

Railway Dreaming: Lessons for Economic Regulators from Aboriginal Resource Management Lore

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Abstract

Railway reform in the past decade has seen the introduction of mandated third party access to track in a number of jurisdictions. This article argues that third party access changes the property rights associated with railway track, rendering it a common pool resource. As such, it is useful to ask whether the literature on the governance of common pool resources could inform the economic regulation of railways. This article suggests that it might, and draws some lessons from the common pool resource governance mechanisms traditionally used by Australia's Aborigines in managing their land that may have application within the context of the railways.

KEY WORDS: railway regulation, common pool resource governance, Aboriginal Australia

Introduction

In many jurisdictions, particularly in Australia and Europe, railways are required to open their track to third-party operators of trains in an endeavor to promote competition between railway operators. Third party access is regulated, and regulatory practice views track access as a service which, like any other good or service, has an appropriate price. However, one can also view the track as a resource to be shared, and thus ask if the literature on the governance of common pool resources might usefully inform the practice of economic regulation. This article suggests that it can, and illustrates this by applying some pertinent lessons from the experience of common pool resource governance in traditional Australian Aboriginal society.

The first section of this article explores common pool resources and the literature on their governance. The next section shows how one might fit railway track into a common pool resource framework. The following sections explore governance of land resource in traditional Australian Aboriginal society, and how lessons from this history might be applied within the context of modern railways.

Common Pool Resources and Governance

Common pool resources (CPRs) have been used for thousands of years. Modern study of such resources and their governance mechanisms, however, was ignited by an article by Hardin (1968) who suggested that because exclusion was infeasible, users of common resources could privatize the benefits of overuse and socialize the costs, leading inexorably to a “tragedy of the commons.” He offered two solutions: the state could take over the resource and dictate use, or the resource could be privatized. Hardin’s model was essentially a non-cooperative prisoner’s dilemma game. However, people rarely play non-cooperative prisoner’s dilemma games when ascertaining how a resource should be governed. Realizing the futility of such games, they cooperate and seek solutions that leave them all better off. Hardin was, in effect, too pessimistic.

This is essentially the conclusion of the very large CPR governance literature which arose to challenge Hardin's conclusions, and found that in fact, a defining characteristic of human society is that people find ways to cooperate in resource management.¹ The literature posits both theoretical reasons why a tragedy need not happen (see for example Aoki, 2001; Sethi & Somanathan, 1996, or Anderson & Swimmer, 1997) and empirical case studies highlighting cases in which it has not (see Martin, 1989).

It is beyond the scope of this article to summarize the very large literature on CPR governance. However, three findings from this literature are useful:

- A description of what constitutes a CPR.
- An understanding of which resources can be effectively governed as CPRs.
- An understanding of the principles of good CPR governance.

It is to these three findings that I now turn. First, what constitutes a CPR? Ostrom (1990) suggests that two aspects of a resource are important: the degree to which use can be excluded, and the degree to which consumption of the outputs of a resource (say the fish in a fishery) results in those outputs being unavailable for consumption by others, which she calls "subtractability." She then suggests that this gives rise to a trichotomy of resource types: private goods (subtractable and excludable), public goods (non-subtractable and non-excludable), and CPRs (subtractable, but non-excludable).

For effective governance of a CPR, Ostrom (2000) suggests that both the resource and its stakeholders need to possess certain characteristics. For the resource, she suggests that the following characteristics are important:

- Feasible improvements can be made.
- Indicators of condition are available at low cost.
- The flow of benefits from the resource is predictable.
- The system is small enough that its boundaries and internal workings can be known.

A particular resource might be very effectively governed as a CPR in one jurisdiction, but not in another, because the stakeholders in the latter are unable to develop appropriate governance mechanisms. In terms of stakeholders, Ostrom (2000) suggests that the following characteristics are more likely to be associated with effective governance:

- The resource itself is important to all parties.
- The parties have some form of shared vision about the use of the resource.
- The future is important to all parties (discount rates are low).
- Trust and reciprocity exist.
- The parties can write their own rules without subversion by a higher power.
- The parties have some management experience.

If these are the situations in which CPR governance rules are likely to arise, what characteristics do good CPR governance mechanisms possess? Ostrom (1990), surveying case studies of long-lived CPRs, distils seven principles of good governance:

- Clearly defined boundaries: participants need to know what rights they have and over what territory or set of resources those rights exist.
- Congruence with local conditions: the rules and technology employed need to suit local physical and social conditions.
- Collective choice: those affected by the rules should be able to participate in decisions made associated with those rules.
- Monitoring: system policeman should be accountable to its operators.
- Gradated sanctions: punishments for minor sanctions should be slight, allowing parties that err occasionally to return easily to the CPR governance mechanism, but repeated transgressions should be dealt with harshly.
- Conflict resolution: there must be a means of resolving conflict locally.
- Minimal recognition of organization rights: higher levels of government should give local communities some ability to organize rules.

Railway Track as a CPR

In Ostrom's (1990) terminology, the track is the "resource system," akin, say, to a fishery, while "slots," permission to operate on a certain portion of the track at a certain time, are the "resource units," equivalent to the fish in a fishery. When a railway track is owned and operated by a vertically integrated railway operator with no requirements to provide third-party access, exclusion is simple because one cannot enter a railway track system unless one is connected to it via a spur line. However, once a certain slot is taken, it is not available for use by another party, just as with a fish in a fishery. Thus, the track is also a subtractable resource. According to Ostrom, excludable, subtractable resources are best governed as private resources.

However, when third party access is mandated, the situation changes because, in order for a third party access regime to be successful in supporting competition, the formerly excludable track must become non-excludable. That is, the track owner must lose its power to keep others off the track and cede that power to an external regulator. Because the track maintains its subtractability, this suggests that such track is now a CPR. Therefore, it could potentially be governed as a CPR. Whether such governance might be effective depends upon the nature of the track and its stakeholders.

To explore the likelihood for success, I turn to Ostrom's (2000) criteria for resources and their stakeholders discussed in the previous section. The criteria pertaining to the resource seem easily satisfied for a railway. A railway track can support traffic in a variety of conditions, and it is usually not technically difficult to improve poor tracks, to check track quality, or calculate what flow of benefits might be obtainable from the track as it is improved. Railways can be complex systems, but their physical boundaries are clear, and it is usually possible to ascertain how each one operates.

Stakeholders are usually business-people and hence, can be expected to have the requisite management experience, and ability to generate trust and reciprocity, which are both essential for business. The remaining characteristics, however, are less clearly in evidence. A railway track is not necessarily of equal importance to all who use it. Intermodal shippers, for example, might also have access to competing road transport options, and thus would be less willing to devote time and resources to a CPR governance mechanism for a rail track. They are also likely to have a wide variety of visions for the future, in common with the different goods which they carry. Where the parts of the chain connected to the railway which they own have low fixed costs, which they can amortize quickly, they may not place sufficient importance on the future to support a CPR governance mechanism for a railway. Thus it is not clear that CPR governance mechanisms will be universally successful for railways.

However, not all railway stakeholders have shortcomings like those listed above. Owners of mines, steel mills, grain silos, and others who ship goods in unit trains are often dependent upon railways for haulage and thus place great importance on them. This importance is also likely to be long-lived, given the high fixed costs of such shippers. Where many shippers in an area produce the same product (say, a group of mines), they are likely to share a common vision. Thus, railways serving these stakeholders seem more likely to be able to develop good CPR governance mechanisms for their railways provided they are given the latitude to do so by the government.

Thus, it does not seem unreasonable to suggest that a railway track subject to third party access is a CPR, nor that it might effectively be governed as such. Before exploring how lessons from CPR governance mechanisms might be incorporated into the rail industry, however, it is worth asking how they might improve regulatory practice.

How Can CPR Governance Help Regulators?

The precise way in which CPR governance might assist economic regulation will depend very much upon what kind of governance mechanism evolves. However, one aspect of CPR governance, which is universal to well-governed resources and stands in contrast to the practice of economic regulation, is its focus upon forging consensus.

Users of a resource (say a railway track) subject to third party access need to determine ways in which they can share that resource for the benefit of all users, including the owners. This requires some degree of consensus. However, the process of economic regulation, as currently practiced, is adversarial, not consensual. Take, for example, the Australian procedure of draft and final decisions interspersed with periods of public and stakeholder comment.² At various stages of the process, most commonly after the asset owner has released its proposed access arrangements, stakeholders are invited to provide comments to the regulator on the suitability of the proposal. Because neither the access seekers nor the access providers actually want prices to be set at long run marginal cost,³ each will endeavor to provide as much information as it can to the regulator to both support its own position and debunk that of the opposing party. The regulator then uses

this information, as well as its own modeling, to try and determine the appropriate result. However, because a regulator is subject to an informational asymmetry in respect to the regulated firm, and can never know its true long run marginal cost, it cannot necessarily ascertain precisely what information provided by the access seeker and access provider is true and what is false. Each, thus, has an incentive to lie and to use the regulator to their strategic advantage. The result is a large amount of information, a long process of deliberation, and very weighty decisions on the part of regulators.⁴

Treating a railway track as a CPR thus has the potential to substantially reduce the time and cost of regulatory decisions by emphasizing consensus rather than providing a forum for adversarial processes to be played out. The savings involved are not trivial. Recently, the Productivity Commission (2004) found that not one of the gas pipeline access decisions in Australia had taken less than a year to complete, despite the governing legislation suggesting it should take 6 months. The situation in Australian rail access decisions is similar, and in the United States, the Surface Transportation Board took almost 2 years to move from determining the cost of capital via discounted cash flow to using the Capital Asset Pricing Model. Moran (2003) found that the economic regulation of the Australian electricity sector imposed costs on the regulated businesses of some A\$88 million per annum. In the United States, the Office of Management and Budget (OMB) estimates the cost of economic regulation is in the order of US\$71 billion per annum, with an additional US\$10 billion in paperwork costs (Hahn, 1998). Even if lessons from CPR governance make only a small impact on regulatory costs through reducing the adversarial nature of the regulatory process, the savings could be significant. It remains to examine what lessons might be drawn, and I thus turn to the case study of traditional Aboriginal Australia.

Australian Aboriginal Resource Management

Australia's Aboriginal inhabitants exclusively occupied the country for tens of thousands of years prior to white settlement in the late 18th century. They lived as hunter gatherers, practicing "fire-stick farming" (see Kimmerer & Lake, 2001) in an environment where careful resource management was crucial for the survival of their society. The major resources they managed were the land and sea, which provided the resources necessary for their survival.⁵ They did so through a sophisticated system of rules, rights, and obligations surrounding control of and access to resources. These rules were very practical, but deeply rooted in the Dreaming; the central Aboriginal creation belief. This section provides a brief overview of the main tenets of Aboriginal CPR governance and examines how it correlates with Ostrom's (1990) seven principles of good governance.

It is no more relevant to speak of Aboriginal resource management mechanisms than it is to speak of European or Asian mechanisms; generalization hides a great deal of diversity. It is, however, possible to speak in terms of a few stylized facts, which provide a useful way of understanding the approach Aborigines used towards resource management. These facts may be expressed as follows:

- Land (and sea) is divided into relatively small plots, and inalienable rights to these plots were held by a relatively small group, usually an extended family.

The rights and responsibilities of each member of the family in relation to that land depended upon their status within the family. The notion of an individual “owner” is less relevant than it is in Western thinking.⁶

- Associated with each plot of land are a number of sacred sites, which embody the spiritual aspects of the land and form the constitution of Aboriginal law (Coombes, Brandl, & Snowdon, 1983). Associated with each sacred site is a totem and a specific knowledge pertaining to the appropriate maintenance of that land. Sacred sites are usually associated with hunting bans and other rules that prevent over-exploitation of the resource that is their totem.
- Practical and spiritual knowledge are intertwined, and the appropriate people on each plot of land will possess and use both sets of knowledge.
- Knowledge about a plot of land and its sacred sites is itself sacred, and each generation of responsible people must go through an initiation process to learn it. Elders, who possess this knowledge, are respected because of it, and are deferred to in decision making. They also have an obligation to share the knowledge to ensure that future generations know how to manage their country. Elders can, however, generally decide to whom they reveal what information, allowing a degree of flexibility, which ensures that information is passed to the person who will use it to the greatest benefit of the community in the future.
- No plot of land is sufficient to support its inhabitants all of the time. However, each has some resource that is likely to be in surplus some of the time and hence, available for sharing with outsiders on a reciprocal basis.
- Reciprocity is a social norm of overwhelming importance. Indeed, social standing is defined by one’s ability to provide something when asked, be it access to land or just a digging stick, and each request establishes a future obligation for the requester to return the favor, thus cementing social ties.
- Access rights to land are gradated, according to one’s level of knowledge about a particular plot of land. Aborigines consider themselves “home” when they need defer to nobody in their access to land.
- Ties between people are based upon kinship, which is tied to the land of one’s birth; one is who one is because of where one was born and where all of the people one is related to were born (Rose, 1998). Kinship ties are much more complex than a modern, Western, nuclear family,⁷ because they define the resources to which one can obtain access outside one’s own home plot.

These stylized facts give rise to a complex, interconnected system. Because plots of land are too small to support their inhabitants in all seasons, people must travel and share resources. This is reinforced by a strong social norm favoring reciprocity, which gives rise to confidence that sharing now will be repaid in the future. However, unrestricted resource sharing is difficult to police and likely to lead to resource degradation. Thus, kinship ties form the basis of what Ostrom (1990) refers to as the “lattice of interdependence,” which determines who shares with whom. However, while such ties determine who one may share with, they do not

determine who one will actually share with; ties need to be actualized by initiation into the spiritual lore of the country whose resources one wishes to share. This provides a mechanism by which those with primary responsibility for a particular piece of country can ensure that optimal sharing takes place.

Aboriginal people are not unique in their land management practices. Indeed, theirs is a relatively common response to climactic variation giving rise to land which is only marginally productive, and subject to seasonal variation. Perevolotsky (1987) notes similar practices among the Bedouin in Arabia, which he calls “reciprocal altruism,” and suggests it occurs when regional variation in the probability of good resources being available in any given season is high, and the costs of excluding others from one’s own resources in times of plenty are greater than the benefits of having local forage available entirely for one’s own use. In a modern context, McAllister, Gordon, Janussen, and Abel (2006) outline the agistment practices of modern graziers in Queensland; cattle are grazed on their own lands most of the time, but graziers make use of networks of trust to find pasture in areas where it is available when their own lands are barren. This replicates the governance model of the land’s original Aboriginal inhabitants.

Aboriginal Resource Management and Ostrom’s Principles

Although it seems somewhat presumptuous to judge practices developed over thousands of generations against the benchmarks created by just one, it is illuminating to examine Aboriginal CPR governance from the perspective of Ostrom’s (1990) seven principles of good governance. First, consider boundaries. Physical boundaries are well known to local residents and to neighboring groups. People from farther away would be less clear about the rules. They know that boundaries and sacred sites exist, but not always exactly where they are or what rules are associated with them. Aborigines use this ambiguity adroitly. An outsider unfamiliar with local rules knows that any mistake will be punished harshly, and thus has a strong incentive to contact the custodians of that land first and seek their permission for the tasks he wishes to perform (Altman & Peterson, 1988; Williams, 1982). In this manner, the custodians of the land know precisely who is on the land and what resources they are using.

Congruence with technological and social conditions was also achieved. Aborigines did not generally produce staple, storable products like grain, and hence, groups had to rely upon neighboring regions that had a surplus of seasonal produce in their own times of scarcity. With a lack of draught animals to transport food efficiently, they adopted the obvious solution: to move the people to the goods rather than the goods to the people. Who moved where was decided within a network of kinship ties, which ensured that resources would not become overused. Similarly, as a pre-literate society, Aborigines could not write their rules down. To ensure the rules were remembered, and to ensure they had the necessary weight to be followed, they wrapped them in the cloak of religion and made the passing down of such religious lore a primary purpose of those within a group who had had the most time to learn and understand it: the elders (Gould, 1982). This is a common approach where literacy is low and can be used to transmit highly technical infor-

mation; Bronowski (1973) shows how monks in Japan used literacy to preserve highly sophisticated sword-making techniques.

Collective choice is exercised via the rights a person has to a land. These are never exclusive; usually many decision makers are associated with a particular piece of land, and each person has rights and responsibilities in many lands. Certain people have greater decision-making rights and responsibilities, but all who have passed the requisite initiation rituals might also expect a say in decisions of importance. How many of these rituals a person has passed, and hence, how much of the sacred knowledge of a place they know determines how much of a say they have in the governance of that piece of land. Social standing is determined by the depth of knowledge one has about a particular site, and the breadth of sites about which one has some sacred knowledge. Thus, there is a strong incentive to both the collection of knowledge and the active participation in decision making.⁸

Monitoring the activities of each group is undertaken through the responsibilities associated with sacred sites. As Rose (1998) explains, each site is totemic, and the totem is associated with something that provides benefits to a wider community. Thus, if one group does not maintain its site adequately, the consequences will be widely felt, and other groups will intervene to see that proper maintenance is performed. For example, the totem associated with a sacred site on one group's land might be a kangaroo. If the clan responsible for this totem does not manage it correctly, the consequences (a lack of kangaroos) would be felt by surrounding clans, who would then intervene.

Justice and conflict resolution are broad topics, beyond the scope of this article.⁹ The major focus of both is upon maintaining social harmony; those who commit crimes are assumed to be improperly socialized, and hence need to be brought back to the "right path." This is an exemplar of Ostrom's (1990) fifth principle.

The final guideline from Ostrom is not relevant; there was no overarching state although each small clan was part of a larger tribe. Berndt and Berndt (1964) report roughly 500 of the latter at the time of white settlement. These did not perform the same roles as a modern state, and were certainly not in a position to enforce their will on each of the smaller groupings within them through the use of some form of external police force.

Aboriginal CPR governance sustained Aboriginal culture for longer than any other culture for which we have records; some 50,000 years or more. From this perspective alone, it seems useful to consider for railway track assets, which also often need to be sustained over succeeding generations. It is to these lessons that I now turn.

Lessons for Railway Governance from Aboriginal Resource Management

At a superficial level, economic regulators would doubtlessly be overjoyed if they could promote Aboriginal social norms of reciprocity among railway track owners. This seems unlikely, but there are important lessons that the Aboriginal experience can teach modern regulators and policy makers. Most of these lessons pertain not to the day-to-day operation of economic regulation, but rather to the way in which the regulated industry evolves and is structured. The two most important aspects of Aboriginal CPR governance which stand out from this respect are fragmented

ownership and interdependence, and gradated levels of ownership and decision-making rights.

Fragmentation of ownership serves to equalize power between players, hence, it can lessen the need for regulation that counteracts agglomerations of power, such as economic regulation. However, if the resultant pattern of ownership does not result in the relevant players having a mutual reliance upon one another, then the result is a collection of silo operations, unable to reap the benefits of joint production. The experience of Australian and British railways in the late 19th and early 20th centuries shows this. In both countries, ownership of railway assets was fragmented. However, in Australia, it was fragmented along state lines, with each railway moving produce from the hinterland to the major port of each state. Even when the systems connected, cross-border trade was minimal; the railways were governed as independent silos and were relatively poor at joint operations because their freight and passenger tasks did not require them to be any better. By contrast, railways in the United Kingdom realized by the 1840s that they needed to be able to move people and cargo across the whole country, regardless of where they actually had track infrastructure. By the 1850s, they had developed a Railway Clearing House that enabled them to share rolling stock and provide cross-country services (Lardner, 1855). They were able to do so because the pattern of fragmentation left them more dependent upon each other than Australia's railways.

Interdependence serves to promote cooperation and the search for points of commonality upon which to build joint undertakings, rather than look for points of difference with which to win a case before a regulator. However, attempts to create interdependence are unlikely to be successful if policy makers do not give due consideration to how assets are fragmented. By way of an example, both Australia and Europe experimented in the 1990s with vertical separation; divesting track, and signaling and rolling stock into separate companies. The notion was that each would be dependent upon the other; rolling stock cannot operate without track and signaling infrastructure, and vice versa. This, it was hoped, would allow relatively light-handed regulation. However, if there is an oversupply of tracks, then the rolling-stock companies are at an advantage and can push rates down to a level which does not permit the long-term sustainability of the track in question. If there is an undersupply, the track owner can play rolling-stock companies off against each other to extract monopoly rents, and thus heavy-handed regulation is needed.

Aboriginal people were very adept at managing this relationship between fragmentation and interdependence; indeed, it is what kept their society stable for so long. Although interdependence was crucial for survival, that fact is not enough to guarantee it will become a social norm. Thus, Aboriginal people would deliberately create it. Layton (1985) discusses the sacred rites of Aboriginal groups in the Northern Territory, where one group within a clan was responsible for undertaking the rite and another for deciding when it should occur and with assisting with ritual preparation.

In respect to modern railway infrastructure, policy makers need to be cognizant of the fact that highly fragmented track ownership might be technically inefficient. There is thus a trade-off. However, policy makers should also be aware that no

railway operates in isolation; most are integrated into logistics chains, and fragmentation of ownership of different links in a logistics chain may serve to equalize power to the point where regulatory involvement is minimized without sacrificing technical efficiency. The Surface Transportation Board in the United States is perhaps the most advanced in managing this trade-off, as it assesses mergers among railway companies and their effects on shippers. However, even it is not as sophisticated as Aboriginal elders.

The second useful lesson from Aboriginal CPR governance pertains to the use of graduated ownership rights and responsibilities. In Aboriginal Australia, there is no single owner of a piece of country, but rather a collection of people with differing rights and responsibilities. These rights and responsibilities are gained through an initiation process. The initiation process has two important aspects. First, it is costly; initiates must hunt game for the elder in charge. This prevents an oversupply of initiates. Second, it provides scope for the elder in charge to learn who among the initiates can be trusted with which levels of sacred knowledge, and hence control over the country in question. This assists in preventing the control of resources from falling into the wrong hands.

Clearly, the initiation ceremonies themselves are not translatable into the world of modern railways, but their principles are. In exchange for a greater degree of say in the decision-making process pertaining to a particular track asset, access seekers could be required to go through a costly process, which reveals information about themselves to the owners of track infrastructure and promotes trust. There would be obvious benefits in such an approach for access seekers, as they would be more able to exercise control over an important input into their production processes. However, it would also benefit the access provider, who might obtain capital from access seekers desiring a greater say in the governance of the track, and who might also be able to learn more about the future plans of access seekers, generating trust. Both reduce risk and have the potential to improve investment incentives, which improves industry sustainability.

Conclusions

This article has argued that the fact that a third party access regime weakens excludability for a railway track renders that track a CPR. Moreover, given the nature of the track and its stakeholders, it suggests there is reason to believe that using elements of CPR governance to inform economic regulation of an access regime might be successful and might assist in reducing the scope, cost, and complexity of regulatory regimes. By way of a case study example, the article explores the CPR governance mechanisms traditionally used by Australia's Aboriginal inhabitants and shows how lessons from this Aboriginal framework might assist in improving modern economic regulation of railway track.

The two most important aspects of the Aboriginal CPR governance framework are fragmentation of assets and interdependence between their owners, and graduated levels of ownership of assets. The former, if undertaken adroitly, can serve to dilute economic power while still enabling the efficiency gains of joint production. The latter assist in improving the stake and control access seekers have over an important input to their production process, and enhance certainty and trust

for the track owner. This may assist in improving investment incentives, and the sustainability of the industry.

Underlying these lessons is a different attitude toward power. The problem that economic regulation seeks to address is an agglomeration of market power. It does this by creating a counter vailing power: the regulator. This requires a strong state. Aborigines did not have a strong state, indeed they had none at all, and hence they addressed the problem of power concentration by preventing its formation, creating a polycentric power structure. This proved successful and very stable, sustaining their society for thousands of years.

Understanding the utility of polycentricity requires a fundamental change in the focus of policy makers. Rather than focusing on the visible consequences of an institutional structure that permits the exercise of market power (excessive prices), it requires a focus on the institutional structure itself to prevent adverse consequences from arising. Sen (1995) advocates a similar approach with regard to issues of social choice. In the context of economic regulation, it requires policy makers to ask not what they can do to control the price, but what they might do if the price was the one thing they could not control. In this, the Aboriginal experience with CPR governance provides important lessons.

Notes

- 1 Elinor Ostrom is perhaps the most prominent writer in the field, and the International Association for the Study of the Commons (<http://www.indiana.edu/~iascp/>) the most prominent repository of literature associated with it.
- 2 This system is not unique and is commonly used in Europe as well. North American regulators often conduct a more formally adversarial procedure through the use of regulatory hearings.
- 3 Obviously, the asset owner will prefer a price above the marginal cost, where it can earn monopoly rents. However, perhaps less obviously, the long-run marginal cost is the upper bound of the prices sought by the access seeker. For example, a railway track might require investment next year such that it can be operated efficiently for the next 20 years (track investment is commonly long-lived). An access seeker whose business plan extends out only for the next 5 years is unlikely to want to pay for such an investment.
- 4 The website of the Australian Competition and Consumer Commission (<http://www.accc.gov.au>) is one regulator's website that contains considerable detail on each regulatory decision made, and it is very easy to see evidence of the phenomena outlined above.
- 5 The relevant Aboriginal term is "country," which has a much broader term than in its standard English usage, encapsulating land, sea, air, flora, fauna, people currently living on their land, the ancestors (historical and from the Dreaming), and the descendants of those people. See Morhpy and Frances (2006) or Rose (1998) for a more comprehensive definition and discussion.
- 6 The Pintupi word is *walytja*, a word which literally means "one's own," and can refer equally to tools, family, or even oneself. Its antonym is *yapunta*, which literally means "orphaned" (Myers, 1982). These terms provide a rather neat illustration of how Aboriginal people view property.
- 7 See Berndt and Berndt (1964) for a detailed taxonomy.
- 8 Myers (1982, 1988) provides an illuminating example of the Pintupi people of the Western Desert in this regard.
- 9 Eggleston (1976) or Smith (2001) provide more detailed overviews.

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