



# Property in Land and Other Resources

EDITED BY DANIEL H. COLE  
AND ELINOR OSTROM



Foreword by Douglass C. North

# Property in Land and Other Resources

*Edited by*

Daniel H. Cole *and* Elinor Ostrom

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# Psychological Entitlement, Reference Levels, and Valuation Disparities

## *The Case of Native American Land Ownership*

C. LEIGH ANDERSON AND RICHARD O. ZERBE

Ownership, in the economics literature, is primarily established by property rights. As a general concept, however, ownership can be defined by both a legal and moral or personal facet, such as “legal or just claim” and “the relation of an owner to the thing possessed.”<sup>1</sup> We posit that a relevant concept of ownership, as it affects willingness to pay (WTP) and willingness to accept (WTA) for the right to property, derives from psychological entitlement, which is informed not only by legal rights, but also by cultural and historical norms and expectations that give rise to moral claims.

Valuation disparities between WTP and WTA are important because they can influence individual and market behavior and can hinder exchange involving real property, such as land. Valuation disparities are measured in relation to a reference level—that set of perceived rights from which one measures gains and losses—and are associated with an endowment effect posited to arise with ownership.<sup>2</sup> A fairly recent series of articles has challenged the existence of valuation disparities, suggesting they arise from experimental design, rather than as a function of preferences, and has prompted an equally vigorous response (Knetsch and Wong 2009; Plott and Zeiler 2005). This debate hinges in part on what is meant by ownership; that is, it is largely a debate over semantics.

Legal land disputes, particularly between indigenous and nonindigenous groups, commonly involve moral claim and sentimental value (Fishel 2006/2007; Rolfe and Windle 2003; Snyder, Williams and Peterson 2003). Indeed, in the landmark 1823 *Johnson v. McIntosh* decision, Chief Justice Marshall “declared the Indian nations ‘to be the rightful occupants of the soil, with a legal as well as just claim to retain possession of it, and to use it according to their own discretion’” (Watson 2011, citing *Johnson v. McIntosh*, 21 U.S. [8 Wheat] 543, 574 [1823]). When ownership is not simply legal, the reference point from which gains and losses are perceived will

<sup>1</sup> The Collaborative International Dictionary of English v.0.48, *Webster’s Revised Unabridged Dictionary* (1913), WordNet 2.0.

<sup>2</sup> Valuation disparities that give rise to differences between WTA and WTP are also attributed within the confines of standard neoclassical utility theory to income and substitution effects, signaling, transaction costs, regard for others, and other factors (Knetsch and Wong 2009). The endowment effect and loss aversion (under uncertainty) favor prospect theory.



differ from the legal one, and psychological entitlement can explain valuation disparities not covered by income or substitution effects.<sup>3</sup> Psychological entitlement can also explain valuation disparities across individuals with different moral claims over a property, who might otherwise value it identically. The sentimental value attached to a good can likewise produce valuation disparities by increasing the good's subjective value and heightening losses relative to gains. In the absence of loss aversion, however, sentimental value reduces to a substitution effect. Either way, sentimental value will not change the reference level, whereas a change in moral claim derived from views of fairness or sovereignty will change the reference level by altering expectations of ownership.

Valuation disparities and the reference level will vary depending on the subset of rights held and the property regime. Hence, a more complete treatment of ownership must consider subsets of property rights and the property regime under which those rights are held. Ownership is distinguished by a set of operational and collective-choice rights, where *de jure* or *de facto* ownership may include all or only a subset of these rights (Schlager and Ostrom 1992). Who possesses which rights, and whether ownership resides with a group or a single residual claimant, have implications for property valuation and moral claim. The source of these rights and the property regime depends in part on the physical characteristics of the property, and in part on the cultural characteristics of the community to which the owners/occupants belong. Which rights are legitimate bases of land ownership (for example, use, occupancy, and discovery) have long been debated (Watson 2011).

This chapter develops a theory of ownership that argues that a moral claim underlies psychological entitlement, which affects reference levels and can create valuation disparities. Hypotheses are developed about psychological entitlement that are, in principle, testable. The basis for testing these hypotheses is the relevance of initial allotments to moral claim. The relevance of initial position challenges the Coase theorem and the claim that the rate of exchange is invariant to whether property is being acquired or is given up (Tversky and Kahneman 1991).<sup>4</sup> Empirical testing is left to future experiments or applications with more recent data on real property values; instead, a survey of the available historical evidence on Native American valuation of land is presented.<sup>5</sup> The historical record brings into question arguments for valuing Native American land that do not consider the effect of psychological entitlement. This work is specifically important because of the complexities of and conflict over valuing indigenous property and generally important for assessing the integrity and validity of contingent valuation methods (Altman 2004; Sjaastad and Bromley 1997).

## A Theory of Psychological Entitlement

In welfare economics, gains are measured by the WTP for the gain, and losses by the WTA for the loss (Zerbe and Dively 1994). Gains and losses are measured from

<sup>3</sup> Tversky and Kahneman noted that "in accord with a psychological analysis of value, reference levels play a large role in determining preferences" (1991, 1039). See Zerbe (2001) on psychological reference points.

<sup>4</sup> Attributed to Ronald Coase, the theorem states that in the absence of transaction costs, bargaining will lead to the socially efficient allocation of resources regardless of which party holds property rights.

<sup>5</sup> We use the terms "Native American," "Indian," and "tribe" as closely as possible to the original source and apologize for any offense that is taken at a particular or historical usage.

a reference level that defines the status quo. A rich literature examines economic and psychological theories on both the factors that influence the level of WTP or WTA and the regularly observed disparity between the two. Economic models predict that for normal goods, those for which demand increases as income rises, the amount one will pay for ownership is less than the amount one would accept to give it up. That is, WTA is greater than WTP because of income and substitution effects. This gap has also been attributed to uncertainty, signaling, transaction costs, public goods, imprecise preferences, and experimental design (Dubourg, Jones-Lee, and Loomes 1994; Graves 2003; Plott and Zeiler 2005). From the psychological perspective, the disparity has been attributed to an endowment effect (Kahneman, Knetsch, and Thaler 1990; 1991; Tversky and Kahneman 1991), moral responsibility (Boyce et al. 1992), punitiveness (Rachlinski, Croson, and Johnston 2005), and moral outrage (Kahneman and Ritov 1994). For environmental goods, for example, economic models assume that WTP is a proxy for acquisition or monetary value of the resource. Psychological models, however, focus on motives to address social problems or on whether the source of the environmental loss is natural or human induced (Kahneman and Ritov 1994; Ryan and Spash 2010).

Recent debates about economic and psychological hypotheses center on the endowment effect, a reported causal result in which ownership qua ownership influences valuation. Plott and Zeiler (2005) suggest that valuation disparities can be attributed to experimental controls rather than preference effects. Knetsch and Wong (2009) have countered by showing that rather than changing the endowment effect, experimental controls affect the reference level from which valuations are made. In particular, they posit that ownership is not a prerequisite to the endowment effect, but that attachment value may be. That is, the degree to which individuals are attached to an object or property, regardless of their *de jure* ownership, affects the reference level.

There are at least two issues that challenge conventional economic models in the debate over reference levels and valuation disparities and favor using a value function rather than traditional indifference curves to represent individual choice behavior. The first is loss aversion, where losses matter more than commensurate gains (a value function is steeper in the negative than in the positive domain), and the second is calibrating value to initial endowments, where value is assigned to gains and losses from a reference level rather than just to final assets. A considerable literature exists on the gap between WTP and WTA, but as Knetsch and Wong (2009) point out, less work has been done on the determinants of reference levels (the inflection point where the concavity of the value function changes).

Valuation disparities can arise from a change either in the slope of the value function or in its inflection point that represents a reference level. Therefore, one must distinguish between purely sentimental value and moral claim. Sentimental value increases the value of the good and, hence, the slope of the value function over gains and losses. For example, one may attach sentimental value to a good, increasing its intrinsic value to the individual and the potential sense of loss. Sentimental value can be attached to private or public goods, can grow over time, or can be discovered (for instance, when one learns that a piece of jewelry was owned by one's grandmother, or that an ancestor's grave lies within a piece of land that otherwise had



little value). This type of sentiment is not presumed to give a moral claim and is therefore unlikely to affect the reference level from which WTA and WTP are measured. Sentiment can, however, affect valuation disparities through loss aversion or a simple substitution effect and be relevant in property disputes. Goods with limited substitutes in consumption, which can include goods that have sentimental value arising from unique histories or associations, can have WTA-WTP disparities even with modest income effects (Hanemann 1991).

Moral claim underlies psychological entitlement and can affect valuation disparities by changing the reference level from which WTP and WTA are measured. “Although the reference state usually corresponds to the decision maker’s current position, it can also be influenced by aspirations, expectations, norms and social comparisons” (Tversky and Kahneman 1991, 1046). Religious, traditional, or otherwise-derived moral claims affect realizations or expectations of property ownership; that is, they affect the reference level from which gains and losses are measured. The psychological reference level may differ from the legal one because of perceived moral claim based on fairness or sovereignty. Fairness and a sense of what is right will affect the expected probability of ownership. If ownership is already presumed, for example, the WTP for a good that one believes is rightly his to begin with may be lower as a result of indignation that one is asked to pay for what ought to be free (Seip and Strand 1992).

Sovereignty presumes ownership over the constitutional and collective-choice rights that allow for self-determination. But the unconventional sovereignty of Native Americans’ “domestic dependent nations” status raises competing interpretations of the collection of rights that constitute land ownership. Unlike a traditional economic view where the right to alienate is prime, many Native American tribes have recognized and been granted only exclusion and management rights (Watson 2011). Hence, a discussion of ownership requires investigating the subset of ownership rights at issue.

### *Subsets of Property Rights*

Ownership consists of a bundle of different rights, which are authorized and enforced actions derived from rules (Ostrom 1976). For common-pool resources, Schlager and Ostrom (1992) distinguish between operational-level rights that allow for access and withdrawal of a resource and collective-choice rights that allow for participation in management, exclusion, and alienation decisions. Management is the right to “regulate internal use patterns and transform the resource,” exclusion the right to determine who has access and how that right is transferred, and alienation the right to sell or to lease management or exclusion rights over the property (Schlager and Ostrom 1992, 251).<sup>6</sup>

The particular bundle of rights owned can be expected to affect reference levels for gains and losses over a resource differentially. Management, exclusivity, and alienation rights—participating in collective-choice decisions—confer both economic

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<sup>6</sup> Existence and option value are often considered in tandem with use value for environmental goods (Rachlinski, Croson, and Johnston 2005). Existence value is a moral sentiment that is expected to affect reference points and loss aversion, and hence, valuation disparities.

value through the incentives to make current and long-term resource investments and psychological entitlement through assumed or expected ownership. Changes to collective-choice rights, therefore, can affect valuation disparities through loss aversion and reference levels through moral claim. Conversely, operational-level use rights (withdrawal and access) contribute primarily to economic value through supporting livelihoods and can affect valuation disparities through loss aversion.

Although collective-choice rights are primal in conferring moral claim, the specific rights within that set may vary and may be the underlying source of WTA discrepancies in land disputes. First, there can be disagreement between indigenous and nonindigenous parties over the basic legitimacy of alienation rights over land. Second, legal decisions have conferred differing “limited ownership” and “limited possessor” conceptions of land rights, although both conceptions limit alienation rights (Watson 2011). If alienation rights are not acknowledged, for example, then management and exclusivity rights may be sufficient to confer psychological entitlement. Indeed, some scholars view use and exclusion rights as generally held together.<sup>7</sup> Further, in cases where collective-choice rights have not been established, repeated use can also create ownership expectations.

### *Private Versus Common Property Regimes*

Property rights may be held individually or in common. Private property generally refers to a single individual holding a property right, while common property regimes refer to situations in which multiple individuals share ownership over some set of rights. All rights may be held by the same entity, generally referred to as the owner. The term “proprietor” is used to indicate that all but alienation rights are held, “claimant” when all but alienation and exclusion rights are held, and “authorized user” when only operational-level rights are held (Schlager and Ostrom 1992, 252).

Although cultural predispositions for common or private property are often assumed, at any one time, a single community may hold a multiplicity of regime types, often depending on the property type. C. L. Anderson and Swimmer (1997) document how different tribes simultaneously held multiple access regimes across different kinds of property, depending on the costs of defining, maintaining, and enforcing rights over the property. Tools, weapons, regular food (plants and berries), and shelter, for example, were often private property, while joint food (animals) and undeveloped land had fewer access restrictions. Others have argued that the value of risk spreading in variable environments may outweigh the benefits of specialization and the incentives that come with private property (Allen and Lueck 1998; Rose 1999, citing Ellickson [1993]).

Whether property evolves to be held privately or in common also has an economic basis. Demsetz (1967) argued that private property rights emerge when the benefits, because of changing relative prices, outweigh the costs of establishing and enforcing private property. This argument implicitly assumes common property as a starting point from which a regime switch occurs when the externalities from

<sup>7</sup> See Penner (1997) and Merrill and Smith (2007), citing Penner. The authors thank Robert Ellickson for noting this viewpoint.

common property grow to exceed those from private property. Demsetz examined the origin of private rights among the Montagne Indians of the Labrador Peninsula in response to a developing fur trade and the increasing price of furs. This switch from common to private property occurs when the burden of common property resulting from overuse is greater than the transaction costs of maintaining a private property system along with its external effects on tracts of private property.<sup>8</sup> For any society, the point at which this regime change occurs is hypothesized to depend on population growth of the resource users or new markets, changes in the physical condition and availability of the resource, or changes in the technology of production or consumption.

Rights, particularly those held in common, may originate with resource users or community elders and may be *de facto* rather than *de jure* (although legal rights may ultimately be based on social mores). Rights are considered *de facto* if they are not recognized by governmental authorities (Schlager and Ostrom 1992), although they represent another set of cultural constraints that affect behavior (Usher, Tough, and Galois 1992). As Johnsen notes, “While legal constraints consist of coercive sanctions imposed by the state on socially undesirable behavior, ideological constraints consist, at least in part, of social mores backed by social disapproval and ingrained patterns of guilt or shame imposed by the group when behavior is contrary to the prevailing ideology” (1986, 43).

The source of these rights is intimately tied to how they are secured. The integrity of the source stems from an understanding of the benefits of cooperation or the costs of competition and noncompliance. A single leader, a governing body, or a community of users may sanction rights via recognized formal or informal law and may punish defections by force, removal from the group, fines or other economic penalties, or social ridicule.

*De facto* property systems, especially those that have evolved over time and across users, can be attendant on local physical resource and social conditions and can internalize the costs of monitoring and exclusion among the locals who benefit from the regimes (Schlager and Ostrom 1992). These observations underlie the argument that the endogenous structure of indigenous property rights is efficient, that is, that the governing institutions minimize transaction costs (Johnsen 1986). In the evolution of the common law, for example, justices attempted to adopt existing *de facto* norms as *de jure* and thus to avoid creating inefficiencies (Zerbe 2006). There is no consensus, however, that existing property rights systems are necessarily efficient, at least with regard to social welfare, nor is there a clear distinction between *de jure* and *de facto* rights. Schlager and Ostrom note that “within a single common-pool resource situation a conglomeration of *de jure* and *de facto* property rights may exist which overlap, complement, or even conflict with one another” (1992, 254). Nonetheless, there is support for a Darwinian argument that to survive over time, evolved regimes must move toward efficiency. Certainly, one might expect more complementarities within internally evolved regimes than from an external regime overlaid on an existing one. Hence, replacing one *de jure* regime with another,

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<sup>8</sup> Ault and Rutman (1979) well illustrate this pattern.

or a *de facto* regime with an externally imposed *de jure* regime, is likely to have economic (and social) consequences.

In addition to the economic argument behind common property and *de facto* rights, the methods to preserve these regimes can create moral claims. Common property is often intentionally regulated to reduce external effects through complex social norms or rules. “Complex entitlement structures encourage continuity in a common property regime’s membership, because outsiders cannot easily buy in and insiders cannot easily sell out . . . This structure provides a background condition of ‘repeat play’ among group members, often said to be an important factor in solving collective action problems; repeat play helps participants to build up cooperation and trust, and hence it impedes breakdown from internal shirking and cheating” (Rose 1999, 65). To promote cooperative behavior, land may become rooted in spiritual or religious tradition, in which case the value of the land in common can exceed its commercial value; that is, the whole is greater than the sum of the parts.

Hence, replacing rights, either in principle or in practice, with the *de jure* rights of another authority and altering the balance of private and common ownership has at least three consequences. First, if common ownership is more efficient when all costs and benefits are measured, a forced move to private property, rather than one that evolves naturally, represents a loss in economic value. An externally imposed change from common to private property can be expected to contribute to valuation disparities by imposing an untimely and possibly inefficient economic solution. Second, the complex entitlement structures and religious or social norms that promote cooperative behavior within the commons and support *de facto* rights intentionally foster moral claim. Historically held common property, therefore, may carry a higher moral entitlement than private property. Finally, a change in any collective-choice right that represents a change in the authority to construct operational-level rules is a change in moral claim and can be expected to affect reference levels.

### The Hypotheses of Psychological Entitlement and Evidence from Historical Valuations of Real Property Among Native Americans

A useful definition of ownership must allow for psychological entitlement. Strictly legal definitions of ownership and simple commercial valuations of property are often operationally valid. For example, stock traders, realtors, and multiple daily transactions for standardized items, such as gas and prepackaged foods, do not appear to be hampered by valuation disparities that limit exchange. But for more complex property and infrequently traded property for which repeat market values do not exist, ignoring psychological entitlement that affects reference points and valuation disparities is likely to bias contingent valuation estimates.

Both sentimental value and moral claim can increase the divergence between WTA and WTP, sentimental value from an increase in intrinsic value (with or without loss aversion) and moral claim by affecting reference levels. Testing for reference-level effects involves demonstrating a change in one’s baseline sense of ownership, holding constant changes in how the good is valued. In the simple mug example used in Plott and Zeiler (2005) and Knetsch and Wong (2009), testing would entail measuring WTA in cases that varied by expectations of ownership; for example,

where moral entitlement had been created (e.g., by indicating that “ownership” meant that the individual had a right to determine who had access to the mug and how those rights could be transferred) relative to cases where the individual was told that he had only a temporary right to use the mug for consumption purposes.

The effect of moral claim on reference levels can be examined in the long-standing debate on the valuation of Native American lands. Although the historical record limits rigorous empirical testing, there are three compelling features of these lands. First, Native American land ownership contained a unique cultural or intrinsic value. Second, lands that were commonly owned by the tribe were split among tribal members through the operation of external laws, and not through self-reorganization by the tribe. Third, the role of alienation rights in land ownership was indeterminate, stemming from both internal and external sources: common tribal disregard of these rights as legitimate or meaningful and a diminishment of these rights accorded to tribes beginning with the 1823 *Johnson v. McIntosh* decision and to individual “owners” of lands held in trust by the U.S. government (Watson 2011).

Our goal is to use the available historical records on collective-choice rights and spiritually significant common property to illustrate that psychological entitlement affects reference levels. The focus is on the sequence of U.S. government actions that changed Native American collective-choice rights and property regimes, the moral claim of tribes, and the relevance of initial allotments as a factor affecting psychological entitlement. Evidence is sought that changes in these rights (1) were exogenously imposed and not evolutionary or in accordance with Native American constitutional choice actions; (2) altered collective-choice rights, not just operational-level rights; and (3) caused an economic and psychological loss through the move from common to private property.

*Hypothesis 1: Exogenously imposed changes in collective-choice-level rights will affect valuation disparities and reference points, regardless of the property regime or type.*

Changes in property rights for a community that do not originate or accord with indigenous constitutional choice actions and that change collective-choice rights management, exclusivity, and/or alienation will affect psychological entitlement and, hence, reference levels.

Early tribal collective-choice rights appear to have been based on management and exclusion, or the “work-use-ownership” principle. “If you did the work to acquire a thing and used it productively, it belonged to you” (Isakson and Sproles 2008, 66, citing T. L. Anderson and LaCombe [1999]; Zerbe and Anderson 2001). Aboriginal rights in Canada, for example, “included: use by the group itself, and the right to include or exclude others (by determining the composition of the social group); and the right to permit others to utilize lands and resources. Rights to alienate or sell land to outsiders, to destroy or diminish land or resources, or to appropriate lands or resources for private gain without regard to reciprocal obligations, were all excluded” (Usher, Tough, and Galois 1992, 112).

Cronon (1983) suggests that northeastern Indians held usufruct rights, but not alienation rights, and that changes in ecological value drove land use and the trading of rights. He offers additional support for the work-use-ownership principal:

“Beginning with personal goods, ownership rights were clear; people owned what they made with their own hands” (Cronon 1983, 61). Objects recognized as individually owned were usually utilitarian. Resources collected from the land could be individually owned, and tribal boundaries were generally recognized, with a middle ground used for trading. “Insofar as a village ‘owned’ the land it inhabited, its property was expressed in the sovereignty of the sachem . . . When Roger Williams wrote that ‘the Natives are very exact and punctuall in the bounds of their Lands, belonging to this or that Prince or People,’ he was refuting those who sought to deny that legitimate Indian property rights existed. But the rights of which he spoke were not ones of individual ownership; rather, they were sovereign rights that defined a village’s political and ecological territory” (Cronon 1983, 60).

In a broader study of 40 tribes, C. L. Anderson and Swimmer (1997) found distinct and varied collective-choice rights across tribes. Records indicate, for example, that access restrictions to hunting territories were quite varied across tribes, including four tribes with access restricted to the nuclear family, three tribes with access restricted to the extended family, and thirteen tribes with unrestricted access. This variation may be explained by different degrees of abundance of food or other goods relative to user demands and by the technologies available to the tribes. The value of the potlatch—an exchange system among the Southern Kwakiutl of the Pacific coast, described in detail by Johnsen (1986)—rests on rights of exclusion and alienation. Many of these collective-choice rights were the basis of common property regimes, preserved wealth in important natural assets, and provided a risk-diversifying strategy for livelihoods subject to the variability of nature.

T. L. Anderson and LaCombe (1999) note that the introduction of the horse reduced the need for cooperative hunting behavior. One hypothesized result was a dramatic increase in conflict as each tribe attempted to protect and expand its traditional territories (Isakson and Sproles 2008). T. L. Anderson and LaCombe (1999) observe that externalities associated with common property, were expanding before the treaty era but were not yet sufficient to overcome the difficulties or costs of creating mutually agreeable private land rights, so that common property remained the norm (T. L. Anderson and LaCombe 1999). In the ordinary course of events, there might have been a “natural” evolution toward private property. But with the arrival of Europeans in the late fifteenth century, the evolutionary process from common to private property regimes was abruptly interrupted (Schlager and Ostrom [1992] in general; Demsetz [1967] and Johnsen [1986] for Native American communities in particular).

The evolving relationships between Native Americans and European Americans changed the pace and pattern of rights evolving at the discretion of the resource users. Conflicts between Native Americans and European settlers were initially generally resolved through treaties. At least 322 treaties between the United States and Native American tribes were recorded between 1778 and 1886 (Kappler 1904). “These nation-to-nation agreements with the United States are the source of their [the Native Americans’] legal leverage, and the fount of their moral authority” (Dupris, Hill, and Rodgers 2006, xxi).

The historical record suggests that across the country, at least some of these negotiations were unwelcome, were born of limited choices, and led to a solution that



would not have evolved indigenously. R. T. Anderson et al. report on several cases, including an 1824 correspondence from the chiefs of the Creek Nation responding to a request from earlier attempts by federal treaty commissions to persuade the southeastern tribes to exchange their lands for lands west of the Mississippi:

Brothers, we have among us aged and infirm men and women, and helpless children, who cannot bear the fatigues of even a single day's journey. Shall we, can we, leave them behind us? Shall we desert, in their old age, the parents that fostered us? The answer is in your own hearts. No! Again: we feel an affection of the land in which we were born; we wish our bones to rest by the side of our fathers. Considering, then, our now circumscribed limits, the attachments we have to our native soil, and the assurance which we have that our homes will never be forced from us, so long as the government of the United States shall exist, we must positively decline the proposal of a removal beyond the Mississippi or the sale of any more of our territory. (2010, 50)

Forty years later, in discussions with multiple tribes from the plains, Comanche leader Ten Bears responded to the reservation policy at the 1867 Medicine Lodge treaty negotiations:

There are things which you have said to me which I do not like. They were not sweet like sugar, but bitter like gourds. You said that you wanted to put us upon a reservation, to build our houses and make us medicine lodges. I do not want them. I was born upon the prairie where the wind blew free and there was nothing to break the light of the sun.

I was born where there were no enclosures and where everything drew a free breath. I want to die there and not within walls. I know every stream and every wood between the Rio Grande and the Arkansas, I have hunted and lived over that country. I lived like my fathers before me, and like them, I lived happily. (R. T. Anderson et al. 2010, 85)

Referring to the three treaties that established 18 reservations in the Northwest, the commissioner of Indian affairs opined that “their sole purpose . . . was to extinguish Indian title to large tracts of land” (Porter 1990, 114). “Treaties are supposed to be the law of the land, but we owned all the land before this” (Larry Campbell, a historian for the Swinomish tribe, in the August 22, 2010 *Seattle Times*). A recent article acknowledged the bitterness about the 1855 signing of the Point Elliot Treaty with a headline: “155 Years Later, Descendants of Treaty Signers Gather to Apologize, Reconcile” (Liu 2010).

Reconciliation, however, may be the exception rather than the norm. The 1863 Treaty of Ruby Valley with the Western Shoshone Indians allowed American settlers operational use rights, but there was no cession of property or waiver of alienation and management rights by the Shoshone, who did not acknowledge the notion of “owning” the land and, therefore, the right to alienation. Today, the United States claims the majority of Western Shoshone property as public or federal lands. A trust established in the Shoshone name as payment for the sale of alienation rights is currently worth \$26 million, but the Shoshone continuously refuse to accept this

monetary compensation. Says Shoshone Carrie Dann of the \$26 million trust: “I have said this a thousand times, I am not taking money for this land. This land has no value, there is no price for it. In Western Shoshone culture, the earth is our mother. We cannot sell it. Taking our land is a not [sic] only a cultural genocide, it is also a spiritual genocide” (Dann 2004).

The argument here is that regardless of whether the treaties were fair or reasonable, they were an abrupt change in course discordant with the path of at least some tribes. Further, treaties represented a change in collective-choice rights and hence altered psychological entitlement. Treaties generally created reservation land that was “owned” by the tribe in common and held in trust by the U.S. government; that is, it was nonalienable by tribes.

Withholding alienation rights has likely weakened the economic development prospects of tribes and tribal land. But the impact on psychological entitlement comes from losing previously held collective-choice rights, which may or may not have included alienation rights. Whether these rights were *de jure* or *de facto*, organized, rule-bound trade and exchange mechanisms among tribes make it clear that collective-choice rights existed, were recognized, and were an important part of managing the risks of livelihoods based on the variability of nature and subsistence living (Johnsen 1986). Indians could and did sell operational rights to European settlers, but they retained ownership of certain activities and management or exclusion rights, although Europeans probably misunderstood, whether unintentionally or intentionally, what the treaties entitled them to (Cronon 1983). “While it is a convenient aside that the tribe’s land provides the raw materials for their material welfare, it is not central to their ownership and only constitutes a part of it. Often, indigenous people are not concerned about exclusive occupancy, despite being fiercely jealous of having the land recognized as their property. There is something beyond occupation and use rights that constitutes a core value in indigenous ownership. This means that the alienation of rights pertaining to land cannot be fully evaluated using material/commercial equivalencies” (Small and Sheehan 2008, 110).

Treaties, which focused on operational-level rights and economic valuation, were working from a reference point that failed to recognize the psychological entitlement many Native Americans held over these lands and the way “ownership and sovereignty among Indian peoples could shade into each other in a way Europeans had trouble understanding” (Cronon 1983, 58–59). This is a primary way in which culture affects moral sentiments. Citing Myers and Shah (2004), Small and Sheehan note the following methodological problem with valuing indigenous land: “The interpretation of indigenous interests in land as a set of use rights misses the fundamental issue in the indigenous understanding of ownership” (2008, 116). The same holds for a narrow economic interpretation of collective-choice rights as dependent only on exercising alienation rights.

Before the treaties, tribes held moral claims and exercised collective-choice rights over land, with or without alienation rights. There is sufficient support for psychological entitlement in cases of indigenous valuation of real property to render untenable presumptions that the allocation of rights and initial allotments are irrelevant to exchange.

*Hypothesis 2: Exogenously imposed changes from common property to private property regimes will affect valuation disparities and reference points.*

Common property with spiritual value and historically subject to complex entitlement structures, regardless of the underlying economic rationale, will have a greater whole value than the economic sum of its parts. Moral claim is present because of shared ownership of rights, regardless of whether changes are to operational-level or collective-choice-level rights.

The common view is that before contact with Europeans, tribes treated land as a common resource (Isakson and Sproles 2008). From around 1778, when records and written treaties became more common, through the period of the Indian Removal Act of 1830,<sup>9</sup> “Native Americans held, at best, a collective ownership concept of land, if they held any concept of land ownership at all” (Isakson and Sproles 2008, 69).

The General Allotment Act of 1887 (commonly referred to as the Dawes Act) altered the balance of commonly versus privately held land by assigning allotments of reservation land to individual tribal members (e.g., 160 acres to each family head, 80 acres to a single person under 18). “Allotment was a radical departure from the Indian’s concept of land tenure. Land was not something which could be alienated or exchanged for something else. Although there were various concepts of land tenure and land use, to the Indian the land was a whole and individually-owned parcels were unknown” (Porter 1990, 116, citing Sutton [1975]).

The Dawes Act led to the much-criticized fractional estates by inheritance rules and restrictions on the rights of alienation, because allotment land was held in trust (Shoemaker 2003). “Because the land was held in trust by the U.S. Government, the heirs could not simply sell the land, not even to their tribe, and divide up the proceeds. As the heirs died, additional fractionalization of the ownership rights occurred”; further, “The fractionalization of allotment lands makes it extremely difficult for Native Americans to pool together their individual interest to the benefit of the tribe or others who might be interested in developing the land” (Isakson and Sproles 2008, 70).

In addition to the imposed inefficiencies of the Dawes Act’s alienation rules, economic loss stems from unrecognized sentimental value and the relative efficiency of Indian *de jure* and *de facto* common property rights. Citing Myers and Shah (2004), Small and Sheehan note: “The valuation of indigenous interests on the basis of use rights ignores the fundamental and categorically distinct cultural value of land to indigenous peoples and is impossible to render equivalence in commercial terms” (2008, 116). The efficiency of common property regimes, argued by Schlager and Ostrom (1992) and illustrated for tribes in the Northwest by Johnsen (1986) and in the Northeast by Demsetz (1967), supports the contention that switching to a nonevolutionary property rights regime could result in a less optimal economic arrangement.

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<sup>9</sup> The Indian Removal Act empowered the president to negotiate for land exchanges with Native Americans and make payments for improvements on the land; it ended up enabling the forced removal of some tribes (Isakson and Sproles 2008).

Psychological entitlement arose through the complex entitlement structures, often rooted in spiritual and religious traditions, of common property to support cooperative behavior on these common lands. Norms included status systems, which are argued to have supported social sanctions that restricted individual accumulation (Cronon 1983). “Indigenous people do not view land as individual property per se but rather as a part of an ethical/spiritual/legal matrix of rights, obligations, and community relationships” (Small and Sheehan 2008, 106).

Historians suggest that among many pre-Columbian Native American, cooperation was a necessary condition for survival (T. L. Anderson and LaCombe 1999).

The aboriginal management system, operated through consensus by the local harvesting group, rested on communal property arrangements. Management and production were not separate functions, although leadership and authority within the group were based on knowledge, experience, and their effective use. Spiritual values and ceremonial activities also helped define appropriate and necessary modes of behavior in harvesting resources. Although these practices did not operate in the paradigm or manner of western “scientific” management, they served to regulate access to resources. It was these cultural constraints on behavior, rather than “natural” predator-prey relationships, that normally guarded against resource depletion. (Usher, Tough, and Galois 1992, 112)

American Indian beliefs often assert the full integration of the spiritual with the physical, and the sacredness and interrelatedness of all creation. Thus, while some American Indian tribes or individuals are quite comfortable with putting dollar values on land and water resources, many other tribes or individuals find this highly offensive. (Hammer 2002, 3)

While usage of indigenous land may have a discernible rental value, it may not necessarily capitalize into a fair market price for alienation. This is because indigenous people see their relationship to the land as more than a commercial interest, even if they traditionally rely on their land for material support. In this respect, indigenous land is more like a body part than a conventional external discretionary possession. Part of a body part’s value may be expressed in terms of material utility, such as a pianist’s fingers, but few would deny that one’s fingers are not worth more to a person than their potential contribution to paid work. This means that there also exists a separate, metaphysically distinct, category of value for which a fair market value cannot be established. (Small and Sheehan 2008, 114)

The goal of these structures was to promote cooperative behavior. Hence, the intentional result was the creation of shared moral entitlement and a value of the land as a whole that was greater than the economic sum of its parts.

Incomplete consideration of psychological entitlement is illustrated in a detailed account of the 1997 Grass Mountain/Huckleberry Divide Trail Land exchange between the U.S. Forest Service and Weyerhaeuser. The exchange involved selling land to the logging company that had spiritual and economic value to the Muckleshoot tribe. “In addition to the physical sustenance provided by these extra-reservation

places that originally comprised their traditional territory, the Muckleshoot's use of their traditional homelands remained part of 'an integrated system . . . all within a spiritual whole' (Hanson and Panagia 2002, 177). Moreover, "The Muckleshoot Tribe was omitted from the original conveyance of the land, although their presence had long been part of the area, and non-Indian anthropological, historical, and settler accounts had long documented this presence" (Hanson and Panagia 2002, 171). Hanson and Panagia refer to the case as a "legalistic" dismissal of the psychological entitlement of the Muckleshoot to historically important sections of the mountain and trail, a "bureaucratic dispossession" that prompted more than 20 years of effort by the tribe to preserve the trail, now with much greater spiritual than economic value, from further damage (2002, 170).

The 1934 Indian Reorganization Act ended the allotment process and restored tribal ownership in common of the remaining surplus lands. The 1983 Indian Land Consolidation Act makes it possible for tribes to consolidate fractional interests by purchasing them, but the lands must be held in trust by the U.S. government or be owned collectively by the tribe. These acts may prevent further erosion of economic value, but the effect on psychological entitlement is perhaps more interesting. Like the Western Shoshone, eight Sioux tribes hold over \$900 million in federal trusts but refuse to accept monetary compensation for land that a 1980 court case determined to be illegally acquired by the United States. Sovereignty requires land in common. Hence, incentives to continue social and other tribal norms supporting land in common are necessary to maintain sovereignty, which is itself necessary to gain or reestablish treaty rights.

For Native Americans, the right to land has been in large part a fight for sovereignty, necessary for cultural survival and the gains from treaties. As Sarah Krakoff notes, "To put it bluntly, without sovereign American Indian tribes, there would be no American Indians" (2006, 804).<sup>10</sup> The relationship among sovereignty, land, and treaty rights may explain some of the Native American attitude and response toward land treaty rights.<sup>11</sup> This suggests a subsidiary hypothesis that the holding of rights in common was necessary for sovereignty, although the collective-choice rights normally associated with sovereignty remain in debate.

Debates over the source of valuation disparities are, in some cases, debates over the meaning of ownership. We have theorized that for property or circumstances that create moral claim and change expectations of ownership, psychological entitlement will differ from legal ownership and change the points from which gains and losses are measured. Treaties represented an exogenously imposed change in collective-choice rights, and this represented a loss of psychological entitlement, as

<sup>10</sup> See also Riley (2005); *Lyng v. Northwest Indian Cemetery Protective Association*, 485 U.S. 439, 108 S. Ct 1319 (1988).

<sup>11</sup> Rights to fisheries show a pattern of sentiment similar to those for common land. In the case of fisheries, the Muckleshoot said that money could never compensate for the loss of the fisheries, and when they were forced to accept it, they interpreted the payments as representing temporary intrusions on their fishing properties, not permanent repeal (Dupris, Hill, and Rodgers 2006). "Through it all . . . the Tribes have never surrendered the conviction that they had solved the problem of salmon management" (Dupris, Hill, and Rodgers 2006, xxii). To what extent these claims represent expediency is not easily determined, if at all. But whatever their source, there can be no doubt of their psychological validity.

well as an economic loss, for American Indians. Additionally, the untimely transitions from common to private property eroded psychological and possibly economic value through changes in the complexity of the structures that promote cooperative behavior.

Comparing valuation disparities that arise between coerced and evolutionary changes in collective choice level rights for additional cases of indigenous peoples with moral claim to property would be helpful for testing our hypotheses. Likewise, comparing buying and selling prices for commonly and privately held land exchanged among tribal members, and between Native and non-Native Americans, could test for valuation disparities according to the historical moral claim over the land exchanged, independent of its current commercial value. Even absent this empirical evidence, however, the historical record on Native American land valuation suggests that psychological entitlement is credible.

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## Appendix

In cases where legal rights are uncertain, the welfare economics of efficient allocation would assign the right to that party which valued it most. Where the value is simply the commercial value, WTP and WTA for any one party would be the same at a given level of information and expertise. Commercial value is the value of a right where no emotional or reference point is attached (e.g., a retail seller would regard his goods without attachment). The values would differ among parties only due to differences in their discount rates and expertise. The policy solution for property of purely commercial value then is to auction the right as its efficient allocation is governed solely by the WTP.

Where there is a divergence between the WTP and the WTA, the matter is different. For simplicity, suppose that there are two parties, A and B. Each party has a sense of psychological ownership with respect to some property. This would represent an incompletely defined reference point. Let  $P_a$  and  $P_b$  represent the subjective sense (probability or extent to which ownership is felt) of psychological ownership by A and B. When expectations of ownership are less than 100 percent, both WTP and WTA enter into the evaluation. On welfare economic grounds, the right goes to A when

$$WTP_a(1 - P_a) + WTA_a(P_a) > WTP_b(1 - P_b) + WTA_b(P_b), \quad (1)$$

that is, when the value to A is greater than the value to B, weighing WTP and WTA, respectively, by the probabilities of no psychological ownership and ownership. Equation (1) can be manipulated to give

$$WTP_a + P_a(WTA_a - WTP_a) > WTP_b + P_b(WTA_b - WTP_b). \quad (2)$$



In equation (2), the size of the difference between WTA and WTP (the quantities in parentheses) arise, in part, from the strength of the moral divergence between what one would pay for the right and one's psychological claim to it. The difference represents a "willingness to fight" for one's reasonable expectations.

Suppose that for land of purely commercial value for B, A has some sense of psychological ownership, but B has none. A's divergence, however, results from income, substitution, loss-aversion, and endowment effects associated with sense of ownership. In this case, there is no difference between B's WTP and WTA. The requirement for A's ownership is then

$$WTP_a(1 - P_a) + WTA_a(P_a) > WTP_b. \quad (3)$$

If A and B have an equal WTP, then A's value will be higher than B's because  $WTA_a > WTP_b$ , so the left-hand side of equation (2) will be greater than the right-hand side.

Of course, in many cases of interest, the party with the higher WTA may have the lower WTP. For example, an environmental group may be able to pay little to buy the environmental preservation of trees but would be unwilling to sell it if it owned it. A commercial timber company, however, would attach a purely commercial value to the trees. For an actual example of such a situation, see the Head Waters Grove case in Zerbe (2001).

The social gain is not invariant under who is initially given the right when both parties have loss aversion with respect to psychological ownership. This is a nontraditional exception to Coase's theorem. It is generally held from Coase's theorem that if transaction costs are zero, economic efficiency is invariant under the initial assignment of rights, income effects aside. The owner will sell his right to anyone to whom it is worth more. The concept runs into difficulty when it is applied to goods with a meaningful difference between WTA and WTP. Consider two parties A and B and property that is a normal good and is held by the government, which will distribute it, but otherwise does not value it. Parties A and B both wish to obtain the right. The transaction costs of a sale are represented by  $T$ . When  $T > 0$ , efficiency considerations clearly suggest giving the good to A because this either saves transaction costs or prevents the good from remaining with B, who has the lower valuation. Where  $T = 0$ , the right will also end up with A as long as  $WTP_a > WTA_b$ , which indicates also that  $WTA_a > WTP_b$ , so that there is no sale if A is given the right.

When the good has only commercial value for B, so that  $WTA_b = WTP_b$ , there is no efficiency loss when the good is given to B. The social gain is  $WTP_a - (WTA_b - WTP_b)$ . This is less than the gain of  $WTP_a$  when A is given the initial right.

However, the social gain can be greater if the right is given to A rather than B when B has psychological expectations that create a divergence between  $WTA_b$  and  $WTP_b$ . B's gain from the initial right is  $WTP_b$ . A will buy it if  $WTP_a > WTA_b$ . Because B loses more from the sale than he initially gained, there is a social loss. Then, the social value is just  $WTP_a$ . This results in a social loss of  $WTA_b$ .

One might argue that B would always regard himself as an intermediary in a Coasean world in which zero transaction costs imply perfect information. In the real world, however, it serves to increase the argument for giving the good to A initially.

For the purposes of this chapter, the important effect occurs when A has a greater WTA but a lower WTP than B. In this case, social value is greater when the new right is initially given to A. Native Americans' sense of psychological ownership of land based both on first-claimant grounds and on a sense of moral right would suggest they should have been given the initial right, had they had standing.

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