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(Article begins on next page)

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Frank I. Michelman

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APPENDIX

ETHICS, ECONOMICS, AND THE LAW OF PROPERTY*

Frank I. Michelman**

I. INTRODUCTION

Is it true that in economics lie answers to the ethical conundrums implicit in legal coercion?¹ This chapter considers the question with respect to the law of property. Its thesis is that not even a presumptive preference for the rudiments of private property—much less a conclusive case for any detailed configuration of rules conforming to those rudiments—is obtainable by economic reason from empirically verified premises. Now, that is not to say that private property is unjustifiable, but rather that the justifications must finally appeal to kinds of premises and arguments—call them *moral* premises and arguments—that economic reason aims at circumventing.

It is true that the norm for social ordering invoked by economic analysis—that is, the norm of efficiency—seems as neutral, as indisputable, as any such norm could be. One has only to start with a factual judgment that, far from being controversial, borders on the pragmatically irresistible; that is, that our actions as human individuals are rationally motivated, in the minimal sense of aiming at general satisfaction of consistently ordered sets of privately experienced wants or preferences. Efficiency, then, just means arranging matters so as to allow for as

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** Robert Walmsley University Professor, Harvard University.

1. See Frank I. Michelman, *A Comment on Some Uses and Abuses of Economics in Law*, 46 U. Chi. L. Rev. 307 (1979) [hereinafter Michelman, *Comment on Uses and Abuses*]; Frank I. Michelman, *Norms and Normativity in the Economic Theory of Law*, 62 Minn. L. Rev. 1015, 1043-45 (1978) [hereinafter Michelman, *Norms and Normativity*]; Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication*, 8 Hofstra L. Rev. 487 (1980) [hereinafter Posner, *Efficiency Norm*]; Richard A. Posner, *Some Uses and Abuses of Economics in Law*, 46 U. Chi. L. Rev. 281, 292 (1979) [hereinafter Posner, *Uses and Abuses*].

much such satisfaction as nature's immutable laws permit.² The weak premises of rationality and efficiency are, however, insufficient to determine an ideal form of property law. The efficiency of private property is a hypothesis dependent, not only on behavior rationally directed toward satisfying individual wants, but on questions about the contents of the wants and the social propensities of their bearers—some of which may be empirically determinable, while others can only be imputed through moral intuition or moral reason.

The extreme counterthesis to this essay's is what we may call the presumptive efficiency thesis (PET). It is important to see that PET, at its best, is not itself insensitive to contingencies of actual wants and proclivities. PET may well regard private property (PP), not as a unique order having detailed specifications, but as a set of orders sharing the same general form, within which the details can vary while the form remains clearly opposed to that of obviously non-PP orders such as collective ownership or an unregulated "state of nature." PET, then, would be the notion that efficiency is both a general and a peculiar virtue of the PP *form*—general in the sense that efficiency is presumptively an attribute of the PP form as such, as applied to whatever domain of valued objects you like; peculiar in the sense that given any particular domain, and any proposed regime for ordering it that is identifiably *not* PP, there is always presumed to be some PP way that is more efficient than the proposed alternative (the details of which will depend on the special facts pertaining to actual wants and proclivities). The claim here is that PET is false even in this most reasonable, highly adaptable version.

II. COMPARING FORMS OF REGIMES FOR PRESUMPTIVE EFFICIENCY

A. *The Private Property Torso*

To think of private property regimes (PP) as presumptively efficient is, it seems, to have at least vaguely in mind an ideal type of PP—an institutional paradigm to which actual regimes may be observed to conform or not.

Some elements of the PP form are easy to identify. Any legal order must contain both rules governing *initial acquisition* by agents in the order of use and control of valued objects, and rules governing *reassignment* from one agent to another.³ In a "private property" order, it will be readily agreed, the rules must conform to at least the following principles:

2. There is, of course, a very controversial ambiguity as between the norm of *collective* maximization (utilitarianism) and that of *universal* "maximization" (paretianism). We can avoid that controversy here by way of a benign pretense that these two versions of efficiency come practically to the same thing, on the principle of the bigger the pie, the bigger the slices. See generally Lucian A. Bebchuk, *The Pursuit of a Bigger Pie: Can Everyone Expect a Bigger Slice?*, 8 Hofstra L. Rev. 671 (1980); Frank I. Michelman, *Constitutions, Statutes, and the Theory of Efficient Adjudication*, 9 J. Leg. Stud. 431, 435-40 (1980); Posner, *Efficiency Norm*, *supra* n. 1.

3. Rules regarding adverse possession or user that eventuates in both obliteration of an old title and inception of a new one are treated in this chapter as belonging to the "initial acquisition" category.

Initial Acquisition

1. *Sole ownership*: The rules must allow that at least some objects of utility or desire can be fully owned by just one person. To be “full owner” of something is to have complete and exclusive *rights* and *privileges* over it—the “rights” meaning that others are legally required to leave the object alone save as the owner may permit, and the “privileges” meaning that the owner is legally free to do with the object as he or she wills.⁴

2. *Self-ownership*: The rules must prescribe that each individual is full owner of his or her natural body, talents, and labor power.

3. *Ownership of product*: The rules must prescribe that whoever owns all the factor inputs to any product owns the product. (Rules governing cases of production using factors owned by more than one person must be designed so as to reinforce actual social respect for property in factors.)

Reassignment

4. *Freedom of transfer*: Owners are both immune from involuntary deprivation or modification of their ownership rights and empowered to transfer their rights to others at will, in whole or in part.

B. Private Property Compared With What?

We need some reasonably clear conceptions of regimes that are decidedly *not* PP, with which PP regimes can be compared for presumptive efficiency. It will be convenient to have three of these before us:

1. *State of nature (SON)*. In a state-of-nature (SON) regime there are never any exclusionary rights. All is privilege. People are legally free to do as they wish, and are able to do, with whatever objects (conceivably including persons) are in the SON.⁵

2. *Regulatory regime (REG)*. The converse of SON is a regulatory regime (REG), in which everyone always has rights respecting the objects in the regime, and no one, consequently, is ever privileged to use any of them except as particularly authorized by the others.⁶ (Rules for determining when such authorization exists may vary along several axes. At one extreme, authorization would require near-simultaneous unanimous consent; tending toward the other extreme would be a rule defining authorization as expressions of consent from any two persons occurring within the same twelve-month time span. The latter rule constitutes an REG: under it, each person always has a right that each of the others shall leave the covered objects alone except insofar as authorization is obtained.)

4. It is an open question whether the notion of full ownership must encompass entitlement to be compensated for unintended or otherwise “excusable” harm to things owned. See Duncan Kennedy & Frank Michelman, *Are Property and Contract Efficient?*, 8 Hofstra L. Rev. 711, 767-68 (1980).

5. Compare *id.* at 754-55.

6. Compare *id.* at 755-56.

3. *Forced sharing for needs (FSN)*. SON and REG both distinguish themselves from PP by strongly negating the PP principle of sole ownership. Forced sharing for needs (FSN) instead attacks the PP principle of ownership of one's product. An FSN regime always resembles some counterpart version of PP, departing from the PP counterpart only in the following feature: anyone who "needs" a thing and doesn't have it (or its equivalent in cash or credit) may take or requisition it from anyone else who has it and doesn't "need" it, and the state will intervene, if necessary, on the side of the needy taker. (For convenience, let us imagine rules clearly defining "need" in objective terms referring only to currently observable states of affairs. These may define "need" quite broadly—e.g., having in one's possession at this moment less than two thirds of the per capita average share of privately held national wealth—or quite narrowly—e.g., being diabetic and lacking insulin for an overdue shot.)

C. *Controlling for Distribution and Rights*

Calling private property presumptively efficient makes sense only as a statement that, for any given non-PP regime, there is probably some workable PP regime that, while otherwise equivalent, is more efficient. We have begun to form some rough idea of the meaning of PP and non-PP. But what does the term "otherwise equivalent" mean?

Surely one might have grounds other than comparative efficiency for choosing among regimes. A regime might be preferred for the sake of its expected distributional outcomes, or because it conforms to extraeconomic conceptions of rights. Such concerns might immediately dictate the choice among regimes without regard to efficiency comparisons; or efficiency comparisons might be relevant but not necessarily controlling, given some "social welfare function" that specifies the form and rate of exchange⁷ among efficiency and other concerns.

We need some conceptual apparatus by which to control for possible concerns about distribution and rights, and so keep our comparisons among regimes (or classes thereof) strictly focused on efficiency. We need, in particular, to make sure that preferences for PP vis-à-vis SON, REG, or FSN, even when experienced or expressed as if motivated by efficiency concerns, are not really grounded in some other dimension of morality.

The appropriate set of controls is not hard to discover. We first assume that we have an adequate definition of the PP and non-PP categories. Next, we assume a distributional criterion, *D*, that specifies the set of acceptable distributions, and a rights criterion, *R*, that specifies the form and rate of exchange (which might, of course, be that of lexical superiority) of various rights with efficiency. Finally, we assume knowledge of the natural facts and laws that determine the most efficient specification of the PP form that is compatible with both *D* and *R*. This excellent regime we call PP*.

7. The preferred form and rate of exchange may be hierarchical rather than continuously substitutive—a lexical ordering. Compare Ronald Dworkin, *Why Efficiency?: A Response to Professors Calabresi and Posner*, 8 Hofstra L. Rev. 563 (1980).

We can use the expression **PP** to stand for any class of regimes that are certainly not **PP**. By analogy with **PP***, **PP*** designates any non-**PP** regime that satisfies both *D* and *R*. PET, then, is tantamount to the view that (i) there exists at least one instance of **PP***—at least one possible non-**PP** regime that, given all the other supposed facts about the world, will in practice allow for due recognition of all the rights in *R* and yield distributions compatible with *D*; and (ii) for every such **PP***, it is the case that (or there is reason to think it likely that) there is a possible **PP*** that is more efficient. It is of central importance to the aims of this chapter to understand that PET entails not only point (ii), but point (i) as well. If you think (i) is false, you are committed to **PP** on grounds that have nothing to do with efficiency. You are, moreover, committed to *rejecting* PET inasmuch as PET is the thesis that **PP** regimes are presumptively more efficient than *otherwise equivalent* **PP** regimes; because whatever the term “otherwise equivalent” might mean, it seemingly cannot encompass regimes that fail, where **PP** succeeds, in securing distributional or noneconomic rights.

Thus, if *R* is such as directly to require establishment of sole ownership (thus ruling out SON and REG), or directly to condemn any needs-based redistributions of product (thus ruling out FSN), then a preference for **PP*** over SON, REG, or FSN is fully determined by these extraeconomic considerations, and efficiency is beside the point of the comparisons. Again, if the supposed facts are such that SON simply cannot be constrained (while still remaining a cognizable version of SON) so as to generate a *D*-compatible distribution, then rejection of SON in favor of **PP*** is fully determined by a preference for a certain range of distributional outcomes, and efficiency is beside the point.

III. THE COMPOSITION PRINCIPLE OF THE **PP** FORM

A. *The Question of Composition*

The four “torso” principles of sole ownership, self-ownership, ownership of product, and freedom of transfer⁸ are not by themselves sufficient to characterize regimes that are recognizably and distinctively **PP**. Also needed are rules governing the composition of allowable ownership claims—or, as it might be described, for “packaging”⁹ marketable goods into legally cognizable objects of ownership. A few illustrations will confirm the need.

Take first the case of airspace overlying the earth’s surface. Is that legally subdivisible at all? Is it subdivisible, but only into sole exclusive ownership domains along this or that configuration of space-time coordinates—for example, by a rule that assigns to the owner of a surface parcel sole exclusive ownership of

8. See text accompanying *supra* nn. 3-4.

9. See Bruce A. Ackerman, *Social Justice in the Liberal State* 170 (Yale U. Press 1980). Ackerman is directly concerned with the composition problem as it pertains to individual versus collective ownership, but not with other dimensions of the problem we are about to discuss.

the superadjacent space?¹⁰ Or might the subdivision occur along different conceptual axes? For example, we distinguish “rights” (of exclusion) from “privileges” (of entry and use), and then assign to each individual “sole ownership” of a privilege over the whole spherical envelope (namely, I am the sole owner of my world-encompassing privilege in that I alone determine how and when I exercise it)—with the result, by deduction, that no one initially has any exclusionary rights. Or, conversely, we assign to each individual an all-encompassing *right*, so that it becomes true for each that no other is free to enter or act within the envelope without the permission of the former—and no one, therefore, initially has any privileges.¹¹

Without at this point saying anything stronger, we can safely conclude that the PP form must require *some* restriction on decomposition of full ownership into privileges held without their congruent rights, or rights without their congruent privileges. A regime totally void of such restrictions could hardly count as PP, because a scheme of universally distributed, all-encompassing privilege is, precisely, a *commons*, a type of regime (SON) that is opposite to PP if any type is; whereas the converse scheme of universally distributed, all-encompassing rights is just an extreme of collectivization (REG) no less starkly opposed to PP than is the state of nature; and schemes that go part way to either of those extremes will be cognizable, then, not as pure PP, but as mixtures of PP and something else.¹² To be the full owner of something just is to be, at once, the one who is *both* legally free to occupy and enjoy it *and* legally authorized to say what anyone else may do with it.

Further compositional ambiguity yet lurks in the notion of “something,” even if we strongly rule out of PP all regimes that countenance any degree of right/privilege decomposition. Are “objects” restricted to entities describable using spatial coordinates? using space-time coordinates? to members of some discernible typology of natural wholes? Do all such entities qualify as ownable objects? Examples of the various questions crowd to mind: May it be that I am the owner of a certain ten-acre field on odd-numbered days, while you own it the rest of the time?¹³ May it be that I own, continuously and forever, one half of the field while you own the other half—but our halves are spatially configured like the red-and-black halves of a checkerboard, and the blocks are each one centimeter

10. Such was professedly the traditional rule of the common law. See e.g. Charles Donahue, Jr., Thomas E. Kauper & Peter W. Martin, *Cases and Materials on Property: An Introduction to the Concept and the Institution* 359-81 (West 1974).

11. For fuller discussion of the concepts of right and privilege, and of the contradictory relation between them, see Kennedy & Michelman, *supra* note 4, at 752-56.

12. See *id.* at 755-56, 766-67.

13. The traditional common law rules allow for division of ownership along temporal lines, i.e., into “present” and “future” “estates.” See e.g. Donahue et al., *supra* n. 10, at 541-60. The rules do not, however, permit unrestricted temporal subdivision *ad libitum*, but only subdivision according to some one of a finite set of recognized patterns. See *Johnson v. Whiton*, 34 N.E. 542 (Mass. 1893) (Holmes, J.: “A man cannot create a new kind of inheritance.”); Donahue et al., *supra* n. 10, at 541-60. The alternating-days pattern proposed in the text is not among the recognized ones.

square?¹⁴ May I own the whole thing, permanently, as respects beet culture, while you own all the rest?¹⁵ May I own the toothpaste while you own the tube?¹⁶ Note that all of these may be construed as questions both about the regime's rules for initial acquisition (e.g., may I be allowed to acquire just the beet-raising "easement" by "first occupancy"?), and its rules for reassignment (e.g., may I, fully owning the tube of toothpaste, make A the owner of the tube and B the owner of the paste?)

B. Composition Constraints on PP

It will now be apparent why the torso principles do not constitute a set of sufficient conditions to qualify regimes as PP or not-PP, for purposes of presumptive-efficiency comparisons between the two classes. A regime that reserved all industrial capital to collective ownership or defined all the land as a commons of universal privilege, which would qualify as PP under the torso principles, would not so qualify in presumptive-efficiency talk. For sufficient definition of a PP category suitable to presumptive-efficiency discourse, we need some principle or principles of composition stronger than those implicit in torso 1 (*some* objects have to be fully owned by individuals at least initially) and torso 4 (owners can subdivide their holdings).

As one speculates on the matter, there seem to be at least four candidate composition principles for distinguishing presumptively efficient PP regimes, which we can call the principles of *ad hoc efficiency* (composition rules are fixed from time to time with a view to efficiency in light of current knowledge of individual wants and proclivities); *mandatory sole ownership* (no privileges unaccompanied by congruent rights, or vice versa, can be initially acquired and/or reassigned); *internalization* (holdings are configured according to rules set with a view to coordination without need for large-number transactions); and *nonintervention* (no state ownership or state dictation of composition in initial acquisition or reassignment).

The first two candidates can be rather quickly disposed of.

14. Nothing in the common law rules inveighs against a checkerboard subdivision, despite its obvious tendency toward economic inconvenience. *Compare Leo Sheep Co. v. U.S.*, 440 U.S. 668 (1979).

15. Such an arrangement can perhaps be approximated under the common law rules, using recognized ownership categories of "easement in gross" and "profit-a-prendre," see e.g. Donahue et al., *supra* n. 10, at 1028-63, or those of "fee simple on a condition subsequent," see e.g. *id.* at 546-47, 581-82, or "fee simple subject to a restrictive covenant." See e.g. *id.* at 1102-48. There is a question, however, about the degree of permanency that is legally attainable by such arrangements. See e.g. *id.* at 703-10, 1057-63, 1096-1101, 1170-78.

16. It seems we can make such an arrangement if we are careful about it, although some degree of hostility toward proprietary separation of the functionally inseparable is expressed in the common law doctrines of "accession" and "confusion," for which see generally Ray Andrews Brown, *The Law of Personal Property* ch. 6 (2d ed., Callaghan & Co. 1955).

1. Ad Hoc Efficiency

As a composition principle for distinguishing PP orders from others for purposes of presumptive-efficiency comparison, that of periodically revising the regime's composition rules with a view to efficiency would be merely illusory. The ad hoc principle cannot distinguish between private property and, say, "market socialism." It just restates the problem that sent us looking for a "strong" principle of PP composition.

2. Mandatory Sole Ownership

The conceptually cleanest way to demarcate PP from the classes of regimes perceived as opposite to it is just to rule out of PP the kinds of entitlement configurations that seem definitional for the non-PP classes—that is, privileges without congruent rights that characterize a commons, and rights without congruent privileges that characterize a collective. (Under this principle of mandatory sole ownership, PP regimes could still exhibit a variety of composition rules. For example, a regime might have a rule allowing privileges to enter the airspace envelope to be chopped into arbitrarily tiny spatiotemporal bits, or a rule assigning the privilege respecting the entire earth's envelope to just one person, or a rule assigning the privilege in a sector of the envelope to the owner of the adjacent surface¹⁷—and any of those regimes would qualify as PP as long as whoever had a privilege also always had the congruent exclusionary right.)

The trouble with mandatory sole ownership as a composition principle for presumptively efficient PP regimes isn't, then, that the principle fails to distinguish among regimes, but that it fails to describe a regime that is either plausibly efficient or much like the modified common-law regime we know as "private property." As applied to initial acquisition, the sole-ownership principle would imply that our own law has been presumptively inefficient when it has assigned the high seas and navigable airspace as free transit zones over which there are no exclusive rights;¹⁸ or has prescribed that streams and lakes were subject to rights held jointly by all the riparian owners, none of whom was privileged to deplete or pollute the water without permission from all the others;¹⁹ or even when it has imposed less than absolute liability for harm inflicted by one upon legally cognizable interests of another, by allowing such defenses as due care, emergency, duress, and fair competition.²⁰ As applied to reassignment, the principle would imply that individuals have acted inefficiently when they have privately and

17. I.e., the common law rule. See *supra* n. 10.

18. See e.g. *Air Commerce Act of 1926*, Pub. L. No. 69-254, 44 Stat. 568 (1976) (as amended, 49 U.S.C. § 403); *Ill. C. R.R. Co. v. Ill.*, 146 U.S. 387 (1892).

19. Such was the traditional English ("natural flow") rule. In the eastern United States it was generally supplanted by a rule allowing each riparian to make "reasonable use" of the flow (most characteristically, for modest domestic uses) despite resulting harm to co-riparians. See e.g. Donahue et al., *supra* n. 10, at 392-99. In either version ("natural flow" or "reasonable use"), the riparian system is one of right/privilege decomposition: "natural flow" is a system of joint rights without privileges, while "reasonable use" is a combination of such a system with one of common privilege without rights.

20. See Kennedy & Michelman, *supra* n. 4, at 767-68.

unanimously agreed to pool their several landholdings in a recreation area open to the free use of all, or to subject their holdings to a regime of collective controls on use and development.²¹ It is safe to conclude that mandatory sole ownership is too strong a composition constraint for presumptively efficient PP. We need something less inflexible, though still tougher than the ad hoc efficiency principle.

3. Internalization

a. *Composition and Costs of Coordination*

Before proceeding to study of the third and fourth candidate composition principles for the PP form—namely those of internalization and nonintervention—it will be in order to examine the relation between composition and efficiency.

Given a society containing a large number of individuals, a stock of available resources, and a distribution among the individuals of the society's aggregate resource wealth, there is at least one "efficient" scheme of deployment of the various resources such that no alternative deployment could make each person better off even after compensatory side payments. Let us call such an optimal allocative scheme S*.

Let us say that the society would benefit from "coordination" whenever it is the case that S* does not actually obtain (some resources being either idle or used contrary to the dictates of S*). Coordination always entails some direct ("transaction") costs, and the existence of those costs always leads to some shortfall from perfect coordination: the coordinating society always to some degree approaches S*²² and never attains it. The value of the shortfall is the society's "deadweight loss"; and the total of the deadweight loss and direct costs of coordination is the society's economic waste. From the standpoint of a concern for efficiency, the object of composition rules is minimizing economic waste.²³

b. *Internalization*

Suppose that all the available resources are owned in common by each member of the society, so that no coordination at all—much less a close approach to S*—is possible without the formal concurrence or spontaneous cooperation of everyone at once. Now suppose, alternatively, that there is at least one

21. E.g., through the common law devices of easement, covenant, and equitable servitude. See e.g. Donahue et al., *supra* n. 10, at 1102-65; Bernard H. Siegan, *Land Use without Zoning* 33-84 (Lexington Bks. 1972).

22. An inconsequential qualification is required by the theory of the second best, which tells us that short of actual attainment of S*, successive "approaches" to S* may involve local reversals in the direction of adjustment of various sectors in the total system of allocation. See e.g. Richard S. Markovits, *A Basic Structure for Microeconomic Policy Analysis in Our Worse-Than-Second-Best World: A Proposal and Related Critique of the Chicago Approach to the Study of Law and Economics*, 1975 Wis. L. Rev. 950.

23. See generally Robert C. Ellickson, *Suburban Growth Controls: An Economic and Legal Analysis*, 86 Yale L.J. 385, 414-15 (1977).

distributionally acceptable way of carving up the resources into individual holdings in severalty, such that under conditions of moderately imperfect information and moderately costly communication the individual holders would be motivated to transact their way stepwise toward S^* *by way of a series of small-number contracts and exchanges*. It is true, of course, that under absolutely perfect information and costless communications, S^* would emerge out of the ownership-in-common regime as well. But in moderately imperfect conditions, the amounts of economic waste respectively attendant upon the common-ownership and several-ownership regimes are likely to differ.

The composition principle of *internalization* reflects a policy favoring several as opposed to common ownership. The principle is that the rules for composing the taxonomy of legal ownable objects must be designed so that, given what is known or believed about people's wants and proclivities and the resultant utilities attached to various classes of objects, action in accordance with the rules will yield actual configurations of holdings such that the incidence of cases in which coordination requires simultaneous agreement among large numbers of owners will be held to a feasible minimum. Using internalization as the composition principle that qualifies a regime as PP, one would assign a regime to the PP class if its rules both conformed to the torso principles and seemed aptly designed for internalization.

The strategy of internalization is to arrange matters so that the typical owner, or most owners, will have as few "neighbors" as possible. A configuration of holdings at the opposite pole from perfect internality, that is, perfect externality, is one in which everyone is always everyone else's neighbor: each person owning an undivided fractional share interest in every thing in the world.

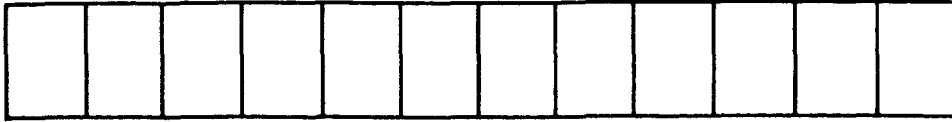
Of course, internality is perfect only in a world entirely owned by just one owner. That possibility, while logically conceivable, is not widely endorsed as policy.²⁴ Still, given any criterion (D)²⁵ of "widespreadness" in distribution, internality seems to posit a comprehensible goal toward which an optimizing intelligence can be coherently directed.

Consider this example.²⁶ A large group of people, n in number, have the opportunity, at no cost, to acquire an expanse of beach and subdivide it among themselves. We assume that, while the total area of their pending acquisition is fixed, they can take it in any shape they choose—circular, square, oblong, and so forth. They have already settled upon a scheme of equal division by lottery into n parcels to be severally and exclusively occupied by individuals. The question comes as to external shape and internal configuration. Just to keep things simple, suppose for a moment that only two alternatives are available: a row of rectangular holdings adding up to an extended oblong,

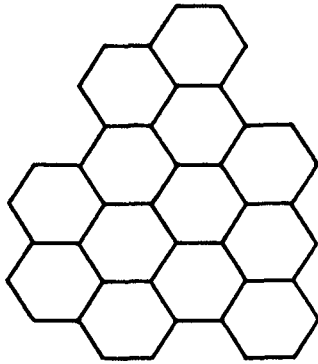
24. To be clear, there is wide endorsement neither of the policy of extreme concentration of wealth nor that of extreme concentration of management authority over everything in the world. *See infra* nn. 45-46.

25. *See supra* pt. II.C.

26. Adapted from Philip B. Heymann, *The Problem of Coordination: Bargaining and Rules*, 86 Harv. L. Rev. 797, 800, 817, 831 et seq. (1973).



or a honeycomb of regular hexagonal holdings as shown in the accompanying drawing.



etc.

It is known, we suppose, that people use beach space for just two different purposes: napping and listening to radios (various stations). Nappers don't like radio noise, and those listening to one station don't like the noise from another. At the preferred volume levels, audible radio noise crosses over just one boundary in every direction, whichever pattern—row of squares or nest of hexagons—is used.

A property system committed to an internalizing composition chooses the row-of-squares design. Under the hexagons alternative, each holder will be faced with the problem of trying to work things out, simultaneously, with each of six neighbors, each of whom also has to deal at the same time with six neighbors, three of them different from the neighbors of the first holder, and so on. Very possibly, some kind of global settlement through a political process will be the best available solution (e.g., they will elect a legislature that will enact some temporal and territorial regulations: in the northeast sector only station A can be played; in the north central, only station B; in the southwest, no radio playing; in others, the day is carved up among different rules; and so on). Under the squares alternative, by contrast, it is quite imaginable that a chain of bilateral deals (trading places, sorting out time periods between neighbors) would lead the parties to a feasible optimum. The preference for small-numbers internality reflects an assumption that economic waste²⁷ is lower in these bilateral-chain dealings than in the global political process. (If the parties placed an absolute value on efficiency supposedly

27. For the definition of this term, see the text accompanying *supra* note 23.

associated with strict bilaterality, such that they were willing to sacrifice to that end their distributional preference for equal holdings, they could achieve or approach bilaterality by allowing one of their number to become sole owner [landlord] of their entire beach site. This owner would then lease out portions in such sizes, shapes, and patterns, for such durations, and subject to such restrictions on radio playing, as seemed apt to maximize rental revenues; and so a chain of bilateral deals could, again, emerge to lead the parties up Mt. Optimus.)

There is at least some degree of plausibility in the idea that by adding to the four torso principles that of an internalizing strategy for composition rules, we capture the essence of the PP category as it occurs in presumptive-efficiency assessment. This way of completing the definition of the PP form seems to find the economic essence of private property, fittingly enough, in what we may call market structure aimed at accommodating coordination through small-number contracts and exchanges as opposed to political decision or extralegal cooperation. Moreover, the regime we commonly know as private property in fact abounds in restrictions on decomposition of titles that can be understood to reflect a policy of internalization: restrictive doctrines respecting easements in gross,²⁸ perpetuities,²⁹ covenants running with the land,³⁰ restraints on alienation,³¹ duration of cotenancies,³² “novel” easements and estates,³³ to name just some of the pertinent technicalities of the land law. Scholars³⁴ and judges³⁵ have associated many of the restrictive doctrines with efficiency goals. To be sure, there may be plausible accounts of many of them, or perhaps all, that make no appeal to efficiency.³⁶ Yet it would be folly to insist that none is, as a matter of fact, conducive to efficiency whether designedly or accidentally.³⁷

4. Nonintervention

Now, it is an unfortunate but inescapable complication—not to say an embarrassment—to our project of defining the essential form of supposedly efficient PP that the internalization principle for composition rules is not only market structuring, but also market hindering. It is market hindering inasmuch as

28. See e.g. Donahue et al., *supra* n. 10, at 1053-63.

29. See e.g. *id.* at 686-71.

30. See e.g. *id.* at 1114-38.

31. See e.g. *id.* at 667-78.

32. E.g. *Clark v. Clark*, 58 A. 24 (Md. 1904) (refusing to enforce a stipulation, in a gift of land to seven persons as tenants-in-common, that the usual recourse of tenants-in-common to judicially supervised partition would be suspended for ten years).

33. See e.g. Alfred F. Conard, *Easement Novelties*, 30 Cal. L. Rev. 125 (1942); *supra* n. 13.

34. E.g. Myres Smith McDougal & David Haber, *Property, Wealth, Land: Allocation, Planning and Development* 246-51, 479-83 (Michie Casebook Corp. 1948).

35. E.g. *N.W. Real Est. Co. v. Serio*, 144 A. 245, 247-48 (Md. 1928) (Bond, C.J., dissenting); *Norcross v. James*, 2 N.E. 946 (Mass. 1885) (Holmes, J.).

36. For example, the Rule Against Perpetuities is often explained as motivated by a concern for intergenerational equity, or for countering social stratification arising out of long-lasting concentrations of wealth within particular families. See e.g. Lewis M. Simes & Allan F. Smith, *The Law of Future Interests* § 1117 (2d ed., West 1956).

37. See Kennedy & Michelman, *supra* n. 4, at 764, 767.

it calls for composition *rules* at all. Internalization policy is, precisely, the policy of frustrating private parties bent upon excessive decomposition. And yet it seems hard to deny that market *freedom*—the absence of economic policy control by the state—is also of the essence of the PP category in comparative-efficiency discourse.

We have to consider, then, the possibility of defining the PP form as consisting of the torso principles plus a fifth to the effect that the state simply does not mandate or restrict composition (and, by deduction, never is an owner itself).³⁸ In this noninterventionist or antistatist conception of PP, all objects of utility or desire must at all times be either in private ownership (sole or multiple, full or divided, as the parties determine) or be unowned because lost, abandoned, undiscovered or unoccupied. If unowned, they may be taken into private ownership by occupation (or its analogues such as invention or creation);³⁹ if owned, they may nevertheless be taken into new ownership by prescription or adverse possession; and in either case the occupier or prescriber becomes the owner of just what he took, bounded by whatever spatial, temporal, and functional limits actually describe his legally operative, possessory acts.⁴⁰ Aside from occupation and prescription, the only way to become the owner of anything is by voluntary exercise of some erstwhile owner's power of alienation; and such powers may be exercised *ad libitum* to decompose or recompose titles. For example: I may, over an extended period of time, regularly but nonexclusively, shoot skeet on Mondays and Fridays on blocks of your field configured like the red part of a checkerboard; and I shall thereby acquire a nonexclusive checkerboard easement (privilege) of Monday/Friday skeet-shooting.⁴¹ Or you might confer just the same title on me by voluntary grant. Obviously, the resulting composition might be a severe impediment to future coordination.

5. Reconciling the Principles of Internalization and Nonintervention

Both internalization and nonintervention seem to be of the essence of the putatively efficient private property form for regimes. Yet, as we have just seen, the two principles have contradictory implications. The problem now is how to give each principle its due in the definition of the PP form, without destroying the coherence of the notion of "private property" as a distinct class of legal orders.

The most straightforward solution is to include both principles in the PP definition, but to give them separate domains of application. Cleanest, perhaps, would be to make internalization a principle for rules governing the composition

38. State ownership is a form of state-mandated decomposition, inasmuch as there is no individual who has coextensive rights and privileges respecting state-owned objects. Compare the case of corporations discussed *infra* note 45.

39. Compare Richard A. Epstein, *Possession As the Root of Title*, 13 Ga. L. Rev. 1221 (1979).

40. For the approximately similar common law doctrines of adverse possession and prescriptive easement, see, for example, Donahue et al., *supra* note 10, at 100-140.

41. A common law court undoubtedly would require clear and strong evidence of an obviously regular pattern of implicitly assertive conduct before it would recognize such an economically vexatious prescriptive easement. See *e.g. id.* at 108-09, 130-32.

of entitlements at the point of initial acquisition and nonintervention the composition principle for rules governing reassignment. Thus, the taxonomy of titles that could be gained by occupation, adverse possession, and so on would be composed according to rules designed to minimize the cases in which large-number transactions would be needed for coordination thenceforward,⁴² whereas the rules governing reassignment would deal with such matters as formality, disclosure, and duress but leave decomposition and recomposition of titles unregulated, to be determined at will by the parties to the reassignments.

This separate-domains solution, while conceptually neat, is unsatisfactory. It plainly fails to describe the traditional “private property” legal order, which both allows decomposition by initial acquisition⁴³ and substantially regulates decomposition by reassignment.⁴⁴ Moreover, the separate-domains solution is far from making intuitive economic sense. If decomposition hinders coordination, it does so whether arising from initially acquisitive party activity or from the activity of reassignment.

The more satisfying if less determinate solution is best approached by dwelling for a moment on the economic rationale of the nonintervention principle for composition rules. Nonintervention is a principle tending toward efficiency in composition just insofar as it is true that the configurations of holdings arrived at via the nondirected, spontaneous acts of individuals (consisting of first occupancy, exchange, gift transfer, and the like) will always or generally lend themselves to cheaper coordination than will configurations dictated or regulated by the state. Now, the truth of that premise seems to depend on that of one or both of two subpremises—a first regarding the comparative tendencies of regimes to depart from the entitlement structures that would actually be amenable to least-cost coordination under the transient circumstances; a second regarding the comparative cost of correcting for the departures.

The first subpremise is that the self-interested acts and dealings of individuals, whether or not they “decompose” ownership, will leave the universe of holdings from time to time configured more aptly for easy coordination in the service of individual wants than will the dictates of the state. (A dramatic example might be the very sophisticated decompositions of sole ownership by which aggregations of factors are gathered under the unified control of a corporation management without directly disturbing the wide dispersion of wealth claims.⁴⁵)

42. E.g., one who acquires title to a parcel of land by adverse possession might take it (i) subject to the privileges of others to interfere accidentally and nonnegligently with its use and enjoyment; or (ii) subject to the liability that intentional or unreasonable interference may not be enjoined but only compensable by a damages award. See generally Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 Harv. L. Rev. 1089 (1972).

43. E.g., the doctrine of prescriptive easement, *supra* note 40.

44. See text accompanying *supra* nn. 28-33.

45. The corporation is, of course, well recognized as an “internalization” device. That the device works by complex decomposition rather than unification of individual ownership claims is clear, if perhaps not so widely recognized. It is of the essence of “corporate” ownership that no individual has coextensively broad rights and privileges respecting the objects “in” such ownership. Directors can act with regard to them only collectively; neither directors nor officers are privileged to use them

This subpremise does have some intuitive appeal, inasmuch as the wants and interests of individuals are seen as both generating the configuration and calling for the coordination of its elements. But there seems to be no reason to suppose that *the same* individual interests and wants are doing both things, and there's the rub. The acts and dealings that continuously reassign and redivide holdings are, to be sure, those of individuals; but, to be no less sure, those acts and dealings will often affect multiple third-party interests, either immediately (again, the concentration and redirection of resources through corporations is a striking example), or under the unknown conditions of an unfolding future. You can't very easily get eggs out of an omelet. The invisible hand is forever becoming the dead hand, as every property lawyer knows.⁴⁶ And although there is no reason to confide absolutely in either the beneficence or the omniscience of the state as regulator of property composition, there is also none for trusting more to accidental regulation by individual dealings. If the state does not always act in view of the economic interest of society as a whole, neither do individuals.

The second subpremise is that whatever the extant composition of holdings may be, and however far that composition may have strayed from the one that would accommodate least-cost coordination under the current circumstances, economic waste will tend to be less if individuals are left free to recompose entitlements as they will in private dealings than if composition is dictated or regulated by the state. Thus, both subpremises lead to just the same question about the utility of state regulation of composition.

Posed thus abstractly, the question is unanswerable; or, rather, the inevitable answer to the abstract question is, "sometimes yes, sometimes no." In that irreducibly ambivalent attitude toward state control of composition lies the answer to our search for a composition principle to complete the definition of the PP form. The PP composition principle is that of no-intervention-except-for-the-sake-of-internalization, or what we may call the principle of *market facilitation*: the state may leave composition unregulated; and insofar as the state ever does regulate composition, it does so only by rules that conform to the principle of internalization—that is, the rules are designed with a view to accommodating coordination through small-number transactions.

It is important to note how this composition principle of market facilitation, while necessarily weaker than the rejected principle of "mandatory sole ownership,"⁴⁷ is also enough stronger than that of "ad hoc efficiency" to escape the objection that it fails to distinguish between regimes that are and are not PP.⁴⁸ It is true that the principle of market facilitation, like that of ad hoc efficiency, allows

otherwise than as authorized by the charter and by votes of the directors; shareholders, who have rights to prevent unauthorized uses of the objects, have no concomitant privileges of use; and so on.

46. When a given complex of "corporation ownership" claims has become inutile, by reason of scale diseconomies, monopolization, or whatever, readjustment is fraught with heavy transaction costs, whether in the form of legally compelled "divestiture"; voluntary "merger," "sale of assets," or "takeover"; or reassembly of sole ownership through "dissolution."

47. See text accompanying *supra* nn. 17-21.

48. *Supra* pts. III.B.1 & III.B.2.

the possibility of decoupled privileges and rights.⁴⁹ It allows that possibility, however, only under rules that aim at market facilitation. It does not countenance rules that aim directly at efficiency, by avoidance of markets. Unlike the ad hoc principle, the principle of market facilitation excludes the possibility that a *state-imposed* commons, or a regime of *state* command or regulation, may sometimes be preferable to a market. This preference for markets, it seems, is one distinguishing mark of the putatively efficient PP class of regimes; another is the nonintervention bias.

We are now, at last, in a position to set forth the complete set of formal principles for PP regimes:

Principles Governing Initial Acquisition

1. *Self-ownership*: The rules must prescribe that each individual is full owner of his or her natural body, talents, and labor power.

2. *Ownership of product*: The rules must prescribe that whoever owns all the factor inputs to any product owns the product. Rules governing cases of production using factors owned by more than one person must be designed so as to reinforce actual social respect for property in factors.

3. *Market facilitating composition*:

(a) *internalization bias*: Composition of holdings may be regulated only by rules designed to avoid excessive dependence of coordination on large-number transactions.

(b) *nonintervention bias*: Subject only to principle 3(a), composition of holdings by initial acquisition is as determined by party action under rules conforming to principles 1 and 2.

Principles Governing Reassignment

4. *Nonexpropriation*: Owners are immune from involuntary deprivation or modification of their ownership rights.

5. *Market facilitating freedom of transfer*:

(a) *free alienation*: Subject to principles 5(b), (c), owners are empowered to transfer their ownership rights to others at will.

(b) *internalization bias*: Subdivision of holdings by reassignment may be regulated, but only by rules designed to avoid excessive dependence of coordination on large-number transactions.

(c) *nonintervention bias*: Subject only to principle 5(b), composition of holdings by reassignment is as determined by action of the parties to the reassignment.

49. See text accompanying *supra* nn. 10-12.

IV. THE “MORAL BASIS” OF PET⁵⁰

We are ready now to return to this chapter’s central claim. Take any *R* and any *D*, and any corresponding PP* and PP*⁵¹. Then, from the sole factual postulate that persons are rational maximizers of individual satisfactions, one cannot deduce that the PP* is—or even is likely to be—the more efficient regime. Such a deduction must depend always on additional factual or moral premises.

It is possible to compile a short list, of additional premises, the truth of at least one of which would be required to make the deduction true. My aim is to show that the additional premises are either (i) false, or (ii) quasi empirical, meaning that in the present state of knowledge they are not known empirically to be true and are better understood as moral propositions than as factual ones—as statements of a view about how things might well be, not of how things are known to be.

A. *Additional Premises*

The list of additional premises is as follows:

a. *Per Se Preferences for Institutional Roles, States, Experiences*

1. People prefer the role and experience of being unmolested producers to those of (i) being predators in a state of nature or beneficiaries of forced sharing, and (ii) repulsing predators or fulfilling legal duties of sharing.
2. With regard to some specifiable list of valued objects or experiences (e.g., your body, or having total command over what you produce), people prefer the state of being legally secure in their own possessory claims to that of being legally free to disregard the reciprocal, possessory claims of others.⁵²
3. People prefer the experience of private exchange through markets to that of public decision through politics, and to that of informal, extralegal cooperation.

50. Compare Lawrence C. Becker, *The Moral Basis of Property Rights*, in *NOMOS XXII: Property* 187 (J. Roland Pennock & John W. Chapman eds., N.Y.U. Press 1980).

51. See *supra* pt. II.C.

52. Note that the list must, as a matter of logical necessity, exclude some of the objects and experiences that people might value. This is so because any subset of objects and experiences as to which people supposedly prefer a state of universal security necessarily implies a complementary subset as to which they supposedly prefer a state of universal exposure and license. My having a secure command over *your* body, labor, and product is not logically less eligible as a possible object of preference than is your contradictory claim to self-possession. Assuring secure self-possession to each person is equivalent to (i) denying to each person a secure claim to anyone else’s body, labor, or product; and (ii) licensing each person to disregard or interfere at will with the claims (and, where present, the related needs) described in (i). For more elaborate discussion, see Kennedy & Michelman, *supra* n. 4, at 759-62.

- b. *Effect of Uncertainty, Predation, and Forced Sharing on Incentive and Product*
4. Potential producers, anticipating loss of product to legally unrestrained predation, regulation, or forced sharing, will substitute for some or all of the production they otherwise would have undertaken some combination of (i) leisure, (ii) production in less predation-prone or less shareable form, and (iii) other defensive activity.
 5. Potential producers, allowed by law to help themselves to the fruits of other people's work (whether as predators or forced sharers), will substitute leisure for some or all of the production they otherwise would have undertaken.
- c. *Coordination Behavior*
6. Failure of coordination, through information failure and strategies of freeloading and bluffing, will be lesser under a market process in which large numbers eventually participate through complex chains of small-number deals than under a political process of collective decision or an extralegal process of voluntary cooperation.

This chapter proceeds henceforth on the assumption that belief in PET requires belief in the truth of at least one of the six additional premises. I see no way of proving the truth of this assumption. I can only leave it to readers to show the contrary, if they can, by either (i) explaining how to complete the defense of PET with nothing but the rational-maximizers premise to go on, or (ii) supplying some other additional premise that can do the job.

B. *The Additional Premises as Quasi Empirical*

1. The Per Se Preferences

Let us take first the three premises regarding per se preferences for institutional states, roles, and experiences. Neither observation nor introspection has established, or seems likely to, that any of them is universally held; to the contrary, either common⁵³ or historical⁵⁴ observation, scientific investigation,⁵⁵ or introspection casts grave doubt upon the idea that any of these preferences are species-characteristic in anything like a universal sense. And once it is granted that some people may well have converse preferences, any claim to knowledge of

53. E.g., it seems obvious that some individuals choose to live on public assistance who could expect to attain a higher economic income if they worked.

54. Historical evidence of preferences for political decision modes can be found, e.g., in Hannah Arendt, *On Revolution* (Greenwood Press 1963). Historical evidence of preferences for reciprocity and mutual aid, as distinguished from market exchange, can be found, e.g., in Karl Polanyi, *The Great Transformation* (Farrar & Rinehart 1944).

55. For one recent attempt to synthesize relevant implications of sociobiological inquiry, see Edward O. Wilson, *On Human Nature* (Harv. U. Press 1978).

how the balance of value lies, when it comes to choosing which among the conflicting preferences to accommodate, will be deeply unconvincing. (Worse, one's guesses about these matters will of necessity be rooted in observation of people conditioned by the prevalence of a particular set of institutions. Worse yet, those guesses themselves—one's own reading of the contaminated evidence, such as it is—will be similarly conditioned.)

The additional premises themselves assert that products and leisure do not exhaust the wants and preferences that may be more or less satisfied in a PP or non-PP regime and therefore have to be counted in the efficiency comparison. This assertion, however, opens the door to more possibilities than the premises allow—for example, that some people have a taste for the hurly-burly of SON or the political machination of REG; or for legally noncompelled cooperation or political participation of a type possible only in SON or REG; or that some have a deep aversion to uncertainty about having their needs go unmet when others are in a position to help them. There may even be some people who would take enormous satisfaction in the knowledge of being legally at liberty to go about using other people's bodies impulsively, as the spirit moves—who like even more the prospect that the persons within the bodies may fight back—and who are, by contrast, made miserable by the knowledge of being required to bargain with other people over the use of their bodies.

One cannot just dismiss such preferences as “nonrational,” if rationality is to remain a “weak” premise.⁵⁶ Of course, one *might* discount them as morally unworthy and thereby perhaps arrive at a preference for PP, in some form, over SON, REG, and FSN, on noneconomic moral grounds. One can also try admitting that there may be some people with the licentious preferences, but so few that their deviant wants are plainly outweighed by those of the host of normal security-preferrers. Thus would one enter upon quasi empiricism. Surely the crucial countings and “weighings” are not empirically known or verifiable. Surely one's sense of conviction about them arises from intellectual faculties hard to distinguish from those employed in moral intuition and moral reason. Surely their stuff is the stuff of Ought, though their form be the form of Is.

2. Uncertainty, Incentive, and Product

Let us now turn to additional premises 4–6, concerned with the untoward effects on production and satisfaction of the uncertainty (or insecurity) associated with legalized predation, forced sharing, and the threat of regulation. We take up three ways in which such uncertainty may be thought to be economically detrimental, including some further analysis of the supposed per se preference for security of possession.

a. Uncertainty as an intrinsic bad or cost. Let us start by granting, *arguendo*, that uncertainty is, indeed, an intrinsically bad thing to experience. Comparing PP with FSN or SON, it is obvious that the choice lies not between “more” and “less”

56. See *supra* pt. I.

uncertainty but between the kinds of uncertainty various people must bear.⁵⁷ Under PP, owners are certain of future control of their factors and products (per contract in the case of joint products), while those whose holdings, productive capacities, or productive motivations fall short of some critical level are uncertain of having all their needs met (i.e., by voluntary charity). Under FSN or SON, uncertainty about having your future needs met may be reduced (if you are unproductive or a gifted thief),⁵⁸ while uncertainty about keeping all your present holdings is certainly increased. Since neither sort of uncertainty is any more or less compatible with rationality than the other, neither regime can be said, *prima facie*, to entail “less” had uncertainty than the other.

Moreover, experience may afford an antidote to uncertainty in SON or FNS. Farmers, for example, may come to know what fraction of a planted crop they can normally expect to reap and keep. Indeed, a fairly intelligible equilibrium may emerge, bolstered and structured by informal agreement. The total of the bounded uncertainty in a mature SON or FSN regime cannot, *prima facie*, be supposed either “more” or “less” than that of the (one-sided) uncertainty in PP.⁵⁹

Finally, there is nothing in the rationality premise (at least, not in the weak or neutral sense that makes rationality almost irresistible as a working assumption) requiring that uncertainty be regarded as intrinsically bad or costly. Risk aversion is no more rational than is risk neutrality or a positive adventuring spirit. Once we drop the *arguendo* assumption of the intrinsic badness of uncertainty, it obviously becomes impossible to compare the efficiency of regimes in terms of the amounts of uncertainty they entail.

b. Uncertainty and allocation between labor and leisure. It is sometimes incautiously suggested⁶⁰ (and, one suspects, very widely just taken for granted) that minimizing the uncertainty of return faced by (potential) producers, at the same time denying any certainty of returns of potential predators, must certainly lead to increased total product. The intuitive notion is that the farmer assured of reaping where he has sown *must* be the more disposed to sow. The notion is false. In technical language, the mistake lies in a supposition, baseless so far as rationality is concerned, that the “substitution effect” of replacing PP with SON will prevail over the “income effect”⁶¹—that is, that since in SON the trade-off between labor and leisure is more favorable to leisure than it is in PP, people will work less and rest more in SON.

The truth is that the net result depends on how strongly producers value increments of product vis-à-vis increments of leisure, given this or that extant

57. See Kennedy & Michelman, *supra* n. 4, at 722-26.

58. It is not logically necessary that this uncertainty would be reduced, inasmuch as the forced-sharing requirement might, imaginably, have such a severe depressant effect on total production that no one's needs could be met. See *id.* at 724-25.

59. See *id.* at 717-18.

60. E.g. Sir William Blackstone, *Commentaries of the Laws of England* *4 (Clarendon Press 1769); Richard A. Posner, *Economic Analysis of Law* §3.1, 27-28 (2d ed., Little Brown 1977).

61. See e.g. James M. Henderson & Richard E. Quandt, *Microeconomic Theory* §§ 2-6 (2d ed., McGraw-Hill 1971).

combination of the two. If those relative valuations are such that the “income effect” prevails, a farmer who anticipates losing half of his crop to human predators will plant (in the limiting case) twice as much as he otherwise would have, so as to reap no less than would have been the case absent predation—and the result will be twice as much total product for human consumption under SON than under PP.

But wait a minute. What about the predator? Isn’t it true a priori that people who in SON manage to live off others, in PP will have to work for their livings; and that *their* product, at least, will be greater in PP? Supposing for a moment that this *is* true, we still have no way of knowing a priori that the *total* product output is greater in PP, given that those who produce in PP may, for all we know, produce even more in SON. Moreover, it isn’t even knowable that those who are predators in SON will be workers in PP, rather than recipients of voluntary charity. Nor is the converse knowable, namely that some people who have to work for a living in PP would, if SON were instituted instead, give up work in favor of predation; since the case might be that those who, in SON, obtain a certain standard of living through predation (say, the same as the maximum standard they can achieve as workers in PP) might find that life in SON at that standard generates additional wants more cheaply satisfiable by work, given diminishing returns to predation. Perfectly possibly, these people would work harder and more productively in SON than in PP—for example, if only in SON, with the predatory income base (or supplement) there available, did it become practical for them to think of striving for a total income ample enough for cruises and oriental rugs.

c. *Lawful predation and misallocation to precaution and defense.* Here the notion is that, lacking legal guarantees against predation, producers rationally must either produce less highly valued (but also less predation-prone) outputs than they otherwise would have (e.g., gather nuts rather than raise grain), or else divert labor and resources to defensive outputs (fences, private goon squads, mayhem) that have zero or negative value as final goods, thereby reducing the real value of GNP below what it otherwise would have been. Again, the argument depends on particular assumptions of fact. As we move from PP to SON, farmers may grow less, but they also may grow more; they may build fences, but they also may (it depends on comparative cost-effectiveness) just forget the fences and plant enough for both the predators and themselves (as one does with raspberry bushes, not bothering with netting or chickenwire because it’s easier just to raise enough fruit to satisfy one’s own wants and give the birds a free lunch to boot); the farmers may divert energies to defensive maneuvers that they find tiresome and disagreeable, but they also may affirmatively enjoy their skirmishing with predators (and goon-squad members who otherwise would have languished their ways through boring lives may find in goon-squading their true *métiers*), or—again—the farmers may just forgo defense altogether.

Just as in the cases of the per se preferences, our counter-speculations about insecurity and its consequences depend to some extent on the possibility that

people have wants or traits that may seem alien or unappealing (or worse) to “us”—too little self-reliance, too narrow a dependence on some particular form of consumption, a nasty taste for combat, or whatever. It seems no more open to us here than it was there to dismiss such inclinations as irrational. But how can we, then, pretend to *know* how the balance of preferences lies? The issues here, as there, are at least partly quasi empirical, our convictions about them just as hard to disentangle from the ingredients of moral discourse. There is, to be sure, a historical and anthropological literature offering empirical evidence on some of these questions,⁶² but it is controversial and, at least for now, inconclusive—too weak a foundation for strong convictions about the rightness or goodness of private property.⁶³

3. Coordination Behavior

The last additional premise is that owners of interdependent holdings, confronting one another in a changing world in which further coordination always beckons, can make better progress toward perfect coordination (S*)⁶⁴ through numerous, stepwise, small-number dealings than through more massive, if possibly fewer, feats of large-number coordination. These more massive feats might imaginably take the form either of regulation through a political process of collective decision or of cooperation outside the legally coercive institutions of regulation, property rights, and enforceable contract. What supposed facts about the human condition lie behind the belief that such processes are generally doomed to failure, by comparison with what can be achieved through contractual relations and exchanges based on individualized proprietary holdings?

a. *No Natural Harmony?*

Let us recall our hypothetical case of the beach.⁶⁵ The preference we there developed for an internalizing, “bilateralist” composition depended in part on a belief about the relative costliness, in forgone gains from trade, of the strategic behaviors respectively associated with large-number and small-number dealings. But it also, and more obviously, depended on the specific facts assumed about the actual substance of individual preferences and, relatedly, the utilities of beach-based activities—that is, the assumption that everyone wants above all not to have to hear noise from anyone else’s radio. The example was rigged to yield a choice for bilateralist composition.

Of course, one could as easily rig a beach case of opposite import—for example, by supposing it to be known that the only thing anyone likes to do on the beach is stretch out and listen to music over the radio, everyone has just one radio of limited power, there is only one station on the air (or there are several, always

62. Collected and cited in John W. Chapman, *Justice, Freedom, and Property*, in *NOMOS XXII: Property* 289 (J. Roland Pennock & John W. Chapman eds., N.Y.U. Press 1980).

63. See Becker, *supra* n. 50.

64. See *supra* pt. III.B.3.

65. Text accompanying *supra* nn. 26-27.

simultaneously broadcasting mutually harmonious music), and the more radios you hear playing together, the better the music is. Overhearing, in short, far from being a nuisance, is an unambiguous benefit to all participants. Knowing that to be true, rational people would prefer the configuration of hexagons to the alternatives. The law has, indeed, sometimes made such choices. There are traditional legal doctrines inclining to maximization, not minimization, of neighborhood interactions understood to be mutually beneficial—for example, those establishing common rights of transit in the seas and inland navigable waters,⁶⁶ and common rights of access to communications forums.⁶⁷

b. No Trust?

To some extent, then, the belief that a market-structuring (neighbor-minimizing) composition of holdings yields better coordination than a neighbor-maximizing regime of common privilege may depend on belief that cases of natural interactive harmony (such as our second beach case) occur less frequently than those of conflictual neighborhood relations. It is hard to fathom the sense in which such a “fact” might be “known.” We need not dwell on the question, however, because the market-structuring preference can perhaps survive confession of inability to answer it.

Suppose we don’t know in advance which version of the beach story is true, because we don’t know the facts about future radio program content, broadcast technology, and people’s likes and dislikes. If the first (conflictual) version turns out to be true after we have opted for a nest of hexagons, the way to efficient reordering lies only through cooperation or politics; but if the second (harmonious) version turns out to be true after we are committed to a row of squares, a chain of bilateral transactions conceivably might accomplish the efficient reordering. Thus, a general preference for market structure may reflect belief that *correction* is generally likelier to occur through markets than through cooperation or politics.

There remains the question of the behavioral suppositions implicit in that belief, and a crucial one seems to be that persons in potentially conflictual social situations (beyond the confines of family and friendship) are typically incapable of acting on mutually trustful premises. No doubt there are substantial risks that cooperative or political processes will “fail” because of information gaps, communication difficulties, and destructive strategic responses to such conditions,⁶⁸ but on the other hand there are exactly analogous risks of “market

66. E.g., the “public trust” doctrine, see generally Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471 (1970).

67. Here the salient doctrines are constitutional free speech guaranties. E.g. *Shuttlesworth v. Birmingham*, 394 U.S. 147 (1969); *Lovell v. Griffin*, 303 U.S. 444 (1938). For a striking example of preference for the social benefits of unhindered communication over avoidance of the costs of neighborhood conflict, see *People v. Stover*, 191 N.E.2d 272, 277 (N.Y. 1963) (Van Voorhis, J., dissenting).

68. See e.g. Anthony Downs, *An Economic Theory of Democracy* (Harper & Row 1957); George J. Stigler, *The Citizen and the State* ch. 8 (U. Chi. Press 1975).

failure.”⁶⁹ What makes the risks seem heavier for cooperative and political processes is, I suggest, their pronounced multiparty character, which seems to escalate the likelihood that they will constitute “prisoners’ dilemmas” or comparably tragic strategic fixes⁷⁰ will be, in Mancur Olson’s classification, instances of “latent” rather than “privileged” or “intermediate” groups.⁷¹ And prisoners’ dilemmas just epitomize trustlessness in social affairs.

c. *Rationality, Trust, and the “Tragedy of the Commons”*

The pessimistic view of human capacity for trustful cooperation has found its special metaphor in the “commons” upon which preindustrial villagers grazed their cattle.

The rational herdsman concludes that the only sensible course . . . to pursue is to add another animal to [its] herd. And another; and another. . . . But this is the conclusion reached by each and every rational herdsman sharing a commons. . . . Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.⁷²

The “commons” stands for isomorphic predicaments observed in modern life, most typically associated with environmental degradation: “The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of ‘fouling our own nest.’”⁷³ A comparable case is said to be presented by “freedom to breed” in the setting of a modern welfare state commitment to social support for the needy: “To couple the concept of freedom to breed with the belief that everyone horn has an equal right to the commons is to lock the world into a tragic course of action.”⁷⁴

All these can be recognized as instances of the general configuration of interests called by Schelling “multi-person prisoner’s dilemma,” and abstractly modeled by him as follows:

1. There are n people, each with the same binary choice and the same payoffs.⁷⁵

69. See e.g. Francis M. Bator, *The Anatomy of Market Failure*, 72 Q. J. Econ. 351 (1958).

70. See text accompanying *infra* nn. 72-75.

71. See Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Harv. U. Press 1971).

72. Garrett Hardin, *The Tragedy of the Commons*, in *Economic Foundations of Property Law* 2, 4 (Bruce A. Ackerman ed., Little, Brown & Co. 1975) (reprinting 162 Science 1243 (1968)).

73. *Id.* at 5.

74. *Id.* at 6.

75. Thomas C. Schelling, *Micromotives and Macrobehavior* (W.W. Norton & Co. 1978). The “commons” problem can be cast into this “binary choice” form by characterizing the choice facing each herdsman as that of grazing or not grazing more than c head on the commons, where c is a constant number.

2. Each has a preferred choice whatever the others do; and the same choice is preferred by everybody.
3. Whichever choice a person makes, he or she is better off, the more there are among the others who choose their unpreferred alternative.
4. There is some number, k , greater than 1, such that if individuals numbering k or more choose their unpreferred alternative and the rest do not, those who do are better off than if they had all chosen their preferred alternatives, but if they number less than k this is not true.

Is the situation thus depicted truly such that self-interested agents are rationally driven to reciprocal self-destruction? Does the way to salvation truly lie only through abolition of the freedom of the commons in favor of regulation through property rights or collective control? Cooperation based on mutual trust, if that is conceivable for rationally self-interested human agents, would avoid the catastrophe as well; so if cooperative behavior is rationally possible, then commonses are not generically tragic. But cooperative behavior *must be* possible if avoidance of commonses is practically discussable at all; for the policy of extirpating commonses in favor of property rights (or other regulation) assuredly depends on the possibility of cooperation.

What is private property, regarded from the standpoint of economic policy, but a particular form of regulation,⁷⁶ a species of those “definite social arrangements . . . that create coercion of some sort,”⁷⁷ institution of which is offered as the alternative to tragedy? But then come the questions: Instituted (fashioned, decided upon) by whom? Policed and enforced by whom? Obeyed by whom, and why? Because if (and only if!) I don’t obey, the constable will catch me, the prosecutor try me, the magistrate convict me, the sheriff punish me? Who will make them? Where can the regress end, if not in uncoerced cooperation, the untragic commons of constitutional practice founded on a “rule” that there is no one to enforce but that people on the whole adhere to, though adherence is in the interest of no one who does not trust that (most) others will adhere to it, by “mutual agreement.”⁷⁸ In other words: no trust, no property. In the very survival of proprietary institutions we have empirical evidence of the possibility of trust; as we have in the electorate’s behavior each election day.⁷⁹

Short of absurdity, then, the metaphor of the commons cannot speak to us more powerfully of the rational necessity of social cooperation than of its rational possibility. In this dialectic of necessity and possibility, private property emerges as a possible device or instrumentality for social cooperation—available, as such, only to agents *who have, in the first place, a capacity for cooperative action.* The

76. See Kennedy & Michelman, *supra* n. 4, at 769-70.

77. Hardin, *supra* n. 72, at 9.

78. *Id.* at 10.

79. It has often been observed that, according to rational calculation, the costs to an individual voter of casting a vote on election day must virtually always exceed the expected value to the voter of casting the vote. See e.g. Downs, *supra* n. 68.

initial premise has to be that of cooperative capacity; it cannot be the contradictory of that.

Since cooperation is—has to be—both possible and existent without and prior to property, the domain of property cannot be coextensive with that of the commons (all commonses). Property is a scheme of social cooperation whose utility is always a question for judgment and choice, dependent on multiple considerations varying with the circumstances, rather than impelled by some universal and inexorable grim logic of welfare. In any given commons, property may offer the best mode of cooperation, but it also may not.

4. The Additional Premises in Aggregate

I have said that the truth of at least one of the additional premises is a necessary condition of the truth of PET. It is not, however, a sufficient condition. The truth of PET entails further conditions respecting the premises in partial and total aggregates. To exhibit the full complement of further conditions would be tiresome. A single example will suffice both to illustrate their nature and to advance my argument.

Suppose premise 3 were false, the truth being that people generally and strongly prefer to work out their affairs cooperatively or politically, rather than by arm's-length dealings on markets. Suppose also that there were convincing empirical evidence for the truth of any or all of premises 4–7. PET as a whole would remain empirically unverified, because the gains in product that premises 4–7 supposedly tell us will result from shifting to PP from SON or REG may be more than offset by the loss in satisfaction from that same shift implied by the supposed falsity of premise 3. But premise 3 can be no more empirically false than empirically true: it is, inescapable, quasi empirical. As long as it remains so, so does PET. Proof of PET strictly requires empirical verification of *all* the additional premises. No doubt verification of all but one or two of them would make PET highly plausible. But verification of only one or two—which seems the most that can be claimed at present—only marginally affects plausibility.

V. WHY DOES PET MATTER?

There is an illuminating literature in economics devoted to explaining how and why property institutions are efficient when and insofar as they sometimes, indubitably, are⁸⁰ Some of that literature seems to make rather sweeping claims on behalf of private property—to treat it, indeed, as presumptively efficient. None that I know of expressly purports to deduce the general efficiency of private property without reliance on behavioral premises additional to that of rationality, and a careful reader can always infer the additional premises that must be implicit in the literature's accounts of the efficiency virtues of private property.

80. *E.g.* Richard J. Agnello & Lawrence P. Donnelly, *Property Rights and Efficiency in the Oyster Industry*, 18 *J.L. & Econ.* 521 (1975); Harold Demsetz, *Toward a Theory of Property Rights*, 57 *Am. Econ. Rev.* 347 (1967).

The aim of this chapter, then, is not to disprove an explicit thesis elsewhere espoused, but rather to urge the importance of making additional premises explicit. Doing so will, I believe, help avoid the danger that efficiency-based accounts of private property institutions will obscure the critical vision that ought to be directed toward such institutions as they are found from time to time in actual practice.

Here is the critique of PET in a nutshell. Whoever thinks that private property is a good thing is committed to some belief in addition to (i) experience accrues to individuals, (ii) individuals are rational maximizers of satisfactions, and (iii) it is good to allow for an increase in the levels of satisfaction experienced by individuals. The necessary additional belief may be quasi empirical, such as (a) every properly formed human individual places a supremely high value on secure command over his or her body, labor, and product, or (b) to a degree that makes the exceptions practically negligible, rational conation in socially situated human individuals always takes the form of the trustless “prisoner” mentality. Or the necessary additional belief may be purely moral, such as (c) irrespective of what various individuals may subjectively want, it is right that each person should be secured in the command over his or her own person; or it may be a composite of moral and empirical belief such as (d) justice requires that the distribution among members of a society of the means to satisfaction periodically satisfy the minimal requirements of *D*;⁸¹ and the only regimes that will satisfy *D* (or will satisfy *D* without excessive sacrifice of efficiency) are, as it happens, private property regimes. The critique of PET, then, is a challenge to all defenders of private property to know their additional premises.

The point is not that the serviceable additional premises are all invalid or indefensible. Far from it. Rather the point is that many—it may be all—of the appealing additional premises are potentially the grounds of significantly critical appraisal of the particular, detailed embodiment of private property we may from time to time observe in practice. Suppose, for example, you think that the efficiency of private property is rooted in a species-characteristic need or craving for privacy and security of person, or for the experience of self-command over personal labor and product. Then if you observed a society in which measurable numbers of persons were selling rights over their bodies in exchange for the means of subsistence, or could live only by submitting to the productive direction of others, you would have to see that situation as problematic. Though it might turn out that there is no way, in this vale of tears, to make things on the whole any better, you would be committed to at least searching for some corrective. Similarly if your commitment to private property were more generally based on a conviction that only a property regime could hope to satisfy distributional criterion *D* at a tolerable level of efficiency, then you would be committed as well to continual scanning of the extant regime to see whether it was in fact resulting in a *D*-satisfactory distribution, and to support of corrective action whenever such

81. See *supra* pt. II.C.

was both needed and available. And suppose, finally, that your commitment to private property was rooted in belief that individuals do, as a matter of fact, usually exhibit prisoner rationality in their encounters with one another. It is at least a possibility that you would, on further reflection, think that a world truly void of social trust would be an extremely dangerous place, and also that the relation between the condition of trustlessness and given institutions of private property might be not unidirectional but reciprocal—so that not only is private property a prudent response to a given state of trustlessness, but also particular private property arrangements sanction and reinforce trustlessness. With that provisional view, you might want to keep on investigating, rather than considering the matter closed.