Common Property, Reciprocity, and Community

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This article examines common property as both concept and institutional structure and suggests that common property, reciprocity, and community are complementary, useful constructs for institutional analysis. The argument is based on the following key premises: undesirable consequences of private markets and desirable consequences of alternative institutional arrangements have generally been overlooked and underestimated; purely private markets, although providing incentives and rewards for initiative and innovation, also create increasingly harmful side-effects; and anthropogenic ecosystem disruption requires major social and economic restructuring, including fundamental changes in beliefs, attitudes, and incentives.

The argument is that common property, reciprocity, and community development can all play constructive roles in this restructuring. The weaknesses and inconsistencies in the neoclassical conception of common property are addressed, followed by a discussion of common property institutions, and of reciprocity and community.

The Open-Commons Confusion

Common property is not synonymous with open access [Ciriacy-Wantrup and Bishop 1975; Runge 1981; Wade 1987; Quiggin

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Open access (res nullius) refers to resources that can be exploited by anyone without limit. Pressures of economic and population growth can degrade even the most abundant of open access resources, suggesting that open access is inappropriate for even the most plentiful resource.

Common property (res communes) means a group of owners or users share use rights to the resource. Common property is characterized by restrictions on who uses the resource, and when and how. Rights and responsibilities are assigned and, through some mechanism of social control, enforced. Contrary to the hasty conclusions of many, the absence of explicit limitations and restrictions is not prima facia evidence of open access. Common property frequently operates through tacit cooperation according to a culturally embedded set of rules [Runge 1981, p. 596]. Two cautions, then, are in order: Common property is not open access, as is commonly assumed in the property rights school of economics, and the absence of an explicit set of restrictions on use does not mean the resource is open access.

To treat common property as open access is the “open-commons confusion,” and has been chronic at least since H. Scott Gordon’s “The Economic Theory of a Common Property Resource: The Fishery” [Gordon 1954]. This confusion was further entrenched with Garrett Hardin’s “The Tragedy of the Commons” [Hardin 1968]. Hardin incorrectly assumed open access, and concluded the commons was doomed to degradation and destruction. In fact, an extensive set of restrictions known as “stinting” characterized the medieval commons. From its roots in Greco-Roman times, the grazing commons evolved to become widespread in medieval Europe [Runge 1981]. Today the commons continues as a viable institution in European high alpine meadows and in many Third World countries [Ciriacy-Wantrup and Bishop 1975; Wade 1987].

Linear thinking has also contributed to the open-commons confusion. A continuum is frequently pictured with open access—no property—at one extreme, and completely private property (conducive to perfect competition) at the other. Private property is defined by an “efficient property rights structure,” consisting of universality, exclusivity, transferability, and enforceability—all the precisely defined and specified conditions necessary to rule out the possibility of any type of market failure [Tietenberg 1988, p. 39]. The farther from efficient property rights, the closer to open access. The question then becomes, “How can the current system of rights be altered so as to move away from the monstrosities of open access and toward the charm of efficient
private property?" Framing the problem in this way causes institutional alternatives to private property to be overlooked.³

**Common Property Institutions**

In many cases, both historical and contemporary, common property is destroyed by the extension of the market. The British enclosures, although typically enacted by Parliament, were induced by the commodity value of wool [Ciriacy-Wantrup and Bishop 1975]. Generally, the European commons was weakened by improved agricultural techniques in combination with the conversion from subsistence agricultural to production for the market [Dahlman 1980]. In short, the erosion of the commons' institutional structure occurred before the erosion of the commons' soil.

Conversion of North America to private property also contained a strong commercial element. Native North Americans generally did not treat resources as open access. Instead, their behavior was prescribed by religious myth, indicating a culturally embedded set of rules and a form of common property. These restraints translated, at least in most cases, to sustained-yield management of renewable resources.⁴ Harold Demsetz tells of the arrival of the fur trade and the resulting overtrapping in eastern Canada, and concludes incorrectly that the private property rights that emerged were superior to the propertyless conditions they replaced [Demsetz 1967, p. 351]. The initial condition was not open access, and the system that emerged was superior only in making money. Such commercial invasions were repeated countless times during the European settlement of North America, usually with the same outcome: "production" for the market overran an indigenous culture and overexploited a renewable resource. Yet Demsetz views this commercial invasion—this invasion that in fact wreaked ecological havoc—as the spontaneous development of efficient private property!

Contemporary cases of conversion of common property in the Third World often follow the same pattern, as illustrated by rainforest destruction in Central America for cattle export and in Southeast Asia for timber export. In Brazil, highway construction, first to connect Belem and Brasilia to stimulate commerce, and later to open the Amazon basin for development, converted forest from common property of native tribes to open access.⁵

Common property remains a vital and important institutional structure in Southeast Asia and Africa. Robert Wade finds common property institutions important for reducing interdependencies along the
lower third of watercourses in South India [Wade 1987]. C. Ford Runge attributes overgrazing in the Sahel and southern Africa to the breakdown of common property institutions and cites evidence of the serious failure of imposed private property "solutions" to such problems [Runge 1981].

Runge explains the errors of the property rights school, focusing on the incorrect assumption of independent individual choice. This assumption leads to two significant mistakes: cost functions are considered separable, and the impact of uncertainty on individual behavior is neglected. Because of interdependence, the commons is not equivalent to the (independent choice) prisoner's dilemma, as ordinarily assumed. "Properly formulated, the commons problem involves the interdependence of agents, such that it is in the interest of each to restrict output (to stint on the range) if that is the only way to get other agents to do likewise" [Runge 1981, p. 600]. This interdependence is an assurance problem equivalent to "the battle of the sexes," where a man and woman do not have the same tastes, but are both happier going to the other's choice of entertainment than going alone. Runge generalizes from this model, demonstrating that it is not large numbers per se that make common ownership unworkable, but rather uncertainty regarding the behavior of other members of the commons. If each member can be certain that others are going to follow the agreed-upon rule(s), the payoff from cheating is less than the payoff from contributing to the good of the commons.  

Therefore, a key to making the commons work is to keep unpredictable behavior of commons members at a minimum. Other related keys are to minimize conflict and to promote common interests. In particular, conflicts should be resolved and transgressors punished quickly, openly, and fairly [Quiggin 1988]. Common interests are fostered through a parity of conditions for all users of the common property. As John Quiggin points out, positive interaction "will be promoted when divergences in the type and quantity of rights between individuals are minimized" [Quiggin 1988, pp. 1080–81]. An agricultural commons, for example, is far more likely to remain viable when each farmer tills similar holdings. This is often achieved through scattered land holdings, with each farmer producing on both good and poor soils with both ample and insufficient moisture [Wade 1987, Quiggin 1988]. Technology can also help, as demonstrated on watercourses in Pakistan where installation of tube wells has helped to equalize water availability [Sparling 1990].

Also important for positive interaction is concern for other members
of the commons. If the farmer at the head of the ditch looks out only for herself, she will fail to maintain the watercourse, wasting water and harming farmers at the tail end of the watercourse. Contrary to traditional economic theory, this outcome is not inevitable. If each member has something to gain by supporting the broader interests of the commons, strict individual interest may not dominate (unless any and all action is defined as strict individual interest). The argument is not that the incentive to cheat is eliminated, but that net consequences may favor following the rules. And when rules are legitimate, individual commoners who have been successfully socialized do not waste their conscious energies continuously weighing the benefits and costs of cheating. Under such conditions, the likelihood of a heavy fine is probably less a deterrent to cheating than an equal probability of being “dressed down” in full public view.

Reducing uncertainty, minimizing conflict, and promoting common interests are all facilitated by good information and communication. Good communication requires more than merely sharing information. Sharing problems is the key. This can be facilitated by open and well-organized discussion, but when diverse resource conditions face commoners, direct involvement may be needed. For example, commoners could “trade places,” spending time working others’ fields; commoners could join in community work days to ensure understanding of others’ problems; or commoners could rotate (with professional staff) on policing and trouble-shooting teams. In general, voluntary compliance is the dividend of common interests. Common interests spring not only from commonly managed resources, but also from the common understanding and shared attitudes and preferences that grow out of shared experience.

Interdependence in providing an important good or in managing a key resource is usually the principal thread holding common property together. If some change in technology, institutions, or environment eliminates this interdependence, common property is unlikely to survive, especially in the presence of commercial pressure. Conversely, if interdependencies are increasing, common property may become more prominent. In the environment, interdependencies are growing rapidly, thereby providing an impetus to common property. “As the more fundamental interdependence derived from our common reliance on the resources of the environment becomes more evident, the argument for a greater role for common property becomes more relevant” [Quiggin 1988, p. 1082]. There are more of us using the environment more intensively, and the flows of resources and effluents have increased to the
point where the natural resource and sink functions intersect not only with each other, but with the natural goods and life support functions of the environment as well.

Three of the functions of the natural environment—natural goods production, natural resource availability, and waste disposal—could theoretically be allocated by competitive markets because they can be divided. But the fourth function—life-support—is provided by coevolving ecosystems that are not separable [Pearce 1976]. Interdependencies that arise from such nonseparable conditions simply cannot be overcome by private markets: an inherently nonseparable externality is not going to be rendered separable by institutional adjustment [Runge 1981, p. 600]. Furthermore, private market allocation becomes theoretically (as well as practicably) untenable when growing demands on all four service functions produce increasing interdependencies among them [Swaney 1987]. In short, the entitlements structures that "got us here" are no longer appropriate, and the new structures capable of "getting us out" will not be clones of previously existing structures.

A common property perspective offers alternatives to conventional approaches to environmental problems. Air quality is a case in point. A common property approach suggests that air quality belongs to everyone, and that pollution inflicts costs on everyone in the air basin in question. Current emissions trading policies help to reduce compliance costs and allow for economic growth, but do not provide the framework for consistent progress toward meeting air quality standards. Explicit changes in rights and responsibilities toward common property institutions could help to remedy this situation by extending citizens the right to healthy air and holding polluters collectively responsible for finding ways to reduce emissions. Pressure would then be brought to bear on polluters to work together to reduce emissions, rather than working separately to avoid costs.9

Common Property, Community, and Reciprocity

The positive interaction and problem sharing that are characteristic of successful common property institutions are also core aspects of the community development process. Community is characterized by common attitudes and objectives that develop out of shared experiences and common social beliefs. Since members of a community grow and develop together, they tend to share attitudes and beliefs. Yet the Coasian private property rights school precludes consideration of community [Quiggin 1988, p. 1080]. This omission reflects the reality of
private markets; that is, competitive private markets systematically undermine community by rewarding narrowly self-interested behavior and eroding community standards. The market system, in particular, promotes preferences, attitudes, and beliefs that are corrosive of community and of recognized interdependence. Community deterioration, in turn, produces social costs (externalities) by eroding common concern and shared responsibility [Swaney 1981]. In short, private markets promote cost-shifting, thereby creating social costs.

When common property is replaced by private markets, these markets "create a set of independent agents out of a community of individuals" [Runge 1981, p. 600]. Independent agents have neither the time nor the motivation to continue the process of identifying and redefining common concerns. Individuals increasingly have less in common and less reason to be "community minded." Additional social costs arise from this "ignored interdependence." The market fosters attitudes of independence, but, with the help of economic and population growth, in fact fosters interdependence by eroding community and promoting cost-shifting. In short, private market "solutions," even when no third parties are involved, provide "efficient" solutions only in a static framework. In a historical holistic context, private markets are a fundamental cause of those very interdependencies the market is supposed to solve. The advocates of private market solutions, then, in their frenzy to impose efficiency, instead promote social costs and cultural degradation.

Private property institutions provide fewer constraints against, and more rewards for, shifting costs than do common property institutions. The commons member who degrades the commons for immediate benefit will share the eventual loss in productivity, but the primary constraint on such behavior is the threat of lost status and reputation in the community. The private market participant, on the other hand, obtains status and reputation through marketplace success and is constrained only by the threat of punishment under the law. Often costs can be legally shifted onto workers and the environment, in part because the law is slow to catch up with technical changes, and in part because workers and the environment have relatively little influence in writing the law. Furthermore, the more competitive the market, the greater the pressure to shift costs, even when most firms are "community minded" [Swaney and Evers 1989]. This cost-shifting, in turn, destroys community development processes, further reducing the community to independent agents.

While it is true that transitions from private to common property
restrict (attenuate) individual entitlements, multiplying interdependencies indicate that entitlements and institutional incentives have already been extended too far in the direction of private property and individual decisionmaking. Far greater restrictions on the freedom of agents to abuse the environment are necessary. The transition from unencumbered property to restricted property and liability rules will continue, and inalienability rules will become more common. We can no longer afford to treat nature as private property because the nonseparable life-support function is imperiled by its intersection with the natural resource and sink functions. If future generations are to have an opportunity to enjoy life in large numbers, we are going to have to recognize that their entitlements restrict ours. As Daniel Bromley has tersely observed, “One person’s attenuation is another person’s bread” [Bromley 1978].

Future commoners can be represented by appointed representatives and by inalienable entitlements. Such common property institutions can work to promote recognized interdependence among living peoples and “recognized dependence” of future lives on our actions. In this context, it is absurd to discount or otherwise assign a pecuniary present value to species extinction or any other potentially irreversible degradation of the environment. Future generations are entitled to the environmental functions, so we do not own the natural environment. We are not free to discount what we do not own.10

Conclusion

Recognition that growing environmental interdependencies leave less and less room for the “development” of unencumbered private markets means that something other than market exchange is needed to move toward resolution of environmental problems. The past half century has seen redistributive institutions play a greater and greater role in capitalist economies. In the context of Karl Polanyi’s double movement, redistribution serves as a mechanism for the social protective reaction arising from cost-shifting onto labor [Polanyi 1944]. The next half century will see a parallel rise in reciprocity to cope with environmental interdependencies. Reciprocity will play a key role in the social protective reaction to cost-shifting onto the natural environment.11 The Montreal Protocol agreement to protect the ozone layer demonstrates that nations with diverse interests can agree to reciprocal activities to combat threats to global commons, and reciprocity is also key to regional transboundary problems such as acid rain [Livingston 1989].
The discovery and rise of the individual was complemented and promoted by capitalist economies and democratic governments. But the private market of capitalism has contributed in no small way to many of our major problems. The rise of the individual and the rise of the market led to the breakdown of both community and common property. As the market mentality taught us to ignore our interdependence, it systematically promoted cost-shifting that increased our interdependence. Common property, community, and reciprocity provide structures and processes that can help us respond constructively to environmental and other interdependencies.

Notes

1. Walter C. Neale has cautioned against applying the property concept to other cultures [Neale 1985]. By using this functional definition of property as exclusion and restrictions on use, I hope to have largely (if incompletely) avoided these problems.

2. Wade uses a continuum, placing common property between open access and exclusive possession. If one insists on employing a continuum, it seems more sensible to place open access at one end and state ownership at the other, with both private and common property between [Wade 1987, p. 220].

3. Roger Sedjo uses this open access/private property continuum in a recent paper exploring possibilities for protecting genetic resources [Sedjo 1988]. Even though he recognizes that Third World governments invite abuse and degradation when they strip control of forests from indigenous peoples, he fails to acknowledge that “traditional management” is a form of common property, and that common property structures offer promising solutions. Although I drew his attention to this apparent oversight at the time, he remains confused in his recent article in Resources: “Naturally occurring plant genetic resources are treated as a common property resource, owned by no one. This absence of property rights opens up the possibility of excessive exploitation of the resource, a variation on the ‘tragedy of the commons’” [Sedjo 1989, p. 1].

4. Native Americans were institutionally constrained in their harvest of nature’s bounty, and their entitlements structure, while not “looking like” any kind of “property,” functioned “more like” common property and “less like” open access. Their “common property,” while satisfying the functional definition, was certainly unlike European common property in structure or concept. Native North American languages typically do not even have a word for “individual” that does not also translate to “community,” and property without individuals is enigmatic. Another problem is in the meaning of “resource.” In American culture, when a resource is vast in relation to exploitation pressures, we treat it not as a resource, but as a free good. That is, an abundant resource is not thought of as a resource until it is rendered scarce. Might we learn something useful from the holistic Native American notion of resources?
5. Commercial pressure also erodes the commons indirectly. As markets spread and beneficiaries display pecuniary prowess with consumer products, a new set of market-defined values begins to compete with traditional avenues to social prestige. This lure of consumer products and market-defined status not only redirects energies away from the collective goals and responsibilities of the commons, but also provides new incentives to cheat on commons restrictions.

6. In the limiting case, there is no need for rules enforcement. This happy outcome, requiring perfect information and the absence of transactions and communications costs, Runge dubs the "institutional analogue to 'perfect competition'" [Runge 1981, p. 630].

7. Quiggin does not go this far, stating only that a process should be in place "both to resolve conflict and to minimize the amount and cost of conflict" [Quiggin 1988, p. 1080]. Openness is related to the importance of mutual obligation and the fear of losing reputation and social standing if one is caught cheating. Both [Runge 1981] and [Wade 1987] emphasize these points.

8. The nonseparability and interdependencies of the four environmental service functions render the Coase-Demsetz property rights development paradigm problematic. The favorite lessons of this school are provided by the barbed wire story, as follows. Conflicts among users and resource degradation were common on the high plains prior to the invention of barbed wire, which reduced the cost of excluding unwelcome livestock. This technical innovation allowed a private property free market solution to emerge, eliminating interdependencies. The first lesson is Demsetz's main point: "Property rights develop to internalize externalities when the gains of internalization become larger than the costs of internalization" [Demsetz 1967 p. 350]. (Barbed wire reduced the cost of excluding stock.) The second lesson is that the private property system has built-in incentives for innovation to reduce the costs of internalization. (Barbed wire made someone a lot of money.) The third and key lesson, following from the first two, is that no onerous government interference is needed. These lessons are well taken when there are no third-party injuries, or when third parties are well informed and organized and have access to established channels for redress. Under such conditions, private property solutions will tend to solve problems without government help. Why, then, are there so many troublesome and costly interdependencies? Precisely because these conditions occur infrequently. Third-party effects are pervasive, and are becoming more so. Third-party costs include chronic threats to human health, injury to socio- or ecosystem health and sustainability (including irreversibilities and impairment of the life support function), degradation of all sorts of non-market values, injury to disadvantaged individuals, and other consequences.

9. Another reform that would help reduce cost-shifting is a federal "parental default" law that holds the parent company and its officers, as well as the officers of relevant subsidiaries, fully responsible for all environmentally related actions, regardless of the solvency or location of the transgressor subsidiary.

10. This point is made forcefully by [Howarth and Norgaard 1990] and by [Schmid 1989].
11. Reciprocity already integrates much of the corporate world and is expanding in international economic relations.

References


