This bundle of use-rights is infinitely plastic and infinitely customizable to each context or situation.
- C&M's "entitlements" bear none of the distinguishing characteristics of in rem property rights.
 - No mention of any "thing" that serves as the focal point for the right.
 - No suggestion that these entitlements bind a large and indefinite class of dutyholders.
- C&M on the mystery of criminal liability
- Later literature on the superiority of liability rules (Ayres, Kaplow & Shavell more moderate)

Some Applications: The Cost of Coasean Property

- *(i) The Mystery of the Numerus Clausus*
- One striking thing about property is that it contains many more mandatory rules than does contract law. This even extends to . . .
- List of property forms, which are actually building blocks
- The “formalistic, box-like structure” of estates in land:
 - *Present possessory interests*
 - *fee simple* *fee simple absolute*
 - *defeasible fees . . .*
 - *life estate*
 - *leases* *term of years*
 - *periodic lease*
 - *tenancy at will*
 - *tenancy at sufferance*
 - Common-Law theory: Implicit principle of judicial interpretation and so weaker

Watch Hypothetical

Figure 1—The Classes of Affected Parties



Watch Hypothetical (Continued)

- Here contracting to use the watch on given days is fine but a timeshare in a watch (personal as opposed to real property) is not allowed – why not?

Third-party information effects

- Idiosyncratic rights (fancies) raise processing costs generally to those who must avoid violating and those who contemplate purchasing.
- Property is an in rem right (against the world, Blackstone – the widest audience) and a right to a thing. The thing mediates the right such that the rest of the world knows what to do by interacting with the thing, need not have information about the person who owns it – little information

The Cost of Coasean Property (Continued)

- *(ii) Law Versus Norms*
- Robert Ellickson's Shasta County study found an overwhelming preference for fencing in when it came to informal norms. Again asymmetric, based on usual right to exclude.
- *(iii) Causal Agnosticism*
- Everyday and ethical problems with reciprocal causation: noses and fists.
- One reason is that anchoring a package of rights with the right to exclude from a thing is simple and effective most of the time.
- Because the right protects a range of use-privileges – house and cooking, reading, etc. –
- Entitlements are lumpy and asymmetric.

The Cost of Coasean Property (Continued)

- *(iv) Trespass and Nuisance Revisited*
- Property as basic exclusion and finetuning for particularly direct use conflicts
 - *Jacque v. Steenberg Homes*, 563 N.W.2d 154 (Wis. 1997)
 - Airplane overflights the obvious example, *Hinman v. Pacific Air Transport*, 84 F.2d 755 (9th Cir. 1936)
- *Ad coelum* rule
 - One owns a “column of space defined by the boundaries of the parcel.
 - Informationally simple; leads to asymmetry of entitlements
- Much of nuisance law can be explained as being on the edge between the thing-based property approach and a more finegrained classic tort-like activities-based approach.
- Nuisance per se
- Boundaries and invasions

An Alternative: Modular Property

1. Role of modularity in managing complexity
2. Exclusion and governance as modules and interfaces in delineating rights in property in property
3. Implications of a modular model of property for the measurement of institutions

Modularity

- Herbert Simon: Modularity manages complexity. A complex system is one with many internal interactions leading to difficulty in inferring the properties of the whole from the properties of the parts.
- Information hiding and interfaces.
- Role of modularity in cognitive science, computer hardware and software, organization of production, markets

Examples of Modularity

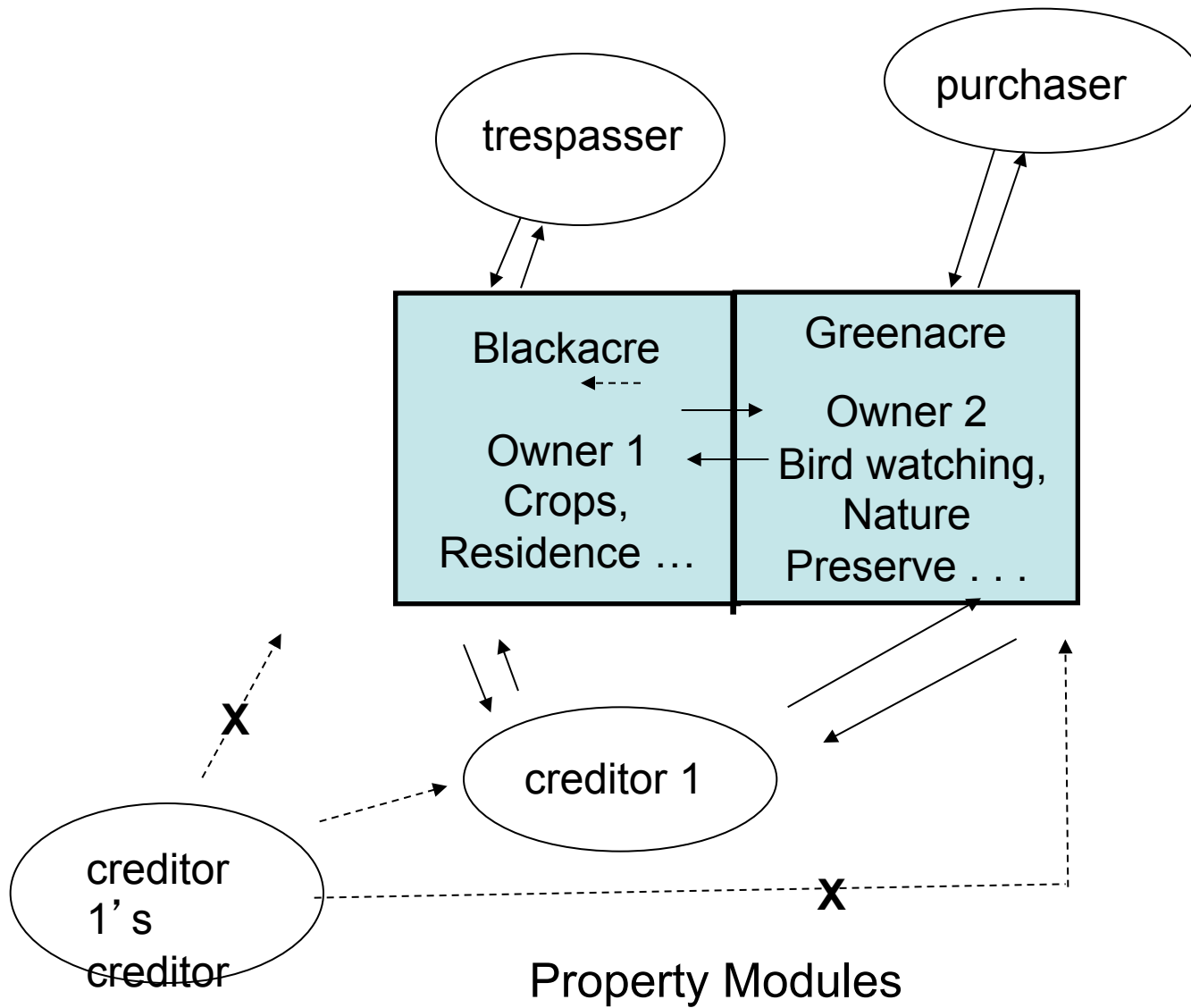
- Simon's watchmakers
- Selecting the uses of an asset (and related inputs)
- Lines of communication within an organization

Advantages of Modularity

- Adaptability without ripple effects
- Robustness to shocks
- Evolution
- Ease of understanding
- Specialization of information
- Portability of modules

Modularity in Property

- Exclusion regimes defines a thing and allows information-hiding behind boundaries.
 - Exclusion is low cost, low precision. Delegation to owners.
 - Mismatch (indirect) relation between right to exclude and interests in use (privileges)
- Governance regime to handle remaining high-stakes interdependencies.
 - Governance is high cost, high precision.
 - Multiple suppliers: nuisance, zoning, covenants, other contracting, norms.



Pollution

- Causal agnosticism and the “right to pollute”
- Basic package of rights includes more rights to be free from invasions than rights to commit invasions.
- Rights and the morality of property
- Information costs and lumpy rights

Overview

- Demsetz Thesis
- Demsetzian NIE
- Open Fields as a Case Study.

The Demsetz Thesis

- Demsetz Hypothesis: Property rights develop to internalize externalities when the gains of internalization become larger than the cost of internalization.
 - In particular, as resource values rise we expect more developed property rights.
 - Another implication that Demsetz does not emphasize is that as resources become less valuable we expect an attenuation of rights
See Anderson & Hill (1975); Haddock & Kiesling (2002)

“Externality”

- For Demsetz efficiency is an automatic consequence of maximizing by economic actors; externalities are effects that decisionmakers feel that are not worth internalizing.
- So for Demsetz, the presence of an “externality” is not an indication of inefficiency.

Transaction Costs and the NIE

- NIE as the transaction cost economics of institutions.
- Institutions are the formal and informal rules of social interaction.
- Law is an important subset of institutions and is shaped by other nonlegal institutions.

Property Rights

- What *are* property rights?
- Demsetz article weaves between the economist's broad definition of property rights and a narrower definition based on exclusion or even private ownership.
- Demsetz predicts a trend (acknowledging that communities may vary in their taste for private versus state ownership).

Beaver Hunting Territories

- More controversial than Demsetz acknowledges: waves in the literature)
- Alternative account based on scale effects (see later in Demsetz article for some treatment of scale)
- Also, even after “private” hunting territories developed, they were subject to an “insurance constraint” (mentioned by Demsetz for the early period). A non-family-member had the right to take a beaver for own-consumption (rule, where it existed, requiring one to leave the hide and tail is hard to enforce).
- Importantly, the territories did not prevent overhunting. McManus attributes this to heavy use of the insurance constraint.
- Overlap between private and common ownership leads to opportunistic behavior in a semicommons.

Further Issues

- What counts as more property or property rights activity?
- What kind of property rights will emerge in various contexts?
- Where does property come from? Mechanism?
- Should we be optimistic, pessimistic, or both?

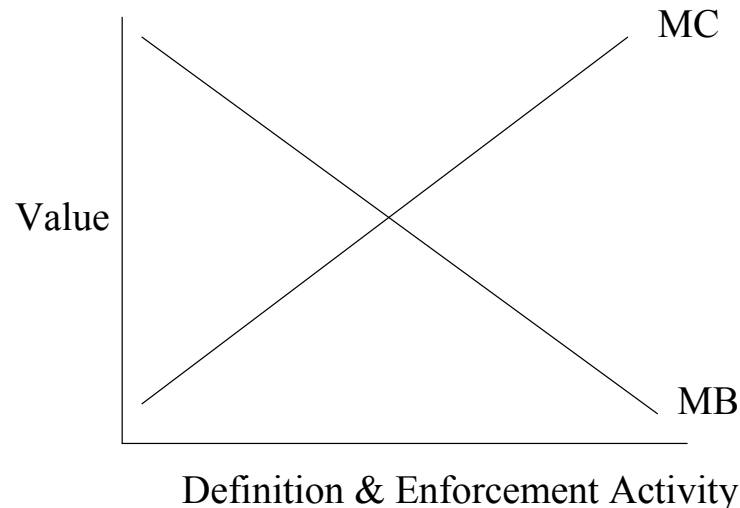
Common property vs. Open access

- Demsetz does not clearly distinguish common property and open access.
- Common property regimes can be stable and are efficient in some contexts (e.g. Ostrom (1990), Lueck (1995)).

Property?

Anderson & Hill (1975): Marginal cost and marginal benefit of property rights activity, e.g. barbed wire.

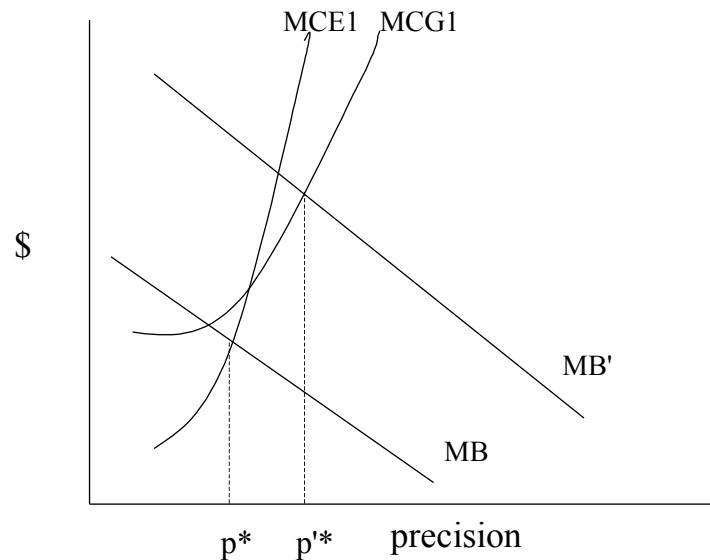
Figure 1—Anderson & Hill's Cost-Benefit Model



Property?

Exclusion versus Governance (Smith (2002)), e.g. stints, grazing customs:

Figure 3A—Exclusion and Governance for a Resource



Property and Scale

- Optimal scale of use and parcel size
- Scale as compromise based on uses and conflicts between them (e.g., Lueck (1989); Fennell (2009))
- Emergence of more fine-grained exclusion-based rights as an alternative to governance, e.g. tradable permits (Rose (1991))

A Demsetzian Challenge

Can rising resource value lead to *less* property? (Field 1989: because marginal exclusion costs rise even faster than benefits). Yes, but all of the following must hold (Smith (2002); see also Allen (2002):

1. The increase in resource value causes a greater increase in thieves' marginal product than in the marginal value of the resource to the owner, making the resource less worth defending.
2. This situation could not be remedied after a (consensual or nonconsensual) take-over of the entire resource by someone with a higher defensive capability.
3. Those with a talent for violence cannot be hired to provide defensive services for someone with a talent at using the resource.
4. Larger less well-defended parcels would not require so much additional governance that it would be less costly to defend smaller parcels.

How do we prevent Demsetz thesis from losing its bite? For example, rising resource value will lead to more squabbling is not surprising.⁴⁵

Property Mechanisms

- Demsetz treats process as a black box (“naïve theory,” Thráinsson (1990))
- Contracting for property rights (Libecap (1989)):
 - Size of aggregate gains to be shared (most Demsetzian)
 - Number and heterogeneity of the bargaining parties
 - Extent of limited and asymmetric information
 - Distribution issues
 - Physical nature of the resource

Examples: Oil & Gas, Mining Camps, Brazilian frontier

Property and Political Economy

- Political economy considerations and explanations (Banner (2002), Levmore (2002), Wyman (2005))
- Property system is a public good with an appropriation problem. Cf. norms (signaling, approbation, irrelevant externalities)
- Further questions:
 - Why is there a Demsetzian trend toward efficiency? Is there?
 - What do we treat as endogenous? How to analyze the Russian Revolution? Communist China? What is an equilibrium?

The Open Fields and Demsetzian NIE

The Open Fields changed over time but common and private property persisted for centuries.

Technology, scale of uses, potential opportunism, and social distance all play a role, as do changes in these variables.

'A plat and description of the whole mannor & Lordship of Laxton with Laxton Moorehouse in ye county of Nottingham and also of the mannor & Lordship of Kneesall lying adiacent to ye aforesaid mannor of Laxton', by Mark Pierce, 1635.

<http://bibliodyssey.blogspot.com/2007/12/laxton-open-field-survey-map.html>



Typical English Open Field Village

- Several hundred peasants; nucleated village surrounded by 2 or 3 large fields of arable farmland, and further out “waste” or woods
- Might or might not be under the supervision of a lord and manor court, or just village council
- Peasants “owned” strips in the sense that they owned the grain produced on them, could lease, sell, devise them subject to constraints
- Strips were scattered; so a typical peasant might have 15 strips scattered around.
- One field of the 2 or 3 was kept fallow

Open Field Village (Cont.)

- Peasants had a right to graze their individually-owned animals (esp. sheep) in a common herd on the arable in the fallow period and just after harvest.
- Duty to throw land open – pastureland scarce
- Only peasants had access to grazing and in proportion to holdings (stinting a solution to common-pool problem of overgrazing)
- Collective herd under one herdsman

Benefits and Costs of Open Fields

- Economies of scale in grazing (labor very scarce, cultivation labor intensive, sometimes onerous duties to lord), but not in grain growing (agency costs)
- Operation on 2 scales.
- Goods: Manure from sheep on the go and from sheepfolding; some trampling
- Bads: Trampling, esp. on wet ground
Overgrazing . . . Stinting as solution to a common-pool problem

Open Fields as a Semicommons

- Semi-Commons: common and private property regimes center on different uses of the same resource. They overlap and potentially interact, especially through the a problem of strategic interaction.
- Strategic behavior: incentive to dump costs and appropriate benefits in commons-use based on who owns which parcel; further problems than common pool
- Scattering as a type of solution to the special problems of the semi-commons.

Special costs of a semicommons

- First, *actor does not bear the cost* in *his* private use if he “dumps” and will gain from doing so whether or not others do (prisoner’s dilemma).
- Private cost and social cost diverge even more than in common property
- Actions like stinting that address the common-pool problem (of overgrazing) do not address this problem: still an incentive to strategically distribute under the “cap”

Costly monitoring, especially for a nonhomogeneous resource.

Special costs (cont.)

- Second, *non-homogeneous holdings*. Powerful, large landowners can oppress.
- Contracting into bonding or monitoring mechanism will be costly.
- Third, prospect of strategic abuse and even legitimate use will call forth costly *attempts to protect one's holdings, especially if consolidated*.
- Defensive efforts shrink the pie.

Scattering as a Solution

- Scattering raises the costs of offensive strategic behavior, by making boundaries hard to use in the common-use purpose: With scattering, animals likely (a) to be standing on most of not all of peasants' land at once *and* (b) very difficult to differentiate people's land from afar and on the move.

and

- raises the costs of wasteful defensive measures against others' commons-type use.
- Scattering thus can raise the benefit of saved transaction costs (and possibly lower exclusion costs) in such a way that an otherwise inefficient middle-range move on the road from common to private property becomes viable.

NIE and Semicommons

- We expect a semi-commons where the advantages of splitting ownership of attributes outweighs the sum of the costs of strategic behavior and the measures undertaken to reduce it.
- Goal: Question is whether, if we accept this view of semi-commons and scattering as a solution, we can give an explanatory account institutional regularities – of the features of a system like open fields and across such systems.

Previous Explanations

1. Risk-reduction/diversifying (Donald McCloskey): probably there but fails as the main reason for scattering –
 - Too many other, probably cheaper ways to spread risks, (land/labor contracts, grain sharing, but NOT storage) especially if a lord was present.
 - Scattering correlated with presence of lord
 - Perfect correlation of mixed farming with scattering; grain-specialized areas had no scattering (again) esp. because grain-specialized farmers face *more* risk

More Previous Explanations

2. Mimicking economies of scale (Stefano Fenoaltea):
 - Again parcels not even enough
 - Not clear there were economies of scale
 - Many regulations/norms and cases illustrate that scattering left (increased?) divergent interest in peasants wrt sowing time etc.
 - Again, perfect correlation of mixed farming with scattering; grain-specialized areas had no scattering.

3. Preventing holdouts (Carl Dahlman): holdout behavior
 - But threat to hurt self more than others
 - Problem of more scattering with lords (who could deal with holdouts directly)
 - Unlike the strategic behavior here, was easy to monitor and deter

Evidence for Semicommons

- Perfect correlation of mixed farming with scattering
- Grain-specialized areas *had no scattering*
(hard to square with diversification theory)
- Common grazing the first aspect to emerge and the last aspect to disappear

Further Questions

- What mixtures of property systems evolve for different resources and under what institutional contexts?
- How do actors minimize the costs of interaction of systems?

Finally . . .

- The Demsetz Thesis has been very fruitful, but it leaves many questions open.
- What mixtures of property systems evolve for different resources and under what institutional contexts?
- Does the Demsetz thesis require spillovers as with rival resources? Other benefits and costs of property?
- How does the basic model need to be extended to make it more fruitful?