



The Property Right Paradigm

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INTRODUCTION

ECONOMICS textbooks invariably describe the important economic choices that all societies must make by the following three questions: What goods are to be produced? How are these goods to be produced? Who is to get what is produced? This way of stating social choice problems is misleading. Economic organizations necessarily do resolve these issues in one fashion or another, but even the most centralized societies do not and cannot *specify* the answer to these questions in advance and in detail. It is more useful and nearer to the truth to view a social system as relying on techniques, rules, or customs to resolve conflicts that arise in the use of scarce resources rather than imagining that societies specify the particular uses to which resources will be put.

Since the same resource cannot simultaneously be used to satisfy competing demands, conflicts of interest will be resolved one way or the other. The arrangements for doing this run the full gamut of human experience and include war, strikes, elections, religious authority, legal arbitration, exchange, and gambling. Each society employs a mix of such devices, and the difference between social organizations consists largely in the emphasis they give to particular methods for resolving the social problems associated with resource scarcity.

Capitalism relies heavily on markets and private property rights to resolve conflicts over the use of scarce resources. These fundamental characteristics of an idealized capitalistic system have been taken for granted by most mainstream economists even though the discipline of economics developed contemporaneously with Western style capitalism. It is unfortunate that the study of the underpinnings of capitalism has been left by default to its critics on the left.

But recent years have witnessed increasing attention to the subject of property rights and to the beginning of a somewhat different approach to the analysis of social problems that find their source in

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scarcity. Three questions are suggested by this growing literature: (1) What is the structure of property rights in a society at some point of time? (2) What consequences for social interaction flow from a particular structure of property rights? and, (3) How has this property right structure come into being? Economic historians can contribute very much to overcoming our ignorance about the answers to these questions, and our purpose here is to facilitate historical research on these problems by clarifying somewhat the content of these questions.

THE STRUCTURE OF RIGHTS

In common speech, we frequently speak of someone owning this land, that house, or these bonds. This conversational style undoubtedly is economical from the viewpoint of quick communication, but it masks the variety and complexity of the ownership relationship. What is owned are *rights to use* resources, including one's body and mind, and these rights are always circumscribed, often by the prohibition of certain actions. To "own land" usually means to have the right to till (or not to till) the soil, to mine the soil, to *offer* those rights for sale, etc., but not to have the right to throw soil at a passerby, to use it to change the course of a stream, or to *force* someone to buy it. What are owned are socially recognized rights of action.

The strength with which rights are owned can be defined by the extent to which an owner's decision about how a resource will be used actually determines the use. If the probability is "1" that an owner's choice of how a particular right should be exercised actually dominates the decision process that governs actual use, then that owner can be said to own absolutely the particular right under consideration. For example, a person may have an absolute right to pick apples off a tree, but not to prune the tree.

The domain of demarcated uses of a resource can be partitioned among several people. More than one party can claim some ownership interest in the same resource. One party may own the right to till the land, while another, perhaps the state, may own an easement to traverse or otherwise use the land for specific purposes. It is not *the* resource itself which is owned; it is a bundle, or a portion, of rights to *use* a resource that is owned. In its original meaning, property referred solely to a right, title, or interest, and resources could not be identified as property any more than they could be identified as right, title, or interest.

Distinct from the partitioning of the domain of uses to which a resource may be put is the decision process that may be relied upon to determine that use: The exercise of a particular right may depend on a decision process in which many individuals share, such as in the use of majority voting. The right to vote may be exercised individually, but it is the pattern of votes by many individuals that determines the way in which a right to use a resource will be exercised.

There are two important questions that can be asked about the structure of property rights in a society. The first asks which property rights exist. There may exist a particular right of use in a society that did not exist earlier or that does not exist in other societies. For example, early in the history of radio, users of frequencies did not own the right to prevent members of the community from broadcasting on these same radio frequencies. Any person who wished to could broadcast on any frequency, and that is still true today for certain bands of radio frequencies. The right to offer heroin for sale on the open market does not exist in the United States although it may in other countries. The right to advocate particular political doctrines exists in greater degree in the United States than in Russia. (It should be noted that the right to advocate is a right to use resources, for no advocacy could take place without the *use* of a place and other facilities.)

The second question calls attention to the fact that the identity of right owners may vary. Perhaps the most important ownership distinction is between state (public) ownership and private ownership. An easement right may be owned by the state or by an individual. The right to deliver first class mail is owned by the state, whereas the right to board troops without permission is not. Needless to say, the classification of social systems according to the degree of centralization of control is closely related to the degree to which property rights are owned exclusively by the state.

There is some ambiguity in the notion of state or private ownership of a resource, because the bundle of property rights associated with a resource is divisible. There can and does exist much confusion about whether a resource or "property" is state or privately owned. Some rights to some uses of the resource may be state owned and others privately owned. While it is true that the degree of private control is increased when additional rights of use become privately owned, it is somewhat arbitrary to pass judgment on when the conversion to private control can be said to change the ownership of the

bundle of rights from public to private. The classification of owners can be carried beyond the important state and private dichotomy. Corporate, school, and church owners of property are also of interest. The structure of rights can have important consequences for the allocation of resources, some of which we now illustrate.

THE SOCIAL CONSEQUENCES OF THE STRUCTURE OF RIGHTS

The significance of which rights exist can be appreciated by contrasting situations in which there is and is not a right to exclude. We shall use the phrase “communal rights” to describe a bundle of rights which includes the right to use a scarce resource but fails to include the right of an “absentee owner” to exclude others from using the resource. Operationally this means that the use of a scarce resource is determined on a first-come, first-serve basis and persists for as long as a person continues to use the resource. The use of a city sidewalk or a “public” road is communal, and the rights to till or hunt the land have been subjected to this form of ownership frequently. Often communal ownership is technically associated with state ownership, as in the case of public parks, wherein the state technically has the capability of excluding persons from using its property. If this right is exercised by the state frequently, as it is on military reservations, then the property right is more properly identified as state owned, but if the right to exclude is seldom exercised by the state, as in public parks or thoroughfares, then as a practical matter the users of the resource will treat it as communal. Communal rights mean that the working arrangement for the use of a resource is such that neither the state nor individual citizens can exclude others from using the resource except by prior and continuing use of the resource. The first driver to enter the public road has a right of use that continues for as long as he uses the road. A second driver can follow the first but cannot displace or exclude him.

The difficulty with a communal right is that it is not conducive to the accurate measurement of the cost that will be associated with any person’s use of the resource. Persons who own communal rights will tend to exercise these rights in ways that ignore the full consequences of their actions. For example, one of the costs of hunting animals, if they are not superabundant, is the resulting depletion in the subsequent stock of animals. This cost will be taken into account only if it is in someone’s interest to do so. This interest is provided

if someone can lay claim to or benefit from the increase in the stock of animals that results from a curtailment in his hunting activities. Under a communal right system anyone who refrains from hunting does so not to his benefit but to the benefit of others who will continue to exercise their communal right to hunt. Each person, therefore, will tend to hunt the land too intensively and deplete the stock of animals too rapidly.

Often the exercise of communal rights forces persons to behave in ways that are thought to be immoral. In 1970, the newspapers carried stories of the barbaric and cruel annual slaughter of baby seals on the ice floes off Prince Edward Island in the Gulf of St. Lawrence. The Canadian government permitted no more than 50,000 animals to be taken, so hunters worked with speed to make their kills before the legal maximum was reached. They swarmed over ice floes and crushed the babies' skulls with heavy clubs. Government offices received many protests that the seals were inhumanely clubbed (by humans) and often skinned alive. The minister of fisheries warned the hunters of the strong pressure he was under to ban the hunt and that he would do so unless the killing methods were humane in 1970. Clearly, it is not the hunters who are to blame but the regulations governing seal hunting that impose a communal right to hunt on hunters until 50,000 baby seals have been taken. The first 50,000 animals are offered free on a first-come, first-serve basis, a rationing system that is bound to encourage rapid hunting techniques and to make a condition for success the degree to which the hunter can be ruthless.

The problems posed by communal rights are abundantly clear when we analyze the causes of pollution. Since the state has invited its citizens to treat lakes and waterways as if they are free goods, that is, since the state generally has failed to exclude persons from exercising communal rights in the use of these resources, many of these resources have been overutilized to the point where pollution poses a severe threat to the productivity of the resource.

An attenuation in the bundle of rights that disallows exchange at market clearing prices will also alter the allocation of resources. The interests pursued by men are both varied and many. If a price ceiling or price floor prevents owners from catering to their desires for greater wealth, they will yield more to the pursuit of other goals. For example, effective rent control encourages owners of apartments to lease them to childless adults who are less likely to damage their

living quarters. Effective rent control also prompts landlords to lease their apartments to persons possessing personal characteristics that landlords favor. In a Chicago newspaper, the percentage of apartment for rent advertisements specifying that the apartment was for rent only on a "restricted" basis or only if the renter purchased the furniture rose from a pre-war low of 10 percent to a wartime high of 90 percent during the period of World War II when rent control effectively created queues of prospective renters. Attenuations in the right to offer for sale or purchase at market clearing prices can be expected to give greater advantages to those who possess more appealing racial or personal attributes.

The reallocation of resources associated with the absence of a right to exclude and the inability to exchange at market clearing prices is attributable to the increase in the cost of transacting brought about by these modifications in the property right bundle. A price fixing law raises the cost of allocating resources vis-à-vis the price mechanism and, therefore, forces transactors to place greater reliance on non-price allocation methods. This is obvious; but not equally obvious is the role played by transaction cost when the right to exclude is absent.

Consider the problem of congestion during certain hours in the use of freeways. No one exercises the right to exclude drivers from using freeways during these hours. The right to drive on freeways is a communal right. But drivers who desire less congestion are not legally prohibited from paying others to use alternative routes during these hours. This right system, however, encourages drivers to let someone else pay persons to use alternative routes, since those who do not pay cannot be excluded from the use of the freeway under a communal right system. The communal right system raises transaction cost by creating a free rider problem. Moreover, even if some temporary reduction in congestion is purchased, there may be many persons not now using the freeway who are attracted to it by the temporary reduction in congestion. The supply of freeway space is very likely to create a demand for its use under the communal right system because these new users cannot be excluded. They also must be paid to return to alternative routes, and this burdens the allocation system with additional costly transactions. A right system that includes the right to exclude nonpayers, such as is possible with tollroads, eliminates both these sources of high transaction cost. Persons not now using the road can use it only if they value the route

enough to pay the toll, and the owner of the toll road is not handicapped by the psychology of a freeloader.

The social consequences of the identity of right owners also can have allocative effects. At the more obvious level, government and private owners, respectively, will respond in greater degree to political and market incentives, and this can be expected to yield differing resource uses. But the effect on resource allocation of altering the identity of owners, all of whom are private owners, is not so obvious. As a first approximation, each and all private owners can be expected to respond to market incentives in the same way so that the particular identity of owners will not alter the uses to which resources are put. All private owners have strong incentives to use their property rights in the most valuable way. Under certain conditions, this approximation can be expected to be very good. The most important of these conditions is that the cost of transactions be negligible; in this case, it will be easy for those who can put resources to their most valuable uses to contact and negotiate with those persons presently owning the rights to these resources. If the cost of transactions is not negligible, then an alteration in the identity of right owners can have allocative effects because negotiations toward a unique utilization of resources may be inhibited by positive transaction costs.

The most important effect of alterations in institutional arrangements may well be the impact of such reorganizations on the cost of transacting. The enclosure movement, for example, may have significantly reduced the cost of carrying on transactions among those possessing rights of use, and this may have eased the task of putting resources to their most productive uses. Perhaps some new insights about the consequences of the enclosure movement can be obtained if the researcher focuses his attention on the cost of transacting.

THE DEVELOPMENT OF PROPERTY RIGHT STRUCTURES

Under a communal right system each person has the *private* right to the use of a resource once it is captured or taken, but only a communal right to the same resource before it is taken. This incongruity between ownership opportunities prompts men to convert their rights into the most valuable form; they will convert the resources owned under communal arrangements into resources owned privately, that is, they will hunt in order to establish private rights over

the animals. The problem can be resolved either by converting the communal right to a private right, in which case there will be no overriding need to hunt the animals in order to establish a private claim, or the incentive to convert communal rights to private rights can be restrained through regulation.

There is a basic instability in an arrangement which provides for communal rights over a resource when that resource takes one form and private rights when it takes another form. The private right form will displace the communal right form. In itself this has important consequences *only* if the conversion of communal ownership into private ownership is costly. Thus, if unbranded animals are held to be communal property while branded animals are private, there will be a rush to place brands on the animals. This would not be very costly, especially since branding would be desirable for identification purposes anyway. There would be no need to kill the animals in order to establish private rights, so that these animals can be husbanded appropriately once the cost of branding is incurred. But a conversion process that requires that the animals be killed in order to establish private rights must incur the larger social cost of depleting the stock of animals.

If the social adjustment to the incongruity between communal and private rights is resolved in favor of eliminating the private right, then the immediate problem is replaced by another—the problem of providing incentives to work. Thus, if we suppose that the communal right to hunt is supplemented by the stipulation that killed animals belong to the community, in which all citizens can share according to custom, and do not belong exclusively to the hunter, then the incentive to hunt will be diminished. This may cure the overhunting problem by creating an underhunting problem in which the able-bodied wait for others to do the hunting, the results of which will be shared by all. In order to reduce the severity of the shirking problem that is thereby created, it is necessary for societies which fail to establish private rights to move ever closer to a social organization in which the behavior of individuals is directly regulated by the state or indirectly influenced by cultural indoctrination. The option to hunt or not to hunt cannot be left with the individual who, unable to claim the fruit of his effort, will tend to shirk. Instead, the state will find it increasingly necessary to *order* the hunt, to insist on participation in it, and to regulate more closely the sharing of the kill. Or, possibly, the community can invest in cultural

indoctrination that leads to an increase in the willingness to hunt. This is in fact the course that events have taken among many primitive peoples. The animals they hunt are "free" to all on a first-come, first-serve basis, but the kill must be shared according to detailed ritual procedures, and the question of participating in the hunt is not left open to individuals. The attempt to resolve scarcity-created problems by reducing the scope of private rights must inevitably result in a more centrally regulated or indoctrinated society. One need not go so far afield to find this process at work. Our public schools are offered on a "free" right to use basis. As good schools attract increasing numbers of students, the community either must expand its resource commitment to public schools, in order to offset what it views as overutilization, or it must somehow regulate the flow of newcomers. Zoning restrictions and building codes frequently have been used to restrict the rate of immigration into such communities.

If private rights can be policed easily, it is practicable to resolve the problem by converting communal rights into private rights.¹ Contrary to some popular notions, it can be seen that *private* rights can be socially useful precisely because they encourage persons to take account of *social* costs. The identification of private rights with anti-social behavior is a doctrine as mischievous as it is popular.

The instability inherent in a communal right system will become especially acute when changes in technology or demands make the resource which is owned communally more valuable than it has been. Such changes are likely to bring with them harmful and beneficial effects which can be measured and taken account of only by incurring large transaction costs under the existing property right structure. In such situations, we expect to observe modifications in the structure of rights which allow persons to respond more fully and appropriately to these new costs and benefits. The coming of the fur trade to the New Continent had two consequences. The value of furs to the Indians increased and so did the scale of hunting activities. Before the coming of the fur trade, the Indians could tolerate a social arrangement that allowed free hunting, for the scale of hunting activities must have been too small to seriously deplete the stock

¹ Alternatively, of course, the communal right can be converted to a state right in which the state seeks to exclude, perhaps by adopting a price mechanism, the issue raised by state *vs.* private ownership as not so much one of what can be done but one of what will be done by state owners.

of animals. But after the fur trade, it became necessary to economize on the scale of hunting. The control system adopted by the Indians in the Northeastern part of the continent was to substitute private rights in land for free access to hunting lands. By owning the right to exclude others from their land, Indian families were provided with an incentive to inventory their animals. Under a free access arrangement, such inventories would have been depleted by other hunters. With private rights to hunt the land these inventories could be maintained at levels more consistent with the growing market for furs.

Similarly, Professor North notes that twelfth-century England experienced a relative rise in the value of land which led to efforts to convert the existing right structure into one that allowed for exclusive ownership and transferability.² During the thirteenth century, England experienced the development of an extensive body of land law, the initiations of enclosure, and, finally, the right to alienate land, and there were similar experiences on the Continent.

The relaying of radio signals between nations in Europe provides an interesting example of the breadth of the property right adjustment that is likely to follow from an economically significant technological development. The telephone company in Holland decided in 1926 that it would use its facilities to relay radio programs received from outside Holland to subscribers in Holland in return for the payment of subscription fees. However, many of the programs originating from such countries as England, France, and Germany were owned under copyright, and the copyright owners were not compensated by the Holland telephone company. The use of a resource that automatically became available to one country once it was produced in another posed unusual legal problems that led to heated controversy and to the Berne Convention in 1928. That conference gave to copyright owners the sole right to authorize any communication to the citizens of signatory countries, whether over wires or not, of the radio transmission of the copyright material. And by 1938, in the United States, the Federal Radio Commission appeared to regard the unauthorized relay of broadcast signals as illegal.

² D. North and R. Thomas, "The Rise and Fall of the Manorial System: A Theoretical Model," *JOURNAL OF ECONOMIC HISTORY*, XXXI (December 1971), pp. 777-803.

We have merely touched on a few cases of evolving structures of property rights to which some contemporary thought has been given. There exist very many property right phenomena that could benefit from thoughtful attention. Consider the problem of the capital structure of corporations. The well-known Modigliani-Miller theorem that the value of an enterprise is independent of its capital structure is a special application of the assumption that the cost of transacting is zero. Titles of various kinds are assigned to parts of an enterprise's wealth and the value of these titles are no more nor less than the present value of the enterprise's wealth potential, at least so long as entitlements are well defined, partitionable, and transferable at zero cost. Further, they will be revised and exchanged in ways that maximize the utility of their owner subject only to the constraint imposed by the wealth potential of the enterprise.

But, in fact, these bundles of rights are not costlessly transferable or revisable, so that a question remains as to what bundles of rights are most appropriate for an enterprise to issue initially. Bonds, common stocks, preferreds, convertibles, warrants? Given the cost of transacting and of revising these bundles of rights, are there any factors that would explain the initial mix? We conjecture that differences *in beliefs* by investors about the potential performance of the enterprise can account for differences in the initial mix. An enterprise that desires to maximize the sum it raises from the sale of ownership claims would find it desirable to offer different bundles of rights; a warrant, for example, to optimistic investors and a bond to pessimistic investors, given that markets do not function costlessly. If the market could produce these different bundles costlessly, there would be no need for the firm to be concerned with different financial instruments. For, then, financial intermediaries could supplement and convert any financial instrument issued by the firm into the mix of financial instruments preferred by optimistic and pessimistic investors who hold different expectations about the firm's prospects.

Although articles dealing with property rights and transaction costs are accumulating at a rapid pace, they tend to be primarily of the "speculative theory" variety. Only a handful of empirical studies have been concluded, a few of which are concerned with phenomena old enough to be historical. But economic historians have much

more to contribute, and we hope that we have made some of you curious enough to examine the partial bibliography appended to this paper.

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