

**From William James to Twenty-First Century Landowners:
Perspectives on Private Land Conservation**

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Abstract

Recent years have witnessed increased global policy interest in private land conservation as a complement to state-owned protected areas. At present, the scale of private land conservation remains unknown, but it appears to be increasing in terms of both spatial extent and number of individuals involved. It is relatively prevalent in regions where high biodiversity value and strong private property rights regimes overlap, including North America, parts of Latin America, Australia, western and northern Europe, and eastern and southern Africa. The voluntary nature of private conservation efforts necessitates an understanding of landowners' motivations as a prerequisite to policy engagement. However, despite decades of research on landowners' conservation activity, there is a gap in our understanding of the factors that motivate individuals to create private nature reserves and other privately conserved areas (PCAs). This thesis aims to address that gap, exploring the factors that motivate people who purchase or create PCAs.

In this thesis, I take an American pragmatist philosophical perspective. Pragmatism's commitments to instrumentalism and meliorism influence my scope of questioning about human motivation, and dedications to pluralism, radical empiricism, and fallibilism are manifest in my research design, which begins with an inductive analysis of PCA owners' narratives about their involvement in private land conservation. Methods include applications of grounded theory methodology, theoretical analysis, and Q methodology, and data include interviews with people who owned land in 13 countries, interviews with conservation practitioners, and Q sort results. Findings are situated and illuminated in the context of psychological literature on locus of motivation, identity, and self-determination theory.

Results reveal that the appeal of owning a PCA is due, in part, to its prudential value, or the contribution it makes to a landowner's well-being. PCAs provide prudential value not

only through personal co-benefits of conservation land ownership, such as opportunity for beneficence, direct experience, demonstration, and investment, but also through their status as personal projects that engage landowners in meaningful activity. This engagement is enhanced to the extent that PCAs provide opportunity for landowners to experience autonomy, efficacy, and social connection. PCAs are integrated in their owners' sense of self through multiple pathways of identity incorporation.

This thesis confirms that land conservation motives are multiple and layered, yet it also finds patterns of engagement that broadly characterize PCA owners. The findings provide an alternative to existing accounts of motivation offered for private land conservation, within which motives are attributed to either conservation values or incentives. The work instead shows that psychological benefits, including those that confer prudential value, are a significant driver of conservation, and, furthermore, that conservation action and human well-being can be aligned. Finally, the research demonstrates that qualitative, exploratory methods such as grounded theory have utility for conservation psychology, yielding insights into human action that would not otherwise be readily apparent.

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List of Abbreviations

CBD	Convention on Biological Diversity
CUREC	Central University Research Ethics Committee
ELCN	European Land Conservation Network
FMCN	Mexican Fund for the Conservation of Nature (Fondo Mexicano para la Conservación de la Naturaleza)
HNWI	High net worth individual
ILCN	International Land Conservation Network
IUCN	International Union for the Conservation of Nature
NGO	Nongovernmental organization
PCA	Privately conserved area
PES	Payments for ecosystem services
PLC	Private land conservation
PPA	Privately protected area
SDT	Self-determination theory
SOGE	School of Geography and the Environment
TPB	Theory of planned behavior
VBN	Value-belief-norm theory
WCPA	World Commission on Protected Areas

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PART 1

Chapter 1

Introduction

For centuries, governments, organizations, and private citizens have sought to protect significant natural landscapes by creating nature reserves and other areas designated for conservation (Adams, 2004). These special places have been protected for a variety of reasons, such as safeguarding game stocks for hunting, fulfilling a moral responsibility to other life forms, preserving beautiful landscapes for aesthetic and intellectual contemplation, and protecting biodiversity and ecosystems (Jepson & Canney, 2003). Today, a renewed recognition that private entities have a role to play in land protection necessitates a better understanding of the factors that drive their involvement.

In 2014, the publication of an influential report by the International Union for the Conservation of Nature (IUCN), *The Futures of Privately Protected Areas (PPA Futures;* Stolton, Redford, & Dudley, 2014), triggered new policy and research interest in private land conservation (Drescher & Brenner, 2018). Multiple studies have explored the attitudes, values, and demographics of conservation landowners, yet we lack a comprehensive understanding of the reasons some conservation-minded people choose to express their values and concern by creating privately conserved areas (PCAs). In this thesis, I focus on the issue of land conservation, specifically land conservation undertaken by private individuals. Given land protection's prominence in global biodiversity strategy (Mitchell, Redford, Dudley, & Stolton, 2016), it is urgent that conservationists understand what motivates people who take initiative to enroll land for biodiversity and ecosystem protection.

With this research, I explore the factors that make private land conservation an appealing activity. In order to do this, I focused on individuals with a high level of land conservation agency; that is, individuals who have both the motivation and resources to purchase or

create a PCA. I interviewed PCA owners and other individuals across multiple geographic areas to find out what factors make conservation land ownership appealing and what the land means to landowners. Given the lack of theorizing in this area, I began by using qualitative, inductive methods that provide both the possibility of finding new answers and the ability to generate theory based on findings. I then situated these findings using theory drawn from psychology and philosophy and applied the findings to a case study on the development of a new private land conservation program.

1.1 Private Land Conservation in a Global Context

Since the creation of the first national parks in the late 18th century, states have been the primary agents of land protection (Adams, 2004). As the principal entities with the authority and resources to create protected areas (PAs), states have made significant progress toward the achievement of international land conservation goals. Terrestrial PAs now total over 20 million square kilometers, or approximately 14.9% of terrestrial extent (UNEP-WCMC, IUCN, & NGS, 2018). This represents significant progress toward Aichi Target 11, set by the Convention on Biological Diversity (CBD), which aims to protect at least 17% of terrestrial environments globally (CBD Secretariat, 2010).

Despite this progress, states' ability to conserve land has begun to decline for several reasons: lack of resources, the neoliberal rollback of the state, and loss of public trust (Ramutsindela, Spierenburg, & Wels, 2011). It appears that states will not be able to protect sufficient land, on their own, to meet global conservation targets (Butchart et al., 2015; Drescher & Brenner, 2018; Watson, Dudley, Segan, & Hockings, 2014). Aichi Target 11 of the CBD states that PAs should be effectively managed (CBD Secretariat, 2010), but records of management effectiveness exist for less than 10% of PAs reported in the World Database on Protected Areas (UNEP-WCMC, IUCN, & NGS, 2018). Effective management is

essential to avoid ‘paper parks,’ or parks that exist in name only, usually due to lack of funding and support (Di Minin & Tiovonon, 2015).

Anticipating interest in land conservation measures by other entities, a 2008 IUCN report presented a typology of four types of PA governance (Dudley, 2008):

- Government, which includes all governance at the federal, state, sub-national, or municipal level
- Indigenous peoples and local communities, which include various forms of customary or legal arrangements
- Private, which includes all types of governance not included under government, indigenous, community, or shared governance
- Shared, which includes arrangements of shared authority and responsibility among a plurality of governmental and non-governmental actors

The third category, private governance, has only recently come to prominence as a topic of interest in conservation research (Baum, Cumming, & De Vos, 2017; Borrini-Feyerabend et al., 2012; Clements, Baum, & Cumming, 2016). Consequently, little data about the scale of activity is available, but private land conservation (PLC) does appear to be on the rise (Holmes, 2014). The number of privately protected areas globally is estimated to be approximately 20,000 (Stolton, pers. comm., 2018). Anecdotal accounts suggest that the number of individuals involved in conservation land purchase is growing (Brockington, 2009; Holmes, 2015a; Langholz & Lassoie, 2001b), and a survey of 51 private investors indicated that their investments in direct land ownership for permanent conservation grew from \$131 million in 2004-2008 (cumulative) to \$184 million in 2009-2013, a 40% increase (natureVest, 2014). Although PLC remains small compared to state-owned protected areas, it is relatively prevalent throughout North America, parts of Latin

America, Australia, western and northern Europe, and eastern and southern Africa (Stolton et al., 2014), areas that constitute PLC's geographic core (McElroy, 2018).

At the global policy level, the Conference of the Parties to the CBD has specifically recognized the contribution of privately protected areas as a strategy for land conservation (decision X/31, paragraph 32(b)). In addition, the World Commission on Protected Areas (WCPA) has formed a task force, the Specialist Group on Privately Protected Areas and Nature Stewardship (PPA Specialist Group), with a mission to “improve understanding and recognition of the role of private approaches to nature conservation, and enhance the effectiveness of privately protected and conserved areas through information gathering and sharing at global level” (sic) (privateconservation.net). As the initiators and authors of the *PPA Futures* report, this group aimed to bring privately protected areas more fully into the mainstream of conservation planning and practice as a contribution to Aichi Target 11 and other conservation goals (Stolton et al., 2014).

International policy attention has been mirrored in national and sub-national policy arenas and the nongovernmental sector. After many years' effort, in 2016 Chile passed legislation to permit a newly codified conservation property right, the *derecho real*, which will allow conservation commitments to be tied to land title (ILCN, 2016; Jacobs, 2014). Efforts have been underway in Catalonia, where Xarxa de Custòdia del Territori, a land stewardship network, is making progress toward legislation enabling land stewardship agreements and tax incentives (J. Rodrigo, pers. comm, 2018). South Africa has recently overhauled the country's biodiversity tax incentive for property owners who sign conservation agreements (Stevens, 2018). Funded with a LIFE grant from the European Commission, the European Land Conservation Network (ELCN) is piloting private land conservation mechanisms, ranging from company reserves to crowdsourcing expertise, in nine countries (www.elcn.eu). A variety of NGOs and networks have also been established to promote private land conservation. The International Land Conservation Network

(ILCN), formed in 2014, “connects civic and private organizations and people, across boundaries and around the world, to accelerate the protection and strengthen the management of land and natural resources” (landconservationnetwork.org). The number of regional and national PLC networks has expanded, including the South American Network of Voluntary Conservation (2018), European Land Conservation Network (2017), Australian Land Conservation Alliance (2011), and Así Conserva Chile (2010). These join others such as the Land Trust Alliance in the US (1982) and the Wildlife Refuge Network in Argentina (1987), which have long been promoting and supporting conservation on private lands.

Under IUCN’s governance criteria, private governance is defined negatively; that is, as ownership that does not fit into the other governance categories. Consequently, PLC includes a wide variety of landowner types (Stolton et al., 2014):

- individuals and groups of individuals
- non-governmental organizations (NGOs)
- corporations, both existing commercial companies and corporations set up by private owners to manage privately protected areas
- for-profit owners
- research entities such as universities and field stations
- religious entities

In this thesis, I focus on private land conservation by individuals, specifically on individuals who have actively purchased or created a PCA.

My interest in private land conservation by individuals follows from its potential to make a contribution to global land conservation outcomes. Until recently, private landowners’ involvement in land conservation remained largely unrecognized in the global policy arena: “a hidden resource; ignored by governments, omitted from international

conservation reporting mechanisms and left out of regional conservation strategies” (Stolton et al., 2014, p. viii). While PCAs are on average significantly smaller than statutory protected areas, this is not always the case. For example, Pumalín Park, created by Kris and the late Doug Tompkins (and recently deeded to the Chilean federal government), is a 289,000-ha nature reserve in Chile. The Tompkins’ conservation landholdings in Chile and Argentina have totaled nearly 900,000 ha (Butler, 2016). Participants in the present study owned properties up to 130,000 ha in extent. However, even small properties can serve important functions for the protection of biodiversity, for example as corridors and buffer zones for larger protected areas (Willis et al., 2012). Additionally, the large portion of land generally under private ownership indicates this is a potential growth area for conservation. Private freehold lands cover large portions of many countries (e.g., 73% in South Africa, 60% in the USA, 44% in Namibia), including some high priority conservation areas such as the Cape Floristic Kingdom (Drescher & Brenner, 2018). Politically, the continued roll-back of state conservation budgets means that PLC is perhaps more fitting with the ethos of our time (Brockington & Duffy, 2011). Issues such as lack of capacity, political will, and financial resources to fulfill their missions have led governments increasingly to seek private contributions to solving social problems (Donahue & Zeckhauser, 2011; Jung & Harrow, 2014). Private entities can serve as a civil society ‘flanking mechanism’ for states, offering public services, such as land conservation, that interventionist states once provided (Castree, 2008).

1.2 Foundations: Motivation to Protect Land

Academic interest in PLC is increasing, but the reasons people conserve land are still insufficiently understood (Drescher & Brenner, 2018). This is significant because attempting to encourage PLC without an understanding of landowner motivation increases the probability of ineffective, and potentially counterproductive, outcomes (Steg & Vlek, 2009). While conservation on private land can be imposed by outside sources (i.e.,

involuntary tools/strategies in Figure 1), in this research I focus only on the voluntary purchase or creation of PCAs (private reserves and non-binding voluntary contracts in Figure 1, plus voluntary non-contractual efforts, not included in figure). It is precisely its voluntary nature that has made PLC both compelling and difficult to understand. PLC remains a contested activity, with conservation researchers disputing its essence: is PLC philanthropic or self-interested? Driven by values or incentives? An expression of a desire to do good or a desire to perpetuate the sociopolitical status quo? To date, we have only scattered accounts of landowners' perspectives on these questions.

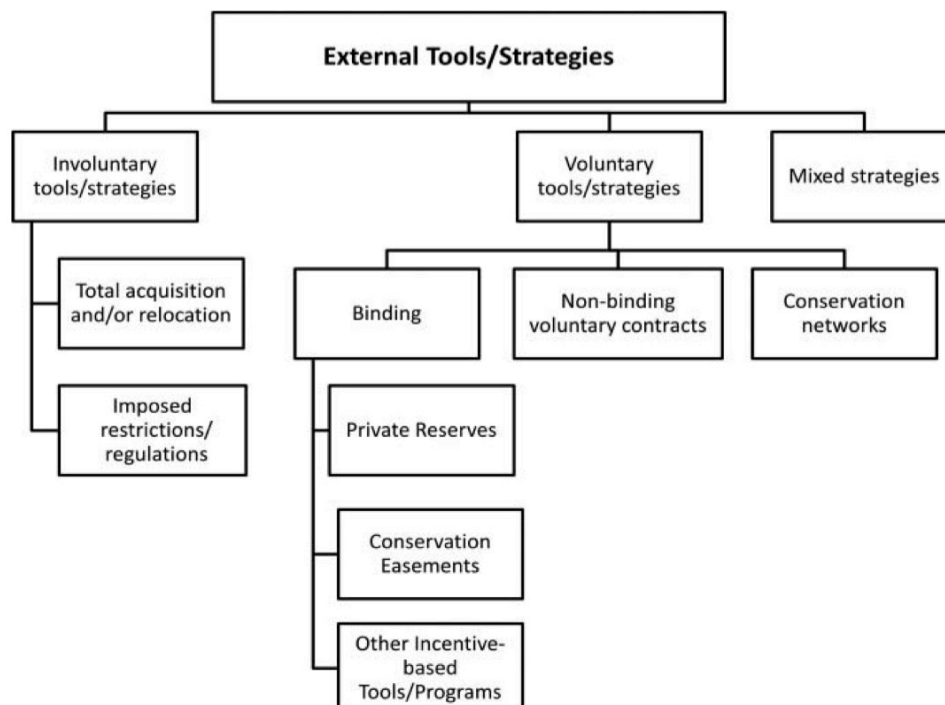


Figure 1. A typology of strategies used for conservation on private land (Kamal, Grodzińska-Jurczak, & Brown, 2015a)

Research on the drivers of PLC comes from varied intellectual traditions. Researchers in disciplines such as political ecology and critical geography have asserted that PLC is self-serving, reinforcing values of social order and economic development favorable to the powerful and consolidating land ownership amongst the wealthy (Geisler, 2015; Ramutsindela, 2015). PLC has also been associated with neocolonialism (Spierenburg & Brooks, 2014), neoliberalism (Holmes, 2015a), and disruption of local communities (Serenari, Peterson, Wallace, & Stowhas, 2017). These critical views are discussed further in Chapter 3.

Researchers in conservation biology and conservation social science have also studied landowners' views more generally. A significant portion of this work has focused on agricultural landowners. Many agricultural conservation programs use financial incentives to stimulate conservation behavior, and some studies confirm that incentives matter to farmers (Bastian, Keske, McLeod, & Hoag, 2017; Kabii & Horowitz, 2006; Wilson & Hart, 2000). However, financial incentives alone may not be sufficient to compel behavior, and when they do compel behavior they do not necessarily bridge to a long-term conservation ethic (Ryan, Erickson, & De Young, 2003). For example, subsidies were insufficient to create a willingness to join a riparian restoration program in the US (Ryan et al., 2003), and landowners engaged in conservation practices in the South African renosterveld reported that tax rebates would motivate them only minimally (Parker, 2006). However, financial incentives can also affect farmers through two other mechanisms: i) removing barriers to conservation (Rilla, 2002) or ii) transmitting symbolic value, carrying a psychological message that farmers' conservation work is appreciated (Parker, 2006). In addition, individual, family, and social factors motivate the conservation of agricultural land. Some farmers seek to preserve their heritage and an agricultural way of life (Ahnström, Höckert, Bergea, Francis, & Skelton, 2009; Greiner & Gregg, 2011; Parker, 2006), and others experience place attachment (Bastian et al., 2017; Cross, Keske, Lacy,

Hoag, & Bastian, 2011; Selinske, Coetzee, Purnell, & Knight, 2015) or subscribe to an ethic of protecting nature (Brodt, Klonsky, & Tourte, 2006; Honig, Petersen, Shearing, Pintér, & Kotze, 2015; Ramsdell, Sorice, & Dwyer, 2016). Social motivators include public recognition (Honig et al., 2015; Parker, 2006) and identity support through recognition as a ‘good farmer’ (de Snoo et al., 2012). Social learning appears to be even more important in predicting program retention and satisfaction than initial motivation to join (Selinske et al., 2015; Selinske et al., 2017).

A second body of research, predominantly in the US, has focused on the holders of easements and covenants. (Easements and covenants are forms of nonpossessory rights, tied to property title, that have been employed for conservation purposes in some countries. They are legally enforceable documents attached to a land title, restricting the use of land (Kabii & Horowitz, 2006).) The findings echo research on agricultural landowners’ motivations. For example, landowners in the US were more likely to put an easement on land when they experienced place attachment (Farmer, Knapp, Meretsky, Chancellor, & Fischer, 2011a). Many had significant life experiences involving the outdoors, such as powerful individual experiences in nature and free play outdoors (Farmer, Chancellor, & Fischer, 2011b). Landowners’ interest in placing an easement on land has been associated with involvement in activities such as wild food gathering (Brenner, Lavallato, Cherry, & Hileman, 2013); membership in environmental organizations (Farmer, Brenner, Drescher, Dickinson, & Knackmuhs, 2016); participation in adult outdoor recreation such as hiking, ATV riding, hunting, and fishing (Brenner et al., 2013; Theodori, Luloff, & Willits, 1998); and visiting national forests (Farmer et al., 2016). Conservation goals tended to be protecting the ecosystem or natural resources (Ernst & Wallace, 2008; Horton, Knight, Galvin, Goldstein, & Herrington, 2017) and preventing development (Horton et al., 2017). Case studies suggest that landowners are more likely to engage if putting a conservation easement on the land is their idea, implying autonomy influences

decisions (Morrisette, 2001). However, a strong connection to the social community also makes placement of a conservation easement more likely (Ernst & Wallace, 2008; Vizek, 2016), as does desire to contribute to the public good (Farmer et al., 2011b). Financial gain through tax incentives or income may be less important than personal and social reasons (Farmer et al., 2011b; Horton et al., 2017), though incentives remain a factor (Ernst & Wallace, 2008), especially for landowners who earn income from the property (Farmer, Meretsky, Knapp, Chancellor, & Fischer, 2015). As with farmers, financial incentives may facilitate placement of an easement that would otherwise not be realized (Ernst & Wallace, 2008; Farmer et al., 2011b).

A similar range of variables predicts interest in conservation or propensity to take care of land more generally, for rural landowners and landowners on the wildland-urban interface across a more varied geographic area including Canada, US, Australia, and South Africa. These include motivations that are personal (Bixler, James, & Filho, 2005; Drescher, 2014; Drescher, Warriner, Farmer, & Larson, 2017; Koontz, 2001; Januchowski-Hartley, Moon, Stoeckl, & Gray, 2012; Maybery, Crase, & Gullifer, 2005; Raymond & Olive, 2008; Selinske et al., 2017), social (Bixler et al., 2005; Niemiec, Ardoin, Wharton, & Asner, 2016; Selinske et al., 2017; Torabi, Cooke, & Bekessy, 2016), and financial (Langpap, 2006; Paulich, 2010).

Few researchers have queried the motivations of people who own PCAs specifically. The first was Alderman, who conducted an international mail survey in connection with a 1994 report by IUCN and the World Bank. Surveying private reserves in Latin America and four African countries, Alderman found that the three most frequently-cited reasons for establishing a reserve were related to conservation, including preservation of a particular habitat or species (90.5%), conservation ethic (85.7%), and scientific research (85.7%) (Alderman, 1994). Other frequently-cited reasons included nature tourism (84.1%), education (80.9%), and community development (60.3%). Later, Langholz and others surveyed the owners of private parks in Costa Rica and found that drivers included

personal enjoyment, ecotourism, supplementary property rights, and tax waiver (Langholz & Lassoie, 2001a; Langholz, Lassoie, & Schelhas, 2000). Landowners also desired respect, financial incentives in recognition of major sacrifices, better legal protection, and access to resources such as information, tree seedlings, and educational materials (Langholz et al., 2000). More recently, Holmes conducted interviews with owners of PCAs in Chile and found that people were motivated by conservation philanthropy, property investment, recreation, and business opportunities (Holmes, 2014).

The results of this and other research present difficulty for researchers and practitioners: how is a list of traits, goals, values, and other factors to be interpreted and put into practice? Even with consistent themes across groups, PLC advocates who want to engage with landowners or potential buyers are left without a satisfactory understanding of the thought processes and subjective¹ views of conservation-minded landowners, or of the meaning that land holds for them. Additionally, it is unclear why individuals who value conservation choose PLC as the way to satisfy their needs and desires. It is possible to express conservation values in other ways, such as a donation to an environmental NGO or employment in the field of conservation. For those motivated by personal benefits, there are many opportunities enjoy outdoor recreation and connect with family without purchasing a nature reserve. The present research aims to identify the characteristics of PCAs that make them attractive to prospective landowners.

¹ Throughout this thesis, I use the adjective *subjective* to refer to perspectival quality of interior mental experience, the domain of feelings and thoughts, emotions and interpretation. Some have protested the subjective-objective dichotomy is untenable, though it may be a useful continuum (Putnam, 1998), because the dichotomy appears to privilege a 'God's eye view' that is detached from human perspective. On the contrary, here I give supremacy to the subjective, discounting any notion of a foundationalist, a priori truth (Bacon, 2012). This approach follows from a pragmatist epistemology, which I discuss further in Chapter 4 (p. 80). Objectivity and truth are ongoing concerns in pragmatism, over which there remains disagreement.

1.3 Research Objectives

In order to uncover the psychological mechanisms that underlie landowner participation in PLC, I began with one primary research objective: to examine what factors, from a landowner perspective, make PLC personally appealing. As this research proceeded and the results began to take shape, this led me in the direction of two further research objectives: to explore how the ownership of a PCA affects a landowner's sense of identity and to assess how landowners' perspectives correspond to or differ from those of other stakeholders on the topic of private land conservation (Table 1).

Table 1. Primary and secondary research objectives

Primary research objective	To examine what factors, from a landowner perspective, make PLC personally appealing
Secondary research objectives	To explore how the ownership of a PCA affects a landowner's sense of identity To assess how PCA owners' perspectives correspond to or differ from those of ranchers and conservation NGO representatives on the topic of private land conservation

1.4 Definitions and Scope

1.4.1 Definitions

Here I elaborate on some key terms in order to clarify language and place parameters on the scope of the study.

Conservation: As a conceptual starting point, I used an IUCN definition: the in-situ maintenance of ecosystems and natural and semi-natural habitats and of viable populations of species in their natural surroundings (Dudley, 2008). However, I did not dictate a definition of conservation to research participants, as I was interested in learning how PCA owners conceptualized conservation. I asked several participants to define what conservation meant to them or to explain why it was important to conserve nature.

Responses indicated that PCA owners included both protection and restoration in the scope of conservation. Protection was described in scales ranging from a cubic meter of soil to whole ecosystems. Restoration was characterized by removing alien vegetation, returning the full complement of species that were historically in the area, and eliminating barriers (e.g., fences) between the property and the larger ecosystem. For some, conservation was about wilderness, where there was no signs of human use or infrastructure, but more commonly PCA owners said that conserved land was also for human use. Anticipated outcomes associated with human use included recreation, improvement of mental and physical health, and visitors recognizing the intrinsic value of nature.

Conservation as an objective: I was interested in situations in which conservation was an objective of land purchase or conversion, although it need not have been the sole purpose. Consequently, my scope included properties on which conservation overlapped with other land uses, such as tourism, game ranching, or private residence.

Private individuals: Because I was interested in human agency, I focused on people who had taken active steps to initiate conservation activity on privately owned land. These efforts are sometimes family activities that last multiple generations, so in a limited number of cases I spoke with family members of the original conservation actors who currently had decision-making roles. Individual or family ownership included situations in which landowners had formed another legal entity, such as a corporation or a foundation, for the purpose of holding land title or implementing the conservation activity.

Privately conserved areas (PCAs): I defined a PCA as land that is owned by one or more private individuals and that is designated for conservation as a land use. This does not imply or preclude legal designation as a protected area. The word *privately* designates ownership and neither implies nor precludes exclusive use by landowners. My scope is broader than IUCN's definition of privately protected areas (PPAs) in terms of requirements, as it does not require legal protection or third-party verification of intent (Stolton et al., 2014), but narrower in terms of governance, as it includes only PCAs owned by individuals and families. I did not prescribe a minimum size for PCAs; as a result, the conservation land in question ranged widely in scale.

Wildlife-friendly ranching: I use this term in Chapter 8 to denote any of several models of ranching (e.g. holistic management, regenerative ranching) in which production of domesticated animals is managed in a way that minimizes harm to or produces benefit for both land and wildlife.

1.4.2 Geographic Area

I did not limit my study to a specific geographic area because I was interested in the similarities across landowners in different physical, biological, and institutional contexts. This provided an opportunity to look at commonalities in private actors' engagement with conservation that were generalizable beyond specific environments. As a result, interviewees for studies in Chapters 5, 6, and 7 owned PCAs in 13 countries on 6 continents (Figure 2), and their conservation properties ranged from 4 ha to 130,000 ha, including both domestic and international land purchase.



Figure 2. Locations of PCAs owned by interviewees

1.5 A Caveat

My research design was shaped by conversations with people who work on PLC programs and policy. I received positive feedback regarding the utility of the research topic from people including Laura Johnson, ILCN; Brent Mitchell, PPA Specialist Group; Nigel Dudley and Sue Stolton, Equilibrium Research; and Peter Wheeler, The Nature Conservancy. However, not everyone I spoke with had positive responses: other people openly expressed dissatisfaction with the project. The most overt argued that research on high net worth individuals (HNWIs)² buying land for conservation is demeaning to the many non-HNWIs who are involved in conversation – and that consequently the topic was uninteresting, of no practical use, and detrimental to conservation. Another perspective I encountered was that international land purchase for conservation is inherently problematic. Rather than buying land themselves, people with resources should invest in local communities' efforts to conserve land. Finally, I was told that an emphasis on understanding people with wealth is unconscionable because people with wealth, as a whole, already dominate our culture; therefore, our role as researchers should instead be to understand and advocate for the perspectives of people in disadvantaged groups.

There are valid elements to each of these criticisms. I share frustration with social inequities and have personally spent years working on issues related to poverty alleviation. International private land purchase, especially in developing countries, risks importing values associated with neocolonialism, land grabbing, and elitism, an issue I explore in Chapter 3. However, while I sympathize with the underlying sentiment, I disagree with the argument that these issues invalidate the research topic. The work of giving voice to those

² HNWI's are defined as individuals with investable assets of USD \$1 million or more, excluding primary residence, collectibles, consumables, and consumer durables. Ultra-HNWI's are those with assets of USD \$30 million or more (Capgemini, 2018).

without power is needed, but it is not the only option for research, and such normative bias can itself have negative impacts. I see inherent value in establishing the subjective truth of people's behavior. In the present research, I seek to discover how PCA owners make sense of their conservation activity, and to do so in a way that sets aside my own perspective in order to understand theirs. (See Chapter 4, p. 82, for a discussion of 'genuine inquiry.') I acknowledge that there are consequences to this perspective in terms of generalizability. My interest in understanding the drivers behind PCA ownership necessitated a focus on people who owned land. These individuals, by definition, have sufficient assets to invest in land. In my study, they could be characterized as ranging from modest income to ultra-HNWIs. Consequently, the results of my analysis are not representative of all people with conservation values or all who are motivated to protect land. They represent, instead, individuals with a high degree of agency, who have both the motivation and the means to buy land for conservation. I return to the topic of HNWI conservation in Chapter 9 (p. 203).

1.6 Argument

Across the globe, governments, NGOs, and networks are encouraging private land conservation activities. If policy and programs aim to encourage PLC, they will be most effective if they are based on knowledge of the factors underlying the action (Steg & Vlek, 2009). In the context of PLC, some factors have been identified, but there has been little conceptual or explanatory work in this area. Looking at PCAs across various ecological, political, cultural, and economic environments, this thesis explores the psychological factors that make PLC appealing. I argue that, for landowners, PCAs not only serve conservation purposes, they also act as a medium for the exploration and expression of identity, values, and beliefs and the satisfaction of basic psychological needs. I arrived at this conclusion by way of a research approach that is broadly inductive. I first found

through grounded theory³ analysis that landowners engage with PLC because it offers a variety of personal co-benefits, including opportunities for beneficence, direct experience, demonstration, and investment. Further grounded theory analysis revealed a process by which landowners become engaged in PCAs as projects and as natural landscapes, and theoretical analysis exposed multiple ways by which PCAs are incorporated into landowners' identities. A test of these findings in a case study confirmed that, relative to other program stakeholders, PCA owners placed high value on the psychological benefits of PLC. These studies revealed the contours of landowners' psychological engagement with PCAs and provided evidence for their central role as a driver of private land conservation.

1.7 Structure of Thesis

I have chosen to complete an article-based thesis, which, in Oxford's School of Geography and the Environment, stipulates a minimum of three academic papers on a common theme submitted for publication in peer-reviewed journals, together with an introduction, literature review, and conclusion. I have elected to submit five chapters for publication and include a research design chapter, resulting in an atypical structure. I have organized this thesis in three parts. Part 1 provides an introduction and establishes the context and research plan for the thesis. In Chapter 1 I have described the topic and its significance, the research objectives, and the scope of the thesis. Chapter 1 has also included the first of a three-part literature review, beginning with a summary of the literature on motives for private land conservation. Chapter 2 reviews the relevant psychological literature, providing a theoretical and empirically grounded foundation for the findings of the present research. This chapter begins with an introduction to the field of conservation

³ See Chapter 4 (p. 86) for a description of grounded theory methodology.

psychology and proceeds with an overview of literature on motivation, self-determination theory, eudaimonia, and well-being. Chapter 3, a structured literature review, is a comprehensive survey of the components of PLC that have garnered criticism, which I have classified into three categories: critique focused on implementation, value conflicts, and economic inefficiency.⁴ I conclude Part 1 with Chapter 4, which is an overview of the research design. This chapter begins with an explanation of the epistemological basis of the thesis, grounded in American pragmatism. I also describe the research approach, rationale for selection of methods, and ethics of the research.

Part 2 includes four empirical studies that focus on the factors that motivate people to purchase or create PCAs. Chapters 5-7 approach the question of motivation qualitatively, with analyses of increasing psychological depth, and Chapter 8 tests the findings in a Q methodology study. In Chapter 5, my first study assesses the co-benefits of purchasing or creating a PCA, from the landowners' perspectives. This study used grounded theory methodology to analyze interviewees' explicit statements. In Chapter 6, I explore motivational factors that were not explicitly articulated but rather revealed through patterns across participants. I again used grounded theory analysis, resulting in a model of PCA engagement that explains the appeal of PCAs as a personal project. In Chapter 7, I analyze interviews in light of the psychological concept of the extended self. This chapter focuses on the facets of PCAs that enable them to be incorporated into landowners' identity. Finally, in Chapter 8, I describe a Q methodology study that tests the findings from Chapters 5, 6, and 7 in a specific case study. To do this, I compared PCA owners with other stakeholders, including ranchers and conservation NGO representatives, regarding their priorities for the development of a new PLC program in northern Mexico.

⁴ I have presented this literature review as a distinct chapter because it has been submitted for publication.

Finally, Part 3 provides a discussion of the findings, themes, and implications. Chapter 9 synthesizes themes that are woven throughout the thesis, including the influence of pragmatism, what was learned about motivation, views on high net worth individuals in conservation, and reflection on research design. I conclude the thesis in Chapter 10, providing a summary of findings, implications, and contribution to knowledge.

Five chapters of this thesis have been submitted for publication. Chapter 3 has been submitted to *Ambio* as a single-authored paper. Chapter 5 has been submitted to *Journal for Nature Conservation* as a single-authored paper. Chapter 6, co-authored with my supervisor, Richard Grenyer, has been published by *Conservation Biology* (Gooden & Grenyer, 2018). Chapter 7 is currently under review in *People and Nature* as a single-authored paper. Chapter 8, co-authored with my colleague, Flora Moir, with the Mexican Fund for the Conservation of Nature, is currently under review in *Biological Conservation*. In addition, portions of the literature review in Chapter 2 have been prepared as a briefing to the European Land Conservation Network (Gooden, 2018). All work is primarily my own. I have included statements of author contributions in Appendix 1.

1.8 Contribution

With this research, I aim to contribute to knowledge in three ways. Methodologically, I demonstrate the applicability of grounded theory methods for theory development in conservation social science. This methodological application enables the theoretical contributions, proposing two new conceptual models to explain the appeal of PCAs to landowners and revealing the facets of PCAs that enable their incorporation into identity. In addition, I aim to make a programmatic contribution by providing PLC advocates and practitioners with a better understanding of landowner motivation, enabling the design of programs and policies that inspire more and better private land conservation.

Private land conservation is an important and growing component of international biodiversity and ecosystem conservation. Unlike state protected areas, the success of PLC is dependent upon the voluntary actions of landowners across the globe. A better understanding of the appeal of PCAs to landowners, and the meaning PCAs carry for them, will provide a foundation for the development of programs and policy to support private land conservation effectively. These issues, beginning with the psychology of motivation and well-being, are discussed in the following chapters.

Chapter 2

Foundations: Psychology

In this chapter I review literature from psychology and philosophy that have informed my perspective on private land conservation. As I will describe in Chapter 4, the present research design was inductive, and thus the literature was consulted after the analysis was complete; however, per convention, it is presented here *ex ante*. I begin with an orientation to the field of conservation psychology, and then I review theories and concepts that anchor the analytical work of the thesis, including locus of motivation, self-determination theory, eudaimonia, and prudential value.

2.1 Conservation Psychology

The field of conservation psychology uses psychological theory, methods, and research findings to inform our understanding of the factors that influence human action in the context of biodiversity conservation and environmental protection (Saunders, 2003). Like conservation biology, it is a normative field, in that it aspires not only to understand behavior but also to promote a healthy and sustainable relationship between humans and nature (Clayton & Myers, 2015; Soulé, 1985). Conservation psychology has been recognized as a field since the early 2000s, and its introduction occasioned much optimism for the potential insight psychology could provide to the study of conservation (Saunders, Brook, & Myers, 2006). However, a recent review by Selinske et al. (2018) found that only 0.28% of articles published in five major conservation journals from 2003 to 2016 were related to conservation psychology, illustrating that behavioral research has not penetrated mainstream conservation science. Nor has an interest in biodiversity conservation penetrated the broader field of environmental psychology, with only 0.36% of output in environmental psychology journals focusing on conservation in the same time period (Selinske et al., 2018). Given the central relevance of human action to biodiversity

conservation, this is a case of translational failure across disciplines, a lost opportunity to apply the science of human behavior to one of the most significant global problems of the 21st century.

My doctoral research works in this space, applying psychological theory to inform an understanding of human action in the context of private land conservation. However, it differs markedly from much of academic psychology. Psychology as a discipline is characterized by hypothetico-deductive scientific methods (Willig, 2013), such as experiments, psychological indexes, and response latency tests. In contrast, I use methods associated with qualitative psychology, which shares similarities with fields such as psychological anthropology and, to a degree, human geography. Consequently, the empirical chapters of this thesis more broadly map onto the nascent field of conservation social science.

There are three broad components of the discipline of psychology: cognitive, affective, and conative, distinguished by their focus on thought, feeling, and goal-driven behavior, respectively. Originally conceived as part of the triumvirate of psychology in the 18th century, conative psychology (from Latin *conatio*, to try) regained a hold in the field only in the 1980s and 1990s (Hershberger, 1988; Little, 1993). The value lent by conative psychology is its conception of a human as a volitional entity with the will to engage in purposive action. This thesis incorporates aspects of affective psychology but sits squarely the conative domain.

2.2 Definitions

The study of motivation occurs at many levels of inquiry, from the neurological to the social. Consequently, terms used in everyday parlance have different semi-technical meanings in different research domains. In this thesis, I employ the following definitions.

I use the term *motivation* to describe the general process of initiating, sustaining, and directing psychological or physical activities (Corsini, 2001). I also use this word, often in the plural, to describe any motivational cause of behavior, i.e., inclusive of motives and reasons.

An *actor* or *agent* is the person doing an action.

Actions are the things that an actor does. A sub-category of actions, *behaviors*, are simpler actions (Bruner, 1990; Kaiser & Wilson, 2004). For example, contacting a real estate agent is a behavior. Purchasing a PCA, on the other hand, is an action that consists of many behaviors.

Agency is a person's ability to act to produce an intentional effect.

Reasons are factors that explain or justify action. There are three types of reasons: normative reasons, motivating reasons, and explanatory reasons (Lenman, 2016).

- A *normative reason* is a factor that justifies an action, a consideration that counts in favor someone acting in a certain way. One would invoke a normative reason when asking whether an action was justified.
- A *motivating reason* is a factor that motivates an actor to act – a factor that, in the actor's eyes, counts in favor of acting in a certain way. Motivating reasons can be putative; they need not be verifiably true, only believed by the actor.
- An *explanatory reason* is a factor that explains a behavior, one which makes the action intelligible to a third party. A motivating reason can always be an explanatory reason, but not all explanatory reasons are motivating reasons.

A *goal* is an actor's intention in acting, the outcome that is meant to be achieved. Goals are usually not a consideration in light of which one acts, so they do not fall under the category of motivating reasons (Lenman, 2016).

A *motive* is a conscious or unconscious reason for behavior that directs a person's energies toward a goal (Corsini, 2001).

A *value* is a relatively stable belief that is infused with affect. Values transcend specific actions and situations, and they guide perception, evaluation, and behavior (Bergman, 1998).

An *attitude* is a summary evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likable-dislikable (Ajzen, 2001). I do not study attitudes in this body of research. However, attitudes are frequently used in conservation psychology research, and I provide a definition to distinguish my focus.

To bring these definitions together into the topic of the thesis, my focus is on individuals (actors) who have purchased or created a PCA (action) with the intention of conserving the ecosystem or biodiversity on the land (one of multiple possible goals). This makes sense because there is something of natural value on the property (normative reason), and we can explain it by knowing that the PCA owners believed there was something of natural value on the property (explanatory reason). What are the motivating reasons to which the PCA owners attribute this action? This is the question I attempt to answer in this thesis.

2.3 Motivation and Self-Determination Theory⁵

The goals of motivation researchers vary. Some seek to map out the cognitive architecture of human behavior; these studies produce conceptual models such as the theory of planned behavior (TPB; Ajzen, 1991) or value-belief-norm theory (VBN; Stern, Dietz, Abel,

⁵ Portions of this literature review have been presented as a briefing to the European Land Conservation Network (Gooden, 2018).

Guagnano, & Kalof, 1999). (TPB and VBN are models that explicate the relationship between inferred constructs (e.g., attitudes, norms, values, perceived behavioral control, and behavioral intention) and their consequent behavior.) Some aspire to uncover a causal approach to behavior: if X, then Y. While useful, this level of understanding is difficult for even the most simplistic behaviors (e.g., installing a low-flow shower head) (McKenzie-Mohr, 2000) and nearly impossible for an action as broad as private land conservation. Still other studies, including this one, aspire to understand the mentality, or inner experience, of engaging in purposive activity. The aim here is to become privy, as near as possible, to the firsthand experience of the person of interest.

The root of the word *motivation* concerns movement, the “animating energies that organize purposive action” (Ryan, 2012a, p. 10); however, this simple definition obscures a complexity that arises due to the many inferred constructs that are used to explain motivation, accompanied by their variation across disciplines. A central theme of the *Oxford Handbook of Human Motivation* is the plural nature of motivation (Ryan, 2012b). Motivation involves a fluid interplay between multiple levels, from the biological (e.g., hunger) to the psychological (e.g., need for belonging) to the sociocultural (e.g., peer pressure). Motivations interact in different ways, sometimes coexisting, sometimes conflicting and crowding each other out. This complexity makes it difficult, perhaps impossible, to know the full range of motives impacting a particular action.

Actions can be depicted as outcomes of a set of determinative processes, each of which can be described by multiple levels of analysis. One level of inquiry does not have epistemological priority over the others; each has a different type of explanatory power and relevance to specific concerns and questions (Ryan, 2012a). What shifts in different types of analysis is not the accuracy but the relevance of explanations. *Regnant* causes are those deemed most significant or functionally relevant to a problem, thus providing the most satisfying explanation of events (Ryan, 2012a). One way to narrow the range of

relevant motivations is to think about motivations in the context of goals. This is relevant here because the phenomenon under investigation – purchasing or creating a PCA – is defined in terms of the outcome of conserved land. Goals are not in themselves motives, but they have the effect of foregrounding certain cognitive processes, and they influence the frame in which cognition takes place (Lindenberg, 2001). Other goals are relegated to the background where, depending on their strength and compatibility with the main goals, they can strengthen or weaken the frame. This concept is the essence of goal-framing theory (Lindenberg, 2006). Under this rubric, goals can be collapsed into three categories: the hedonic frame, which prioritizes feeling better right now; the gain frame, which prioritizes improving one's resources; and the normative frame, which prioritizes acting appropriately (Lindenberg, 2006). Multiple goals can be active at any given time (Steg & Vlek, 2009).

Motivation can vary in its locus of origin. Intrinsic motivation toward a particular activity occurs when a person engages in an activity because she or he feels inherently satisfied while doing so or finds inherent value in the outcome of the activity. This feeling of satisfaction sustains the behavior; heuristically, the activity is its own reward (Deci & Ryan, 2012). Extrinsic motivation, in contrast, involves doing something because it leads to a separable outcome; that is, the activity is instrumental. The classic extrinsic motivators are 'carrots' (incentives or accolades) and 'sticks' (punishments or threats) (Deci & Ryan, 2012). The conceptual distinction between intrinsic and extrinsic motivation is of interest because the two types of motivation affect behavior differently and because intrinsic and extrinsic motivations can interact, sometimes in counterintuitive ways.

Early psychological studies on intrinsic motivation were designed to test a puzzling phenomenon. Studies in the operant behavior tradition had shown that extrinsic rewards could lead to increased frequency of behavior (Skinner, 1953/2012). It was thought that motivations were additive – that, for example, paying someone to do an activity they

enjoyed would make them even more likely to engage in the activity. However, studies asking people to perform enjoyable behaviors, such as reading or playing a game, found that contingent monetary payments decreased a person's intrinsic motivation to perform the activity (Deci, 1972). Along the same lines, allowing someone to do an enjoyable activity but reducing the person's autonomy, for example, by limiting their freedom to decide which activity to do and how much time to allot to it, also decreased intrinsic motivation (Zuckerman, Porac, Lathin, Smith, & Deci, 1978). Deci (1971) hypothesized that the effect was related to how the person interpreted the contingent reward: if a reward is interpreted to thwart autonomy and competence, the reward can undermine intrinsic motivation. This formed the basis of cognitive evaluation theory (Deci & Ryan, 1985). It has since been shown repeatedly that external rewards can erode (or 'crowd out') intrinsic motivation due to their effect on autonomy (Deci, Koestner, & Ryan, 1999; Dysvik, Kuvaas, & Gagné, 2013; Murayama, Matsumoto, Izuma, & Matsumoto, 2010). The reverse, a reinforcement (or 'crowding in') of intrinsic motivation is also possible, but it is observed less frequently and under limited circumstances, such as when rewards strengthen trust in regulatory institutions or when regulations cue normative values (Rode, Gómez-Baggethun, & Krause, 2015).

Most work on motivation crowding in the conservation literature has focused on payments for ecosystem services (PES) schemes. Relative to participants in a comparable integrated conservation and development program, participants in a PES scheme placed more value on utilitarian and monetary aspects of conservation, and this effect increased the longer people had been receiving PES funds. This shifted conservation activities from a culture based on the functional and ethical values of the forest to a culture based on chrematistic, or wealth-generating, values (García-Amado, Pérez, Escutia, García, & Mejía, 2011). A consequence of such a shift is that payments may be ineffective unless they can be maintained in perpetuity (Fisher, 2012). Similarly, participants who were paid to collect

litter and plant trees were more dissatisfied with the activities than those who did them voluntarily (Kerr, Vardhan, & Jindal, 2012). Outside PES schemes, crowding out effects have been observed in reforestation efforts (d'Adda, 2011), tax incentives and regulatory measures concerning agricultural conservation (Greiner & Gregg, 2011), subsistence farmers' harvest of forest products (Reichhuber, Camacho, & Requate, 2009), and grazing practices of small-scale livestock farmers (Vollan, 2008). A limitation of these studies is that they often use field experiments in the form of games, rather than measuring actual behavior in a natural setting. However, the results are supported by results of a review of 120 studies on conservation policy instruments that encouraged conservation behavior among people who live in and around protected areas (Cetas & Yasué, 2016). By inferring whether each policy instrument fostered intrinsic or extrinsic motivation, the study found that intrinsic motivation led to increased success in both socioeconomic *and* ecological goals. Interestingly, the results were not specific to particular policies, but rather to the way policies were implemented; i.e., whether or not the policy was implemented in a way that granted autonomy to local communities. This provides an opportunity for conservationists to improve both socioeconomic and ecological outcomes by implementing policy instruments in a way that empowers local communities to conserve.

The concept of locus of motivation has been used to a limited extent in land conservation research. Ryan et al. (2003) found that farmers were intrinsically motivated to adopt conservation practices, such as maintaining a woody vegetation buffer around streams, and that this motivation was a result of factors such as attachment to land, rather than financial compensation. Clements et al. (2010) found that PES schemes on agricultural properties and community protected areas were easier to administer when financial payments were made directly to individuals, but that institutional changes that grant local communities more autonomy were more widely understood and supported by local people. A review by Rode et al. (2015) identified 18 empirical studies that evaluated the

impact of financial incentives to engage in biodiversity and ecosystem conservation. Evidence was found for motivation crowding out and, to a lesser extent, crowding in. While inconclusive, the review suggests caution when employing financial incentives as external motivators.

The distinction between intrinsic and extrinsic motivation is a core tenet of self-determination theory (SDT), which is based on the proposition that all human beings have fundamental psychological needs to be autonomous, competent, and related to others (Ryan & Deci, 2000a). Satisfaction of these needs provides the conditions for intrinsic motivation to flourish and can also provide the conditions for external motivators – incentives or punishments – to be internalized (see Chapter 6, Figure 11, p. 146). Conversely, external motivators that reduce a person's sense of autonomy, competence, or relatedness – for example, by being perceived as controlling – reduce intrinsic motivation toward that activity.

Most research on SDT has focused on proximate social contexts, looking at how people in authority positions, such as parents, teachers, coaches, and managers, interact with those for whom they are responsible. However, SDT also applies to more distal relations, due to the embeddedness of social institutions (Ryan & Legate, 2012). For example, government policies concerning high-stakes testing have had a coercive influence on education administrators' objectives and on teachers' classroom practices, resulting in lower teacher and student autonomy, engagement, and satisfaction (Ryan & Weinstein, 2009). Similar embedded contexts affect other domains. Reduced intrinsic motivation is associated not only with lower likelihood of engagement in the activity without reward, but also with reduced personal well-being (Ryan & Legate, 2012). People who are intrinsically motivated tend to perform better whether in academics (Wang, 2008), sport (Pelletier, Fortier, Vallerand, & Brière, 2001), health (Williams et al., 2006), or therapy (Zuroff et al., 2007). They are also more likely to act more pro-socially and pro-environmentally (Séguin,

Pelletier, & Hunsley, 1999). Numerous studies have supported the findings across cultures (Chirkov & Kim, 2003), ages (Kasser & Ryan, 1999), and socioeconomic levels (Williams et al., 2006).

2.4 Eudaimonia, Well-Being, and Prudential Value

Debates about values are plentiful in conservation. In recent years, high profile disputes between traditional conservationists and ecomodernists have amplified the supposed dichotomy between intrinsic value (a biocentric perspective) and instrumental value (an anthropocentric or egocentric perspective). Among other topics, proponents of each have debated which values are most influential and marketable, with traditional conservationists coalescing around an argument that only a true appreciation for nature's intrinsic value can create enduring pro-environmental action, and ecomodernists generally espousing the tenet that incentives are necessary to encourage environmentally-friendly behavior (e.g., Midttun, 2016). Ecomodernists claim that traditional conservationists are impractical; traditional conservationists worry that anthropocentric approaches will exacerbate hedonic values focused on materialistic and short-term pleasure. I believe this is a false dichotomy. A third justification for nature conservation includes values that are associated with long-term psychological well-being, sometimes referred to as *eudaimonia*. Contrasted with *hedonia*, which is defined by pursuit of pleasure or avoidance of pain, eudaimonia is sometimes translated as 'flourishing' or 'happiness.' It consists of the pursuit of a virtuous life, a 'life well lived' (Niemi & Ryan, 2013). Critical components of eudaimonia are "being actively engaged in excellent activity, reflectively making decisions, and behaving voluntarily toward ends that represent the realization of our highest human natures" (Ryan, Huta, & Deci, 2006, p. 145). This drive toward meaningful, goal-driven activity includes both personal growth and purpose (Ryff & Singer, 2008) and thus has direct relevance to personal endeavors such as PCAs. Eudaimonic motives have been identified as a driver of the actions of environmental

advocates in Europe (van den Born et al., 2017), protected area asset stewardship (Jepson et al., 2017), and interactions with nature more broadly (Chan et al., 2016), but eudaimonia deserves much more investigation in the field.

Conservation researchers have devoted more attention to human well-being (Biedenweg & Gross-Camp, 2018). The focus on well-being has arisen for both pragmatic and ethical reasons (Woodhouse et al., 2015). For example, from a development perspective, there is concern that people will by necessity use natural resources unsustainably if they have to make choices between conservation and poverty (Coulthard, Johnson, & McGregor, 2011); from an ethical perspective, a view that ignoring negative social impacts of conservation is unfair (Lele, Wilshusen, Brockington, Seidler, & Bawa, 2010); and from environmental psychology angle, a value placed on exposure to nature for its impact on mental and physical health (Staats, 2012). Despite the importance of integrating human well-being with conservation activity, the concept of well-being itself has some limitations, the foremost being that it is a global construct. That is, well-being is a measure of the quality of a person's life as a whole, yet exposure to nature, for example, is but one of many factors that affect quality of life. As a result, well-being as an indicator is sensitive to factors other than those of concern to conservationists. A more useful concept, I believe, is that of prudential value. If well-being is the condition of being satisfied with one's own life, prudential value is the value something contributes to a one's well-being, from the perspective of that person: "well-being is what *someone* has if their life goes well; prudential value (for that person) is what *something* has if it contributes toward making their life go well" (Taylor, 2012, p. 8).⁶ An advantage of the concept of prudential value is that it can capture the incremental value added to a person's life by a particular action or

⁶ Italics in original.

intervention. Whereas a judgement about someone's well-being by necessity concerns their overall quality of life, a judgement about prudential value can be consistent with a low level of well-being. Thus, for example, exposure to nature may have prudential value for people who are stressed, ill, or poor, just as it may for people who are happy and secure. Consequently, assessments of prudential value need only concern themselves with the differential impact on making a person's life go better or worse; they do not need to account for whether that person's life is going well or badly overall.

2.5 Summary

In this chapter, I have reviewed concepts from conservation psychology, the primary field in which I situate my work. Although I conducted this literature review *ex post*, for reasons described in Chapter 4, the psychological literature provides a foundation for my approach to understanding landowners' motivations conserve land. I use the concepts of locus of motivation, self-determination, eudaimonia, and prudential value throughout Parts 2 and 3 toward my purpose of explaining PCA owners' involvement in private land conservation. Chapter 2 constitutes the second part of a three-part literature review, which began with Section 1.2 and concludes with Chapter 3. Whereas the literature reviewed in Chapter 2 focused on psychological theory and therefore an individual, agentic perspective, Chapter 3 addresses the perspectives of people and groups who have found reasons to be critical of PLC activity. To some extent, Chapter 3 counterbalances the agentic perspective with a structural one. In the context of the research design of this thesis, Chapter 2 reflects the empathic approach to analysis that I have adopted (Chapter 4, p. 101) and Chapter 3 situates the analysis within broader discourses about power, authority, and responsibility in society.

Chapter 3

Foundations: Critical Perspectives on Private Land Conservation: A Literature Review

3.1 Abstract

In recent years, private land conservation has increased in profile in academic research and international and domestic conservation policy. Private land conservation provides an additional tool for addressing global biodiversity loss and introduces new actors to conservation. However, it has also been the subject of numerous critical accounts. This review catalogues issues that emerge in critical literature, identifying 25 themes. I classified themes into three groups: implementation effectiveness, value conflict, and economic efficiency. Gaps in the literature include the need for broader geographic coverage; assessment of the issues' specificity to private land conservation; and evaluation of the extent to which issues in literature reflect broader societal values. The literature's strong emphasis on value conflict suggests that greater attention to governance effectiveness may steer private land conservation toward practices that are more just, equitable, and representative and lead to increased societal support.

3.2 Introduction

Following a 2014 report on privately protected areas by the World Commission on Protected Areas (Stolton et al., 2014) and subsequent attention to private land conservation at the international policy level, several countries have introduced private land conservation programs. For example, in 2016, Chile successfully passed legislation to permit the *derecho real*, a newly codified conservation property right and a significant step forward in the attempt to develop a conservation easement equivalent in civil code countries (ILCN 2016; Jacobs 2014). Progress has also been made in South Africa (Stevens, 2018) and Catalonia (J. Rodrigo, pers. comm, 2018). Efforts by NGOs and individual

landowners also appear to be gaining momentum, evinced by growing participation in networks such as the International Land Conservation Network.

There are many reasons for conservationists to support growth in private land conservation. For a variety of reasons, government action alone will be insufficient to reach global protected area targets (Butchart et al., 2015; Watson et al., 2014). Land use change is a threat to biodiversity both in and out of protected areas, and any increase in efforts to protect land of high conservation value, regardless of ownership, may help stem the loss of biodiversity (Tilman et al., 2017). Not least, the introduction of new actors into conservation, particularly those with experience outside the fields of conservation NGOs, government agencies, and academic research, may increase potential for innovation and entrepreneurship (Moon et al., 2014). However, some academics see private land conservation as problematic. The rise of private land conservation in policy and practice has led to a corresponding body of critical work, including claims that private land conservation is complicit in neocolonialism (Dowie, 2011), a product of neoliberal roll-back of the state (Holmes, 2011), or less than optimally effective (Clements & Cumming, 2017).

In this paper, I focus specifically on literature that includes critique of private land conservation. I provide a structured literature review, identifying 25 critical themes, which I have classified into three groups: Implementation Effectiveness, Value Conflict, and Economic Inefficiency. This exercise has several benefits. Drawing attention to areas where PLC is not performing well can catalyze improvement of practices, potentially leading to conservation mechanisms that work more effectively or more compatibly with other societal goals. Dissenting voices help situate conservation in the context of other social values (e.g., social equity and local self-determination), which vary across space and time (Knox-Hayes, 2015) and with which some conservation visions conflict (e.g., Yung, Freimund, & Belsky, 2003). Critical perspectives can improve the quality of group decisions, in part by avoiding 'groupthink' (Postmes, Spears, & Cihangir, 2001; Reed, 2008).

Because some of the critical literature is published in journals that are not read widely by conservation scientists and practitioners, this review also facilitates conservation scientists' and practitioners' engagement with critical literature.

3.3 Methods

3.3.1 Literature Search

A literature search on Scopus and Web of Science, conducted in November 2017, included the terms listed in Table 2. The specific use of terms related to private land conservation in articles served as a constraint on the literature search. This resulted in 954 unique documents. I then screened documents by title and abstract according to the criteria in Table 3, which narrowed the pool to 151 articles that were then screened by review of the text and elimination of sources other than journal articles, resulting in 57 documents.

In many cases the authors of the papers collected in this review attributed these arguments to other authors; in these situations, I have attributed the arguments to the sources in which I encountered them, rather than the original source. Because my interest was in capturing the full range of critical themes, I included all themes I encountered in each source, regardless of whether they were reflective of the overall tone or argument of the author(s). Because my objective was to categorize topics of critique, I did not code or report arguments in favor of private land conservation or rebuttals to critique.

3.3.2 Coding

I read articles to identify critical themes, which were open-coded using terms that reflected the nature of critique, such as *neocolonialism* or *elitism*. I recorded information using a database that included the themes, theoretical lens (if any), topic (e.g., covenants, private nature reserves), and region for each paper.

Table 2. Search terms used in Scopus and Web of Science to identify critical literature

Search term	Items returned in Scopus	Items returned in Web of Science
private land conservation	109	104
private nature reserve	43	65
private protected area	258	30
privately protected area	28	0
private wildlife ranch	28	0
private wildlife ranches	18	2
private reserve	270	186
green grab	127	5
“land grab” AND conservation	24	25

Table 3. Criteria used for screening articles during the final text review stage

Inclusion criteria for article screening
• Concerned with land conservation, not species conservation (where distinct from land conservation, such as privately owned wildlife rehabilitation centers) • Focused on private land ownership, which includes individuals, groups, corporations, NGOs, research institutions, and religious organizations (Stolton et al., 2014) • Related to governance, ethics, social issues, social impacts, politics, political economy • Included ecotourism, private game reserves, conservation and development initiatives, and other mechanisms sometimes used to finance private land conservation • Defined conservation in terms of biodiversity or ecosystem protection; did not include conservation exclusively focused on cultural, historical, or architectural elements • Excluded analyses that focused on drivers of private land conservation, such as surveys of landowner attitudes, values, or preferences

3.3.3 Network diagram

I used Polinode software (<https://www.polinode.com/>) to create a network diagram that illustrated the connection between themes in the 57 articles. Input data included the size of the nodes (number of papers referring to each theme) and weight of edges between each pair of nodes (number of instances when two themes were referred to in the same paper).

3.4 Results

This literature review identified 25 themes (Table 4). Using the network diagram (Figure 3) informed by personal judgement, I clustered the 25 themes into three groups:

Implementation Effectiveness, Value Conflict, and Economic Inefficiency. As illustrated by the network diagram, the themes are interrelated, and some overlap exists.

3.4.1 Group 1: Implementation Effectiveness

Articles with themes in Group 1: Implementation Effectiveness tend to lack theoretical frameworks and instead focus on pragmatic issues of implementation. Most but not all take private land conservation's utility as a conservation mechanism as a given. To the extent they make comparisons with other activity, they tend to benchmark against other protected areas (usually state protected areas), rather than competing land uses, such as agriculture or extractive industry.

3.4.1.1 *Permanence*

For a variety of reasons, some landowners do not seek legal protection for conserved land. As a result, such lands may be vulnerable to ownership change or the whims of landowners (Leménager, King, Elliott, Gibbons, & King, 2014; Mitchell, Walker, & Walker, 2017; Murray et al., 2015). Some landowners may be deterred by the permanence of easements, particularly when there is financial risk involved (Freese, Montanye, & Forrest, 2010). However, most conservationists see permanent protection as the gold standard for

land conservation, and one of the most prominent concerns about PLC is whether land can be permanently protected (Langholz & Krug, 2004). Where this is due to the lack of a legal or regulatory structure for permanent protection, the resulting limited, insecure, and tenuous nature of private land conservation has been flagged by many (Bingham et al., 2017; Kamal, Grodzińska-Jurczak, & Brown, 2015a; Langholz, 2009; Mitchell et al., 2017; Pasquini, Fitzsimons, Cowell, Brandon, & Wescott, 2011). Even where legal mechanisms are in place, they are not always permanent, as is the case for integrated conservation and development programs, which can be temporary solutions (Serenari et al., 2015).

In other cases, permanence concerns result from the difficulty of enforcing protection. For example, easements are technical documents that require a high level of legal sophistication. If the purpose of the easement is not specified in a way that is relevant to the future, the easement may become susceptible to legal challenges over time (Rissman et al., 2007). Land trust legal defense and enforcement challenges in the US are common, varied, and increasing (Rissman & Butsic, 2011). These legal challenges are expensive and add to the funding burden of the land trust movement (Rissman & Butsic, 2011).

3.4.1.2 Adjacency Impacts

Adjacency impacts are those impacts that result from a proximate physical location. Negative adjacency impacts in the literature include rising land costs, damage to public infrastructure such as roads, traffic, and pollution, including dust and air pollutants (Serenari et al., 2015; Serenari et al., 2017).

Table 4. Number of source articles that contributed to each coded theme

Theme	Number of sources	Theme	Number of sources
Accountability	4	Funding	11
Accumulation	3	Green grabbing	5
Adjacency impacts	1	Hubris of the present	1
Agenda-setting	6	Inequity	1
Commodification	4	Information	10
Cultural conflict	15	Legitimacy	2
Dependence	3	Moral hazard	2
Depoliticization	2	Neocolonialism	3
Disruption	2	Neoliberalism	4
Economy and jobs	8	Permanence	4
Effectiveness	32	Self-serving motives	5
Elitism	2	Skills	1
Exclusion	13		

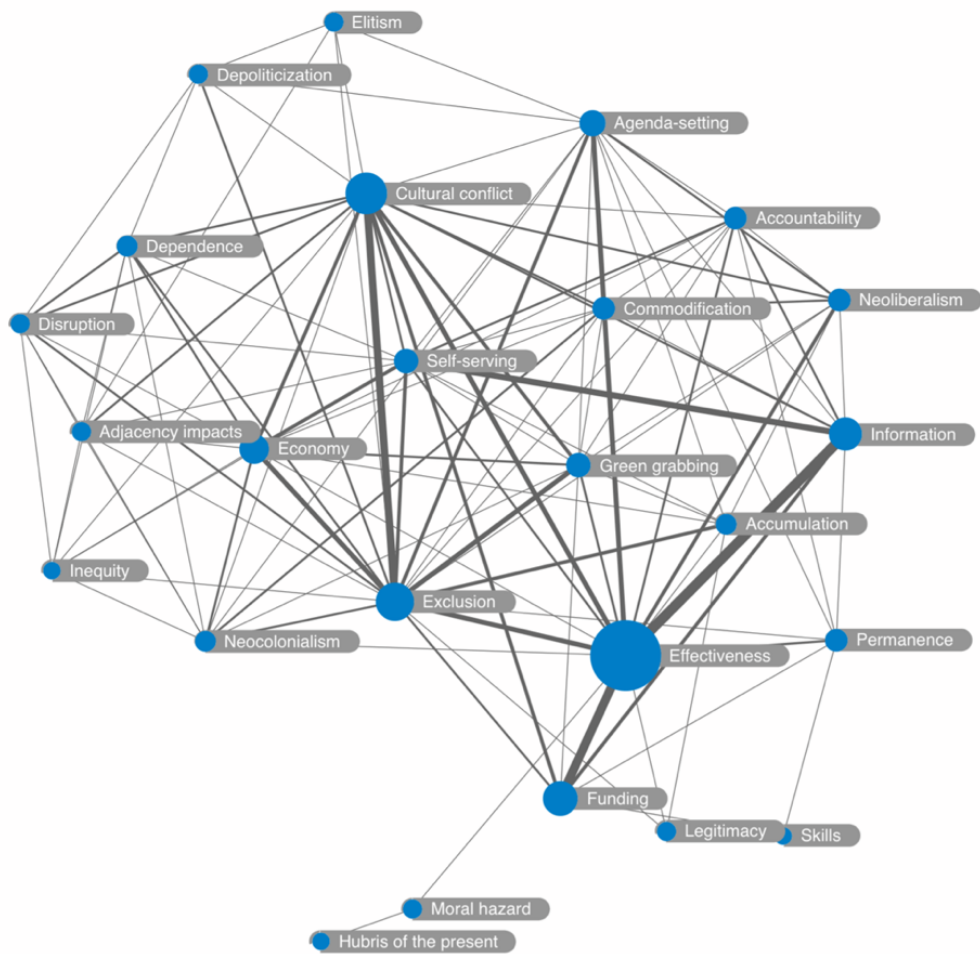


Figure 3. Network diagram illustrating connections among themes in 57 source articles

3.4.1.3 *Effectiveness*

Effectiveness is a large theme that includes a variety of different elements. Privately protected areas (PPAs)⁷ tend to be significantly smaller than their state-owned counterparts. This smaller size is associated with more fencing, roads, and conflicting adjacent land uses, leaving properties fragmented, with ecological consequences (Freese et al., 2010; Kamal et al., 2015a). Conflicting adjacent land uses can make it difficult to protect species (Freese et al., 2010). In addition to ecological challenges, the small scale of some properties can also lead to institutional challenges if management scales are too small for individual stakeholders to realize the full benefit and cost of conservation (Kreuter, Peel, & Warner, 2010).

Concerns about prioritization and decision-making include PLC programs focusing too much on quantity over quality (Kamal, Grodzinska-Jurczak, & Kaszynska, 2015b) and lack of systematic conservation planning in PLC. Some conservation land trust organizations fail to include important factors in their acquisition decision making, using individualistic and opportunistic parcel-level protection efforts rather than a systemic landscape-scale process (Ryan, Hanson, & Gismondi, 2014). Gaps include consideration of scale, parcel shape, leveraging, model iteration, and social and historical factors (Ryan et al., 2014).

Some NGOs have few plans for monitoring the effectiveness of their land conservation efforts (de Santo, 2012). A study of easements in the US (Rissman et al., 2007), for example, found that only 20% of easements had quantitative monitoring programs. Qualitative information suggested the status of conservation targets was steady or improving on

⁷ I use the term privately protected areas (PPAs) in this chapter instead of the term privately conserved areas (PCAs), which I use in the remainder of the thesis, because PPAs are more commonly discussed in this literature. A note on the distinction can be found in Chapter 1 (p. 26). The PPAs discussed in this section include a diverse range of private governance entities, including not only individuals but also entities such as NGOs and corporations.

nearly all easements, but authors found this information was subjective and potentially unreliable. The same study found that ecological monitoring was limited by funding, technical expertise, staff time, and in some cases a preference for allocating resources to land acquisition over monitoring (Rissman et al., 2007). Similarly, in Australia's covenanting programs, organizations were found to measure outcomes inconsistently with each other, making it difficult for researchers to identify positive biodiversity outcomes across the covenanting programs in the study in a consistent and systematic way (Fitzsimons & Carr, 2014).

Some PLC programs do not consider long-term ecological or social dynamics in their actions (Lindsay, 2016). The Canadian Boreal Forest Agreement, for example, did not anticipate effects of climate change, which by 2080 may render land tenures unsuitable for caribou, the flagship species of the agreement (Murray et al., 2015). PPAs in the Great Plains of the US found it challenging to restore hydrologic processes due to the degree of anthropogenic change in the area (Freese et al., 2010). With the potential for historical ecological benchmarks to become an even more difficult restoration target into the future, Cooke and Corbo-Perkins (2018) argue there is a need to consider what we aim to achieve through PLC restoration work and how conservation programs might need to be decoupled from individual parcels as a scale of emphasis.

Several problems arise when PPAs must cover their costs by generating revenue through activities such as ecotourism or game ranching. PPAs that rely on ecotourism can risk degrading the resource they were set up to conserve (de Santo, 2012). Even when ecotourism is carried out with a sincere interest in conservation, managers may lack a thorough understanding of ecosystem processes (Barany, Hammett, Shillington, & Murphy, 2001). Due to PPAs' need for revenue, the whims of the market can influence management decisions, with tourist preferences or other market drivers affecting decision-making (Cousins, Sadler, & Evans, 2008). This could happen, for example, when

managers increase actions to stabilize short-term variation in large mammal populations (Clements & Cumming, 2017). Optimizing for nature-based tourism income may not equate to achieving optimal biodiversity outcomes (Baum et al., 2017). Practices of concern include overstocking wildlife to enhance opportunities for viewing and shooting (Clements & Cumming, 2017; Clements et al., 2016; Langholz, 2010); introducing extralimital species (Clements & Cumming, 2017; Langholz, 2010); altering animals' natural behavior through feeding, breeding, and other activities (Langholz, 2010); maintaining animals in unnatural or abusive conditions (e.g., private zoos) (Langholz, 2010); offering canned hunting opportunities that violate the principle of fair chase (Langholz, 2010); persecuting predators to protect valuable game (Cousins et al., 2008); and neglecting less charismatic species that lack tourist appeal (Sundaresan & Riginos, 2010). Blackmore (2017) argues that economic factors such as revenue should not take precedence over the genetic integrity of wildlife, consistent with the concept of environmental right in South Africa's constitution, but the implications for implementation of PPAs are unclear.

Several have noted the vulnerabilities that result from PLC's status as a voluntary activity. Because PLC depends on landowners being willing and aware of opportunities, important habitats may not be represented (Ladle et al., 2014; Ryan et al., 2014). In Poland, for example, Kamal et al. report landowners have little interest in conservation, and consequently that PLC may have limited feasibility (Kamal et al., 2015b). In Chile, most PPAs are concentrated in the south, so ecosystem coverage is unrepresentative (Tecklin & Sepulveda, 2014). Likewise, the Canadian Boreal Forest Agreement, covering 4.6% of the boreal region of Canada, does not include most boreal ecozones (Murray et al., 2015). In addition, other threats such as extraction of minerals or export of water may not be addressed through mechanisms like conservation easements, if the surface landowner does not hold water rights or mineral, oil, and gas subsurface rights (Rissman et al., 2007).

Consequently, PLC is only a partial solution to conservation needs, applicable to certain places with certain forms of biodiversity (Holmes, 2015a).

3.4.1.4 Funding and Financial Sustainability

Like protected areas in general, PPAs are vulnerable to funding problems. Private conservation landowners and reserve managers identify budget issues to be amongst their biggest concerns (Fitzsimons, 2015; Langholz, 1996), raising questions over whether planned conservation measures are feasible (Cooke & Corbo-Perkins, 2018). Land trusts also cite a lack of funding amongst their top three challenges (Ryan et al., 2014).

In some cases, private owners acquire land without strategic acquisition procedures. This could include securing funding for property acquisition but not management, which affects the long-term maintenance of properties (Pasquini et al., 2011). Overemphasis on start-up over management costs appears to be common (de Santo, 2012). Funding limitations lead to less than optimal decision making, with land trusts, conservation developments, and wildlife ranches acquiring land without strategic acquisition procedures or securing funding for property acquisition but not management, affecting the long-term maintenance of properties (Cousins et al., 2008; Farr, Reed, & Pejchar, 2018; Pasquini et al., 2011). Some PPAs pursue sustainable financing through earned income, such as ecotourism or game ranching. When conservation is dependent on income generated, PPAs are vulnerable to factors outside local control (Baum et al., 2017; Langholz & Krug, 2004; Sundaresan & Riginos, 2010). This can result in trade-offs between short-term profit and long-term sustainability (Barany et al., 2001).

In other cases, even start-up costs for land acquisition or bureaucratic hurdles are beyond the reach of entities that wish to engage in private land conservation. Barany et al. (2001) detail the case of landowners in Nicaragua who were unable to conserve their land as they wished because they had no working capital and were not able to find financial help in the

country. For example, Shanee et al. report that the mean costs of bureaucratic procedures to set up a PPA in Peru is USD 22,000 (Shanee, Shanee, & Horwich, 2015). Because of the significant start-up costs and lack of certainty, there is concern that permanent easements or similar long-term agreements may pose a level of commitment that will deter other landowners (Freese et al., 2010). Kamal et al. (2015b) also detail the lack of incentives for PLC in Poland. Additionally, because the success of private approaches is dependent upon the structure and financial robustness of the operating entities, large international NGOs have a competitive advantage, with more resources at their disposal than their smaller, independent counterparts on the ground, particularly in developing countries (de Santo, 2012).

Sundaresan and Riginos (2010) have expressed concern that private landowners are paying for and subsidizing a resource that they do not own and cannot control. Unless mechanisms like wildlife trade are available for income generation, individuals and businesses may be discouraged from setting aside land for wildlife.

3.4.1.5 Skills

Land trusts have been challenged by poor communication, lack of clarity around roles and responsibilities, and duplication of effort (Ryan et al., 2014). Some question whether landowners have sufficient expertise for long-term conservation (Holmes, 2015a; Pasquini et al., 2011). Gaps that were highlighted specifically for easement holders included time to undertake management actions on the properties and, for NGOs, capacity for spatial mapping and dispute resolution (Lindsay, 2016; Rissman, Owley, L'Roe, Morris, & Wardropper, 2017).

3.4.1.6 Information

Lack of access to information about PLC can hinder research and planning activities. Systematic conservation planning requires knowledge of which lands are already

protected, and the characteristics of those lands, to make the most effective decisions about future purchases (Rissman et al., 2017). A lack of coordination of and access to GIS information appears to be common to conservation land trust organizations (Ryan et al., 2014).

In addition to planning, information is needed for outcomes measurement. Lack of consistency in measurement in Australia's covenanting programs, for example, meant that no positive program outcomes could be identified (Fitzsimons & Carr, 2014). The privacy associated with conservation easements has become a major barrier to aggregating US conservation easement data and making it available to the public (Morris & Rissman, 2009). As a result, it is "impossible to get comprehensive information on how and where conservation easements are being created, what they are supposed to accomplish, whether they are being monitored and enforced, and how much public money is being spent" (Morris & Rissman, 2009, p. 1239). The right to information and the right to privacy sometimes conflict, complicating access to information (Rissman et al., 2017).

3.4.2 Group 2: Value Conflict

Articles with themes in Group 2: Value Conflict generally situate their findings in the context of theory from perspectives such as political ecology and critical geography. Many of the issues in Group 2 are not specific to private land conservation, but reflect broader societal concerns, with PLC as one (of potentially many) realized instance of the factors of concern.

3.4.2.1 *Cultural Conflict*

Cooke and Corbo-Perkins (2018) studied an Australian reverse auction program, in which landowners competed to supply the state government with environmental goods by submitting proposals for conservation work on their land. Cooke and Corbo-Perkins identified four tensions between the market logic of the reverse auction program and the

landowners' conservation practices. First, some landholders used the payment scheme to increase regulatory protections on their property through covenants, which appears contradictory because market-based instruments are often set in contrast to regulatory mechanisms. Second, many landholders struggled to conceive of their stewardship practice as contractual labor, although the nature of the program necessitated it. Third, due to anthropogenic changes to the ecosystem, the landscape did not respond to restoration efforts that aimed to return land to the program's ecological benchmark goals. Landholders were instead producing novel ecosystems (Cooke & Corbo-Perkins, 2018). Fourth, many landholders wanted social collaboration with other auction participations, whereas the program required competition for cost efficiency.

In Peru, assigning market value to nature may discourage local people from conserving wildlife for its intrinsic or cultural value and promote land trafficking and corruption (Shanee et al., 2015). Yet regulation may not provide a complete solution, either. Cousins et al. document a conflict between regulation and profit and say that new regulations in the South African wildlife industry will encourage some ranchers to convert their land away from conservation friendly land use (Cousins, Sadler, & Evans, 2010).

PPAs owned by people from outside the geographic area may find their practices in conflict with traditional values of local communities and indigenous groups. Questions have long been raised about the way international environmental NGOs in the global north operate in the global south, where they can reinforce a separation of nature and culture (de Santo, 2012). In Chile forest-dependent cultures with traditional utilitarian values toward nature (Serenari, Peterson, Wallace, & Stowhas, 2016) collide with contemporary land-protection strategies, such as restricted access, and local residents do not share beliefs about the benefits of large-scale private development-based conservation (Serenari et al., 2015). Community leaders did not see a match between community goals and the opportunities for conservation and economic development offered by the PPA.

For example, a community member working as a guard for a PPA felt that his people had deserted their indigenous culture, which was based on communication and collective action, and in its place embraced values rooted in individuality, competition, self-interest, and inequity as a result of the park (Serenari et al., 2017).

In a review of Vivanco (2007), Morgan (2008) states that environmentalists generally do not share a commitment to minimizing rural poverty, structural inequalities, and inequitable distribution of resources. The conflict between environmentalism and economic development has been described as irreconcilable (Morris, 2008), and some have questioned whether the dual aims of nature conservation and community development can possibly be fulfilled under a single banner (Spierenburg & Brooks, 2014).

3.4.2.2 Neocolonialism

Historically, in South Africa, the Natives Land Act of 1913 and successive laws prohibited Africans from buying or owning land outside of designated 'native reserves' (Spierenburg & Brooks, 2014). Today, charges of neocolonialism are relevant where those from outside a culture import and impose ideas about conservation and development. In Chile, for example, Serenari et al. (2017) report that indigenous communities adopted some of the values of colonists, leading to overexploitation of land. Foreign ownership of private parks opens itself to the charge that it is a subtle form of neocolonialism and that it should be treated carefully, especially in lesser-developed countries (de Santo, 2012).

3.4.2.3 Exclusion

PLC is premised upon private land ownership, a concept that is itself tied to colonialism in many locations. In South Africa, the history of private land ownership is closely linked to the settler land dispossessions that took place in the nineteenth and early twentieth centuries (Spierenburg & Brooks, 2014). Today, mechanisms of exclusion can include active expulsion of people claiming current or historical rights to land. Exclusion may

occur through 'securitization,' when military-style security is used to guard protected areas against poaching, enabled through private security companies, national armies, and soldiers for hire (Massé & Lunstrum, 2016). A less direct mechanism is pricing. Some reserve owners use a model of ecotourism that targets a limited number of wealthy tourists in order to minimize the ecological impact of tourism, but a consequence is that the lodges are unaffordable to the majority of the population in the country (Ramutsindela, 2015). Related to this, the marketing of conservation as pristine wilderness devoid of human influence creates an anti-agrarian bias (Spierenburg & Brooks, 2014). Exclusion can also be political. A case study in Paraguay finds local people excluded from all governance and decision-making (Quintana & Morse, 2005), and community members in Chile reported feeling disempowered by exclusion from decision-making at a nearby PPA (Serenari et al., 2016).

The impact of exclusion on local people can be severe. In Indonesia, locals who lost access to land due to ecosystem restoration concessions were forced to abandon their traditional forest-based livelihoods and jobs as laborers for the forestry industry (Buergin, 2016).

Exclusion from subsistence and commercial use of land on PPAs has also been documented in Chile and Mozambique (Massé & Lunstrum, 2016; Meza, 2009; Serenari et al., 2016, 2017). Serenari et al. (2016) found that PPA administration and national government officials viewed local people as threats to forest conservation goals. Moreover, PPA administrations avoided participatory democracy approaches to ensure local resistance did not threaten their authority.

While most reported cases of exclusion concern local communities who object to the private governance of land, in some cases exclusion includes pro-PLC actors who cannot meet the requirements to set up a PPA. In Peru, for example, complex, costly requirements for the procedure of declaring a reserve excludes people with reduced economic means from being able to initiate protected areas by themselves (Shanee et al., 2015).

Exclusion is detrimental not only for local people, but also for conservation efforts. In Mozambique, residents evicted from protected areas show resistance through activities like poaching (Massé & Lunstrum, 2016). Poverty and resentment toward wealthy private landowners have led to conflict between private conservancy managers and the owners of group ranches in Kenya, as group ranches provide an access point for poachers to enter private conservancies (Sundaresan & Riginos, 2010). There have also been occupations of private properties and occasional violent attacks on conservancy managers (Sundaresan & Riginos, 2010).

3.4.2.4 Inequity

Community members living near a PPA in Chile perceived landowners as wealthy, powerful, and privileged and thought that, relative to communities, it was landowners who reaped the returns of PPA tourism (Serenari et al., 2017). Within the community, individuals who worked for the park or in tourism benefitted more than those who did not (Serenari et al., 2017). In integrated conservation and development programs, which can include PPAs with a dedicated development component, programs may offer temporary solutions and their benefits be realized at the global rather than the local level (Serenari et al., 2015).

Inequity can also be found at the organizational level. For example, the system for private marine protected areas appears to favor large, international NGOs, which have more resources at their disposal, and disfavor small ones, especially in developing countries (de Santo, 2012).

3.4.2.5 Self-serving Motives

Some people perceive PLC to be self-serving, arguing that PLC is driven not by altruistic motives, but as a way to promote and protect self-interest. Ramutsindela (2015) implicates PLC in his broader critique of philanthropy, arguing that philanthropic activities reflect

the interests and biases of philanthropists and promote values of social order and economic development favorable to the powerful. He argues that private nature reserves in South Africa are used to achieve three interrelated objectives: to push back land claims, give wealth-generating activities a 'human face,' and control a labor pool for purposes of upmarket ecotourism ventures. This echoes Serenari et al.'s findings that PPA administrators avoid participatory democracy approaches to ensure local resistance does not threaten their authority (Serenari et al., 2016).

Owners of PPAs have also been accused of using conservation as a marketing ploy, effectively greenwashing other activities with less positive connotations (Barany et al., 2001; Meza, 2009). In some situations, PPAs have attempted to offset negative local impacts by developing grant-making, security, and economic development programs in communities. These, too, have been the target of criticism. In South Africa, PPAs are accused of using philanthropy to 'tame' land claimants, reducing the likelihood of a land claim (Ramutsindela, 2015). Similar offers of security in Chile were interpreted by communities as a bribe (Serenari et al., 2016).

In the US, conservation easements appear to be changing over time to serve non-conservation interests of landowners. They increasingly incorporate allowances for additional developments. For example, one easement reviewed by Rissman et al. (2007) included allowances for new residential and ranching buildings, a tennis court, swimming pool, and other outbuildings, and another had half its area in a building envelope. This trend could be the result of shifting demographics among landowners seeking easements and may suggest that a growing proportion of landowners are interested in securing easements as strategic investments rather than from a predominantly charitable intent (Rissman et al., 2007).

3.4.2.6 Agenda-setting and Control of Discourse

PLC provides a context for issues of agenda-setting and control of discourse. Morgan (2008) raises concerns over who gets to set the terms and goals of environmental initiatives, and what happens to those who do wish to redefine or reject agendas not of their making. Easements, for example, privatize and rescale a great deal of land conservation decision-making authority (Morris, 2008). Likewise, market-based incentives limit possibilities for local communities to seek their own path to conserve nature and protect human well-being outside of global economic markets (Serenari et al., 2015).

Agenda-setting can also take place in formal policy environments. In the realm of private marine protected areas, NGOs serve as unofficial diplomats (de Santo, 2012), representing the interests of their constituencies by engaging in information exchange, conducting informal negotiations, and providing policy advice in ways that affect the outcomes of multilateral environmental agreements; however, they do so with no formal standing to accomplish these objectives as surrogates for state actors (de Santo, 2012).

3.4.2.7 Elitism

Not all PPAs limit public access, but where they do, they risk becoming ‘islands of elites’ where wealthy landowners host affluent tourists (Langholz & Krug, 2004; Meza, 2009). Concerns over elitism and inequity can lead to sometimes lead to local dissent against conservation activities (Serenari et al., 2015).

3.4.2.8 Neoliberalism

Market-based instruments, conservation easements, philanthrocapitalism, and the rise of business markets and logics are cited as examples of the influence of neoliberalism on land conservation. PPAs that embrace market mechanisms (such as payments for ecosystem services) may enable a reduction in direct state intervention in conservation, and they can be accompanied by discourses suggesting that markets are the only way to effectively

conserve biodiversity while producing social benefits (Holmes, 2015a). Easements are seen to exemplify neoliberal environmental governance, as they privatize and re-scale conservation decision-making authority, are market-based, provide financial incentives for participation rather than punish non-compliance, and commodify new property rights (Morris, 2008).

Neoliberal governance is also characterized by outsourcing functions traditionally performed by government to the private sector. PPAs may be seen as outsourcing the government's responsibility for conservation to the private sphere. This occurs, for example, on the border of Kruger National Park in South Africa, where the central government delegates functions of state security to private reserves, enabling new actors to participate in governance activity (Massé & Lunstrum, 2016). While non-state actors have always been involved in conservation, the wider variety of actors we see today are sometimes said to be more deeply embedded in capitalist networks and operate across scales (Massé & Lunstrum, 2016).

The critique of neoliberal conservation is based on the view that conservation should confront, not concede to, neoliberalism as a governance paradigm. Holmes finds that PPAs “provide only a limited challenge to the social and environmental consequence of the integration of southern Chile's natural resources into global neoliberal economic chains” (2015a, p. 850), and that there is no evidence that PPAs challenge the broader paradigms of natural resource use outside of their boundaries.

3.4.2.9 Depoliticization

In some situations, PLC may serve as a mechanism to depoliticize conservation and avoid addressing broader social justice issues. For example, in Mozambique, security interests act as a depoliticized alibi for explicit accumulation of property through conservation-related dispossession (Massé & Lunstrum, 2016). In Chile PPAs sometimes silence

conservationists who may otherwise challenge the social and environmental consequences of national resource commodification, as advocates are unwilling to risk reduced political support for their cause (Holmes, 2015a).

3.4.2.10 Commodification

Some PLC tools, such as easements, are seen to be instrumental in commodification of new property rights (Morris, 2008). Other actions characterized as commodification include NGOs based in the global north using simplified and stylized imagery of nature and people in the global south to market their programs to potential funders and the public (de Santo, 2012). As an example, international NGOs operating PPAs in Chile initiated capacity-building programs in local and indigenous communities that were concentrated on skill-building in a market-based economy, essentially commoditizing labor (Serenari et al., 2016). In addition, some commentators have argued that the construction of a commodified wilderness is a pre-condition to green grabbing (see Green Grabbing, below) (Spierenburg & Brooks, 2014).

3.4.2.11 Economy and Employment

Economic impact varies by type of protected area and location. PPAs that operate in the high-end tourism market in South Africa may generate more employment than other land uses, such as livestock ranching, but many local farm dwellers can access only low-income service jobs rather than the more lucrative jobs like wildlife guiding (Spierenburg & Brooks, 2014). There appears to be a net loss of employment for PPAs financed through hunting, venison production, or the breeding of wildlife for trade, compared to the agricultural enterprises that they replace (Spierenburg & Brooks, 2014).

Even where economic impacts are positive, issues can arise when actual benefits fail to meet expectations. In Chile, some local communities expected that new parks would create employment, but they were disappointed by the lack of jobs and communication

(Serenari et al., 2017). Unfulfilled expectations of economic benefits promised by many NGOs and governments could potentially threaten the future of some private reserves (Shanee et al., 2015).

3.4.2.12 Disruption of Local Social Systems

Disruption of social systems occurs when outside entities influence economic, power, and gender dynamics in a community. Serenari et al. (2015) found local dissent over livelihood disruption and land rights around PPAs in Chile, disproportionately benefiting some members of a community over others. In some cases, local communities believed that powerful outside entities were using disruption intentionally, attempting to divide and conquer indigenous people in this area (Serenari et al., 2016).

In Costa Rica, the placement of legal restrictions on private property meant that national authority superseded local authority over ecologically important areas, leading to tension not in the community, but between national and local governments (Langholz et al., 2000).

3.4.2.13 Dependence

Some PPAs foster dependence in local communities. Hora (2017) found that communities around a PPA in Chile became dependent on it as the main generator of economic activity in the area. Without a diversity of jobs, young people moved away from the area after high school graduation in search of other opportunities. Also in Chile, Serenari et al. (2017) found a community in an ongoing power struggle over community self-sufficiency.

Community leaders passed a resolution preventing communities from establishing formal relations with a PPA in an effort to avoid 'assistencialism,' or dependence on handouts.

Ramutsindela (2015) reported that communities adjacent to PPAs in South Africa are forced to make difficult choices between filing land claims and receiving philanthropic

support. By accepting financial assistance, they become dependent upon it to the point that they may forego political solutions that put financial assistance at risk.

3.4.2.14 Green Grabbing

Land grabs are transfers of control over property and resources from local control to more powerful outsiders, and green grabs are land grabs undertaken primarily for environmental reasons (Holmes, 2014). In Chile, powerful actors have acquired control over land and resources over the last 150 years, often facilitated by the Chilean state. Holmes (2014) reports there is no indication that any transactions were forced, compelled, or unjust, except for two questionable cases, but there is potential for PPAs to be part of the ongoing process of change in land control in Chile.

Others have expressed concerns over the foreign ownership of private reserves. Langholz and Krug (2004) pointed to research finding that a third of private reserves in Africa and a fifth in Latin America are completely owned by foreigners. Additional concerns in this area include the contribution of commodified wilderness and the securitization of conservation to the green grabbing phenomenon (Massé & Lunstrum, 2016; Spierenburg & Brooks, 2014).

3.4.2.15 Accumulation and Control of Land

Langholz and Krug (2004) draw attention to the serious possibility that private parks will contribute to the concentration of land ownership by the wealthy. Some landowners appear to enroll in conservation programs to protect land from redistribution (Langholz et al., 2000). A case in South Africa resulted in over 90 households being dispossessed from their homes, with the possibility of more in the future. What remains of villages will be burned to prevent people from returning (Massé & Lunstrum, 2016).

Private land conservation also includes efforts by for-profit entities (Stolton et al., 2014). In this light, Ramutsindela (2015) argues that accumulation is integral to PLC. He states that

the private sector sees conservation areas as a niche market for capital accumulation, with companies in particular using PLC to develop their competitive advantage.

3.4.2.16 Legitimacy

Issues of legitimacy arise where local communities and other stakeholders question the ownership or use of PPAs. In cases of land claims, such as in Chile or South Africa, PPA owners' right to own land is challenged through the legal system (Meza, 2009; Ramutsindela, 2015). In other cases, such as privately-owned conservancies in Kenya, private landowners find it is harder to gain political support for their causes because, as individual landowners, they are not accepted as part of the community (Leménager et al., 2014).

3.4.2.17 Accountability

In some contexts, there is concern that private landowners who receive government benefits lack accountability to the public. Receipt of government subsidies or other public assistance may oblige landowners to be transparent to the public. At present, accountability is quite limited, as the public has little access to information about the effectiveness or general benefit of government investments into private land conservation (Mitchell et al., 2017). Nonprofit organizations, which are also private, may involve a higher degree of public participation, consensus orientation, accountability, transparency, and equity than occur with for-profit operations (Eagles, 2009). Approaches for reducing legal and administrative barriers to information access include binding reporting requirements to government funding for conservation on private land, as is the case with the Farm Bill in the US (Rissman et al., 2017).

3.4.3 Group 3: Economic Inefficiency

Only two articles included themes found in Group 3: Economic Inefficiency. Nevertheless, they warranted their own group because they had little overlap with themes in other axes.

Concepts are aligned with ideas in neoclassical economics and libertarian thought. Similar to Group 2, the concepts are not unique to private land conservation but relate to broader societal issues.

3.4.3.1 Moral Hazard

Financial incentives, such as tax rebates, can weaken incentives for landowners to minimize the full, long-term costs of conserving environmental amenities (Meiners & Parker, 2006). Tax laws encouraging perpetual easements on amenities lacking public good characteristics and may unnecessarily hinder the extinguishment of easements of marginal environmental benefit (Meiners & Parker, 2006). This creates a moral hazard, which is a lack of incentive to guard against risk when one is protected from its consequences (Laffont & Martimort, 2002).

3.4.3.2 Hubris of the Present

The permanent status of perpetual easements leads to concern over intergenerational equity. Meiners and Parker ask why the tax code should privilege the perpetual conservation easement over alternative contracting instruments (Meiners & Parker, 2006). This perspective argues that, in an environment of uncertainty, present generations should not lock in use decisions when there is no guarantee that present day land use is optimal for future generations. In Chile, a group of ‘defenders of the free market’ were reportedly angry that landowners would purposefully and explicitly use a property for conservation purposes on a permanent basis (Tecklin & Sepulveda, 2014). Their actions were attributed to a pro-market position, though they appear to be more consistent with a pro-growth position.

3.5 Discussion

Some patterns observed in this review may be artifacts of the search terms, which restricted the search to articles which were concerned specifically with private land

conservation. A few journal articles included many themes and are therefore over-represented in the analysis, e.g., de Santo (2012), Massé and Lunstom (2016), Serenari et al. (2015, 2016), and Spierenburg and Brooks (2014). Likewise, some relevant topics are underrepresented, relative to their importance in political ecology literature; examples include neocolonialism, inequity at both the individual and organizational levels, and elitism. These factors, however, did not affect the primary goal of the paper, which was to catalogue the topics of concern regarding private land conservation.

The themes identified in this literature review align with two different conservation social science approaches: research *for* conservation and research *on* conservation (Sandbrook, Adams, Büscher, & Vira, 2013). Research for conservation generally shares with conservation the normative mission to contribute to the conservation of biodiversity. In the present research, Group 1 represents this perspective. In contrast, research on conservation does not necessarily share conservation's mission but rather studies biodiversity conservation as a social phenomenon. Here, Groups 2 and 3 represent this perspective.

The critique identified in this review can also be viewed as an issue of management versus governance. Management actions include deployment of resources, development of plans, and implementation of actions, whereas governance refers to issues of control: the structures, processes, and traditions that determine how power and responsibilities are exercised, how decisions are made, and how stakeholders have their say (Graham et al., 2003; Lockwood, 2010). That is, management is how conservation is done, and governance is who has the power to do it. The themes in Group 1 are primarily concerned with management effectiveness, pointing to areas where private land conservation activities fall short of their mission. In contrast, the themes in Group 2 and 3 are questions of governance. Concerned with power, authority, and responsibility, analytical work on these

themes points to areas where private land conservation is in conflict with other social values. Currently, many PPAs are not well-equipped to address these issues.

Though conservationists have noted the importance of management effectiveness for decades, governance effectiveness has been slower to gain ground. For comparison, a September 2018 search in Scopus for *conservation management effectiveness* returned 6,893 articles published since 1980, with an increased rate of publication since 2005. A similar search for *conservation governance effectiveness* returned only 397 articles, 90% of which have been published since 2009 (**Error! Reference source not found.**).

Lockwood (2010) has developed a practicable framework of seven principles for assessing governance effectiveness (Table 5). The principles can be operationalized by identifying the governance outcomes that are implied by each using an evidence-based qualitative methodology. This framework has already been applied to protected areas (Lockwood, 2009). Its application to PPAs could help steer them toward practices that are just, equitable, and representative, which may result in broader mainstream support.

The Lockwood framework discusses stakeholder inclusion, but it does not offer guidance on the question of who counts as a stakeholder in private land conservation. Broadly, stakeholders are the people and organizations who affect or are affected by a decision (Sterling et al., 2017), but the implications of this definition vary by context. A Group 1 or Group 3 perspective might look at this question through the lens of property rights, concluding that, on a property obtained by market transaction or charitable donation, the owner has authority over land management decisions. Outreach to local communities might be considered either a gesture of goodwill or a pragmatic means of achieving conservation objectives. A Group 2 perspective might draw a larger circle when identifying stakeholders, emphasizing the rights of local communities, former inhabitants or uses of the land, and other interested parties.

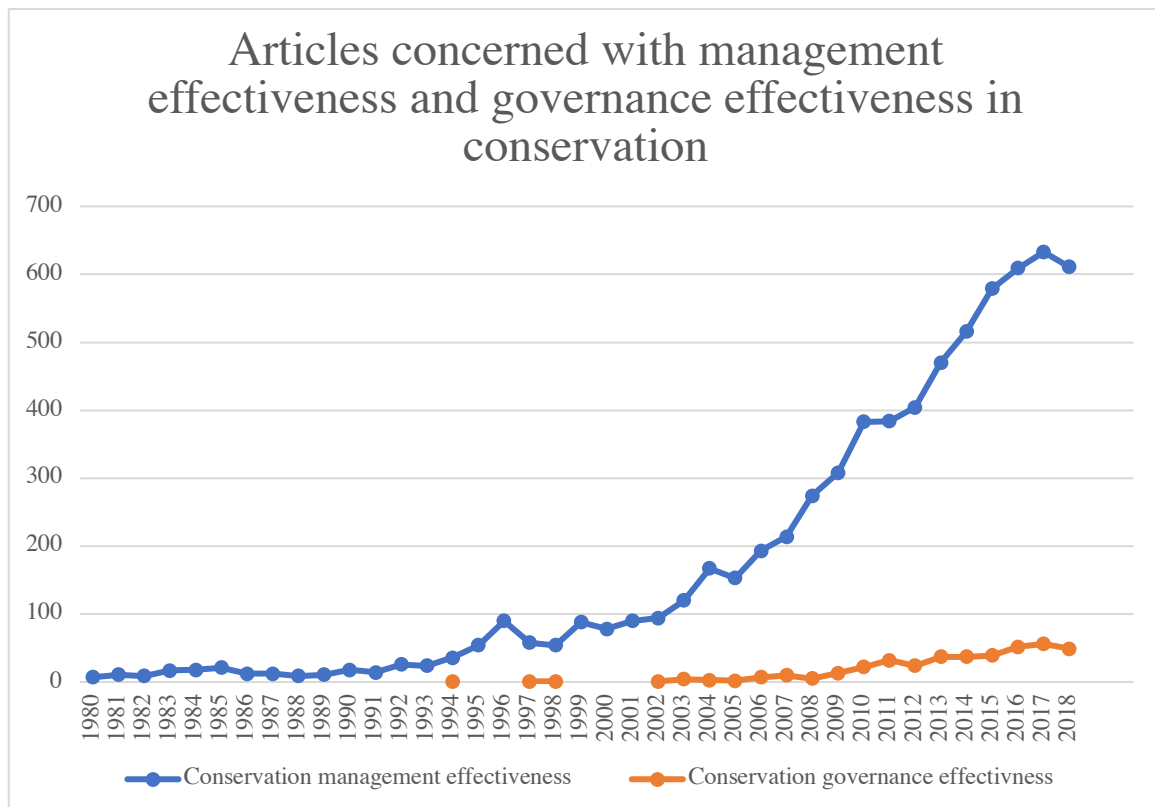


Figure 4. Results of Scopus search for publications about conservation management effectiveness and governance effectiveness

Table 5. Principles and sample concerns from Lockwood's (2010) governance effectiveness framework

Principle	Sample concerns
Legitimacy	Bestowed authority or earned legitimacy
	Acts in accordance with mandate and with integrity and commitment
Transparency	Governance and decision-making open to scrutiny
	Making evident achievements and failures and the reasoning behind decisions
Accountability	Acting within roles and responsibilities
	Downward and upward accountability
Inclusiveness	Stakeholders have opportunity to participate in processes and actions
	Outreach to marginalized stakeholders
Fairness	Interpersonal respect; decisions without bias
	Intrinsic value of nature
Connectivity	Connection across multiple levels of governance
Resilience	Culture of learning and adaptability
	Balance of flexibility and security
	Procedures to assess and manage risk

Regardless of obligation, in at least some cases, inclusion of a range of stakeholders can lead to better, more viable decisions (Kerr & Tindale, 2004; Sterling et al., 2017). Pragmatic arguments for inclusion of stakeholders include: 1) a diversity of inputs in decision making may lead to higher quality decisions that are better adapted to the local sociocultural and environmental contexts; 2) collaborative decision-making leads to the development of common ground, trust, and reduction of conflict; and 3) stakeholder buy-in may increase support and successful implementation; and 4) inclusion can lead to reduced implementation costs (Sterling et al., 2017).

Looking forward, this review points to three areas for further research. First, critical literature on PLC lacks geographical diversity. Studies reflect an uneven global spatial distribution (Figure 5). Over half the studies in this review focus on three countries: South Africa, the US, and Chile. Although they are located on different continents, these countries share socioeconomic systems that are premised upon strong property rights, and they have a high level of biogeographic diversity – two factors that contribute to their prominence in private land conservation activity and research. More research is necessary to determine if the issues that manifest in these countries are relevant in other geographic, cultural, and political environments.

Second, additional research is necessary to determine which issues in this body of literature are specific to private land conservation. It appears that some, such as permanence and access to information, are directly relevant to the private governance of protected areas. However, many issues in Group 1, such as adjacency effects, effectiveness, and funding, are broader problems within the field of conservation. In Groups 2 and 3, many issues appear to lack specificity to PLC or even to conservation. Instead, they illustrate that conservation is a social phenomenon embedded within cultures and institutions that are themselves flawed.

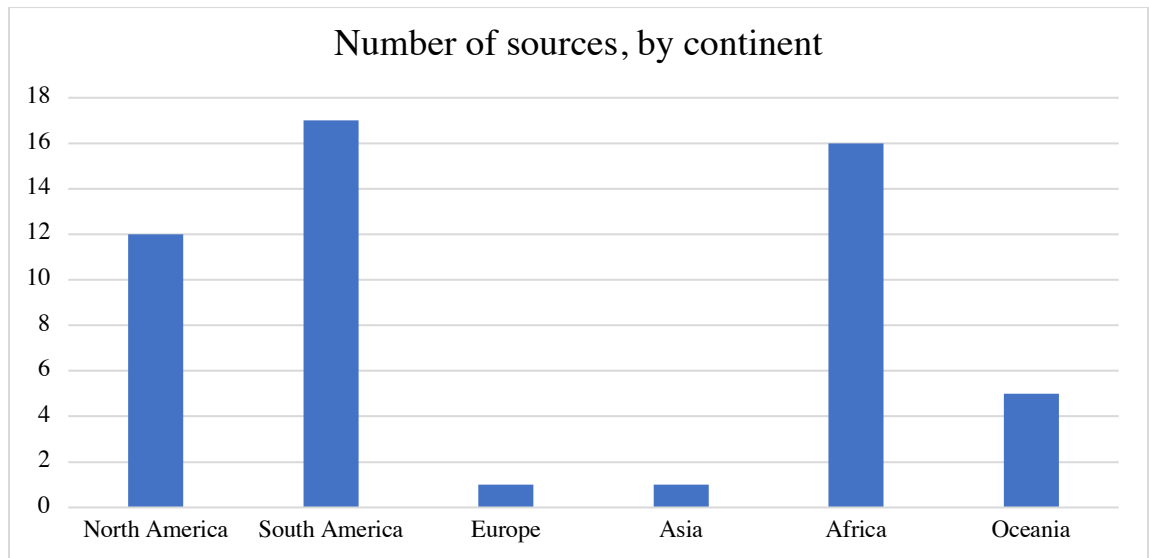


Figure 5. Number of source articles that focused on countries in each global region

Finally, there remains a question of the extent to which this literature is representative of the views of the broader cultures in which PLC is embedded. The present analysis reveals a sharp distinction between Group 1, which is not overtly political, and Groups 2 and 3, which are political perspectives. Group 2, associated with a left-leaning or progressive political perspective, is much more thoroughly developed than Group 3, which is associated with a right-leaning or conservative perspective. This is reflective of the critical landscape of academia, but its reflection of a broader population is unclear and needs further attention. If in fact we can extrapolate from critical academic analysis to the concerns of broader society, then this review implies that addressing governance effectiveness would enable PLC advocates to alleviate some concerns about private land conservation. A challenge here will be balancing the conflicting goals of landowner autonomy and broader accountability. For landowners, autonomy is part of the appeal of owning privately protected areas (Gooden & Grenyer, 2018). Governance principles such as inclusiveness, which emphasizes participation of all stakeholders, and connectivity, which emphasizes connection across levels of governance, may pose particular difficulties. And yet, as I describe in Chapter 9, there are indications that landowners are willing, even eager, to discuss these issues. If this is the case, there is opportunity to improve the way in which conservation is conducted. The present review highlights a range of issues that can be added to the discussion agenda.

3.6 Conclusion

This structured literature review informs the remainder of the thesis by situating the work within broader social, economic, and political discourses on the values associated with private land conservation. The review also bridges theory and practical relevance by employing the concepts of management effectiveness and governance effectiveness, thus signposting ways to integrate the insights of critical theory into conservation practice. Like Chapter 2, the literature review in Chapter 3 was conducted *ex post* and thus was not

included in the research design for the studies in Part 2. However, questions about critique of PLC were included in some interviews, and the data used to inform discussions of the role of high net worth individuals in conservation in Section 9.3 (p. 203) and of policy and research implications in Sections 10.2 (p. 211) and 10.3 (p. 216).

3.7 Acknowledgements

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Chapter 4

Research Design

In this chapter, I describe how I designed and implemented a research program that would address my research question. I progress through key research decisions, each of which influenced the next: the epistemological basis of the thesis in American pragmatism, the inductive approach, and the methods employed. Methods are described in depth in each empirical chapter, so I provide only a brief overview here. I then elaborate on some areas of the research design that warrant further discussion, including my decision to use grounded theory, my approach to interviews and qualitative data analysis, and research ethics.

4.1 Epistemological Basis

The present research departs from much work on the drivers and motives behind PLC in its epistemological and theoretical approaches. This thesis is rooted in American pragmatism, a philosophical approach that arose in the United States during the late 19th and early 20th centuries (Stuhr, 2000). There is variation, even contention, among the classical pragmatists, and between classical and modern pragmatists, about what defines pragmatism, but three points of convergence constitute pragmatism as a recognizable tradition of thought: i) that standards of objectivity are historically situated, but that their contingency does not distract from their objectivity; ii) that knowledge has and requires no foundation; and iii) that connecting philosophical concepts to the practices of everyday life is important (Misak, 2007). Pragmatism finds its origins with Charles Sanders Peirce, William James, John Dewey, and George Herbert Mead. Peirce was the first to propose that philosophy should examine thought and ideas in terms of the differences they make to human action. This is encapsulated in the pragmatic maxim: “Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception

to have. Then our conception of these effects is the whole of our conception of the object” (Peirce, 1878/1982, p. 88). James, in a subsequent lecture, labeled this view ‘pragmatism,’ stating that “The whole function of philosophy ought to be to find out what definite difference it would make to you and me, at definite instants of our life, if this world-formula or that world-formula be the true one” (James, 1907/2000, p. 212).

Philosopher Susan Haack has explored the epistemic implications of conceptualizing knowledge as the mental constructions of situated, fallible human beings (Haack, 1995). Haack is interested in understanding what constitutes better and worse forms of inquiry, and therefore evidence. She concludes that the motives of inquirers matter. A ‘genuine inquirer’ is motivated by no preconceived ends, but follows wherever the evidence leads. Genuine inquiry is contrasted against ‘pseudo inquiry’ where “what the ‘inquirer’ wants is not to discover the truth of some question but *to make a case for some proposition determined in advance*” (Haack, 1998, p. 8).⁸ This worldview resonates with the research design of this thesis, which aimed to set aside preconceived ideas about landowner motives to follow where the evidence led.

This thesis draws inspiration from pragmatism’s views on several ‘isms’: fallibilism, which states that all concepts and theories are subject to revision; radical empiricism, which discounts a priori reasoning in favor of experience and observation; pluralism, which views knowledge as situated and constructed; and especially meliorism, which is the view that human action can improve the human condition (Stuhr, 2000). The thesis’s footing in another ‘ism’ – individualism – may be considered a limitation, but this too corresponds to a pragmatist approach, which focuses on “the supremacy of the agent point of view” (Putnam, 1995, p. 179).

⁸ Emphasis in original.

The American pragmatist approach has several implications for the research design and its implementation. One, it provides the basis for the individual as the unit of interest. This differs from perspectives that focus on power, culture, or socioeconomic structures as the unit of interest. I foreground individual action and will (James, 1890/1990), from the perspective that individuals are the locus of action. Second, pragmatism provides a basis for querying what PLC means to participants and for assuming that this information is useful. Pragmatism holds that the purpose of thought is not merely descriptive or explanatory, but instrumental and generative (Dewey, 1931/1982). That is, its use is not only for making sense of the past, but experimentally and purposively shaping the future. It follows that knowing something about the rational cognition (thought) of the participants tells us something about the realm of possibility for future rational purpose (action), given the “inseparable connection” between them (Peirce, 1905/1982, p. 103). Third, pragmatism’s conceptualization of thought as instrumental and generative provides a foundation for the utility of theory in science: as a ‘general idea,’ a concept is not merely an abstraction from particular cases; it also serves as a teleological instrument (Dewey, 1931/1982, p. 36). Theories are useful insofar as they help us take account “of the way in which more profitable relations with these objects may be established in the future” (Dewey, 1931/1982, p. 37). Theories are good and ‘true’ insofar as they are useful in navigating the future, but they are tentative and always subject to revision.

American pragmatism is inherently linked with symbolic interactionism, which emphasizes the micro-processes through which people construct meanings, identities, and joint acts. Symbolic interactionism became one of the dominant theoretical frameworks in sociology due to the work of Herbert Blumer (Fine & Sandstrom, 2011). Symbolic interactionism and pragmatism were also foundational to grounded theory, which is used in this study, and to the field of social psychology. While the constructivist and symbolic interactionist approaches share some traits with postmodern social theory, this thesis does

not take a postmodernist approach (Susen, 2015). Important differences here include less emphasis on criticality and deconstruction, maintenance of objectivity as an aspiration in social science (though accompanied by skepticism of its possibility, and concomitant obligation to note and mitigate biases), embrace of rationality as the means by which knowledge is systematized and packaged for others, and pursuit of teleological explanations of individual behavior.

Jerome Bruner's pragmatic evaluation of psychology's disciplinary potential was also influential in this research. Bruner notes that psychology has tended to treat subjective accounts, such as interviews, skeptically, as untrustworthy and "even in some odd philosophical way as untrue" (1990, p. 16). Yet what is interesting in subjective accounts is not only "what people actually *do*, but what they *say* they do and what they *say* caused them to do what they did" (Bruner, 1990, p. 16). In the present research, interviews are employed not merely as (inherently flawed) documentary accounts of what happened, but as media for revealing the way PCA owners think about land conservation.

4.2 Research Approach

Within the social sciences, research approaches are broadly classified as deductive (proceeding from the general to the specific, typically by using data to test a theory) or inductive (proceeding from the specific to the general, typically by working directly with the data to identify patterns that form the basis of concepts or theories) (Gray, Williamson, Karp, & Dalphin, 2007). Within this framework, my research design would be classified broadly as inductive because it began with an exploratory approach to achieving my primary research objective. However, classifying the entire thesis, or even the grounded theory component, as wholly inductive is an oversimplification (Corbin & Strauss, 2015). The thesis as a body of work would more accurately be described as a sequential mixed methods approach, as it begins inductively and proceeds deductively to

test the findings (Figure 6). Chapters 5 and 6 use grounded theory methodology to develop conceptual models rooted in empirical data. Then, based on the results of the findings of grounded theory analyses, Chapter 7 uses empirical data to test a theory of identity. Finally, Chapter 8 applies a quantitative measure to assess the applicability of findings to a specific case.

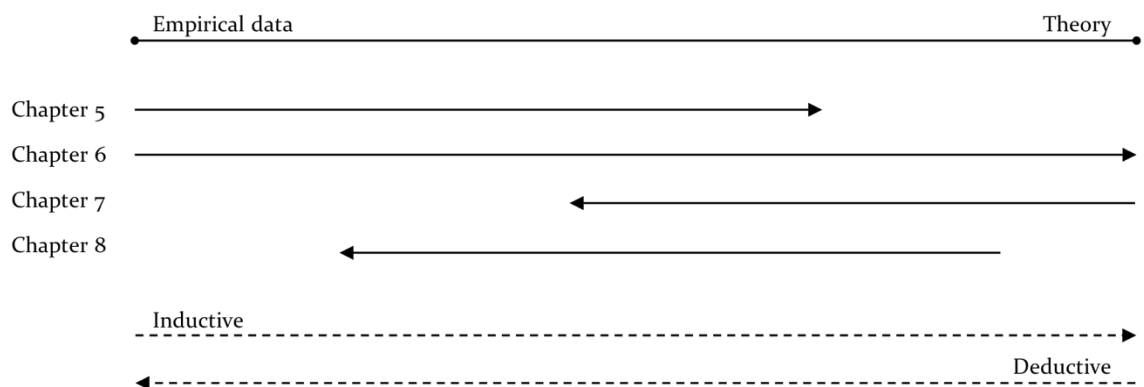


Figure 6. Application of inductive and deductive approaches, by chapter

Grounded theory methodology is often described as inductive (Corbin & Strauss, 2015), but it actually uses multiple forms of logical inference and patterns of thought. Grounded theory begins inductively, with an attempt to suspend prior knowledge in favor of openness to meanings created by actors in their social environments (Meinefeld, 2000). However, analysts are obliged to use abductive reasoning by examining data, entertaining possible explanations for the observed data, and then, through a creative act, identifying potential explanations for the observations. The analyst selects the 'best' from among those explanations by forming hypotheses to confirm or disconfirm until she arrives at the most plausible interpretation of the observed data (Reichertz, 2004).⁹ Finally, deductive logic is used to test the hypothesis against the data. This is the core of the grounded theory process, linking empirical observation with imaginative interpretation through accountability to the empirical data (Bryant & Charmaz, 2010). Like close dialogue in economic geography, this "provides a means of building up a general picture of the observed world, bridging local observation with broader interests and concerns, and thereby *making* a world rather than simply accepting as given a *ready-made* world composed by theorists" (Clark, 1998, p. 79).¹⁰

4.3 Methods

Selection of methods followed directly from my research objective, epistemological basis, and research approach. Because my research objective was to understand the subjective interiority of experiences, the best source of data were the individuals who were the target of the study: people who had purchased or created a PCA. The epistemological basis

⁹ Philosopher Charles Peirce argued that neither deductive nor inductive inference is logically capable of producing new knowledge, and that this is possible only through a creative act: a non-intentional, non-forcible, spontaneous insight that comes upon the analyst "like lightning" (Reichertz, 2004).

¹⁰ Emphasis in original.

dismissed objective, factual accounts of motivation as nonexistent, giving preference instead the questions concerning how PCAs were integrated into landowners' lives. In line with this, I elected to adopt a 'big Q' approach to qualitative data analysis (Kidder & Fine, 1987). In contrast to 'little q' analysis, which refers to the incorporation of non-numerical data into deductive research designs, 'big Q' analysis refers to open-ended, inductive research methodologies concerned with theory generation and exploration of meanings (Willig, 2013). Of the 'big Q' methodologies, I chose to work with grounded theory, which provided direction to my inquiry. I then complemented this with theoretical analysis and Q methodology. Because each empirical chapter includes a methods section, I do not repeat them here, but instead provide a brief overview of each.

The research timeline began with grounded theory data collection and analysis because the exploratory nature of the study meant that I could not anticipate the outcome in advance and because the result would determine the conceptual direction of the thesis. This analysis resulted in Chapters 5 and 6. I followed this with a theoretical analysis applied to the same data, which resulted in Chapter 7. Lastly, I conducted the Q methodology study using a different group of participants to test the findings of my previous conceptual work, resulting in Chapter 8.

4.3.1 Grounded Theory

Grounded theory is a methodology that includes a package of tools for generating theory from empirical data (Table 6). I analyzed interview transcripts using constructivist grounded theory procedures, including the core methods of coding, comparative analysis, and writing memos (Charmaz, 2014). When possible, codes are recorded as verbs, usually gerunds (e.g., 'feeling constrained' or 'experiencing unconditional love for nature'), in order to capture action and processes. I coded some text in hard copy and some using NVivo for Mac 11/12, and the coding record was maintained in NVivo (Hutchison,

Johnston, & Breckon, 2010). I began with open, descriptive coding. Then, using comparative analysis to examine similarities and differences between data points and between codes, I gradually moved toward codes that were conceptual and relational, rather than descriptive and static. As patterns emerged, they presented new directions for inquiry and clarified the relationships among concepts, which were presented as models of processes. I consulted the literature after patterns related to projects and engagement had emerged from the analysis.

Table 6. Components of grounded theory analysis

What is grounded theory?
The application of grounded theory differs by school, but all applications of grounded theory use the following core methods (Charmaz, 2014, p. 15): 1. Conducting data collection and analysis simultaneously in an interactive process 2. Analyzing actions and processes rather than themes and structure 3. Using comparative methods 4. Drawing on data in service of developing new conceptual categories 5. Developing inductive abstract analytic categories through systematic data analysis 6. Emphasizing theory construction rather than description or application of current theories 7. Engaging in theoretical sampling 8. Searching for variation in the studied categories or process 9. Pursuing developing a category rather than covering a specific empirical topic

4.3.2 Theoretical Analysis

Theoretical analysis refers to the application of a theory or conceptual framework to empirical data. In contrast to grounded theory, theoretical analysis begins with theory and works toward data. However, in this case the theory was not identified prior to the research project, but during the ex post literature review conducted at the conclusion of the grounded theory analysis that contributed to Chapters 5 and 6. I used NVivo for Mac 11 for the thematic analysis.

4.3.3 Q Methodology

Q methodology¹¹ is a largely quantitative methodology for assessing perceptions on a topic (McKeown & Thomas, 2013). Despite origins in the 1930s (Stephenson, 1935), it has only recently gained traction in conservation. (For a review, see Zabala et al. (2018).) The procedure begins with a Q sample, or set of statements gathered from a variety of sources, which is meant to represent the diversity of discourse on the topic. Statements are printed onto cards and manually sorted by participants onto a board that approximates a normal distribution (Figure 7). During the sort (Figure 8), participants verbally describe their reasons for the placement of the cards, which provides a source of qualitative data that can inform interpretation of results. In this study, the Q sorts were administered with the assistance of a collaborator. Results were analyzed using Ken-Q Analysis software (Banasick, 2018).

¹¹ The 'Q' in Q methodology is unrelated to that in the 'big Q' / 'small q' distinction. In the former, Q represents a variable analogous to R in correlations. In the latter, Q stands for qualitative.

The image originally presented here cannot be made freely available via ORA

Figure 8. Administration of Q sort with participant. Credit: Flora Moir.

4.4 Considerations in Selection of Grounded Theory

Theoretical analysis is a standard method in social science. Q methodology, while not commonly applied, is well-documented and formulaic. Grounded theory, however, is more variably applied, so here I explain my reasons for selecting grounded theory and the way I approached the application.

I chose to use grounded theory for my research with hesitation because, in some instances, grounded theory has been construed as an anything-goes method, invoked as cover for poor data collection and sloppy analysis (Suddaby, 2006). In published papers, many researchers claim to use grounded theory but do not demonstrate that they conducted rigorous analysis.¹² Further investigation revealed that these instances undersold its potential. Ultimately, the nature of my primary research objective – which was to examine what factors make PLC personally appealing – led me to conclude that grounded theory was the most suitable methodology. Two characteristics of my research objective made this link explicit: 1) an inductive method was warranted because existing empirical data did not provide a convincingly regnant argument and 2) I needed a method that would capture personal perspectives. Grounded theory offered several advantages. First, it offered a way to explain, not simply describe, conservation landowners' actions, providing the opportunity for theoretical innovation in the study of private land conservation (Clark, 1998). Second, it supplied a set of tools to guide the researcher from research design through the stages of data collection, analysis, and theory development; these tools include the core methods of coding, comparative analysis, and writing memos, as well as a range of other documented tools (e.g., Corbin & Strauss, 2015). Third, grounded theory

¹² I note that some of this may be due to journal word limits that are not designed to accommodate qualitative data analysis, a problem I also encountered. However, grounded theory researchers are still obliged to describe their methods transparently enough to show they have followed the core analytic tenets (Suddaby, 2006).

had a long history in fields where practical application is needed, such as business and healthcare, which seemed promising for application in conservation. And lastly, grounded theory had potential utility for a variety of conservation questions but had not yet seen widespread, rigorous application in conservation science. This provided an opportunity to test its utility in the field.

An unanticipated difficulty I encountered was navigating the rivalrous factions of grounded theorists, the three most common being classic grounded theory, associated with Barney Glaser; Straussian grounded theory, associated with Anselm Strauss and later Juliet Corbin; and constructivist grounded theory, associated with Kathy Charmaz.¹³ With few grounded theory researchers in my department, I learned the method by attending a classic grounded theory workshop and reading methods books from all three schools of thought. I began with classic grounded theory (Glaser, 1978, 1998, 2001; Glaser & Strauss, 1967) as the foundation of my analysis. Over time, it became clear that classic grounded theory manuals were not pedagogically useful and that the method retained a positivist orientation that was incompatible with my epistemological starting point.¹⁴ This led me to other grounded theory approaches, including Straussian (Corbin & Strauss, 2015) and constructivist (Charmaz, 2014), the latter of which became my primary approach. Based on familiarity with the three types, I now maintain that grounded theorists should have a working knowledge of classic grounded theory, but that the work of Strauss, Corbin, and Charmaz offer analytical advantages and epistemological relevance that best the classic approach. Working across schools seems to be accepted more broadly now than in the past: a compilation by second-generation grounded theory thinkers sees more

¹³ A former methods editor at SAGE compared the grounded theory community to a “bag of vipers” (pers. comm.).

¹⁴ The later publication of Holton and Walsh’s methods text (2017) provided remedy for the former issue but not the latter.

commonality and complementarity among the various factions of grounded theory (Morse, 2009).

For my research, alternatives to grounded theory included other qualitative methods, such as phenomenology, process tracing, and thematic coding. These alternatives did not suit my purposes. Phenomenology is useful for capturing the essence of lived experience, yet it is descriptive, rather than conceptual. Process tracing, as used in political theory, is better suited to questions concerning causal attribution in a sequence of events. Thematic coding, one of the most common tools in qualitative data analysis (Willig, 2013), is used for recognizing and organizing patterns in the content and meaning of qualitative data. It bears some similarity with the early stages of grounded theory but gives less attention to the development of models that illustrate the relationships among concepts and therefore has less explanatory value.

Given my data requirements, I elected to use loosely structured, narrative interviews with PCA owners, which I have described in the relevant analytical chapters. Alternatives included structured interviews, surveys, and focus groups. Structured or semi-structured interviews are commonly employed in qualitative research, as they allow for relatively rich data to be collected while the topic is tightly controlled. This form of interview is particularly useful for gathering explicit, or codified, knowledge: knowledge to which the participant has conscious access. The disadvantages of structured interviews, relative to loosely structured, narrative interviews, are that they do not provide as much contextual information about the topics of interest and that they offer less opportunity to uncover new perspectives that may be known to the interviewees but not the researcher. In addition, by short-cutting respondents' stories, researchers may find that "the human Selves that emerge from our interviews become artificialized by our interviewing method" (Bruner, 1990, p. 115). Surveys are also commonly used in this field, as they have the advantage of collecting a large number of responses efficiently. The disadvantages are

similar to those of structured interviews, but more so. Lastly, focus groups have the benefits of allowing researchers to observe interaction amongst participants and providing opportunity for participants to engage with each other, taking the conversation to a deeper level. For logistical reasons focus groups were not feasible due to the geographic spread of participants.

4.5 Interviews

4.5.1 Selection of Interviewees

Participants in this research included three groups (Appendix 6).

1. 29 owners of PCAs (Chapters 5, 6, and 7)
2. 33 stakeholders for a PLC program under development in northern Mexico (Chapter 8)
3. 19 PLC professionals from the US, Spain, South Africa, and Australia (background context, data not included in the analytical chapters presented in the thesis)

The three groups of interviewees were identified in different ways. The second group, stakeholders for the PLC program in Mexico, were identified by an organization with which I collaborated, the Mexican Fund for the Conservation of Nature. These participants are described in more detail in Chapter 8. The third group, PLC professionals, were relatively easy to identify and contact. For the purposes of this thesis, these interviews served as background information about private land conservation. The first group, owners of PCAs, were more difficult to find. Aside from a few countries with PCA networks, there are no databases of PCA owners, and those that exist are not necessarily public information. As a result, identification depended on multiple processes. I searched for suitable interviewees in media accounts and in academic literature, and I used personal and professional networks. Additionally, once the research began, I used snowball sampling, which involved asking research participants for the names of other people with

whom I might find it useful to speak. Because I pursued multiple routes for identifying individuals, I ended up with a diverse sample, geographically – although due to snowball sampling there are a few hotspots, primarily in the PLC geographic core (e.g., Argentina). While I was able to contact some landowners directly using information obtained through a website or other public-facing information, getting in touch with others, especially the very wealthy, was more difficult, reflecting power's manifestation in accessibility (Rice, 2010). I spent much of my time in my first year networking to gain access. Most but not all people I contacted agreed to an interview. Some of the participants in the interviews would be considered elites. While I found some utility in the literature on elite interviewing, the word *elite* implies a dichotomy with common people that obscures differences within the group of participants (Smith, 2006). The participants in this study were elite in the sense that they had sufficient resources to purchase land for conservation, which meant that many but not all were high net worth individuals (for further discussion, see Chapter 9, p. 203). However, they were not a homogenous group, which I discuss further in the methods sections of the empirical chapters in Part 2.

4.5.2 Preparation for Interviews

Preparation for interviewing included making provisions for both the ethics and logistics of research interviewing. I discuss the ethical procedures below (p. 103). I had prior experience conducting academic interviews (MSc Oxford 2014), and I also prepared by reading (e.g., Charmaz, 2014; Corbin & Strauss, 2015; Hollway & Jefferson, 2013; Kvale & Brinkman, 2009) and taking a course, *Interviewing Elites*, offered by the Department of Politics and International Relations at Oxford.

The methods literature suggests using personal connections and drawing attention to institutional affiliations when requesting interviews, particularly with elites (Rice, 2010), both of which I did. My initial contact with individuals was usually made via email, using

my Oxford email account. (See example in Appendix 3.) The emails were intended to convey the importance and legitimacy of the research and to inform the participant about the topics of discussion. In the emails I described how I located the invited interviewee, for example via a mutual contact. Introductory emails also fulfilled some of the ethical requirements, as I discuss below.

I prepared for interviews by producing an interview guide (Appendix 4). Knowing this data would be analyzed using grounded theory procedures, I needed my questions to ‘instill a spill’ (Glaser, 1998); i.e., to get people talking freely and at length. Therefore, I used a narrative interview format. In contrast to structured or semi-structured, Q&A style interviews, which generate on-point responses, narrative interviews provide richer data: “While stories are obviously not providing a transparent account through which we learn truths, story-telling stays closer to actual life-events than methods that elicit explanations” (Hollway & Jefferson, 2013, p. 30). When I began interviews, I knew my general topic was PCA owner motivation, but I did not yet know my specific research questions, so the interview questions were intentionally broad to elicit as much information as possible about the experience of owning a PCA. All interviewees were asked to tell the story of how they became involved in private land conservation, and follow-up questions included similarly broad queries, such as their reasons for buying land and what the benefits and challenges were. I was prepared with 10-15 questions for each interview in case interviewees provided only short answers; however, I rarely used more than half of them. Interviewees spoke at length and it was clear that they enjoyed talking about their conservation activities with someone interested in the topic.

My preparation for the interviews also included consideration of issues of power. Given the diverse group of people I interviewed, the balance of power could fall in either direction, with either the interviewer or the interviewee having greater inclination to control the direction (Mullings, 1999). Given the topic I had few concerns about

defensiveness (Hollway & Jefferson, 2013), but I was prepared to redirect interviews that got off track, press tactfully for further information about a bypassed question, or reiterate confidentiality concerns. My prior experience with research interviewing and my prior professional experience also equipped me to deal with these circumstances.

4.5.3 Conducting Interviews

Many interviews took place by phone call or video conference, and some, by technological necessity or landowner's choice, were conducted by email. Others were conducted at locations chosen by the interviewees: examples include business or home offices, cafés, and restaurants; some were improvised in a hall or outdoors between sessions of a workshop or conference. Structurally, the interview is a predictable interaction for which experienced participants have a mental script. I began each interview with an informed consent procedure. I explained the reasons I was interested in the topic, described options for confidentiality, explained how the data would be used, and stated that I had no conflicts of interest. I assured participants that I would not quote or identify them by name in my publications without their review and approval. After the informed consent procedure, I asked interviewees to tell me the story of how they became involved in private land conservation. This served the purpose of beginning the interview with a topic that was easy for interviewees to discuss, but in some cases, this question provided the majority of response during the interview. Often interviewees would indicate that they needed to begin with their childhood to answer the question, so the response gave a picture of PCA ownership in the context of a life story. When necessary, I asked follow-up questions from my interview guide or probed for more information about parts of their stories. I paused the interview after the allotted time (usually 45-60 minutes) had passed to note the time and ask whether they would like to continue, and in most cases they did.

I was prepared to deal with power issues during the interviews, but I rarely encountered such situations. Some interviewees expressed concern that they were not providing me with useful information, but an assurance that I was interested in their story was enough to encourage them to continue. In a couple of instances, interviewees had an active interest in me understanding their story in a particular way or convincing me of an idea. This would be evident, for example, in comments such as, “What I am trying to tell you is...” or “What I want you to understand is...,” which are ways of setting the agenda (Schoenberger, 1991). A couple of interviewees had clearly either told their stories before or rehearsed them internally, to the point that portions came across as rote. I handled both situations with a two-part strategy: i) I allowed them to tell their stories as they wished them to be told, recognizing that this was part of the value participants got from the interview and ii) I followed up with questions to go deeper into the experiential aspects of purchasing or creating a PCA. More frequently, I witnessed *reflexive progression* (Hiller & DiLuzio, 2004), when interviewees were making connections and becoming aware of the story as they went along. This was evident in comments such as, “I’ve never thought of it that way before, but that’s a good way to explain it.” My final question invited participants to tell me if there was anything I should have asked but did not. At the conclusion of the interview, participants usually invited me to contact them again if I had further questions, and many extended invitations to visit their property in the future.

My demeanor varied across interviews according to my social position, emotional connection with the interviewee, and degree to which our social connections overlapped, just as it would in everyday life. To a degree this is a manifestation of differential power, but power had multiple manifestations (Rice, 2010). The participants and I had different kinds of power: I had theoretical and empirical knowledge about private land conservation, affiliation with an elite institution, and the ability to set the agenda of the interview, while interviewees had expertise on their personal experiences (the information

I sought), sometimes wealth or fame, and sometimes professional experience that accustomed them to being in positions of superiority. As a researcher, I did not check my social scripts and cultural patterns of interaction at the door when I walked into an interview, nor do I believe it would have been appropriate to do so, given that I sought to develop rapport and avoid mechanical interactions. Berry notes: “[The] best interviewer is not the one who writes the best questions. Rather excellent interviewers are excellent conversationalists. They make interviews seem like a good talk among old friends” (Berry & Browne, 2002, p. 679). One of the great advantages of interviewing is the opportunity it provides for connection and mutuality between interviewer and interviewee (Charmaz, 2014). The research interview provided a rare and privileged opportunity to hear the personal stories of people I might not otherwise have encountered and to connect over a topic of mutual interest.

A brief note on the interviews conducted by email: I used this method when interviewees requested it, sometimes because of language barriers or technology restrictions and sometimes for unexplained reasons. While email interviews have less richness than an interview in person or by phone, they also offer some benefits: lower risk of interviewer effect, less opportunity for influence of power and personal characteristics (race, sex, etc.), and increased opportunity for some people (e.g., those who are shy) to respond openly and personally (Meho, 2006).

4.5.4 Positionality

As a researcher, my position influences my research interests, design, and interpretation. I have embarked upon doctoral research as a white, female, older-than-average student, and as an American studying abroad at an elite global institution. Acknowledging this orients the reader and offers reciprocal disclosure in relation to research participants. However, while positionality statements have become more widespread, I am wary of the idea that

that demographic reflexivity is the appropriate way to situate knowledge (Rose, 1997). This is in part because attributes other than demographic characteristics appear more salient in my own work and in part because of my concern that positionality statements supplant reflexivity in analysis. My academic background in social cognitive psychology, professional experience in social services and sustainability, and research personality, so to speak, have had a more proximal effect on my position as a researcher. The reflexivity of a demographic positionality statement is largely symbolic. The real reflexivity of this thesis lies in the research design and implementation: a foundation in pragmatism, which acknowledges the inter-subjective nature of social reality, and my choice to work with inductive, constructivist research methods, which integrate reflexive practices into the daily work of data collection, analysis, and writing.

4.6 Notes on Analysis

Qualitative data analysis involves a number of decisions on the part of the analyst, and I comment on some of the most important of mine here. For example, based on the work of Ricoeur (1995), Willig (2013) has drawn a distinction between *suspicious* interpretation, where the aim is to reveal a hidden truth, and *empathic* interpretation, where the aim is to get as close to the interviewee's experience as possible and try to understand it 'from within.'¹⁵ In PLC literature, an example of the former would be Holmes (2015a) or Ramutsindela (2015), and of the latter Drescher (2014). The present research adopts an empathic approach, which is characterized by engaging with the data that are present, without bringing in theoretical concepts at the outset, and aiming to capture and reflect the quality of interviewees' narrated experiences (Willig, 2013). I also adopted a Kellian

¹⁵ These approaches parallel the distinction among types of reasons (see Chapter 2, p. 36). Suspicious interpretation seeks normative or explanatory reasons, while empathic interpretation also seeks motivating reasons.

credulous approach to inquiry, one in which individuals are presumed to have privileged access to the reasons for their actions (Kelly, 1955), though perhaps with more tolerance for the idea that some individuals have greater introspective access to their motivations than others, a topic to which I return in Chapter 9 (p. 200).

Inevitably, my position and my personal characteristics have shaped my interpretation of empirical data. I made a conscious effort to avoid applying known psychological constructs to my data as preconceived ideas, but my academic background in psychology made it easier for me to identify psychological patterns in the data, patterns that might have gone unnoticed by someone with a different background; likewise, what others would have seen might be more difficult for me. Among the methods used in this thesis, it was the grounded theory analysis that presented greatest risk of unwarranted application of preconceived ideas – a concept known in the method’s vocabulary as *forcing* (Glaser & Strauss, 1967). To mitigate this risk, grounded theorists have developed methods for remaining anchored in empirical data. The first main consideration is asking questions of the data: What does this mean? Why did he do this? What if the response had been different? How long did it take place? Repeatedly questioning the data in this way makes the context and conditions around the action more explicit. Charmaz provides a series of questions a researcher can ask if and when she uses theoretical concepts from her discipline in her work, mitigating the risk of forcing the analysis (Table 7). The second main technique is making comparisons; the comparative analytic process involves comparing two bits of data, or two concepts, to determine if the two are conceptually the same or different, and in what way. Together, these and other strategies allow a reflective researcher to reveal and correct for bias, develop theoretical sensitivity, and apply analytic precision to the work.

Table 7. Reflective questions to aid grounded theory analysis

Analytic questions to reduce the risk of forcing results (Charmaz, 2014, pp. 158-160)
• Can you explicate what is happening in this segment of data with these concepts? • Can you adequately interpret this segment of data without these concepts? • What do these concepts add? What do they leave out?

4.7 Research Ethics

The University of Oxford maintains a Code of Practice and Procedures that calls for all research conducted in association with the university to observe standards of conduct.

The code of conduct for researchers includes practices such as:

- Intellectual honesty in proposing, performing, and reporting research
- Accuracy in representing contributions to research proposals and reports
- Fairness in peer review
- Collegiality in scientific interactions, including communications and sharing of resources
- Transparency in conflicts of interest or potential conflicts of interest
- Protection of human participants in the conduct of research

The final component, protection of human participants, is subject to review by the Central University Research Ethics Committee (CUREC). Because the present research was considered to be straightforward in terms of ethics (level 1A), the research ethics review was managed by the School of Geography and the Environment's (SOGES) Departmental Research Ethics Committee on behalf of CUREC. Approval for the research in Chapters 5, 6, and 7 was authorized under decision SOGE-16-1A-26, and approval for the research in

Chapter 8 was authorized under decision SOGE 17A-191. The review included the following components.

4.7.1 Informed Consent

When I identified a potential interviewee, I sent an information sheet by email (Appendix 2), which included details about the topic of the study, the type of questions that would be asked, how the data would be used, options for confidentiality, and contact information for myself and my DPhil supervisors, should the interviewee have further questions or wish to retroactively request confidentiality. I verbally confirmed the interviewee's receipt of the information sheet at the time of the interview, reviewed the main points, and recorded consent in a log in my field notebook.

4.7.2 Confidentiality

I offered confidentiality to every interviewee as an option during the informed consent procedure and recorded their responses in notes and transcripts. Because questions were open-ended, participants could choose what they wished to tell me, and I never pressured them to answer a question. No interviewees refused to answer a question, and few requested confidentiality.

4.7.3 Data Management

After the interviews, I took several steps to maintain data security. Data were stored on my personal computer, which is password protected at login. I also maintained secure, password-protected backups, both locally and online. Transcription assistants were not given interviewees' names, and they signed non-disclosure agreements. In publications and this thesis, I protected confidentiality by assigning random identification numbers to interviewees and using them to attribute quotes. I also aggregated data in participant

information tables to ensure identities were not inadvertently revealed through information about the location and size of property.

4.7.4 Recording

I recorded most but not all interviews, conditional upon the permission of interviewees. In cases in which I recorded interviews, I requested permission to record at the conclusion of the informed consent procedure by asking, “Would you mind if I used a recorder?” If the interviewee consented, I turned on the recording device and stated that the recorder was on.

4.7.5 Professional Code of Ethics

In my work, I agree to adhere to the Association of American Geographers Statement on Professional Ethics (AAG, 2009), which is consistent with CUREC recommendations.

4.7.6 Training in Research Ethics

I have taken Oxford’s online research ethics training, *Research Integrity: Social and Behavioural Sciences*, and utilized CUREC’s best practice guidelines (Oxford CUREC, 2014). Additionally, during my first year in the DPhil, I enrolled in a methods course in the Department of Politics and International Relations, Interviewing Elites, in which research ethics were addressed.

4.7.7 Sharing Results

I committed to sharing the results of my research with interviewees. I decided to do this by sending manuscripts at the point at which they are accepted by a journal. This ensures that interviewees hear from me before they see a notice of publication but that the document is fully peer reviewed before distribution. I consider this not just a courtesy but an acknowledgement of interviewees’ contribution to the work (Woliver, 2002).

4.8 Summary

In this chapter, I have described the factors that contributed to the research design of the thesis. My personal background, particularly my previous study of psychology, contributed to my interests in American pragmatism and the subjective experience of individuals. A different epistemological approach would have led to a different choice of methods, which would have affected the outcome of the research in multiple ways. I take up this issue again in Chapter 9 (p. 206). This concludes Part 1 of the thesis. Part 2 includes four empirical chapters, each focusing on a different aspect of landowners' motivations to purchase or create privately conserved areas.

PART 2

Chapter 5

The Personal Benefits of Conservation Land Ownership

5.1 Abstract

Conservation on private land presents an opportunity to simultaneously provide positive outcomes for biodiversity and human well-being. Many forms of private land conservation are dependent upon the voluntary actions of landowners. As a result, researchers have sought to understand the factors that influence landowners' decisions about engaging in conservation activities. In this study, I focus on a specific group of landowners: individuals who have purchased or created nature reserves and other privately conserved areas. Using grounded theory methodology, I identify four clusters of land conservation's benefits to landowners, categorizing them as beneficence, direct experience, demonstration, and investment. I place these clusters along two dimensions – other-directed vs. self-directed, and intrinsic value vs. instrumental value – resulting in an integrative model of the personal benefits of land conservation from a landowner perspective. The findings illustrate the co-occurrence of multiple value orientations within individuals. Results provide insight into the way landowners derive value beyond biodiversity and can thus inform conservation advocates' outreach to landowners.

5.2 Introduction

The field of conservation has begun to shift its focus toward solutions that benefit both biodiversity and human well-being, with increasing emphasis on meeting the needs and gaining the support of people affected by conservation activities (Biedenweg & Gross-Camp, 2018). Voluntary conservation efforts on private land appear to offer benefits to both people and nature and therefore provide an opportunity to assess where areas of overlap occur. Prior research has shown, for example, that private landowners engage in conservation management activities such as forest restoration because it serves as a form

of functional leisure; that is, as a self-driven, fulfilling activity that results in an end product or accomplishment (Farmer et al., 2016). Engagement with land conservation as a personal project is facilitated by factors that predict well-being, including autonomy, efficacy, and social connection (Gooden & Grenyer, 2018). Multiple studies have illustrated that personal motives are highly important for conservation landowners (Horton et al., 2017; Selinske et al., 2015; e.g., Welsh, Webb, & Langen, 2018), and landowners who are motivated by personal factors, for example, recreation activities such as hunting and fishing, are more likely to conduct wildlife management practices on their property (Stroman & Kreuter, 2015), suggesting the alignment of activities that benefit both people and nature is already taking place.

Implicit in a “people and nature” approach to conservation (Mace, 2014) is a view that land conservation advocates must listen to and incorporate the insights and concerns of private landowners, giving credence to their expertise, value systems, and cultures (Drescher & Brenner, 2018). Not only can conservation initiatives be more impactful if they pursue several goals, but private landowners may be more open to conservation if initiatives allow them to pursue a range of goals beyond biodiversity and ecosystem targets (Drescher & Brenner, 2018).

In this study, I focused on the personal co-benefits of conservation on privately-owned land, assessed through interviews with individuals who had purchased or created a privately conserved area (PCA). Using grounded theory methodology, I drew on a sample of individuals from 13 countries on six continents, with the aim of identifying and conceptualizing a broad range of co-benefits associated with conservation land ownership. Given the plurality of landowners’ goals, it appears likely that conservation landowners will be more receptive to conservation measures and programs if they have an opportunity to pursue conservation actions that simultaneously contribute to their own goals. Therefore, I aim to provide information that is useful to conservation outreach programs,

which can better target their messaging by identifying and communicating co-benefits that express a diverse range of values to landowners (Kusmanoff et al., 2016).

5.3 Methods

In this analysis I employed constructivist grounded theory methodology (Charmaz, 2014) using narrative interviews as data. Grounded theory originated with Glaser and Strauss (1967) as a way of systematically generating theory from empirical data. The resultant theory provides an explanation of the relationships between concepts that emerge from the data, in the form of an abstract theoretical understanding of the studied experience (Charmaz, 2014). Theories can range from idiographic (rooted in a specific context) to nomothetic (describing universal laws), depending upon the researcher's philosophical stance, as long as analysis is firmly rooted in empirical data (Holton & Walsh, 2017).

In grounded theory, the objective is not to verify existing theory, which is a more common objective in the scientific literature, but to generate new theory. Grounded theory is less suited to the former but highly suited to the latter (Suddaby, 2006). Grounded theory is also less concerned with participants' demographic variables unless they arise as significant during the course of analysis; that is, it is not assumed a priori that factors such as age, race, or gender affect processes (Glaser, 2001).

I chose to use grounded theory because the limited amount of data about the target population – individuals who had purchased or created a privately conserved area (see Participants section below) – meant that an exploratory approach was appropriate. Of the analytical tools available, grounded theory was chosen because it provides the tools to study processes inherent in subjective experience, allows for abstraction beyond the specific context, and has a long history of application in fields such as management and nursing where practical findings are valued (Corbin & Strauss, 2015).

5.3.1 Participants

This study included interviews with 25 individuals who had created or purchased a PCA. To adhere to confidentiality agreements, I show only aggregate data about the properties (Table 8).

Interviewees were not asked about their personal finances, but I note that the sample is not representative of the broader population because the nature of the study necessitated selecting interviewees who had sufficient resources to purchase land. (For some, the PCA was their only landholding; others owned multiple properties.) Some participants were publicly known high net worth and ultra-high net worth individuals, but many others spoke of their lives in ways that suggested moderate or even modest incomes. The wide range of PCA sizes (from 4 ha to 130,000 ha) reflected the diversity of incomes.

Interviewees were identified through theoretical sampling, which is the process of seeking and collecting pertinent data to elaborate and refine the categories in an emerging theory (Charmaz, 2014). Sampling began from multiple points, with PCA owners identified via internet searches, literature searches, and referral by conservation professionals. As the study proceeded, I also asked interviewees to refer other PCA owners. The sample was limited to those with whom I could communicate in English, though English was not always participants' first language. The analysis concluded upon reaching theoretical saturation. (See description of coding in Analysis, below.)

I defined a privately conserved area (PCA) as privately-owned land for which conservation is a main objective, though not necessarily the sole objective. I distinguish PCAs from privately protected areas (PPAs) because not all land owned by private individuals may meet the World Commission on Protected Areas criteria for protected areas, particularly regarding third-party verification (Stolton et al., 2014). Some but not all properties had formal legal protection. The word *private* describes ownership and governance rather than

use and does not suggest or preclude exclusive access. PCAs were heterogeneous, including both domestic and foreign ownership, residential and non-residential properties, and variation in size. Many properties included revenue-generating activities, such as tourism, game breeding and sales, hunting, agriculture, ranching/grazing, forestry, and easement leases in their financial models, though only rarely did interviewees suggest that earned revenue covered the costs of conservation management.

Table 8. Information about participants and PCAs, by continent

Interviewee characteristics				
Region	Countries	Male	Female	Avg. property size (ha)
Africa	South Africa, Zimbabwe	3	0	48,400
Asia	India	1	1	80
Europe	Scotland, Spain	1	2	2,780
Oceania	Australia, New Zealand	0	2	3,860
North America	Canada, Mexico, United States	3	2	22,880
South America	Chile, Colombia, Argentina	6	4	5,400
Professional backgrounds included business, industry, retail, tourism, consulting, economics, real estate, science, art, music, ranching, and farming.				

Landowner motives are typically ascertained using surveys or structured interviews in a specific geographic area or with participants in a particular program. In contrast to geographically or programmatically-bound studies, I aimed to identify commonalities across contexts. Thus, I interviewed landowners with properties in 13 countries. While not comprehensive, I believe this geographic range reflects the distribution of much PCA activity. Conservation measures on the properties varied; examples included reintroduction of fauna, reforestation, wetland restoration, protection from development, education and awareness activities, protection from development and poaching, and making the property available to researchers.

5.3.2 Data Collection

Grounded theory's requirements for research design and participant sampling guided the data collection. Many types of data can be used with grounded theory methodology. Loosely-structured, narrative interviews are particularly suited to grounded theory because they strike a balance between being open-ended and directed, shaped and emergent, and paced and unrestricted (Charmaz, 2014). The utility of interviews for generating factual information is debated, but they are useful for gaining in-depth insights and rich, subjective information that cannot be gleaned from other sources (King, 2010).

Interviews were conducted by the lead author in person or by phone, Skype, or email, as necessary. With permission, I recorded interviews when practical, which included most in-person and Skype interviews. Interviews lasted on average one hour (range 0h20m to 1h33m). All interviews began with a request for the landowner to tell the story of how she or he became interested in private land conservation, with follow-up questions based on responses (Appendix 4).

5.3.3 Analysis

In line with grounded theory requirements, I began with a topic of interest rather than a tightly prescribed research question. Grounded theory analysis is initially inductive and iterative, as the researcher develops and investigates emerging patterns within the data. Its primary tools are coding, comparative analysis, and memo-writing, tasks which are conducted simultaneously, rather than serially, from the point of first data collection (Charmaz, 2014).

Transcripts were analyzed by the lead author as interviews proceeded, using the three core grounded theory tools of coding, comparative analysis, and memo-writing. Interviews were transcribed and coded promptly, and transcripts were revisited when new interviews brought forth interesting similarities or differences. Coding was initially open and descriptive and gradually became more conceptual. Initial descriptive coding focused on the action of what was happening in the text; in practice this involves coding with gerunds (e.g., investing) (Charmaz, 2014), though I report them as nouns (e.g., *investment*). During coding, I asked, “What is the action conveyed in this text?” These codes were compared with each other and grouped under more abstract codes, eventually clustering into concepts. For example, descriptive codes *Seeing others benefit from being in nature*, *Feeling he is making a contribution to preserving what nature should be*, *Giving people access to the land*, and *Seeing success in terms of the community’s economy and happiness* were grouped with others under the more abstract code *Being charitable*, which was later reported as *Beneficence*. Comparative analysis revealed that properties (i.e., characteristics) of the concept of *Beneficence* include things such as 1) desire to make a contribution, 2) feeling that protecting land is a responsibility, and 3) sacrificing time, effort, money, or other resources for the project.

As patterns emerged through comparative analysis (a.k.a. constant comparison), they clarified the relationships among concepts and presented new directions for inquiry. The level of abstraction increased through the analysis. Themes were organized based on the relationships that emerged through the analytical process, rather than in predefined or deductively logical groups. Finally, the analytical process included writing memos, which are notes that record the process, lines of inquiry, hypotheses, and relationships among concepts. This manuscript is part of a larger study, which generated 374 memos.

Theoretical saturation is reached when continued data collection ceases to yield new concepts and new properties of concepts. Although I continued the broader study of which this is a part, I reached theoretical saturation on the present analysis after approximately 17 (of 25) interviews.

Following grounded theory procedures, I postponed consultation of the literature until after the model of engagement was developed, at which point I searched for existing conceptual frameworks to illuminate and situate our findings. However, per convention, I present the literature in this manuscript *ex ante*.

5.3.4 Ethics

Research was approved by the University of Oxford CUREC #SOG-16-1A-26.

5.4 Results

Analysis of narrative interviews generated a wide range of benefits associated with purchasing or creating a PCA. I use the phrase “personal co-benefits” to describe the positive outcomes of PCA ownership that accompany conservation objectives. The word “personal” indicates that the benefits reflect a landowner perspective; it does not necessarily mean that benefits were self-directed, as the analysis found that some of the benefits were directed toward others (see Conceptual Model, below). Comparative analysis

yielded four clusters, which I labelled as beneficence, direct experience, demonstration, and investment. These clusters describe actions, not people. I found most interviewees discussed more than one cluster of personal co-benefits – most commonly two – but no one discussed all four. There may be tensions between beneficence and investment and between direct experience and demonstration, as these were infrequently observed together.

5.4.1 Beneficence

PCA owners who saw their work in charitable terms felt they were giving something to make a positive change in the world. Beneficence is the sense of being able to give (Martela & Ryan, 2016), often referred to as the ‘warm glow’ of philanthropy and pro-social behavior. Psychologists have gone so far as to refer to pro-social spending as a psychological universal (Aknin et al., 2013). Pro-social and, by extension, pro-environmental acts are by definition not done for external rewards, but are of intrinsic value (Martela & Ryan, 2016). In this study, beneficence was associated with the personal co-benefits of contribution, responsibility, and sacrifice.

Contribution. The focus of landowners’ contributions was environmental, protecting the property against negative land use impacts, restoring ecosystems, harboring biodiversity, and enabling ecosystem services. Many landowners also aimed to integrate local economic and social issues into their work. I distinguished between offerings that are motivated by concern for the recipients and those bartered for reciprocal actions (e.g., community construction project in exchange for poaching cessation), though both occur.

Responsibility. Described in language denoting responsibility, rather than opportunity for personal gain, some landowners saw land conservation as a moral obligation. Landowners with beneficence motives distinguished these actions from those that are self-directed, such as pursuing profit.

Sacrifice. Benevolent actions imply public benefit at private cost, and landowners discussed the various sacrifices they made for their PCAs. Beyond the purchase transaction, landowners contributed time and effort, money (e.g., an endowment fund), and the opportunity cost of asset deployment elsewhere.

5.4.2 Direct Experience

Many PCA owners used their property for direct experiences of the environment. Exposure to environments that have a high degree of naturalness (Castree, 2014), particularly with an abundance of plants, contributes to many aspects of human well-being. Nature exposure fosters awe and other positive emotions (Ballew & Omoto, 2018) and leads to reduced anxiety, reduced stress, lower heart rate, increased directed attention, increased relaxation, prolonged sleep, and increased immunity (Franco, Fuller, & Shanahan, 2017; Lee et al., 2012). In the present study, direct experiences with nature included the personal co-benefits of recreation, connection, and escape.

Recreation. PCAs provided a range of amenity values. For most this included walking, observing, or contemplating nature but less commonly included other pursuits, such as renovating historic buildings, hunting, or flying a helicopter.

Connection. Many individuals in this study also sought a deeper connection with nature, something more akin to ‘oneness.’ Connection was described as healing, joyful, awe-inspiring, or ‘good for the soul.’

Escape. For landowners, being in nature was as much about what is absent as what is present. Some sought to get away “from all the hustle and bustle and technology of modern life.” If access is controlled, a PCA may serve as a refuge when quiet is wanted. In this study, artists were especially likely to seek escape for the benefit of inspiration, describing land, for example, as a “living canvas.”

5.4.3 Demonstration

Through a PCA, landowners may seek to create a replicable model as a solution to local, regional, or global problems. The demonstration cluster aligns with the concept of environmental entrepreneurship. Like social entrepreneurs, environmental entrepreneurs seek opportunities, making efforts to create value and satisfy desires and needs through innovation and originality (Kuratko & Hodgetts, 2016). However, in addition to making local impacts on the property, PCA owners who expressed demonstration co-benefits aimed for a broader scope of outcomes, aiming not only to protect or restore the proximate landscape but also to inspire others to do the same. Demonstration differed from beneficence in that it was focused on creation of sustainable, replicable models, rather than simply engaging in charitable works (Van Slyke & Newman, 2006). Demonstration is characterized by experimentation and influence.

Experimentation. Landowners who saw their PCAs as demonstration sites engaged in experiments to identify solutions to problems. They reported that they can be more experimental because they are able to test new ideas unencumbered by what they see as bureaucratic hassles or concern about failure.

Experimentation included solutions for both potential PCA owners and non-conservation landowners who caused negative environmental impacts. For example, one project trialed living fenceposts to reduce deforestation pressure by farmers. Some who saw benefit in demonstration also experimented financially, avoiding models that were self-funded in favor of earned income because this increased the feasibility of replication.

Influence. Creating a model was predicated upon a desire to influence others. Proximity and visible conservation impact were both sought for their contribution to reaching and inspiring others.

5.4.4 Investment

For many, investment value made PCA ownership an attractive way to do something positive for conservation. In many respects, the investment cluster of personal co-benefits shares similarities with impact investing, which is investing activity that aims to create positive social and/or environmental impact (Bugg-Levine & Emerson, 2011; Höchstädter & Scheck, 2015). Impact investors are by definition socially and/or environmentally motivated (Brest & Born, 2013). The landowners in the present study represented the ‘impact-first’ category, rather than the ‘finance-first’ category, in that they were willing to take low return on their capital, or even just maintain the capital, in order to achieve the environmental outcomes they sought (Hebb, 2013). The investment cluster had two associated co-benefits: asset preservation and social capital.

Asset preservation. By preserving the value of assets, landowners get a ‘win-win’: they are able to make a values-consistent difference in the world without jeopardizing their financial situation. In a few cases, conservation protection was thought to add value to the property, which could be realized in the short term (e.g., tax deduction for a conservation easement) or tied to future sale of the property. However, most landowners were more concerned about asset preservation than asset growth.

Social capital. Investment included not only financial but also social capital. Where conservation properties are fashionable (e.g., share-blocks in southern Africa), PCAs can be used for obtaining and communicating status and accessing desirable social networks.

5.4.5 Conceptual Model

Analysis of the characteristics of the personal co-benefit clusters suggested they can be positioned along two dimensions: i) other-directed to self-directed and ii) intrinsic value to instrumental value (Figure 9). Other-directed co-benefits have a target beneficiary other than the acting landowner, while self-directed co-benefits are performed by and

oriented toward the landowner. (Note that self-directed should not be conflated with selfish; while self-directed can include actions oriented toward personal pleasure, I find they more often aimed at well-being through ‘well-doing’ (Little, 2014)). Intrinsic value suggests the purposes are ends in themselves; i.e., the actions are deemed as inherently worthwhile. Instrumental value suggests the purposes are a means to a separable outcome.

This model draws attention to the plural nature of land conservation benefits. The function and status of the land as a conservation initiative is essential to the model, as conservation provides the context that gives meaning to the personal co-benefits. Direct experiences of nature would be less potent, and the meaning of beneficence, demonstration, and the environmental impact of investing would be obviated, in absence of the conservation context.

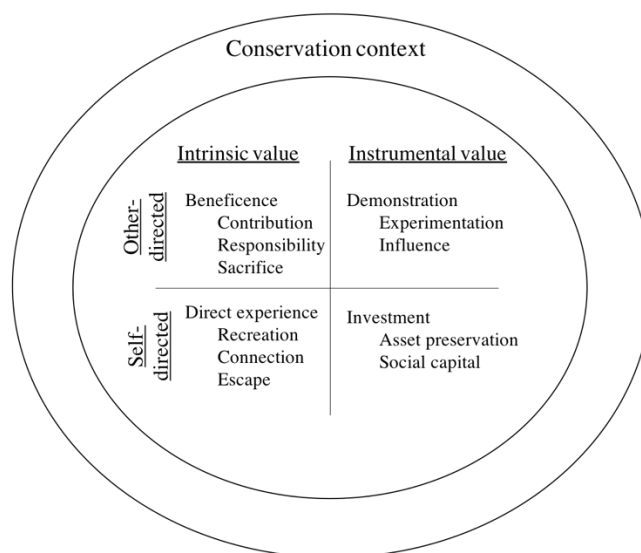


Figure 9. Personal co-benefits of PCA ownership

5.5 Discussion

Multiple studies have illustrated that landowners become involved in land conservation for a variety of reasons, placing a high priority on personal factors (Farmer-Bowers & Lane, 2009; Horton et al., 2017; Selinske et al. 2015). In this study, I found that personal co-benefits could be conceptually grouped into four clusters: beneficence, direct experience, demonstration, and investment. While direct experiences (e.g., recreation) and investment have been identified previously as benefits of private land conservation (e.g., Farmer et al., 2016; Scrimgeour, Kumar, Weenink, 2017), the personal co-benefits associated with beneficence and demonstration are new findings. Here, I draw the previously and newly identified elements together in the first integrative model of personal co-benefits. I note that recreation and investment fall under the self-directed category, while beneficence and demonstration fall under the other-directed category, suggesting opportunities for researchers to think beyond self-directed factors when investigating individuals' reasons for conserving land.

This study also draws attention to the complexity of value orientations for PCA ownership. Three different value orientations have been identified previously in the context of environmentally significant behavior: egoistic, altruistic, and biospheric (de Groot & Steg, 2008; Stern, 2000). A person with an egoistic orientation considers the costs and benefits of behaviors to them personally, while an altruistic orientation considers costs and benefits to other people and a biospheric orientation considers costs and benefits to the ecosystem and biosphere as a whole. However, the present findings illustrate that multiple value orientations are at work among the same individuals. Making a positive impact on the ecosystem or biosphere (i.e., providing 'services to ecosystems' (Combetti, Thornton, Wyllie de Echeverria, & Patterson, 2015)) was the *raison d'être* for PCA ownership, and this biospheric orientation provided the context for other personal co-benefits to be realized. Personal co-benefits directed toward others (beneficence and demonstration clusters)

align in some respects with an altruistic orientation, but beneficence also provides well-being benefits to individuals (Martela & Ryan, 2016). It is tempting to equate the present study's personal co-benefits directed toward the self (direct experience and investment clusters) with egoistic values, but a closer examination suggests that associated concepts have only little overlap with an orientation toward power, wealth, authority, influence, and ambition, which are characteristics of an egoistic orientation (Kusmanoff et al., 2016). Direct experience was about realizing the personal well-being benefits of connecting to nature, and investment generally concerned deploying an asset for good use. This suggests the three value orientation framework is overly simplistic if used to classify individuals into a single category. The egoistic value orientation in particular might have greater explanatory value (e.g., in Stern's (1999) VBN model) if it distinguished two different types of self-directed values: hedonia and eudaimonia (Huta & Ryan, 2010). Broadly, hedonia concerns pleasure attainment and pain avoidance, while eudaimonia entails "being actively engaged in excellent activity, reflectively making decisions, and behaving voluntarily toward ends that represent the realization of our highest human natures" (Ryan et al., 2006, p. 145).

In an application of the three value orientation framework, Kusmanoff et al. (2016) observed that the websites of schemes promoting private land conservation in Australia were dominated by biospheric justifications (48% of content), compared to egoistic (33%) and altruistic justifications (19%). The study found that the website material foregrounds the worldview of people who are already sympathetic to conservation causes and misses out on opportunities to engage a wider range and greater number of landowners who may respond more positively to egoistic or altruistic messaging. In discourse about private land conservation, there is often an undercurrent of concern about the purity of motives: does the landowner *really* care about conservation? Here I suggest that landowners' values are sufficiently complex to make such questions meaningless. Conservationists may be better

served by embracing land conservation's diverse positive outcomes. Personal co-benefits can be used as a selling point to landowners or potential landowners, and calling attention to them communicates not only their advantages but also that conservationists are able to see beyond biodiversity and ecosystem benefits to the other values that natural landscapes hold for people. This study confirms that even a group as favorable toward conservation as PCA owners (Gooden & Grenyer, 2018) has a diverse range of value orientations and therefore may be receptive to messaging that highlights the potential for landowners to realize land conservation's other associated benefits. Other landowners are likely to be less oriented toward conservation, on average, and therefore they may be even more receptive to messaging about personal co-benefits.

This study used grounded theory methodology to assess the personal co-benefits associated with conservation land ownership among people who had actively purchased or created a PCA. I caution that this study was exploratory and used theoretical rather than probabilistic sampling methods, and therefore it provides a conceptual representation of the views of participants. In line with grounded theory goals, I have sought to generate theory (albeit rooted in empirical data) rather than validate theory. Further research is necessary to determine the prevalence of landowners' orientations toward the various personal co-benefits and how this relates to location, PCA funding model, and demographic characteristics of landowners. However, it appears clear that landowners engage in conservation for a variety of reasons and that conservation advocates can do much more to communicate the benefits of conservation in a way that resonates with a variety of landowners.

5.6 Acknowledgements

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Chapter 6

The Psychological Appeal of Owning Private Land for Conservation¹⁶

6.1 Abstract

Continued threats to global biodiversity have stimulated interest in the private purchase of land for conservation. Though not a new phenomenon, private land conservation appears to be on the rise, and its ambiguous position between philanthropy and financial investment leads to questions about the nature of landowner motives. To examine these motives, we used grounded theory techniques to analyze transcripts of narrative interviews with the owners of privately conserved areas (PCAs) and assessed what landowners had in common across a variety of cultural and policy contexts. The result was a model of PCA engagement in which landowners become personally invested in the management of PCAs and in the nature they protect. We found that that PCAs can be conceptualized not merely as philanthropic endeavors, nor merely as investments, but as meaningful projects in which their owners engage. We integrated our findings with literature indicating that fundamental psychological drives for autonomy, efficacy, and social connection facilitate the engagement process, regardless of whether conservation motivation is intrinsic or extrinsic. Our findings suggest that land conservation programs might consider allowing landowner autonomy to the maximum extent possible, developing best practice standards against which landowners can assess their efficacy, and facilitating the development of landowner networks.

6.2 Introduction

Continued decline in biodiversity has stimulated interest in private land conservation (PLC) to augment state-owned protected areas (Stolton et al., 2014). Although PLC is not a

¹⁶ This chapter is co-authored with Richard Grenyer, doi: 10.1111/cobi.13215.

new phenomenon, it appears to be increasing (Drescher & Brenner, 2018) and is relatively prevalent throughout North America, parts of Latin America, Australia, western and northern Europe, and eastern and southern Africa (Kamal et al., 2015a; Stolton et al., 2014). Interest in PLC occurs against the backdrop of neoliberal rollback of state programs and a decline in public resources for conservation (Castree, 2008). Private land conservation's position in the liminal space between philanthropy and financial investment (Fairfax, Gwin, King, Raymond, & Watt, 2005) has prompted interest in landowner motives and questions about its nature. For example, is PLC charitable or self-interested? This question is not merely academic; the way conservation is conceptualized affects public perception of its contribution to the greater good and, consequently, the range of acceptable policy instruments.

We explored the motives of individuals who owned a privately conserved area (PCA), either by purchasing land with an existing PCA or creating a PCA on their land. We defined a PCA as privately-owned land for which conservation was a main (but not necessarily sole) objective from the perspective of the landowners. The International Union for Conservation of Nature (IUCN) includes 6 types of ownership in its definition of private governance: nongovernmental organizations (NGOs), corporations, for-profit entities, religious organizations, research institutions, and individuals (Stolton et al., 2014). We focused on individuals who actively initiate PLC. Conservation actions varied across properties. Examples included reintroduction of fauna, reforestation, wetland restoration, protection from development, education and awareness activities, protection from development and poaching, and making the property available to researchers.

Studies examining the motives behind pro-environmental behavior are common within the conservation literature (Kabii & Horowitz, 2006), where motives are often categorized as either values-driven or incentive-based (van den Born et al., 2017). For example,

volunteers in an invasive plant species removal program reported that caring for nature and expressing their values were among their top motives (Pagès, Fischer, & van der Wal, 2017). Similarly, landowners report that they conserve land to take action aligned with their values, personal norms, and identity (Farmer et al., 2011b; Lokhorst, Staats, van Dijk, van Dijk, & de Snoo, 2011). In contrast, incentive payments increase participation in conservation programs (e.g., Ciuzio et al., 2013). Financial payments and other direct benefits, such as technical assistance, can also increase environmental conservation on private land (Fairfax et al., 2005; Selinske et al., 2015). Landowners can and do respond to incentives, but many report that financial incentives merely provide a means to implement prior conservation ambitions (Ernst & Wallace, 2008; Farmer et al., 2011a). Diverse incentives appeal to participants in different contexts, for different interventions, with different values (Rogers, 1995).

In addition to values and incentives, meaningful goal-driven activity is essential to psychological well-being (Ryan & Deci, 2000a), a finding that is robust across cultures and geographic regions (Fischer & Schwartz, 2010). Motives that emphasize living a subjectively meaningful and worthwhile life have been identified in conservation. For example, van den Born et al. (2017) found that committed conservation actors are driven by their belief that nature contributes to a meaningful life. Similar motives have been demonstrated in participants in an invasive plant species eradication program (Pagès et al., 2017) and rural residents (Drescher, 2014). However, we believe this type of motive has not been examined in the context of individuals who own PCAs.

Landowner motives are typically ascertained using surveys or structured interviews in a specific geographic area. Instead of assessing the motives of spatially clustered landowners, we used grounded theory and theoretical sampling to identify individuals across a broad geographic range who appear to be highly motivated and able to conserve land. By looking at what members of this group have in common across a variety of

cultural and policy contexts, we developed a conceptual framework that characterizes their motivation to own a PCA.

Much research has examined the determinants of pro-environmental behavior. The theory of planned behavior (TPB; Ajzen, 1991) and value-belief-norm theory (VBN; Stern et al., 1999), for example, are models that aim to explain the ‘architecture of cognition’ (Bruner, 1990) by showing relationships between social-psychological constructs and behavior (Oreg & Katz-Gerro, 2006). These models have been validated empirically and have strong predictive or explanatory value under certain conditions (Kals & Müller, 2012), yet we did not use them here because our question pertained to affect (emotion) and conation (goal-directed action) rather than cognition. That is, we sought to understand the meaning of PCAs to landowners, rather than predict land purchases or model the effect of attitudes, values, or beliefs on behavior.

We found that the desire to be involved directly in a conservation project was an important driver of individual ownership of PCAs. We developed a model of PCA engagement to examine how landowners become invested personally in the management of a project and in the nature they are protecting. Fundamental psychological drives for autonomy, efficacy, and social connection facilitate the engagement process and result in a sense of purpose and fulfillment. We explored these motivations to determine what attributes of PCAs make them appealing to landowners. Finally, we considered the implications for policy development and ways conservation programs can maximize landowner engagement in PLC.

6.3 Methods

Methods used in this analysis were the same as methods used in Chapter 5. We used constructivist grounded theory (Charmaz, 2014) with data from narrative interviews. Grounded theory is a structured methodology that begins with inductive analysis and

iteratively develops and tests hypotheses within the data (Table 9). We interviewed 27 individuals who own a PCA (Table 10). Interviewees were identified through theoretical sampling, which is the process of seeking and collecting pertinent data to clarify and elaborate concepts in the emerging theory (Charmaz, 2014). Sampling began from multiple points, with PCA owners identified via internet searches, literature searches, and referral. Recruitment concluded upon reaching theoretical saturation, or the point at which gathering more data about a concept revealed no further properties or theoretical insights (Charmaz, 2014).

Interviewees were selected on the basis of conservation land ownership, which resulted in range of interviewee incomes; interviewees included known individuals of high net worth, but many appeared to be of moderate income. All interviewees spoke or wrote in English.

The PCAs were heterogeneous. Some but not all properties had formal legal protection. The word *privately* describes ownership and governance rather than use and does not suggest or preclude exclusive access. The PCAs included domestic and foreign ownership, residential and nonresidential properties, and variation in size. Many relied on revenue-generating activities, including tourism, breeding, hunting, agriculture, forestry, and easement leases, although only rarely did interviewees imply that earned revenue covered the cost of conservation management.

The first author conducted all interviews and data analyses. Interviews (average 1 hour) were conducted in person or by phone, Skype, or email, as necessary. Interviews began with a request for the landowner to tell the story of how she or he became interested in PLC, with follow-up questions based on responses (Appendix 4). Interview recordings were transcribed and coded as interviews proceeded, following the comparative analytic process (Charmaz, 2014). Coding was initially open and descriptive and gradually became

more conceptual. As patterns emerged, they presented new directions for inquiry and clarified the relationships among concepts.

The concepts illustrated by the model were rarely articulated explicitly by landowners. The vocabulary used to explain engagement and all concept definitions presented in Results, although derived from interview data, are our own.

Following procedures of grounded theory, we did not begin with an existing theoretical framework. We postponed consultation of the literature until after the core model of engagement had been developed, although, per convention, we reference the literature here *ex ante*.

Research ethics were approved by Oxford's Central University Research Ethics Committee (#SOG-16-1A-26).

Table 9. Details of the application of grounded theory in a study of PCA owners

Method	Grounded theory
Purpose	To generate new theory; theory defined as a statement of the relationship between abstract concepts that aims for either explanation or understanding (Charmaz, 2014); as aim, theory generation is contrasted with theory verification
Data source	Loosely structured interviews; avg. duration 1h; conducted by lead author in person or by phone, Skype, or email, as necessary
Target population	27 individuals who owned a privately conserved area (PCA), defined as privately owned land for which conservation was a main (not necessarily sole) objective, as expressed by landowner; 2 interviewees were descendants of the original landowners who provided secondhand accounts of their parents' experiences
Analysis	Grounded theory method; conducted by lead author; core tools included: Coding following each interview; coding not completed in rounds but continued throughout study as comparisons were made within the data set Comparative analysis: transcript text compared within and across interviews for similarities and differences, informing codes and memos (a.k.a., constant comparison)) Memos: 374 analytical, process, source, and other memos written in the analysis.
Sampling	Theoretical sampling: began with internet search, literature search, and referral; sought to maximize diverse viewpoints and geographical representation within target population; sampling targets evolved as analysis unfolded
Saturation	Study concluded upon reaching theoretical saturation, when coding of additional transcripts revealed no new concepts (i.e., codes or variables) or properties (characteristics) of concepts; for the model presented here, this occurred after approximately 21 interviews

Table 10. Geographic location, sex, and size of PCAs owned by 27 interviewees

Region	Country	Male	Female	Avg. property size (ha)
Africa	South Africa, Zimbabwe	4	0	47,720
Asia	India	1	1	80
Europe	Scotland, Spain	1	2	2,780
Oceania	Australia, New Zealand	0	2	3,860
North America	Canada, Mexico, United States	5	2	20,080
South America	Chile, Colombia, Argentina	5	4	7,580
Professional backgrounds included business, industry, retail, tourism, consulting, economics, real estate, science, art, music, ranching, and farming.				

6.4 Personal Projects and Well-Being

Following the development of the core model, we discovered that project analytic theory (Little, 2014) offered a means of situating our findings (Charmaz, 2014). Project analytic theory focuses on individuals' personal strivings in the form of the projects they undertake. Projects in this context are defined endeavors ("from barely noticed routines like 'warm up the car' to overarching life commitments such as 'avenge my father's death,'" (Little, 1993, p. 160)). The significance of personal projects as a topic of study derives, in part, from their capacity to represent or reflect aspects of the self. In contrast to tasks done out of necessity, personal projects can be particularly self-expressive, serving as outwardly visible manifestations of an individual's sense of self (Little, 1993).

Personal projects analysis, a tool in project analytic theory, is based on 5 characteristics that affect well-being (Little, 1999): structure, or individual initiation of the project and sense of control; efficacy, the feeling that the project is progressing well and will continue; community, a sense of social value and support; meaning, in the sense of subjective worthwhileness; and stress, which is conflict or pressure. The first 4 factors are positively correlated with well-being, whereas the final factor, stress, is inversely correlated with well-being. The central notion underlying project analytic theory is that "human happiness and quality of life are intimately related to the context and appraisal of one's ongoing pursuits" (Little, 1999). It follows that, as personal projects, PCAs may impact landowners' quality of life and well-being.

6.5 Results

The experiences and perspectives of PCA owners in this study were diverse, and few categorizations other than conservation interest uniformly characterized the group. However, we found engagement with the conservation property was ubiquitous among

interviewees. The appeal of owning a PCA was, in large part, about the being personally engaged in meaningful and worthwhile activity.

6.5.1 A Model of PCA Engagement

Our grounded theory analysis produced a model of engagement with PCAs that included 2 potential modes: engagement with the project and engagement with nature (Figure 10).

Engagement with the project was concerned with management, logistics, and decision making, and its primary concern was how best to implement personal control and responsibility. The result of project engagement was a sense of purpose, which provides a central organizing theme for one's life. Engagement with nature, on the other hand, was about the land, wildlife, trees, and ecosystem, and it was characterized by the experience of being in nature. The result of nature engagement was fulfillment. The 2 modes of engagement were neither mutually exclusive nor mutually necessary, but could be mutually reinforcing.

The PCAs' affordance of 2 complementary modes of engagement meant that they were a powerful draw for someone looking to make simultaneously a positive impact on the world and enhance their well-being. Both engagement with the project and engagement with nature were facilitated by characteristics of PCAs that enabled them to meet fundamental—perhaps universal— psychological needs.

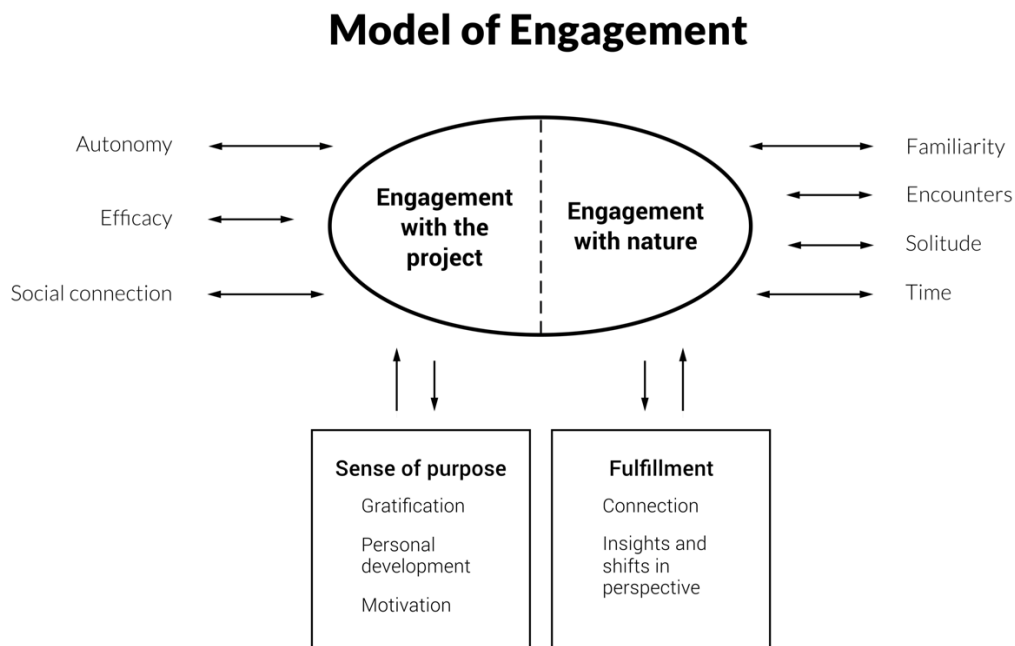


Figure 10. Model of PCA engagement, including both engagement with the project and engagement with nature

6.5.2 Engaging with the Project

Landowners' desire to own a PCA was predicated in part on their desire to be engaged in a project. Ownership of a PCA differed from a financial donation to a conservation NGO, for example, in that it is "hands-on." Many PCA owners also donated to environmental charities but said doing so did not offer the same depth of personal involvement:

If you give money to a charitable organization, you don't have the intimate relationship with the land, the science, the opportunity to show students, to teach, to share. It's the difference between putting a toe in the water versus being immersed (F455).

Some landowners lived on the PCA premises and were involved in every aspect of management. However, even where nonresident land ownership necessitated professional

management, landowners tended to be involved in both big-picture strategy and the particularities of management. One PCA owner reported getting a “real kick” out of building and decorating a lodge, and others featured management dilemmas prominently in their narratives, detailing decisions about reintroductions, stocking rates, culling, and security.

In some cases, anticipation of the engagement was a true driver of land purchase, with upfront recognition of the potential of the PCA to serve as a project for oneself or to deepen a relationship with family or friends. Others reported that they were not looking actively for a PCA, but that it fell into their lives through chance or fate. One landowner submitted a low bid on a property, for fun, while on holiday. When the higher bidder’s deal fell through, she ended up with a large, degraded cattle farm, the restoration of which became her life’s vocation (F455). Another landowner, unbeknownst to him, was left an option to purchase a PCA in the will of someone else; when the prior owner died and the will was made known, he felt fate had intervened and he purchased the property (M127).

Project engagement was facilitated by 3 factors: autonomy, efficacy, and social connection. A desire for autonomy was apparent in many individual PCA owners, and it contributed to the preference for direct ownership over shared governance with NGOs, governments, or collectives. When financially possible, arrangements that allow for independent ownership were preferred because independence means that landowners are able to “call the shots.” Usually, desire for autonomy was expressed as a means to an end. For example, landowners reported that a benefit of private ownership was greater opportunity to experiment (ranging from technical solutions, such as living fenceposts, to integration of cultural and biological conservation). Dealing with other organizations or entities slowed experimentation and created a burden of surplus advice. Similarly, landowners reported that working privately is faster and more efficient. Though landowners often sought out

partnerships, collaboration in governance entailed navigating bureaucracy and was often perceived to reduce the efficiency of operations.

For some, the autonomy of PCA ownership enabled exploration of personal values, such as how they believe conservation practices are best implemented. One said:

I wanted autonomy to decide how to manage the place and decide on my own vision of what conservation is and what it means. (M342)

The PCA functioned as a space for testing abstract conservation values in the real world, with the response of the landscape as feedback. Wealth increased autonomy; the greater one's resources, the more likely the ability to acquire a conservation property with a high degree of management control. Some people perceived that formal legal protection, such as a conservation easement, decreases autonomy, which is a reason some landowners avoided registering their properties, even when there were tax benefits for doing so.

Second, engagement in a PCA was enhanced to the extent that it offered an opportunity to express efficacy, which in this context was a landowner's ability to observe an effect on the landscape. Many PCA owners noted with pride the return of vegetation or wild animals to their properties. Efficacy also included being able to apply one's skills and talents to the project, including professional skills that are transferrable to conservation. Although landowners frequently consulted conservation biologists and other scientists, many did not consider specialized knowledge a requirement for development or management of a PCA. Explaining the advantage of his background in real estate, the landowner noted, "Most [NGOs] are run by scientists and attorneys anyway – if you know what I mean" (M122), implying that skills beyond science and law are, in fact, required for effectiveness.

The PCA owners' views on government's role in conservation varied considerably, although most believed that some government activity (sometimes much) is essential to preserving the world's biodiversity. However, they often contrasted these efforts with their

own in terms of efficacy. Many perceived conservation by government as slow, inefficient, under-resourced, and unstable. For example, one landowner stated:

There should be government protection. But...we may have a good government that understands today, or we may have the opposite thinking, or none at all... This made us realize that the best way to protect nature was on our own or with friends (F426)

This view extended to NGOs, particularly large, international conservation organizations:

I can tell you right now, a few of them are doing some good, but a lot of them are wasting a lot of money. I'm just not overly impressed with the majority of the big conservation NGOs. I think they blow a lot of hot air. I think they waste a lot of money. (M342)

Although some landowners had strong opinions on NGOs, most were more moderate, noting that, because NGOs have more projects in the works, their efforts are spread more thinly; individuals and families are more focused and therefore more efficient.

Finally, social connection, or the extent to which the conservation project was carried out within a supportive network, contributed to engagement. On most PCAs, at least one other individual was involved in looking after the property, whether family, staff, or contractor. Being “on the same page” with the rest of the team contributed to positive feelings about the project. Landowners often collaborated with NGOs and universities for the benefits they bring, not least in terms of social support. When PCAs took the form of a shareblock or conservation development project, there was a sense of collective impact and combined forces. However, collaborations among landowners were sometimes plagued by local politics and power dynamics. Disputes over predators, stocking rates, access, hunting, or commercial activity led to increased stress and decreased social connection.

In some parts of the world, formal networks offer an opportunity for conservation landowners to share ideas, best practices, and a sympathetic ear. When asked about her membership in a landowner network, one interviewee replied:

We go together to promote [private land conservation] and to talk to the authorities. Our aim is to have legislation that respects private reserves... We do some lobbying together and we exchange information. It's like a club... Yes, you feel better to be together. (F252)

Access to networks seemed to be the exception rather than the rule, and it was not unusual for PCA owners to have limited contact with each other, although connections to NGOs and universities were common. Moreover, in places where PLC is not a familiar concept, landowners occasionally had less-than-harmonious relationships with their neighbors. Local communities may be suspicious about motives, concerned about foreign ownership of land, or disagree about the merits of conservation compared with other land uses. This, too, resulted in lack of social connection in the context of the project.

6.5.3 Sense of Purpose

When landowners were highly engaged in the project, the result was a sense of purpose, which provided direction, framed what was important, and organized the various elements of one's life in relation to a central theme. It was conceptualized in terms of a greater good, with benefits beyond oneself. This sense of purpose was characterized by gratification, personal development, and motivation.

Gratification, in this context, arose when a person felt that the world was a better place because of his or her actions. Landowners reported experiencing a warm, positive feeling from doing the right thing:

To think that I've protected habitat even just for one creature makes me feel very fulfilled. I feel like I'm making a positive difference in my little pocket of the world (F233)

Summing up his experience, another PCA owner commented:

It's a hobby, a very expensive hobby. I have other hobbies...hunting and sailing, and I do just about every sport that there is. But the thing is, I don't think I've ever done anything that has felt so good. (M101)

Some found gratification from sharing the result of their efforts with others, even if visitors were a limited few who could afford it:

I hope that the people who go there stick their feet in the sand and get a bit of that feeling because then it would all be worthwhile. (M127)

A sense of gratification could also influence one's identity. Those who purchase land with a conservation objective feel the difference:

...like they're actually doing something. It's not just, 'Here's my bush home.' The bush home is a bonus... Actually, it is more. It's 'I'm a conservationist now' (M336)

Moving beyond a purchase that is self-serving to one the landowner sees as a positive contribution provided the substance for the landowner to self-identify as a conservationist.

A sense of purpose also included personal development, which, here, was a maturing, deepening, or broadening of one's sense of self. The active management, difficult decisions, and coordination of activities and people required by PCA ownership can lead to stress. However, the upside of these challenges was that they resulted in a feeling of personal growth. Landowners reported, for example, that PCA ownership demands new skill development, such as relating to people with different worldviews, finding creative ways to finance operations, or making decisions that involve trade-offs. One landowner explained:

You need to be able to talk to people with a lot of feeling, understanding their point of view – not just talking at them, but talking with them... I think, from the point of view of a learning process, there is nothing better

than being a steward of land because you have to see things from different angles. (F332)

Gratification and personal development can propel people to want to do more, creating motivation that drives them to become even more engaged. This feedback loop can make conservation projects a personal mission, even “addictive,” according to interviewees. One stated:

The possibility of preserving an ecosystem as fragile as the one that one finds in [this area] makes us feel that we have a mission and an obligation to fulfill. (F266)

Another recalled,

It was a lot of sacrifice. In [the mountains] we had no cell, radio, or TV, and we were cut off for months in the monsoon season. But peace and fulfillment come from within. You can't get it any other way than the heart of nature. When you have that experience, it propels you to do more. You have to do more. (F426)

6.5.4 Engaging with Nature

In a separate but complementary process, PCA owners also felt engaged with the natural landscape on their property. This engagement created its own feedback loop, with connection to nature creating the desire for even deeper involvement with the property. Connection to nature was facilitated by familiarity, encounters, solitude, and time.

Familiarity included knowledge of the landscape. It need not be, and often was not, a scientific understanding, and it encompassed other forms of sense making, connection, and awareness. Landowners described it as a relationship with the “small things” of the place, the weather, the wildlife, and the landscape:

I've been taught to see and to value and to want to learn more. Every time I see a toad, for example, one of the basest of animals, I wonder if it's a female or male or what's it doing. Why has it come out? How long is it going to stay here? It just adds so much more interest to your life. (F332)

Engagement with nature was occasionally triggered by encounters with wild animals; although less frequent, this was particularly emotive and transformative. Whether hair-raising encounters with tigers or elephants, or quieter moments when deer allowed “the privilege of enjoying them at close quarters,” these instances were characterized by a sense of unspoken mutual exchange with wildlife.

The feeling of connection with nature was facilitated by solitude. Many PCA owners used their properties to escape the busyness of everyday life. The desire for quiet was particularly salient; private reserves allowed one to escape the “intrusions, airplanes, and loudmouth campers” encountered in public parks. Artists, especially, described silence as important to their well-being:

As a musician I like silences, and I wanted a refuge. Most of my best melodies are composed when I go there. So that sheer silence and loneliness of the place also attracted me. (M232)

The experience of time in nature differed from time elsewhere. Owners of PCAs related a slowing of time, enabling familiarity and causing them to feel less hurried. They also alluded to cyclical time, which was an awareness of natural cycles: circadian rhythms, such as sequence of animals arriving at a water hole, and seasonal cycles, such as migration:

You see that the birds have arrived back from Africa, and you feel very, very proud, in a good sense, of the things that are changing. You feel proud that this land can be appreciated, not only by people but by animals themselves. (F332)

Being conscious of cyclical time allowed landowners to feel in sync with natural rhythms.

6.5.5 Fulfillment

When individuals were engaged with the PCA’s natural environment, this could occasion an experience of fulfillment, which, in this context, was a situation in which emotional or spiritual needs are satisfied, with a ceasing or lessening of material desires. Unlike sense of

purpose, this fulfillment seemed to require regular physical presence on the property, which enabled a visceral and emotional connection to nature. Fulfillment was characterized by 2 factors: a sense of connection, and insights or shifts in perspective.

A feeling of connection or oneness could result from spending time reflecting in nature.

One landowner speculated that it had to do with ancient human roots as hunter-gathers:

I think there's a spiritual something that one gets, some ancient connection to our hunter-gatherer roots that one feels and that one wants to somehow recreate and relive. (M342)

For some, a spiritual connection to nature had always been a part of their lives, but, more typically, spiritual feelings grew with the experience of nature:

I think I've become far more spiritually inclined... I can now visualize myself dying and then my life energy absorbed by a tree, or by a creature which feeds on me. It gets passed on, and I get to live in another form, in another creature or in another tree...It's that flow of life energy that I now feel completely synergized with. Before I didn't understand it. (M232).

Over time, engagement with nature led to insights and shifts in perspective. Commonly reported shifts were increased ability to think holistically and a heightened sense of personal responsibility. Before beginning restoration activities on the land, when there were problems, this rancher would visit the vet or the pharmacy for the solution.

Now it's very, very different. When something happens to the ranch, then I go to the mirror and say, 'What am I doing? What am I doing wrong?'... That's how it changes your mindset. (M427)

Many PCA owners also expressed a growing sense of stewardship, believing that they did not really own the land but were just looking after it for their lifetime:

That's my feeling, that you don't really own it. You really are just guarding it during your lifetime. Although it sounds a bit airy-fairy for people who don't understand that kind of ownership, I think you have to keep that in the back of your mind all the time. (F332)

Another landowner felt owning a vast property shifted his perspective of space and time:

A project like this, the size it is, you can't believe it's yours. The world continues for millennia and you're a temporary blip on the thing, and you have to do what you can in that time. (M127)

6.5.6 Other Factors

Project engagement is a ubiquitous, but not sole, explanation for PCA owners' actions. In interviews, landowners described other factors that motivated them, including instrumental use, such as making an investment or using a property for recreation or residence; contribution, including leaving a legacy or creating a movement; and knowledge and emotions, such as responding to ecological knowledge, falling in love with an area, or feeling love for and protecting animals. These factors were compelling for some individuals but did not broadly characterize PCA ownership or explain why landowners expressed their desires and values specifically through land purchase; this was only found in the concept of engagement.

6.6 Discussion

We began by querying individual landowners' motives to own a PCA. We found that PCA ownership was neither purely philanthropic nor purely self-interested; it also provided an opportunity to engage in functional leisure activity that is both enjoyable and productive (Farmer et al., 2016). For landowners, a PCA was a constitutive element of a happy and virtuous life: a project that achieves well-being through 'well-doing' (Little, 2014; Huta & Ryan, 2010). Our analysis extends others' findings to PLC (Chan et al., 2016; van den Born et al., 2017), showing that well-being motives constitute a third pillar in the justification of PLC.

In our ex post consultation of the literature, we found the psychological factors that facilitate PLC project engagement—autonomy, efficacy, and social connection—closely

mirror the key characteristics identified through project analytic theory, which explores the relationship between personal projects and well-being (Little, 1999), and have parallels with self-determination theory (Ryan & Deci, 2000a). This implies that drivers of PCA ownership have much in common with drivers of other personal endeavors.

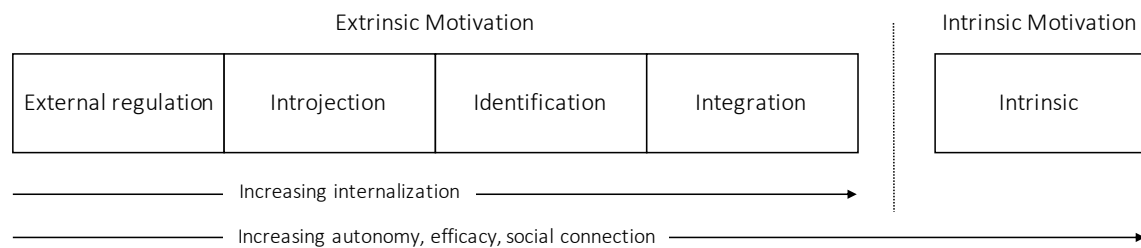
Project analytic theory also recognizes 2 additional factors: meaning and stress (Little, 1999). Meaning was not a facilitator in our PCA engagement model, but rather served as the context—a global biodiversity crisis—in which engagement took place. Project analytic theory also suggests stress is an inverse predictor of well-being. Interviewees in this study commonly described PCA ownership as a source of stress, yet they also reported their projects to be among the most gratifying aspects of their lives. One explanation for this contradiction lies in the dual components of the PCA engagement model: engagement with both the project and nature. Separately, each is applicable to other domains, such as a conservation research project or walking in the woods. Ownership of a PCA includes both. This combination may draw its emotional power from the fact that spending time in nature provides resilience against the stress that accompanies such a project (Clayton & Myers, 2015) and serves as a restorative resource (Little, 2014). This seems to be a winning combination for an engaging and life-enriching project.

In research on motives, the locus of motivation – intrinsic or extrinsic – is a central concern. Intrinsic motivation, or the drive to do something because it is inherently interesting or enjoyable, contrasts with extrinsic motivation, or the drive toward something because it leads to a separable outcome, such as a reward (Ryan & Deci, 2000a). The distinction between intrinsically and extrinsically motivated behavior is consequential in conservation policy, where the merits of providing financial incentives in exchange for pro-environmental behavior are debated (Stern, 2006). Apprehension arises from the finding that external incentives can erode or ‘crowd out’ preexisting intrinsic motivation,

leading to a situation in which the desired behavior is dependent upon continued incentivization (Rode et al., 2015).

In our study, motives associated with living a meaningful life would be considered intrinsic (Ryan & Deci, 2000a), yet we believe our findings are also relevant to extrinsic motivation. Most policy instruments are considered extrinsic, and therefore risk crowding out intrinsic motivation (Rode et al., 2015). However, extrinsic motivation varies along a continuum, from external regulation to integration (Figure 11), based on the degree to which actors perceive autonomy in the promoted action and, consequently, on the degree to which they internalize extrinsic motivation (Ryan & Deci, 2000a). For example, a financial payment may prompt conservation behavior purely for the reward (less autonomous) or because the payment increases the benefits of action consistent with the landowner's values (more autonomous). Perception of autonomy depends not on the type of policy, but on whether the policy is implemented in a way that supports autonomy and self-determination (Cetas & Yasué, 2016). This suggests policy instruments that support autonomy, efficacy, and social connection are more likely to foster internalization of extrinsic motivation. Moreover, these policies are also more likely to lead to positive conservation outcomes in a variety of contexts, including populations not characterized by personal wealth, such as in community-based conservation areas (Cetas & Yasué, 2016).

Interviewees in this study constituted a specific subpopulation in PLC: those who have both the motivation and resources to own land for conservation purposes. This group of people is important to conservation because of their potential to make contributions to global land protection. Because we focused on individuals with financial resources, we are cautious about applying our findings too broadly. However, we are heartened by the consistency of our findings with research featuring people of diverse backgrounds (Cetas & Yasué, 2016), which suggests similar factors may motivate people more broadly.



Adapted from Ryan & Deci (2000)

Figure 11. Depiction of types of extrinsic and intrinsic motivation and factors that affect degree of internalization

Ultimately, we found that the facilitators of project engagement in people who own PCAs were the very factors that facilitate a broader range of landowners to internalize extrinsic motivators, such as incentives (Ryan & Deci, 2000a). This is significant because it implies that policy makers need not know a particular individual's locus of motivation; whether the motivation is intrinsic or extrinsic, whether people are self-motivated or incentivized, policy that enables autonomy, efficacy, and social connection is more likely to benefit both the natural environment and human well-being.

6.6.1 Facilitating Autonomy, Efficacy, and Social Connection

Despite the exploratory and qualitative nature of this study, the results signal potential implications for conservation policy, particularly when viewed in the context of research on intrinsic and extrinsic motivation in other groups (Cetas & Yasué, 2016). One direct implication of our findings is that PLC programs may be more appealing to landowners to the extent that they permit landowner autonomy (Morrisette, 2001). Of course, simultaneously maximizing both landowner autonomy and program effectiveness is difficult, as NGOs and governments that aim to encourage conservation on land owned by individuals must encourage the use of best practices and measure program outcomes. We found a desire for autonomy even among the most conservation minded of landowners, suggesting that lack of autonomy may dissuade some landowners from participating in prescriptive programs. For this reason, implementing policy instruments in a way that supports landowner autonomy is likely to increase its appeal (Cetas & Yasué, 2016). The desire for autonomy we found here echoed not only the psychology literature, but also research on land ownership in general, particularly where strong property rights are valued (Raymond & Olive, 2008). Counterintuitively, the attractiveness of restrictive easements (Cooke & Corbo-Perkins, 2018; Ernst & Wallace, 2008) may in fact lie in their ability to perpetuate a landowner's self-determination; this codified autonomy provides assurance that a landowner's work will not be undone by successors, or an uncertain future.

Second, PCA owners used their projects as a means of expressing positive efficacy (e.g., as an opportunity to apply prior knowledge) (Welsh et al., 2018) or a way to develop new skills. Many PCA owners determined their effectiveness by intuition and observation, noting the restoration of vegetation and return of wildlife in response to conservation action. Even where formal monitoring programs were in place, most guidance arose from the biological and ecological sciences, with little available to landowners concerning

governance, social context, or sustainable finance. Resources such as the forthcoming IUCN Best Practice Guidelines for Privately Protected Areas (www.privateconservation.net) help codify best practices, creating models against which PCA owners can judge their efficacy.

Finally, the importance of social support for one's endeavors was apparent here and is well-documented elsewhere (e.g., Baumeister & Leary, 1995). Networks are a powerful tool for facilitating engagement (Bodin & Crona, 2009). Presently, outside a few clusters, PCA owners have little opportunity to exchange information, ideas, and support with each other, but networks could serve this purpose and act as a delivery mechanism for the aforementioned best practice guidelines. Organizations such as the International Land Conservation Network and others worldwide may be well placed to serve this role.

Although peer-to-peer landowner networks will be most feasible at a regional scale (e.g., *Así Conserva Chile*), research is also needed to assess the utility of developing a network for owners of large-scale PCAs, who face unique challenges ecologically, organizationally, and financially.

Grounded theory is intended to generate models: in line with this, we have introduced a model of PCA engagement, based on a close analysis of empirical data, on which future research can build. Working across a variety of cultural and policy contexts enabled us to identify the common thread of engagement woven throughout individual PCA owners' accounts of their involvement in PLC. The next step is to validate this framework in other contexts of PCA decision making and action. Yet, given the consistency of our findings with psychological literature, we believe this research has already yielded insights that are applicable and useful to both theory and practice. Because project engagement is a strong motivator for landowners, policy that fosters engagement through landowner autonomy, efficacy, and social connection has strong potential to deliver benefits to both conservation and well-being.

6.7 Acknowledgements

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Chapter 7

Cultivating Identity through Private Land Conservation

7.1 Abstract

Private land conservation is driven by a variety of influences. As a voluntary conservation action undertaken by landowners, it is influenced not only by external factors such as financial incentives, but also by personal and psychological factors. Using William James's concept of the *extended self*, this study investigates how protected land becomes a part of landowners' identity. The study is based on narrative interviews with 27 landowners who had purchased or created a privately conserved area in one of 13 countries. The analysis highlights three facets of these nature reserves that enable incorporation into a landowner's sense of self: place, possession, and project. Drawing on Breakwell's identity theory, Belk's work on possessions, and Little's project analytic theory, findings illustrate the various functions land serves in the expression and development of identity. The present research also draws attention to aspects of land as possession and land as project, which have received little attention in conservation research. This study points to new directions for inquiry into the relationship between land, nature, identity, and self.

7.2 Introduction

The primary mechanism for minimizing biodiversity loss has been the creation of protected areas (Adams, 2004). In the modern conservation era, protected area development has been largely the work of governments (Watson et al., 2014), but today there is an increasing recognition of the need to protect biodiversity on land outside state protected areas (Drescher & Brenner, 2018; Stolton et al., 2014). Conservationists have become adept at developing advocacy campaigns and applying political pressure to urge creation of state protected areas, but private land conservation will require different strategies. Conservationists are now faced with the task of inspiring and supporting

landowners to undertake voluntary conservation action, which is dependent upon conservationists' ability to understand, appreciate, and work alongside landowners.

In their efforts to protect the natural environment through PLC, conservationists have tried a variety of strategies, most notably financial incentives, such as tax deductions in exchange for conservation easements or cash payments for fixed-length conservation commitments. While debates about financial incentives continue in PLC literature (Horton et al., 2017; Moon & Cocklin, 2011; Selinske et al., 2017), research increasingly shows that personal and psychological drivers also influence landowners' conservation actions. In the US, participation in government conservation programs and placement of conservation easements are associated with pro-environmental worldviews and conservation concern (Drescher et al., 2017; Farmer et al., 2016; Horton et al., 2017; Welsh et al., 2018), and landowners' actions to control invasive species are influenced by social norms and community reciprocity (Niemic et al., 2016). Long-term land stewardship in South Africa and Australia are motivated by access to management assistance, social learning, networks, and recognition (Selinske et al., 2015; Selinske et al., 2017), and, globally, private purchase of nature reserves and other conserved areas is driven by engagement in meaningful activity (Gooden & Grenyer, 2018). Landowners also conserve in order to take action that aligns with their values, emotions, and attitudes (Farmer et al., 2011b; de Snoo et al., 2012). Private non-farm landowners, for example, describe their properties in personal terms, characterized by themes such as "My identity is reinforced through my connection with this land" (Drescher, 2014). This alludes to an extension of individuals' identity to include the land itself. Identity is known to mediate the relationship between intention and action (e.g., Fielding, McDonald, & Louis, 2008), yet there remains a gap in our understanding of the avenues for identity construction and maintenance for contemporary landowners.

The purpose of the present research is to consider how privately-owned nature reserves become integrated into landowners' identities. I approached this question by analyzing narrative interviews with people who have created or purchased a privately conserved area (PCA). Paraphrasing Belk (1988), I argue that a key to understanding what PCAs mean to people is recognizing that, knowingly or unknowingly, intentionally or unintentionally, PCA owners often regard their land conservation projects as parts of themselves. In this paper, I unpack this statement by first providing an overview of the psychological notion of the self, then exploring three facets of PCAs that enable incorporation into sense of self: place, possession, and project. I conclude by highlighting the implications for our understanding of landownership and identity.

7.3 Theoretical Framework

In everyday parlance, the self is generally thought of as the set of mental and physical processes that operate within the confines of the body. However, many perspectives on what the self is, and how it emerges, emphasize its constructed nature (Taylor, 1989). For example, phenomenological and existential philosophies underscore the reflexive and experiential nature of the self (Farina, 2014; Snygg, 1949), and symbolic interactionists and social constructionists view the self as continually shaped through interaction with other people, blurring the boundary between self and social context (Berger & Luckmann, 1966; Goffman, 1959/1990). Here I employ the concept of the *extended self*. William James conceptualized the self as a web of interactions in his 1890 *Principles of Psychology*, a volume that launched the field of contemporary Western psychology. A recent special issue commemorating the 125th anniversary of its publication celebrated the continuing relevance and insight of its findings, noting, "James' work was not only ahead of his time but ours as well" (Cresswell, Wagoner, and Haye, 2017). One of the many contributions he made to psychology was recognizing the inherent relationality of psychological

phenomena. His conception of the self was reflective of this approach, including not only the physical self (or 'Empirical self') but everything a person considers 'me' or 'mine':

The Empirical Self of each of us is all that he is tempted to call by the name of *me*. But it is clear that between what a man calls *me* and what he simply calls *mine* the line is difficult to draw. We feel and act about certain things that are ours very much as we feel and act about ourselves. Our fame, our children, the work of our hands, may be as dear to us as our bodies are, and arouse the same feelings and same acts of reprisal if attacked.¹⁷ (James, 1890/1990, p. 291)

James included not only the body but also possessions, reputation, family, and work in the concept of self. To this list others have added friends, pets, mementos, beliefs and abstract ideas, personal space, ingestibles, home, tools, and objects of aesthetic appeal, play, and amusement (Belk, 1988). When infused with meaning or emotion, entities in each of these categories can become part of the extended self.

The concept of the extended self was revived in analyses by Russell Belk (1988) and Jerome Bruner (1990), which have been influential in the fields of consumer behavior and psychology. In recent years it has been employed in studies of architecture (Abel, 2014) and sustainable consumption (Kunchambo, Lee, & Brace-Govan, 2017), which find that both material and immaterial aspects of the external environment can be incorporated into the self, and that these aspects of the self can influence behavior. In this paper I use the concept of the extended self as a lens to examine the characteristics of PCAs that enable incorporation into landowners' sense of self.

¹⁷ Emphasis in original. This source and others quoted in this paper reflect the language of 19th century Western literature, including views about gender and privilege that are no longer socially acceptable. I have included the quotes, intact, because the underlying theory contributes to this analysis. This should not be taken as a reflection on either the participants in this study or conservation landowners in general.

Self and *identity* are contested terms. A commonly deployed distinction is that individuals have a singular self but multiple identities that are foregrounded in different contexts (Oyserman, Elmore, & Smith, 2013). In this paper I use the terms self and identity interchangeably; this is in part due to a lack of conceptual distinction in the literature on which I draw and in part to improve the readability of text.

7.4 Methods

In recent literature, a number of conservationists have called for increased incorporation of research from social sciences and the humanities (e.g., Cowling, 2014; Teel et al., 2018). This paper utilizes concepts from psychology, philosophy, geography, and consumer behavior to provide insight into the way landowners think about nature conservation on their properties.

7.4.1 Participants

Participants were 27 individuals who had created or purchased a PCA as defined below. Two were descendants of the original landowners who spoke on behalf of their parents and also shared information about their own involvement. Interviewees came from a variety of professional backgrounds, including business, industry, consulting, real estate, science, art, music, ranching, and farming. Interviewees were selected on the basis of conservation land ownership, which resulted in participants with a range of incomes; interviewees included known high net worth individuals, but many appeared to be of moderate income.

An initial search for PCA owners was conducted in academic journal articles and media reports, and referrals were sought from conservation professionals. As the study progressed, some interviewees also referred additional PCA owners. The sample was purposive and non-probabilistic; consequently, results are intended to provide theoretical insight rather than represent a broader population of landowners.

7.4.2 PCA

I defined a privately conserved area (PCA) as privately-owned land for which conservation is a main objective, though not necessarily the sole objective. I distinguish PCAs from privately protected areas (PPAs) because not all land owned by private individuals meets the World Commission on Protected Areas criteria for protected areas (Stolton et al., 2014). Some but not all properties had formal legal protection. The word 'private' describes ownership and governance rather than use, and it neither suggests nor precludes exclusive access. PCAs were heterogeneous, including both domestic and foreign ownership, residential and non-residential properties, and variation in size, from 4 ha to over 130,000 ha. Many properties incorporated revenue-generating activities, including tourism, game breeding and sales, hunting, agriculture, ranching/grazing, forestry, and easement leases in their financial models, though only rarely did interviewees suggest that earned revenue covered the costs of conservation management. Properties were located in Canada, United States, Mexico, Colombia, Chile, Argentina, Scotland, Spain, India, Zimbabwe, South Africa, Australia, and New Zealand.

7.4.3 Interviews

Interviews were conducted in person or by phone, Skype, or email. Interviews ranged from 20 to 93 minutes, with an average duration of 60 minutes. All interviews began with a request for the landowner to tell the story of how she or he became interested in PLC, with follow-up questions based on responses. Unanticipated directions in conversation were followed when relevant to the conversation topic. Interviews were not designed specifically to query topics related to identity or self, but rather to record landowners' stories of their involvement in PLC (Appendix 4.). Transcripts were analyzed using James's (1890/1990) conceptualization of the self as theoretical foundation.

7.4.4 Ethics

This research was approved by Oxford University's Central University Research Ethics Committee, #SOGE-16-1A-26. This manuscript has been prepared in a way that protects the participants' anonymity, including removal of place references from quotes. Oral consent was obtained and logged at the beginning of each interview.

7.5 Three Facets of the Extended Self

People interact with nature and land in multiple ways. Here, I isolate three facets of PCAs – land as place, as possession, and as project – to explore how PCAs and nature can be integrated into the extended self.

7.5.1 Place

Place identity is a concept that describes the physical world socialization of the self, which occurs when individuals incorporate a place into the self-definition (Proshansky, Fabian, & Kaminoff, 1983; Scannell & Gifford, 2010). Place identity is similar to place attachment, which is the bonding that occurs between individuals and the environments that are meaningful to them (Scannell & Gifford, 2016). Place attachment is a well-documented motivator for people who seek to protect land (Farmer et al., 2011b; Selinske et al., 2015). However, place identity extends beyond attachment to an imprinting of place on a person's sense of self. As an interviewee explained:

You get to develop a very close personal relationship, you get to love the place and what it means. Its value increases all the time. If you have the sensibility, you can bring your family here, your kids grow up here, you have a relationship with small things of the place, the weather, the animals, the landscape. They mark a person for life. (M497)

Twigger-Ross and Uzzell (1996) have applied Breakwell's (2015) identity theory to explain the mechanisms by which place identity works. Rooted in the work of James (1890/1990) and Mead (1934/2015), identity theory posits four principles that govern identity

development: *distinctiveness*, *continuity*, *self-esteem*, and *self-efficacy*. For individuals, special places can support each of these functions.

Identity theory postulates that individuals have a desire to maintain personal *distinctiveness* or uniqueness. There is evidence that people use place identifications to distinguish themselves from others or to flag themselves as a member of a distinctive place-based community (Twigger-Ross & Uzzell, 1996). In the context of conservation, this may take the form of being a ‘forest person’ or a ‘wilderness person.’ One interviewee described his property as “low-maintenance,” a trait he said he shared (M493). Another said her PCA created her identity as a person of the mountains:

A very important value for me is the identity. The property-person identity is very important because I suppose, or I believe, that we in the mountains have very special values. When I stayed in the Andes, I saw the people are more or less like me because the mountain imprints a character on the people. I think this is important, the identity. (F111)

Most landowners described unique characteristics of their properties, including physical characteristics such as “the second largest dune wetland” (F169) or “seven species of rare and special plants” (F283) and aesthetic characteristics such as rare beauty: “a very seductive, attractive, magical place” (M127). Another said:

Some of my beautiful swamps, I mean you ought to see those swamps with yellowwood trees. At certain times of the year, they’ve got the waterlilies there. If JC would be alive again, that’s where he would definitely be walking across the water. It’s phenomenal. (M101)

Additionally, an association with a PCA provides an opportunity to enact an *ecological self*, a capacity to see something of the environment in oneself, or to become part of the environment (Clayton & Myers, 2015; Naess, 1989).

I like to say that if you enter the forest with the mindset of a man, of a human, then the forest doesn’t open up to you. However, if you ever enter the forest like a creature, that is when the forest starts speaking to you ... So

as I started reading the forest, the forest opened up to me and became my mother. And it would guide me... (M232)

Identity is also constructed through *continuity* of the self-concept. Places provide physical markers that serve as referents for past and future self, allowing people to preserve identity over time. The importance of continuity is apparent when it is absent: unwanted and uncontrollable changes in the physical environment, resulting in the loss of continuity, can cause a grief or loss reaction (Fried, 1963). Evidence of long-term connection to land is seen in this study in indications that the property will never be sold and the hopes of many interviewees that their children will also take on a relationship with the property.

I'm a single woman, and an objective of this is to buy something to give to the other generations of my family to show what is important: the land and the conservation. And to show the values, not only economic but also biodiversity and traditions and identity and ecology, all of these values. (F111)

Others express continuity in the sense of looking after the land. Sharing similarities with the concept of stewardship (Mathevet, Bousquet, & Raymond, 2018), this commonly repeated concept implicitly theorizes ownership as a transitory and successive state, binding the current landowner with past and future others who care for the same place.

That's my feeling, that you don't really own it. You really are just guarding it during your lifetime. Although it sounds a little bit airy-fairy for people who don't understand that kind of ownership, I think you have to keep that in the back of your mind all the time. (F332)

Some PCA owners said their connection to the property extends even beyond death, either through burial (Casal, Aragones, & Moser, 2010) or through the personality stamp made on the land through management action. In these situations, place becomes a permanent anchor connecting past, present, and future selves.

I can see myself [in the property] even after I am no more, I can see that as well. I can feel my life energy flowing through it in deep form. (M232)

If you leave a piece of land, and you show your kids to like it and love it, and you leave personality print on that piece of land, that's another way of being alive. (M493)

A third component of identity theory is *self-esteem*, a positive evaluation of oneself and one's worth. People tend to have a more positive evaluation of themselves when they are in special places, and special places can act as a buffer against distress (Scannell & Gifford, 2016). Landowners variously report that being connected to the PCA has changed the way they feel about themselves, including feeling more fulfilled, capable, impactful, mature, spiritual, connected, creative, energetic, or giving, and with reduced ego and pride. One example illustrates how these characteristics can reinforce positive identity:

I wouldn't say I was superficial in the past, but I was just sort of ignorant really. In the past...my projection of what my life could be was just to have a family and look after myself, have a good salary, have an interesting job. And suddenly you realize that you can make a difference, even if it's in a very small way. Your actions can make a difference. The idea of sharing the land and sharing the history with other people. We sometimes have guests who arrive, rather stressed out from a busy life in the city, and you see them at the end of the weekend looking completely different because they've actually absorbed something of the natural world in the forest that is so peaceful. The whole fact that you're able, in a small way, to make a difference to other people's lives...really does change you as a person. My ideals now would have nothing to do with personal gain. They would be just to be able to carry on with this project and make it viable, and...feel that it will carry on in the future. That it won't be lost. Yes, I am a different person, definitely. I'm more mature. Also, the fact of having to speak to very different kinds of people makes you more flexible. You also see that the way you see the world is because you've...jumped through certain hoops and you've had to change. Other people, sometimes, haven't had the same opportunities. I find in conversing with other people, talking to them, that you can actually make more of a difference than if you try and convince them or get into an argument with them. I've become more influential probably, as a person, than I would have been in the past when I would just write an angry letter to the newspaper. (F332)

Finally, *efficacy* aids construction of place identity through application of personal skills (Bandura, 1982). Places support self-efficacy to the extent that they provide a manageable environment in which a person is able to carry out her or his chosen activities. The majority of landowners have had careers outside science and conservation, and they are able to experience efficacy by applying their skills to their private reserves. For example, some report that professional skills and experience are useful in management of nature. One interviewee explained that a career in business and industry taught him the skills of maintaining a balance:

You learn that you have to live in harmony with everything around you. I mean the myth that you go out and negotiate a contract with your suppliers and screw them to the ground – no, no, no, you’ve got to leave some meat on the bone. We all want to survive. You do a contract where your customers are going to screw you? No, no, no, that all needs to be in balance. Life needs to be in balance. Wildlife needs to be in balance. You need to make sure that your neighbors live in harmony with you. Dealing with government and business prepares you for it. (M101)

In this study, efficacy was most commonly expressed in reference to interviewees’ efforts and impact on the landscape:

Then we had all the feel-good things that go with preserving it for wildlife and for human beings going forward. It will be continued, it’s not going to change. There are very few people who get to do something that will last as long as the government lasts. It will last forever. It’s quite rewarding. (M122)

[The property] was a total wasteland. At that point I was already interested in conservation. I thought it was worth it to try to turn it around. I wanted to create a model to show it can be done. The hydrologists said it couldn’t be done. It was in the middle of the system, soils were like talcum powder, nothing to key structures into. I thought they may be right, but *if* I can do it, you can do it anywhere. (F455)

Look I just get a real kick out of seeing I have changed the lives of 125 families. I get a real kick out of understanding that if I drop [the PCA] tomorrow and stop doing what I’m doing, in a year there will be no animals

left, the bush will degrade and all the rest of it. I get a real kick out of building a lodge and decorating it...All of that together is very rewarding.
(M101)

Place identity may have added benefits when the place has a high degree of naturalness (Castree, 2014), as vegetation and other elements of natural environments have been associated with such benefits as stress management, healing, and spiritual experiences (Bowler, Buyung-Ali, Knight, & Pullin, 2010; Kaplan & Kaplan, 2009; Vining & Merrick, 2012). By serving as an anchor for distinctiveness, continuity, self-esteem, and efficacy, PCAs enable landowners to incorporate their connection to place into a positive identity.

7.5.2 Possession

People may also regard possessions as components of the self. Literature from a variety of disciplines suggests that the psychology of possession is well-rooted in people, at least those socialized in Western cultures (Pierce, Kostova, & Dirks, 2003). In one of the most influential papers ever published in consumer behavior literature, Belk compiled evidence that humans infuse their possessions with a sense of self-identity (Belk, 1988; Ladik, Carrillat, & Tadajewski, 2015). Some degree of this may be due to the mere ownership effect, in which people view items they own more favorably than items they do not own (Beggan, 1992); however, not all possessions are brought into self-identity (Ahuvia, 2005), indicating processes other than mere ownership are at work.

Objects can be integrated into the self through *control*, *creation*, and *knowledge* (Belk, 1988). *Control* is perhaps the simplest method of defining psychological possession (Stake, 2004). As noted previously, many PCA owners report that they feel more like guardians or caretakers than owners, but many also value control and autonomy. Some, for example, declined offers for partnerships or land leases in favor of sole ownership. Being independent and retaining decision-making authority contribute to a sense of personal investment in the PCA and contribution to its conservation outcomes.

I think that if you hold the land, you call the shots, don't you? If I put it in a foundation, I've got to deal with trustees. I've got to deal with a whole bunch of other people. So, whilst I'm trying to create a model, I don't want to have to listen to everyone. I'm better off trying to do it privately. (M290)

Private landowners can be more experimental. There's no federal government or large organization to answer to. We don't have fiduciary responsibilities. We can test things, use trial and error. (M405)

Like art to an artist, *creativity* contributes to a sense of ownership and self-extension.

Creativity is particularly apparent among PCA owners who initiate ecosystem restoration projects. Envisioning and manifesting a restored ecosystem becomes a way for people to invest themselves in the landscape and, reciprocally, for the landscape to become incorporated into their identity. Some landowners draw upon artistic metaphors to make sense of how the natural environment responds to their efforts.

It was all about water. It changed from dry, rocky, bare land to lush, green, and wet, even in the dry season. There was more wildlife, more insects, birds, and bats. It's all connected. It's like a living canvas: I put water on it and other things appeared on their own. (F455)

It's much like music. If I'm composing a symphony, sitting on my piano, then those single notes at the piano are actually building a complete tapestry with sound. The land is similar, because I am doing things there and the land is responding to it. It is a symphony, in a different form. It is being composed by me and nature is the orchestrator. (M232)

Knowledge is the third means of self-incorporation of possessions (Belk, 1988). An intimate knowledge of an object or place makes it part of the self-concept. In PLC, knowledge appears in two forms. A surprising number of PCA owners are involved with universities, NGOs, or private consultants who carry out research on the property, generating codified or declarative knowledge (Haye & Torres-Sahli, 2017). Interviewees report that learning from visiting scientists is an enjoyable part of their experience, stating, for example, "I love it when scientists and naturalists come and they teach me" (F426).

We always believe in all properties we're involved with that the opportunity to get university students, people like yourself, doing these things, the opportunity to do research is really important. I think in almost every property we own we have a research center where people can go. It is important. We need to build up a knowledge base of papers and studies, all of which needs to be fully open to the student world and the public at large. So we do a lot of that at [property]. Very worthwhile. (M127)

The more we did, the more scientists came, I began to learn from the scientists. It was recharging in that sense. I saw exponentially what the benefits were. It was not just what I could see, I began to really realize the importance. (F455)

In addition, some landowners, especially those who live on the property or spend a significant amount of time there, talk about feelings of joy, delight, and a sense of contribution to the world as they get to know the landscape. In contrast to codified knowledge, this affective, procedural knowledge (Haye & Torres-Sahli, 2017) is characterized by intimacy, familiarity, and observation of changes over time.

As the leopard as she grew up, she taught me many things about survival. She taught me to eat less than my hunger. She taught me to use less than my wants. She taught me to deal with harsh times, with the vagaries, yet be happy in life. The spirit of survival. To live each day as it comes. All of that. I think I have changed enormously from it. (M232)

Every time I go to the reserve with people who are scientists or bird watchers, I discover a new species, a new flower. It's incredible. It's like this land has a gift for you every day, so you feel good because you are doing a work in the land and nature is giving you back everything. (M427)

Landowners may integrate PCAs into their extended selves through control, creativity, and knowledge. Each of these actions implies an investment of mental and emotional energy into a property, a process known as cathexis.¹⁸ Through this investment of energy, material

¹⁸ Cathexis is a process by which material possessions express and embody personal qualities (Dittmar, 1992). In psychoanalysis, cathexis may imply an over-investment of psychic energy in an object, but there is no pathological tendency implied by the present usage.

possessions take on meaning, expressing and embodying personal qualities (Dittmar, 1992).

7.5.3 Project

Labor, or the “work of our hands” has long been considered a component of the self-concept (Beaglehole, 1931). As noted by Gooden and Grenyer (2018),¹⁹ personal projects to which one voluntarily commits time and energy are particularly reflective of the self. The significance of personal projects derives, in part, from their capacity to represent or reflect aspects of the self and serve as the “outwardly visible manifestations of an individual’s sense of who she is” (Little, 1993, p. 159).

Some personal projects are better than others at enhancing well-being; project analytic theory suggests that projects that increase well-being tend to be *meaningful, structured, supported, and efficacious*²⁰ (Little, 2014).

Meaningful projects are worthwhile by virtue of being enjoyable, important, and expressive of one’s sense of personal identity. In this study, PCA owners largely found meaning through their contribution to addressing broader environmental problems. Land conservation as a solution to the biodiversity and climate crises were recurrent themes in interviews.

[What feels good] is that you’re protecting this vast and substantial block of land. You look at it, and it makes you feel that you’re doing a good thing. One has to realize that one is temporary, land is eternal. But certainly what we’ve done as a family makes me feel good about life. That’s an important

¹⁹ The present analysis of the contribution of projects to identity draws upon and elaborates upon the work of Gooden and Grenyer (2018), which includes further discussion of the underlying psychological theory.

²⁰ Because efficacy is also a component of *place* and has been described previously, it will not be repeated here.

thing, to feel that you're making a contribution to preserving what nature should be. (M127)

It was common for landowners to consider their impact in the context of others with similar projects, even those they didn't know. For example: "I believe that small things can make bigger things, like our property, with corridors and connection" (F149), "Does this little plot make a difference? I say every quarter makes a difference" (F283), and "I hope everyone can do something like this with the space they can: 1 hectare, 2, 50, whatever" (M187). Meaning is also construed in terms of obligation and generativity, which is a sense of concern for and commitment to others, including the environment and future generations (McAdams & Guo, 2015).

I do gain personal satisfaction knowing that I am contributing to conservation in some way. Yes, I do get that... I certainly have done something significant there with the wattle removal, and it gives me a great deal of satisfaction to drive into that valley and see it more or less devoid of wattles and to see the restoration taking place. It's a good feeling. (M342)

We truly believe that this concept of a privately owned land trust sanctuary is the only thing that can save the forest and biosphere of the planet. If people who have money do not wake up to realize that their kids can't eat and drink money – kids need a living planet to survive. The best thing you can give to your kids is a living legacy. If your small sanctuary can be a model to others...this is the hope of the future: the private forest sanctuary. (F426)

A personal project contributes to well-being to the extent that it is *structured*, in that one initiated it, feels a sense of control over it, and has sufficient time to devote to it (Little, 1993). PCA owners use various strategies to structure projects. One strategy is to choose a property that does not overwhelm one's capacity:

The place should be in reasonable shape [so] it can be improved, but I wouldn't go to the extremes of buying a wasteland hoping to recover it. I think it has to be something in between, something that has very good parts, and some you can regenerate, so that you have the satisfaction of seeing results. (M493)

Others buy land in stages, starting small so that they feel more control over the process and can learn experientially. Although a stated benefit of private land conservation is landowners' ability to act more quickly than governments (Gooden & Grenyer, 2018; Leménager et al., 2014), several people emphasized that they prefer moving at a slower pace:

Conservation projects must be slow and be humble. You shouldn't throw in money to boom! make a park. (F149)

Lastly, personal projects are *supported* if they are visible to and valued by one's social environment. Around the world, there is significant variation in the extent to which this is the case for conservation landowners. Some PCA owners in the present study report being misunderstood by neighbors, particularly where PLC is an atypical land use.

Initially they thought we were all insane. Crazy. Which I guess we are... It took time to build a relationship with local people. The [local people] are related to everyone else. We're outsiders. My husband is [from another region], and I come from the moon. (F426)

Sometimes, it's frustrating because you have a vision and you see the other people around you in that location have a different one. I don't understand why they don't see the value of the reserve. But there are other people who...understand very well. It's like everything you do in life. (F252)

Consequently, landowners derive both utility and comfort from connecting with others who are engaged in similar projects, a condition supported by a substantial body of psychological research indicating the importance of social connections (Walton, Cohen, Cwir, & Spencer, 2012). In some places, such as Chile and Argentina, regional networks connect people involved with PCAs. In addition to the knowledge exchange and technical assistance that results from networking, landowners who participate in networks report that they "feel better together" and are able to connect over similar experiences.

The main thing is our combined forces. It's not one individual, it's a group, openly sharing with the world. That's a fact. If you are of good will and

respectful to nature and the environment, you are invited to enjoy this place, to care for it together with us. (M497)

Some people also convey a sense of support, collaboration, and relationship with nature itself (Diehm, 2007).

Nature connects me with creation, the divine, God's creation. Once you're in the forest, something makes you connect with the whole, with biodiversity, with people, other species. The sun, sky, ocean, clouds. As an artist, it's about my sense and perception. In the forest it's the same, you can see the people, the land. It makes you feel protective. Very healing. (F149)

It's like love: you have or you don't have it. If it becomes a task, a burden every weekend to go and make sure everything is fine, and you have to pay the guy, and you have to check and no one has done this or that: bad decision. But if you really look forward to your meeting with your piece of land, then it's fine. I've never put it into words, but that's a nice way of expressing it. (M493)

I'm safe in this place. I'm safe finally. (F111)

Whereas possessions are incorporated into the self through cathexis, projects are incorporated by means of agentivity (Bruner, 1990), which occurs when intention and action cohere in an outward effect. As a result, project analytic theory offers several explanatory mechanisms for projects' influence on the sense of self. Personal projects can be self-expressive, to the extent they exhibit characteristics like congruence with values or personality; self-enhancing, if they lead to a more positive self-evaluation; self-exploratory, particularly if they result in development of skill or personality; or self-extending, to the extent they help a person move from a 'present self' toward a desired 'future self' (Little, 1993).

7.6 Implications for Conservation Theory and Practice

The concept of the extended self offers explanatory value missing from other notions of the self. Phenomenological, existential, and symbolic interactionist models emphasize

how the self is constructed, but they have less to say about the elements of which it is made. Much of economics is dominated by a hegemony of rationality (Clark, 2010, 2018), premised upon a notion of the self as a rational agent. In comparison with the rich and multifaceted character of James's extended self, the rational agent appears shallow and poorly equipped to explain human action. Applying the theoretical concept of the extended self to landowner interviews reveals not only that PCAs are bound up with identity, but also that this identity can be investigated through multiple lenses of place, possession, and project. This finding has several theoretical implications.

Place identity has been well-theorized in conservation and geography literature. I find evidence in support of Twigger-Ross and Uzzell's (1996) application of identity theory to place identity; the present analysis demonstrates how PCAs contribute to personal distinctiveness, continuity, self-esteem, and self-efficacy. The present findings also echo those of Farmer et al. (2011b) and Selinske et al. (2015), who report that landowners attribute conservation actions to their relationship to place.

In contrast, the present conceptualization of PCAs as both project and as possession contributes a new theoretical perspective to the study of identity in the context of land conservation. This work builds on Gooden and Grenyer's (2018) work, which conceptualizes PCAs as personal projects and highlights PCAs' affordance of well-being through 'well-doing' (Little, 2014). While not explicitly theorizing PCAs as personal projects, others have reported findings consistent with this conceptual framework. Farmer et al. (2016), for example, highlight the role of functional leisure for private landowners. Welsh et al. (2018) describe landowners' desire to apply prior knowledge to wetland restoration activities, and van den Born et al. (2017) show that committed conservation actors in Europe are motivated, in part, by eudaimonia, or striving toward a life well-lived. In this paper, I extend these findings on personal endeavors by connecting them to identity.

Possession of land is a laden topic in conservation literature. On one hand, the agents, targets, and tools of land acquisition have been scrutinized for their contribution to social inequities that have at times resulted from conservation actions (Dowie, 2011; Duffy, 2016; Massé & Lunstrum, 2016). For example, land purchase has been implicated in neocolonialism (Ramutsindela, 2015), elitism (Langholz & Krug, 2004), and negative impacts on local communities (Serenari et al., 2017). On the other hand, many landowners have benevolent or pro-social intentions and make efforts to minimize negative impacts (Horton et al., 2017; Niemiec et al., 2016; Selinske et al., 2017). Moreover, land acquisition by governments and NGOs has been the primary strategy for land protection since the origins of the modern conservation movement because it has traditionally been seen as the surest way to guarantee the protection of valued features (Fairfax et al., 2005). Here, I have looked at another dimension of possession, examining how control, creation, and knowledge contribute to psychological ownership (Pierce et al., 2003). In doing so, I find that PCAs serve many of the same functions as other valued possessions, such as enabling self-definition and expression (Ahuvia, 2005; Dittmar, 1992).

The present research was exploratory, using data that were not collected specifically to assess participants' identity or sense of self. Interviews in this study did not provide sufficient data on social influences on the expression, maintenance, and development of the self, but this is an area in need of attention. I have noted the importance of social support in the context of personal projects, but social influences are also posited to affect place identity by way of belonging (Scannell & Gifford, 2016) and valued possessions by way of demonstrating a 'shared self' (Wong, Hogg, & Vanharanta, 2016). It seems likely that social context also affects PCA owners' connection to land, and this topic merits further investigation.

My primary focus is theoretical, but the present analysis provides an opportunity to consider implications for conservation practice. Psychological theory and experiments

confirm that environmentally salient identities predict pro-environmental behavior, over and above the more commonly assessed variables of attitudes and social norms (Fielding et al., 2008; Van der Werff, Steg, & Keizer, 2014). People who identify with the natural environment – whether a particular place (place identity; Proshansky et al., 1983) or with the natural environment more generally (environmental identity; Clayton 2003) – are more likely to make efforts to protect it. For PCA owners, incorporation of a particular property into identity may lead to an increased desire to care for the land and the nature it sustains. Because identity is more durable and stable than other psychological phenomena, such as attitudes (Oyserman et al., 2013), changes in identity have the potential for long-term effects. Conservation identity can be fostered through programs that inspire, encourage, and support landowners' conservation efforts. Identity can be supported through social connections with others who share a similar identity; consequently, a strategy of connecting landowners through networks can help achieve this purpose. Identities can also be made more salient through tailored marketing campaigns. Strategies such as identity campaigning, which is an approach to environmental communications that is based on an understanding of how people think of themselves (Crompton & Kasser, 2009), can be adopted by advocates of private land conservation. Based on the present research, messaging to PCA owners (current or potential) could emphasize connection to land as places, possessions, and projects.

Appeals to identity are not limited to people who own land. Place identities and environmental identities, neither of which are dependent upon land ownership, interact with pro-environmental behavior. "Identities do not only encourage behavior; behavior can create identities" (Clayton & Myers, 2015, p. 179). Environmental advocates have used a range of strategies to encourage connections to specific places. Examples include programs that allow people to 'adopt' a part of nature, such as an acre of rainforest, or enable groups to work together on an environmental project, such as trail-building

(Clayton & Myers, 2015). A more general environmental identity can be fostered through activities such as volunteering (Dresner, Handelman, Braun, & Rollwagen-Bollens, 2015; Fraser, Clayton, Sickler, & Taylor, 2009) or participation in citizen science events (Dean, Church, Loder, Fielding, & Wilson, 2018). Collectively, PCA ownership identity, environmental identity, and place identity associated with the natural environment might be termed conservation-positive identities. Due to identity's durability, stability, and direct influence on behavior, advocates may find that fostering conservation-positive identities strengthens the connection between people and nature and has a long-lasting, positive impact on conservation objectives.

William James wrote that an expansive and inclusive self allows people to feel they are "integral parts of the whole of this brave world" (James, 1890/1990, p. 313). By drawing attention to PCAs' significance as part of the extended self, I hope to conceptualize private land conservation in a way that simultaneously advances land conservation goals and supports expansive, inclusive, and conservation-positive identities.

7.7 Acknowledgements

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Chapter 8

Clusters, Consensus, and Trade-Offs in Wildlife-Friendly Ranching: An Advance Analysis of Stakeholder Goals in Northern Mexico²¹

8.1 Abstract

This study assesses stakeholder priorities to inform the development of a private land conservation program intended to restore grasslands in northern Mexico. Drawing together ranchers, NGOs, and others, this program appears to provide opportunity for ‘win-win’ outcomes; however, focusing on mutual benefit risks obscuring differences amongst stakeholders. We used Q methodology to assess stakeholders’ objectives for the program and analyzed the results quantitatively with factor analysis and qualitatively by interpreting the content of Q sorts and participants’ verbal descriptions of their sorting decisions. We found four groups of stakeholders: 2 groups composed of ranchers (Sustainable Ranchers and PCA Owners), 1 group composed of NGO representatives (Conservation NGOs), and 1 group with mixed composition (Sustainable Ranching Advocates). All four groups converged around the issue of reversing and preventing desertification, but their other priorities for the program varied. Yet, despite divergent perspectives, results show there is potential for mutually beneficial outcomes, particularly if trade-offs are attended to in program planning. Q methodology appears to offer a mechanism for identifying groups of stakeholders, and their areas of agreement and disagreement, in advance of program implementation. This study provides information to better design, monitor, and evaluate a program to benefit all groups of stakeholders, which we believe will increase the success of this private land conservation program.

²¹ This paper is co-authored with Flora Moir.

8.2 Introduction

Consistent with a growing worldwide interest in land conservation outside state protected areas (Drescher & Brenner, 2018), private landowners and conservation NGOs are working together to develop a new private land conservation program in the semi-arid grasslands of northern Mexico. In this study, we identify stakeholder groups and highlight areas of similarity and difference between their program priorities.

Prior to the 16th century, the Chihuahuan Desert of northern Mexico was a vast grassland, inhabited by bison, pronghorn, grey wolves, and other iconic fauna (McClaren & Devender, 1997). The high quality of grasses made the land appealing to ranchers, resulting in a rapid transition to agriculture. Throughout Mexico, commercial grazing has led to soil compaction, reduced soil fertility, shrub encroachment, and loss of biodiversity (Alfaro-Arguello et al., 2010). This was particularly detrimental given Mexico's diversity of ecosystems and zoogeographic position as a transition zone, which make it one of the most biodiverse countries in the world and a crucial component of North American and global conservation (Valdez, Guzman-Aranda, Abarca, Tarango-Arambula, & Sanchez, 2006). During and after the Green Revolution of the 1950s to 1970s, a process known in Mexico as 'cattleization' (*ganaderización*) increased the land area dedicated to livestock-feed producing areas to even greater detriment to natural prairies (Perramond, 2010). The resulting land degradation has led to decline of profitability and ranch abandonment; as a result of ranch abandonment, irrigated croplands are expanding in the area, fueled by depressed land values, further increasing the threat to biodiversity (Pool, Panjabi, Macias-Duarte, & Solhjem, 2014).

In recent years, a grassroots network of ranchers has developed, connecting ranchers interested in transitioning to more sustainable styles of ranch management, such as holistic grazing management, regenerative ranching, and sustainable ranching. These

various forms of management utilize cattle ranching as a land restoration mechanism, seeking to improve biodiversity outcomes and increase the profitability of livestock production through adaptive management and rotational grazing strategies. While scientific literature has debated the merit of holistic management techniques (Briske, Ash, Derner, & Huntsinger, 2014), there is a growing belief amongst ranchers in the Chihuahuan Desert that sustainable ranching models can lead to positive outcomes for both ranching and biodiversity (Fundación Pasticultores, 2017).

Observing the conservation opportunity available, environmental organizations aiming to restore grasslands, such as Mexican Fund for the Conservation of Nature (FMCN), Pronatura Noroeste, American Bird Conservancy, Bird Conservancy of the Rockies, and Cuenca Los Ojos Foundation, are collaborating with ranchers to support sustainable practices. Several organizations have proposed the development of a large-scale private land conservation program, which will provide ranchers with technical support, collaborative networks, information sharing, and access to financing for transition to sustainable management. The program aims to include stakeholder participation in program design from the outset.

Due to apparent overlap between the goals of ranchers and the goals of conservation organizations, the proposed collaboration has the appearance of a ‘win-win’ situation, in which the increasing provision of one ecosystem service, such as provisioning (i.e., food and water), is associated with an increase in other ecosystem services, such as biodiversity (Sala, 2016). Demonstration sites showing simultaneous increase in rancher profits, improvement of rangeland grass abundance and diversity, and return of extirpated wildlife have led to hopes of a collaboration that will benefit all parties involved (Sander, 2016).

However, while win-win language is rhetorically powerful, it can obscure differences amongst stakeholders and mask the trade-offs that accompany cross-sector collaboration

(Galafassi et al., 2017; Oya, 2009). Trade-offs occur when an increase in the provision of one ecosystem service leads to a decrease in other ecosystem services (Sala, 2016).

Different stakeholders have different perceptions of and access to ecosystem services, and they have different capacities to manage for particular biodiversity and ecosystem characteristics (Díaz et al., 2011). In conservation, models such as debt for nature swaps, extractive reserves, community-based conservation, and integrated conservation and development projects have been promoted as win-win, yet have been found to harbor trade-offs between conservation and human livelihoods (McShane et al., 2011). Unverified assumptions that all stakeholders share the same ambitions can lead to structural issues within programs that precipitate problems in the future, when stakeholders' expectations are not met, setting up a "vicious cycle of optimism and disenchantment" (Wells & McShane, 2004, p. 967).

However, while trade-off scenarios appear to be more frequent than win-win scenarios, at least in the peer-reviewed conservation literature, win-win scenarios, or synergies, do exist (Howe, Suich, Vira, & Mace, 2014). Examples of documented synergies include improved cropland and grassland management, expansion of agro-forestry systems, and protection of forested areas or switching to alternative crop systems such as shade-grown coffee (Branca et al., 2013; Goldstein et al., 2012; Quintero, Wunder, & Estrada, 2009). For conservationists, some provisioning services are more likely to produce win-win scenarios than others. Positive biodiversity outcomes are more likely to be compatible with extensive grazing than arable cropland (Pool, Panjabi, Macias-Duarte, & Solhjem, 2014; Hruska, Toledo, Sierra-Corona, & Solis-Gracia, 2017), for example, suggesting that conservationists may have a vested interest in collaborating with ranchers when there is risk of land conversion (Pool et al., 2014).

In this study, we assess the perspectives of stakeholders in a new private land conservation program that is currently in development. Using Q methodology, we assess patterns of

thought that manifest through goal prioritization and consider how these manifest in different groups of people. Four clusters of individuals emerged: Sustainable Ranchers, PCA Owners,²² Conservation NGOs, and Sustainable Ranching Advocates. Among the four clusters, we find significant and promising overlap around the unifying objective of reversing and preventing desertification, but we also find key distinctions in priorities. To our knowledge, this is the first use of Q methodology to inform the design of a nascent land conservation program by assessing a range of stakeholders, and we discuss the implications of its current and potential use.

8.3 Methods

8.3.1 Q Methodology

We used Q methodology to analyze the perspectives of participants in a newly developing private land conservation program in northern Mexico. Q methodology is a semi-quantitative procedure for examining the structure of individuals' perspectives, thus providing a method to statistically analyze data that are normally in the qualitative realm (McKeown & Thomas, 2013). A method that originated in 1935 (Stephenson, 1935), it is now increasingly applied to conservation research (Holmes, Sandbrook, & Fisher, 2016; Ormerod, 2017; Sandbrook, Scales, Vira, & Adams, 2011; West, Cairns, & Schultz, 2016; Zabala et al., 2018).

Based on a sorting exercise, Q methodology requires respondents to arrange statements related to the research topic onto a grid. Factor analysis identifies clusters of individuals who have similar patterns of thought and enables comparison of their points of view.

²² In the version of this chapter submitted for publication, this group was called Lifestyle Ranchers. However, here it has been changed to PCA Owners to reflect the group's similarities with landowners who participated in research for Chapters 5-7.

Unlike conventional surveys, Q methodology aims to understand the structure of various points of view rather than assess what percentage of a population shares that view. As such, it does not require statistically random samples of participants. It aims to sample a range of views and is suitable for studies with a small number of participants, and individual participants can complete Q sorts more than once, with changes monitored over time or under different conditions of instruction (McKeown & Thomas, 2013).

We used McKeown and Thomas (2013) to guide our application of the method.

8.3.2 Key Terms

Q methodology is designed to assess *subjectivity*, or people's perceptions from the vantage point of self-reference (McKeown & Thomas, 2013). The method centers around a *Q sort*, which is a card-sorting exercise in which participants order a set of statements (the *Q set*) along the axis of a *condition of instruction*, which in this case ranged from "most important" to "least important." Statements in the Q set are drawn from a *concourse of communication*, which is the collection of views on the topic under investigation (Amin, 2000). Statements in the Q set can be selected from the concourse randomly or can be selected based on theoretical concerns (Dziopa & Ahern, 2011). Participants in the study are collectively referred to as the *P set*. Statistical analysis is used to identify *factors*, which are clusters of individuals with shared perspectives. *Consensus statements* are items from the Q set with low z-scores across factors, while *distinguishing statements* are items that one factor scores differently from the other factors.

8.3.2.1 Q Set

The starting point of a Q study is assessing the concourse of communication. We reviewed materials that reflected a variety of viewpoints on conservation-friendly ranching in a northern Mexican context. These included a pilot interview with a practicing sustainable rancher in Sonora, and materials reflecting NGOs' views, such as program proposals,

statements of need, and websites, produced by FMCN (representing a conservation orientation) and Pasticultores del Desierto (representing a rancher orientation). Other sources included published books on the political ecology of ranching and on holistic management (Perramond, 2010; Savory & Butterfield, 2016), prior analyses of the motivations of owners of private land conservation areas (Gooden & Grenyer, 2018), and literature on self-determination (Chen et al., 2015). We noted all statements that reflected a potential goal, purpose, or motive for the development of a collaborative private land conservation program. This created an initial set of 85 statements, which were coded to theoretically describe the concepts they represented (e.g., wildlife, autonomy, learning). We narrowed the Q set to 46 statements by first eliminating redundant statements, then selecting two to four statements from each coding category (Table 11).

Participants included individuals who spoke both English and Spanish, so the Q set was offered in both languages. The second author translated the statements, and they were reviewed by two native Spanish speakers who were familiar with the subject matter, which resulted in minor changes for clarity.

In addition, different versions were created for ranchers and non-ranchers. These versions included the same content, expressed from a different perspective. For example, rancher statement 9 was stated “Be connected to a group of likeminded people,” whereas non-rancher statement 9 was stated “For ranchers to be connected to a group of likeminded people.” Each version was produced in both English and Spanish.

Table 11. Q set statements with corresponding rank and z-score for each factor

No.	Statement	Factor 1		Factor 2		Factor 3		Factor 4	
		Rank	z-score	Rank	z-score	Rank	z-score	Rank	z-score
1	Take responsibility for what happens on my own land	28	-0.35	7	1.13	16	0.51	2	1.71
2	Have the personal freedom to make my own decisions	36	-0.67	13	0.64	41	-1.16	3	1.69
3	Develop local expertise so we can rely less on outside experts	35	-0.66	39	-0.93	18	0.43	12	0.75
4	Improve livestock forage in amount and quality	8	1.11	9	1.06	14	0.52	40	-1.27
5	Bring back permanent water sources, such as streams and ponds	10	0.95	5	1.20	6	1.48	26	0.06
6	Produce more robust, healthier cattle	14	0.61	10	0.90	29	-0.35	43	-1.47
7	Produce more beef per acre	21	0.09	6	1.17	33	-0.74	44	-2.05
8	Strengthen information-sharing platforms among my peers	24	-0.11	38	-0.91	21	0.14	32	-0.34
9	Be connected to a group of likeminded people	29	-0.39	37	-0.69	35	-0.92	17	0.57
10	Maintain a way of life that preserves local history and culture	33	-0.59	42	-1.25	23	0.08	13	0.73
11	Demonstrate positive impact on the landscape	22	0.08	24	0.01	17	0.49	8	0.94
12	Make a difference in the world through ranching	13	0.72	4	1.34	27	-0.23	36	-0.76
13	Be personally involved in the activities on the ranch	42	-1.11	25	-0.02	37	-0.94	10	0.8
14	Feel enthusiastic about starting a new project	41	-1.11	31	-0.21	38	-0.99	25	0.19
15	Do activities I enjoy	40	-1.09	14	0.57	46	-1.95	1	1.72
16	Strengthen policies that support biological connectivity on private lands	17	0.35	41	-1.24	13	0.68	7	0.94
17	Spread the word that ranchers are doing something nice for the environment	11	0.81	34	-0.36	30	-0.38	31	-0.19
18	Reduce hunger, poverty, and migration of people from the country to the city	15	0.58	19	0.17	28	-0.31	34	-0.72
19	Learn new tools and techniques to improve ranching	19	0.27	12	0.71	15	0.52	30	-0.19
20	Follow my curiosity and desire to learn	38	-1.03	30	-0.17	36	-0.93	35	-0.72
21	Have projects on the ranch that are significant and important	25	-0.22	18	0.22	31	-0.48	11	0.78
22	Have a worthwhile project to be involved in	20	0.15	29	-0.15	43	-1.26	23	0.22
23	Feel that ranching contributes to a meaningful life	32	-0.56	26	-0.12	26	-0.23	22	0.23
24	Enhance the network of wildlife habitats	1	1.73	33	-0.26	3	1.58	16	0.58
25	Reverse or prevent desertification	4	1.59	3	1.38	2	1.59	4	1.13
26	Provide food and habitat for native and migratory wildlife	3	1.62	16	0.34	4	1.51	5	0.97
27	Increase carbon sequestration	6	1.39	15	0.37	10	0.96	21	0.26
28	See the return of native Mexican wildlife	12	0.78	20	0.14	5	1.50	19	0.4
29	Create good soils	5	1.50	17	0.28	8	1.06	39	-0.93
30	Make ranching more profitable	16	0.36	2	1.69	9	1.04	41	-1.3
31	Have more economic security for myself or my family	34	-0.60	1	1.90	11	0.85	45	-2.23
32	Receive financial incentives from government or NGOs	46	-2.04	46	-2.48	25	-0.08	46	-2.23
33	Improve my quality of life	30	-0.53	8	1.12	12	0.76	14	0.64
34	Reduce stress	44	-1.55	36	-0.69	39	-1.11	20	0.26
35	Work in sync with my values	26	-0.33	11	0.78	34	-0.92	27	0.02
36	Feel connected to the land as part of myself	27	-0.34	28	-0.13	20	0.21	29	-0.18
37	Do something that expresses who I am	39	-1.04	35	-0.44	45	-1.94	9	0.81
38	Maintain a lifestyle and land use that is valued by the community	31	-0.54	43	-1.25	40	-1.12	6	0.94
39	Integrate agricultural and environmental benefits on my lands	18	0.29	27	-0.13	1	1.77	15	0.58
40	Integrate private, productive properties into Mexico's national conservation strategy	9	1.01	40	-1.14	7	1.23	28	-0.16
41	Demonstrate how cattle can be used to reverse the destruction of the planet	2	1.67	21	0.05	24	-0.02	38	-0.92
42	Create job opportunities in my community	23	0.04	22	0.04	32	-0.64	33	-0.71
43	Demonstrate that cattle ranching can contribute to halting climate change	7	1.38	23	0.02	22	0.13	37	-0.92
44	Improve my relationship with government agencies	45	-1.99	45	-2.40	42	-1.22	24	0.2
45	Reduce my need for government subsidies and external inputs	43	-1.35	44	-2.05	19	0.22	42	-1.32
46	Feel positively challenged by my work	37	-0.85	32	-0.24	44	-1.34	18	0.51

8.3.2.2 *P Set*

Participants included 31 ranch owners, ranch managers and representatives, representatives of NGOs and professional networks, and ranching consultants who were considered stakeholders in a new private land conservation program currently under development. All were interested in sustainable ranching in northern Mexico. Ranches varied in the species they managed, including cattle, deer, and elk.

Participants were identified by their association with a developing private land conservation program (Appendix 6). Organizations were identified by their engagement in the issue of conservation-friendly ranching in the geographic area of interest, and staff within the organizations were selected by their remit and decision-making authority. Ranchers were identified by their participation in emerging networks and attendance at events such as sustainable ranching workshops. Amongst ranchers, the size of ranches ranged from 690 to over 53,800 ha (some non-contiguous), and ranches were located in the states of Sonora, Chihuahua, Coahuila, and Nuevo León.

8.3.2.3 *Q Sort*

After initial explanation of the project, method, and ethics information, respondents were given the option of doing the exercise in either English or Spanish (Appendix 5). Survey administrators were available in both languages. Following language selection, participants began the Q sort activity by looking through a set of 46 cards. Each card included one statement from the Q set, and participants were instructed to sort them so that they were ranked according to importance to them personally. Participants were encouraged to begin with an initial sort, in which cards were grouped into three piles: those participants thought were most important, those least important, and those in the middle. The Q sort continued with the sorting of statements from the three piles onto the grid, beginning with the column at the “most important” end of the grid, then the column

at the “least important” end of the grid, and alternating between the two poles until all columns were complete.

During the activity, participants were encouraged to explain the thoughts behind their card placements, and audio was recorded with permission. The recordings of the two participants who had highest weight for each factor (see Analysis, below) were transcribed, and Spanish transcripts were translated to English. This provided qualitative data to assist with interpretation of the factor analysis results.

In two cases, participants asked to include a colleague in the process, and this was permitted. In addition, two participants who were employed by NGOs that advocated for conservation-friendly ranching were also ranchers themselves; in these cases, they did the exercise twice, once from each perspective.

The board used for Q sorts follows a normal distribution, which assists analysis by keeping standard deviations constant across participants (McKeown & Thomas, 2013). Because adherence to the grid is not a requirement of statistical analysis, respondents were encouraged but not required to adhere to the distribution of the grid. 23 sorts followed the grid, and 10 varied from the grid’s normal distribution.

8.3.3 Statistical Analysis

We followed a standard analytical process for Q methodology (Figure 12). Q sorts were correlated, and a factor analysis was conducted, extracting 7 centroid factors. Four factors were kept for rotation, based on visual inspection of the inflection point on the Eigen value plot. We rotated the four factors using Varimax rotation. We used the software to compute factor scores and automatically flag respondents’ Q sorts to factors. Seven participants were not flagged for any factor. The Q sort data were analyzed with Ken-Q Analysis version 0.11.1, available at <https://shawnbanasick.github.io/ken-q-analysis/>.

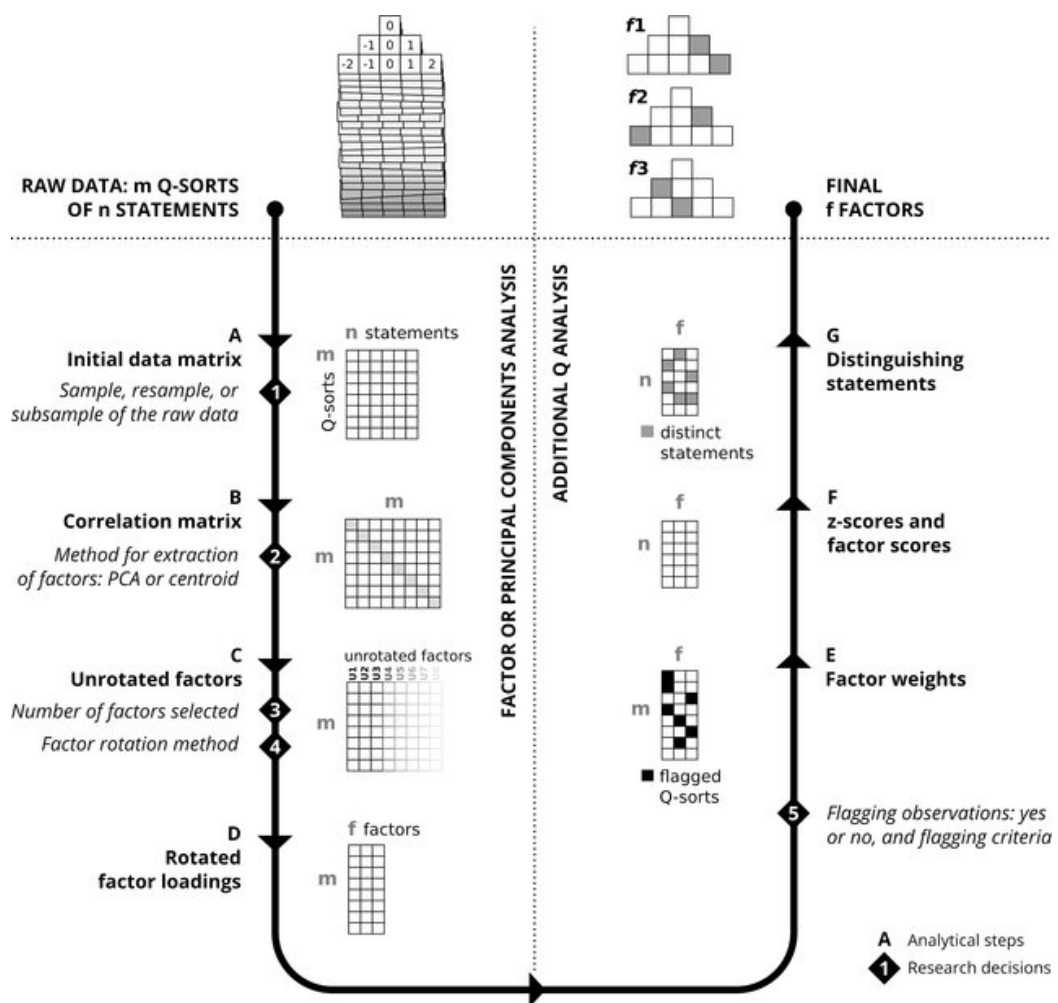


Figure 12. The standard analytical process in Q methodology (Zabala & Pascual, 2016)

8.3.4 Interpretative Analysis

Following statistical analysis, the analyst must interpret the factors. Each factor's perspective is interpreted through an idealized Q sort, which represents the most common ordering of the Q set statements by participants who were flagged for each factor.

Interpretation of the four factors was made by inspecting and comparing statements of highest and lowest importance to each factor, the relative importance of statements in various coding categories, and position of statements that were distinguished for each factor at $p < 0.05$ or $p < 0.01$.

Interpretation was assisted by transcribing and analyzing interviews with the two individuals whose sorts carried most weight in each factor (McKeown & Thomas, 2013).

8.3.5 Ethics

This study was approved by the University of Oxford Central University Research Ethics Committee (#SOGE 17A-191) in accordance with the Association of American Geographers Statement on Professional Ethics.

8.4 Results

In results, the Q statement numbers and Q-score (range -4 to 4) for that statement for that factor are in parentheses. Distinguishing statements ($p < .05$) are marked with an asterisk.

8.4.1 Consensus Statements

In order to identify areas of broad agreement, we examined statements with low z-score variance across the four factors, which were identified as consensus statements (Table 12).

The goal with greatest consensus was *Reverse or prevent desertification* (z-score 0.035), which received an average Q-score of 3 or 4 by every factor. This was the only statement in the ten statements with greatest consensus that was uniformly seen as a high priority. All

other statements with a high degree of consensus indicated agreement about goals that ranked in the middle, as neither high nor low priority. The second-highest ranking statement of those with low z-score variance was *Increase carbon sequestration* ($z=0.211$). The fact that there is a high degree of consensus that reversing or preventing desertification is a top priority indicates widespread agreement that this goal can serve as a focal point to draw participants together.

Table 12. Consensus statements with Q-score and z-score²³

State Num	Statement	State Num	Factor 1		Factor 2		Factor 3		Factor 4	
			Q-score	z-score	Q-score	z-score	Q-score	z-score	Q-score	z-score
23	Feel that ranching contributes to a meaningful life	23	-1	-0.56	0	-0.122	0	-0.232	0	0.23
25	Reverse or prevent desertification*	25	3	1.587	4	1.382	4	1.589	3	1.13
36	Feel connected to the land as part of myself	36	0	-0.34	-1	-0.133	0	0.21	-1	-0.18
42	Create job opportunities in my community	42	0	0.04	0	0.04	-1	-0.64	-1	-0.71

²³ All listed statements are non-significant in distinguishing across factors at $p > 0.01$; † indicates non-significance at $p > 0.05$.

8.4.2 Factor 1

Figure 13 and Table 13 illustrate the unique characteristics of each of the four factors.

Factor 1 was associated with 10 respondent sorts and included a diverse range of professionals, including ranch management consultants, NGO representatives, and ranchers. They exhibited a high level of interest in wildlife (26, 4; 24, 4; 28, 2) and the environment (27, 3; 29, 3; 25, 3), as well as themes related to influence and win-win solutions (41*, 4; 43*, 3; 17*, 2). They were distinguished ($p < 0.05$) by their views that cattle ranching can provide a solution to environmental problems (41*, 4; 43*, 3; 17*, 2; 12*, 1). They ascribed less importance to issues of ranchers' personal expression (37*, -2) and enjoyment (15*, -3).

All three (100%) of their highly-ranked distinguishing statements (Q-score >1) and zero of their two (0%) lowest-ranked distinguishing statements (Q-score < -1) concerned ranching, indicating a higher positive emphasis on ranching than the other factors. However, statements related specifically to livestock were not ranked highly, suggesting that livestock management was seen as a means to the end of solving environmental problems.

During their sorts, individuals in Factor 1 explained that high quality soil is the foundation for all other priorities: good soil leads to good grass, which leads to healthy cattle and wildlife, and healthy animals improve life for one's family and oneself. Their strategy for sorting statements followed this logical process.

8.4.3 Factor 2

Factor 2 was associated with 8 respondent sorts, all of which were completed by ranchers. The most salient themes for factor 2 concerned the environment (25, 4), profit (30*, 4; 31*, 4), and livestock (7*, 3; 5, 3). The factor was focused on profit and the benefits ranching offers as a means of securing a livelihood. The three lowest-ranked statements concerned

government (32, -4; 44, -4; 45*, -4), and low priority was also given to maintaining local culture (38, -3; 10*, -3).

Of Factor 2's distinguishing statements, highly-ranked statements focused on profit (30*, 4; 31*, 4), efficacy (12*, 3), and production (7*, 3), whereas low-ranked distinguishing statements concerned reducing need for government subsidies (45*, -4), preserving local history and culture (10*, -3), and integrating conservation-friendly ranching into policy (16*, -3; 40*, -3).

Positive environmental impacts, such as reversing desertification, creating good soils, and increasing carbon sequestration were generally seen as a higher priority than improvements for wildlife specifically, such as providing food and habitat, improving connectivity, and seeing the return of native species.

Three of four highest-ranked distinguishing statements (Q-score >1) and zero of 5 lowest-ranked distinguishing statements (Q-score <-1) concerned ranching, indicating a high emphasis on ranching similar to Factor 1's. Together with the high priority placed on profit and livestock, this suggests Factor 2 considered livestock and ranching a means to securing an income for themselves and their families.

Interview commentary suggested that the sorting process used by Factor 2 was not as calculated as that used by Factor 1; interviewees sorted statements based on intuitive feeling rather than declared logic.

8.4.4 Factor 3

Factor 3 was associated with 5 respondent sorts, all of which were completed by NGO representatives. This factor placed a high emphasis on wildlife (24, 4; 28*, 3; 26; 3) and the environment (25, 4), as well as win-win solutions (39*, 4) and policy integration (40, 3), reflecting a conservation-driven mission. Low-ranked statements concerned ranchers'

personal experience, reflecting themes such as identity, engagement, learning, meaning, and connection (15*, -4; 37*, -4; 46, -4; 22*, -3; 44*, -3; 38, -3).

Only 1 of the factor's four high-ranked distinguishing statements (Q-score >1) (25%) and zero of four low-rated distinguishing statements (Q-score <-1) (0%) concerned ranching, indicating less emphasis on ranching than other groups. Compared to Factor 1, which also included NGO representatives, Factor 3 places more emphasis on ranchers' economic security and quality of life. Coupled with the high emphasis on wildlife and the environment, Factor 3 appears to consider ranchers' profit and economic security to be a means to improving wildlife and environmental outcomes.

Factor 3 was the only factor that believed subsidies from government or NGOs was even moderately important to ranchers, differing significantly from the other three factors, which placed subsidies at low importance.

Interview commentary suggested that individuals in Factor 3 placed lower priority on the ranchers' personal experience not because it is not important, but because it is not their mission. Commentary also suggested that ranching was viewed as a tool for improving habitat and benefitting wildlife.

8.4.5 Factor 4

Factor 4 was associated with only three respondent sorts, one of which loaded negatively onto the factor. The two respondent sorts that loaded positively onto Factor 4 were ranchers who owned ranches on which species such as elk were more prominent than cattle. In many respects, members of Factor 4 had a set of priorities that differed substantially from the other three factors.

The highest priorities for Factor 4 were personal, related to autonomy (2*, 4; 1, 4) and enjoyment (15*, 4). In general, statements concerning autonomy, engagement, efficacy,

meaning, and identity were more highly rated by this factor than any other. Low-ranked statements were tightly clustered around economic security (32, -4; 31*, -4; 30*, -3) and livestock (7*, -4; 6*, -3; 4*, -3).

Among distinguishing statements, those that were highly ranked (Q-score >1) were dominated by factors related to the personal experience of ranching. The low-ranked distinguishing statements (Q-score <-1) concerned economic security (32*, -4; 31*, -3), livestock (7*, -4; 6*, -3; 4*, -3), soils (29*, -2), and demonstrating that cattle ranching can be a solution to environmental problems (43*, -2; 41*, -2).

Factor 4 was the only factor that ranked neither wildlife nor environmental statements at the highest level (i.e., at Q-score of 4). Statements concerning impacts on wildlife were on average ranked more highly than statements concerning the environment more broadly.

Only one of the factor's five highly-rated distinguishing statements (20%) concerned ranching, while four of five low-rated distinguishing statements concerned ranching, indicating that ranching was less central to this factor's goals. Ranking results suggest that Factor 4 considers wildlife and the environment to a means to a positive personal experience through land.

During their sorts, individuals in Factor 4 emphasized the importance of the properties to their sense of happiness and the properties' function as a means of making a positive difference in the world.

8.4.6 Participant observations

Participants indicated a high level of enjoyment in the Q sort activity. Interest in participating in our study was high, and many participants stated afterward, without solicitation, that they found the experience enjoyable.

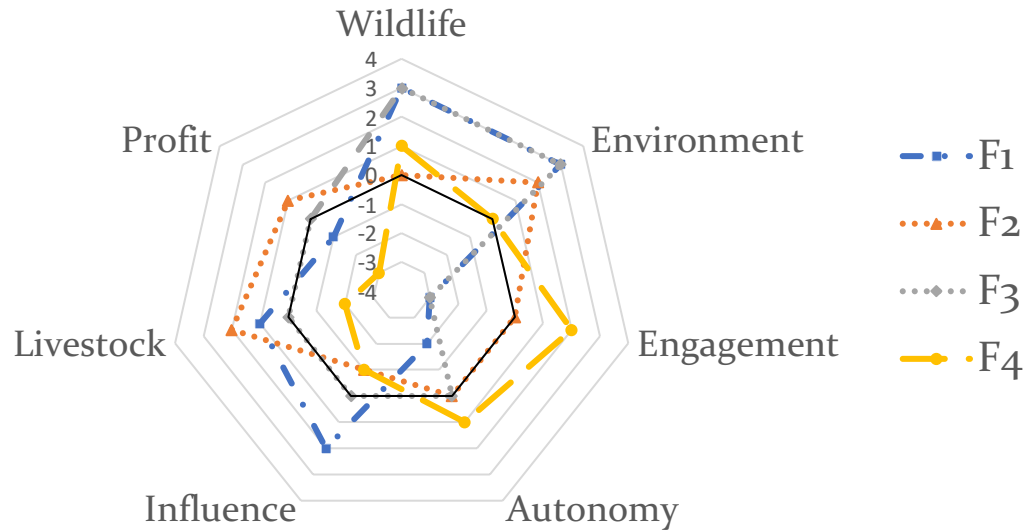


Figure 13. Relative priority given to various components by each of the four factors identified in analysis

Table 13. Themes of high and low priority for each of the four factors

	Factor 1	Factor 2	Factor 3	Factor 4
High priority	Wildlife, environment, influence, win-win	Environment, profit, livestock	Wildlife, environment, win-win, policy integration	Autonomy, enjoyment, personal experience
Low priority	Personal experience of ranching, enjoyment	Interacting with government, culture	Personal experience of ranching	Profit, economic security

8.5 Interpretation

Our results suggest the existence of at least four ways of thinking about private land conservation in the context of ranching in northern Mexico. Three of these positions were anticipated, including differences between NGO representatives and ranchers and between ranchers who used their ranches as a primary income source and those who could be described as lifestyle ranchers. We did not anticipate that NGO representatives would be partitioned into two distinct factors, distinguished by the emphasis they placed on ranching as a direct versus indirect solution.

Below we interpret and offer descriptive labels for each factor. While these labels simplify the nuanced association with each factor, they enable us to distinguish perspectives and consider them in the context of other literature.

Factor 2 and Factor 4 both embody the perspectives of ranchers, but they have divergent opinions about the priorities of a private land conservation program. Factor 2 represented a perspective associated with sustainable agriculture, so we labeled it Sustainable Ranchers. The emphasis here is on caring for the environment in a way that ensures the ongoing operational and financial viability of ranching as livelihood. However, some highly-ranked factors differed from a purely sustainable use perspective, although they were consistent with it, including a high priority placed on making a difference in the world through ranching and working in sync with values. In addition, Factor 2 unexpectedly placed low priority on receiving financial incentives from government or NGOs, improving their relationship with government agencies, and reducing need for government subsidies, which were seen as the least important statements. Individuals in this group share similarities with the perspectives of western US ranchers labeled “radical center conservationists” in their emphasis on the compatibility of ranching and conservation (Lien, Lopez-Hoffman, Svancara, Vanasco, & Ruyle, 2017).

Factor 4 exhibited thought patterns associated with lifestyle or hobby ranching. For these individuals, factors associated with engagement, such as autonomy, efficacy, connection, and meaning are highly prioritized. This group may engage in functional leisure, or voluntary (uncoerced) activities that people engage in that result in an end product or accomplishment (Farmer et al., 2016), and they appear to have much in common with the owners of private nature reserves more generally (Gooden & Grenyer, 2018). Individuals in Factor 4 are motivated to manage land for environmental conservation because it is in line with their values. They have generally earned their money through other means and see protecting land as a way of making a positive impact and using their resources for the greater good. We have called this group PCA Owners.

Factor 3 represents a set of views associated with conservation organizations, specifically organizations holding the view that conservation outcomes must be aligned with locals' interests if conservation is to succeed. We have named this group Conservation NGOs. This group aims to demonstrate that sustainable ranching can be good for both the environment and ranchers' profit margins. Therefore, their interest in sustainable ranching is rooted in its foreseen potential to improve the financial security of landholders who can provide a space for wildlife to live alongside domesticated animals. We associate the latter view with the "traditional conservation 2.0" label, which describes traditional conservationists who promote the conservation of biodiversity in both protected areas and human-modified environments (Holmes et al., 2016). As noted, Conservation NGO representatives' sorts showed they believed that subsidies to ranchers are of moderate importance, contrasting with the perspectives of the other three groups, which placed subsidies at a low level of importance. This point is directly relevant to program design and should be further investigated prior to subsidy decisions being made.

Factors 2, 3, and 4 mapped onto an expected stakeholder framework, but Factor 1 did not. This group was the most diverse in terms of professional constituency, including

consultants, NGO representatives, and ranchers. Factor 1 shared aspects with Factor 3, including a high prioritization of wildlife and the environment and low prioritization of landowner engagement, identity, and culture. However, it diverged from Factor 3 due to its strong optimism about sustainable ranching as a solution to environmental and social issues and desire to demonstrate this through the program. In effect, where Factor 3 placed emphasis on *ranchers*, Factor 2 emphasized *ranching*. Factor 1 also shared aspects with Factor 2, including a strong emphasis on ranching and cattle, but Factor 1 placed lower priority on the personal experience of ranching, including themes such as autonomy, connection, engagement, and identity. It appears that, where Factor 3 considers ranching a means to improvement of the environment, and Factor 2 considers the environment a means to improvement of ranching, Factor 1 considers ranching and the environment equally important and even inherently intertwined. Factor 1 appears to share a view of ranching compatible with that of Judith Schwartz (Schwartz, 2013). This, coupled with the group's diverse make-up, led us to call it Sustainable Ranching Advocates.

8.6 Discussion

Our results have several programmatic implications for the development of a private land conservation program based on sustainable ranching in northern Mexico. Promisingly, we find strong evidence for reversing and preventing desertification as a unifying objective for the participants in this study. Reversing and preventing desertification was not only the most highly rated of all objectives, it was also the most consistent across groups, as demonstrated by low z-score variance. We believe this point of consensus bodes well for group cohesion, providing an overarching goal that all parties can work toward.

On the other hand, our analysis has revealed that stakeholders differ in their other priorities. While we find evidence of different priorities amongst conservation NGOs and

ranchers, the stakeholders in this study cannot be neatly divided into two groups.

Ranchers differ in the extent to which they prioritize ranching outcomes compared to personal factors, such as autonomy and enjoyment. Likewise, while all NGOs involved in this study place high priority on outcomes associated with wildlife and environment, the two groups with NGO members differ from each other in their relative emphasis on ranching outcomes.

Our study did not assess potential trade-offs directly, but we can make hypotheses based on our results. Sustainable Ranching Advocates (F1) may need to invest a significant amount of energy into advocacy and attempts to influence others in order to realize their ambition of reorienting the prevailing discourse around ranching and the environment. Sustainable Ranchers (F2) may need to make temporal trade-offs, exchanging short-term profit for long-term profit and improvements in environmental quality (Rodríguez et al., 2006). Conservation NGOs (F3) may need to exchange control, organizational resources, and adherence to strict conservation measures (e.g., use of African grasses vs. native grasses on ranches) for improvements in environmental quality and wildlife habitat (Sloan, 2009). PCA Owners (F4) may choose to give money, autonomy, and time in exchange for an opportunity to be part of a demonstration project with the capacity to address problems at the intersection of food security and biodiversity conservation (Martela & Ryan, 2016). These trade-offs occur primarily within groups and represent the short-term costs associated with anticipated long-term benefits of the program. Between groups, the 'winners' in trade-off scenarios tend to be private interest over public interest, provisioning ecosystem services (i.e., food and water) over broad ecosystem services (i.e., land and water for species), and use of resources at a local scale over a broad geographic scale (Howe et al., 2014). Together, these factors suggest that participation in this private land conservation program entails greater risk for conservation advocates than for ranchers.

Despite foreseeing some trade-offs, we are optimistic that this program has potential for a win-win scenario. Interestingly, win-win scenarios are more likely to result when program designers pay deliberate attention to trade-offs than when they focus on achieving synergy. Stakeholder management requires time and resources (Sterling et al., 2017), but by attending to trade-offs from the outset, programs can actively manage the ongoing satisfaction of all stakeholders, increasing the probability of success (Howe et al., 2014; Reed, 2008). Therefore, we recommend that trade-off analysis be incorporated into program design.

Beyond its immediate use, this study provides information that can be used for ongoing program evaluation. We have identified groups of stakeholders and their priorities, which can now be tracked over time to assess satisfaction with program participation. Some priorities, such as those related to wildlife, the environment, and livestock, are obvious outcome measures for a sustainable ranching program. Others, such as the need for profit amongst the Sustainable Ranchers (F2) and the priority given to personal experience and engagement by the PCA Owners (F4), are less conventional outcome measures for conservation programs. Our results can be utilized to develop a survey to assess baseline satisfaction in the various priority areas and track changes over time, thus providing a mechanism to monitor the extent to which each group feels their objectives are being satisfied (Zabala et al., 2018).

While some studies have used Q methodology to assess individuals' attitudes and motivation for specific behaviors (e.g., Nordhagen, Pascual, & Drucker, 2017) and others have assessed satisfaction with particular programs (e.g., Zabala, Pascual, & García-Barrios, 2017), to our knowledge, this paper provides the first published evidence of the use of Q methodology to assess stakeholder perspectives for the purpose of conservation program design and to include a range of stakeholder types. As we have indicated, our findings suggest that the stakeholders' views in this study share similarities with perspectives

identified in other research, yet we expect that the nature and range of perspectives differs across context (Knowler & Bradshaw, 2007). We believe this application of Q methodology has been fruitful, providing not only a template for further research with more participants in diverse contexts, but also actionable results that can inform the development of a strong and successful private land conservation program in northern Mexico.

8.7 Acknowledgements

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PART 3

Chapter 9

Synthesis

In this thesis, I have sought to answer the question of what motivates individuals who purchase or create PCAs. I have made analytical contributions in five chapters. In Chapter 3, I reviewed literature critical of PLC, identifying themes and analyzing connections between them to classify schools of thought. I began my own empirical work in Chapter 5 with a grounded theory analysis of the co-benefits associated with conservation land ownership. In Chapter 6 I presented the results of a grounded theory analysis of narratives, which resulted in a proposed model of PCA engagement based on landowners' narratives. Chapter 7 explored how a pragmatist concept of self and identity illuminates PCA owners' relationships with their properties. Finally, in Chapter 8, I tested findings from Chapters 5-7 in a case study using a Q methodology process.

The four empirical chapters in Part 2 (Chapters 5-8) provide alternative but complementary levels of analysis for investigating the question of PCA owners' motivations. Chapters 5 to 7 proceed in order of psychological depth, or level of explicit awareness (Figure 14). I began in Chapter 5 with a grounded theory analysis focused on interviewees' explicit statements, which allowed me to provide a structure for conceptualizing the nature of PLC's personal co-benefits to landowners. In Chapter 6, I began analyzing entire narratives and found evidence for engagement as a unifying factor across all interviewees. Interviewees rarely spoke about engagement as a conscious process, yet it was clear that it lay beneath many of their stories. During the course of my grounded theory analysis, it also became apparent that identity was affecting PCA ownership. Identity exerts deeper and less conscious influences on behavior (Clayton, 2003; Terry, Hogg, & White, 1999). Consequently Chapter 7 provided an opportunity to explore how identity was involved in landowners' engagements with PLC. Theory generated or identified in Chapters 5 to 7 was incorporated into the design of the case

study in Chapter 8, thus providing an empirical test of the prior chapters’ analytical findings.

I will summarize the factual and conceptual conclusions drawn from the empirical analyses in the following chapter (Chapter 10). Here I reflect on several themes that run throughout the analytical chapters, considering the consequences of a pragmatist epistemology and inductive research design, dimensions of motivation, and implications of the research for the involvement of high net worth individuals in conservation and for PLC policy.

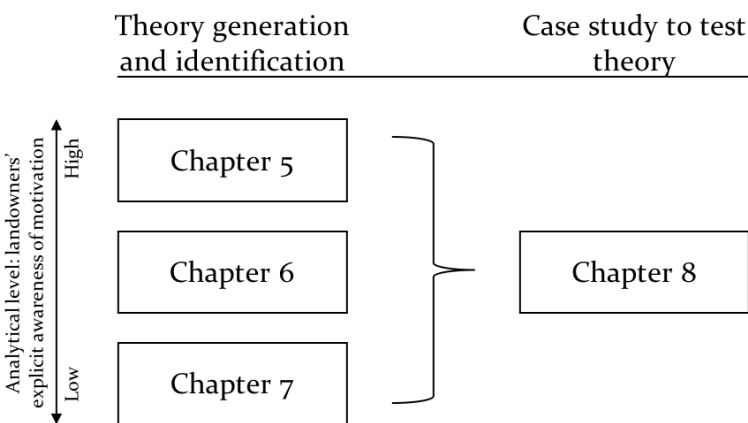


Figure 14. Relationships among empirical chapters in Part 2

9.1 A Pragmatic Approach to Private Land Conservation

This thesis's epistemological foundation in American pragmatism had multiple implications for the implementation and outcomes of the research. Pragmatism takes as its starting point the individual, who is the "carrier of creative thought, the author of action and of its application" (Dewey, 1931/1982, p. 39). This element of pragmatism has drawn criticism for an apparent lack of attention to social context, but in pragmatism the individual is only a starting point, for "the individual which American thought idealizes is not an individual *per se*, an individual fixed in isolation and set up for himself, but an individual who evolves and develops in a natural and human environment" (Dewey, 1931/1982, p. 40). In this way I have given analytical priority to the individual, but I have explored how the individual is influenced by and embedded in natural and social environments. This approach has drawn attention to the importance of social networks, and it has created opportunity for new ways of theorizing landowner identity through James's concept of the extended self.

Pragmatism's commitments to instrumentalism and meliorism influenced the scope of my questioning about human motivation. Instrumentalism refers to the purposive nature of thought, a conception of thought as a teleological instrument that connects thinking to action. For pragmatists, thought and reason have a creative, constructive function. People form general ideas and put them into action, producing consequences that could not have occurred otherwise, reflecting the "human and moral importance of thought and of its reflective operation in experience" (Dewey, 1931/1982, p. 33). The purposive nature of thought provides a conceptual link between landowners' perspectives and their actions, illustrating a utility of interviews. Meliorism, the idea that human action can improve the human condition, lends an optimistic angle to the thesis, a foregrounding of agency and belief in a human impulse toward generativity. Instrumentalism and meliorism are also echoed in the worldview of PCA owners, for the entire premise of a PCA rests on the

ability of individuals to envision a different future and act with purpose (Dewey, 1931/1982).

Pragmatism's dedications to pluralism, radical empiricism, and fallibilism shaped the research design. The pluralist approach reinforces my insistence on the value of understanding perspectives. This appears in Chapters 5-8 as an emphasis on landowners, which necessitated active listening and an empathic approach to interpretation as methodological imperatives. It also informed my decision to situate landowners' perspectives in the context of others' – of critics (Chapter 3) and, in the case study, of additional program stakeholders (Chapter 8). My concern with radical empiricism was bolstered by both pragmatism and the dictates of grounded theory methodology, and it is apparent in my choice to begin with empirical data and work toward theory, rather than the reverse. But, in line with instrumentalism, I deploy a variation of empiricism that emphasizes consequent over antecedent phenomena. Fallibilism, finally, asserts boundaries around the claims I can make based on this research. A fallibilist approach requires that all concepts and theories be subject to revision. I have put forth my conceptual explanations of motivation for private land conservation, which arose from data and were verified against data, reflecting my understanding of the experiences of a particular set of people at a particular point in time. To the extent that these concepts are historically contingent, their applicability to people in other contexts must be verified and the components potentially modified for fit. Together these principles helped drive the research toward what I believe Haack would assess as a genuine inquiry (Haack, 1998).

9.2 Motivational Degree and Awareness

Two dimensions of the motivation construct – degree and level of awareness – illustrate how the research approach used here differs from most research on motivation in conservation. The first dimension, degree, is the amount of intrinsic motivation a person

has, and it ranges from none (*amotivation*) to high (Ryan & Deci, 2000b). The PCA owners in this research, as a whole, had a high degree of intrinsic motivation, demonstrated in part by what they were willing to invest in terms of time, effort, resources, and commitment. As a result, the signal-to-noise ratio in the study was high, and I was able to observe the nature of participants' motivation more clearly than if their degree of motivation was low.

Most existing research, in contrast, has isolated participants not by level of motivation, but by program participation (actual or potential) or geography (e.g., DeAngelo & Nielsen-Pincus, 2017; Drescher et al., 2017; Farmer et al., 2016; Honig et al., 2015; Lute, Gillespie, Martin, & Fontaine, 2017; Ramsdell et al., 2016; Stroman & Kreuter, 2015; Torabi et al., 2016; Welsh et al., 2018). This has several advantages, including clear relevance to the program and region and specificity to particular conditions (e.g., incentives, culture, biodiversity value). However, this also means that conditions specific to the program or geographical location cloud the results, making it difficult to ascertain what intrinsic motivation to conserve land looks like. In the present research, the high degree of motivation coupled with the diversity of policy, cultural, and biogeographical environments allowed me to identify patterns of intrinsic motivation across contexts.

A second dimension of motivation apparent in this research was that of conscious awareness. As noted in Chapter 2, motivation operates across multiple levels, from the biological to the social (Ryan, 2012a). As a corollary, motivations also vary in the degree to which they are conscious. I began my research with a Kellian approach, assuming that a researcher can trust the accounts of personal experience given by participants (Kelly, 1955). This provided a useful starting point, but I encountered the *transparent self problem*, which is that people are not consistently aware of and able to articulate their inner experience (Hollway & Jefferson, 2013). In past studies, researchers in this situation have tended toward one of two strategies. Either they adopted a theory-driven approach,

often critical, or they took interviewees' responses at face value, reporting explicit statements about motivation. Both of these approaches have their weaknesses. Theory-driven approaches are useful for verifying the accuracy or applicability of theories, but they risk prejudicing the data. Analyzing only explicit statements is also problematic. Many studies on PLC use survey methods, with question formats including Likert scales or response options that isolate motivations from their context (e.g., Drescher et al., 2017; Farmer et al., 2016; Moon & Cocklin, 2011; Ramsdell et al., 2016; Raymond & Brown, 2011; Stroman & Kreuter, 2015, 2014). A number of other PLC studies use structured or semi-structured interviews, often in combination with a quantitative component. Like surveys, this question-and-answer format divorces interviewees' answers from their context and meaning (Mishler, 1991). As a result, these studies have few qualitative analytical options aside from reporting their results as lists of themes (Lute et al., 2017; Selinske et al., 2015; Torabi et al., 2016; e.g., Welsh et al., 2018). These studies are not able to transcend the transparent self problem because they are restricted only to information that participants can explicitly convey.

Only a limited number of PLC studies reported using methods that can address the transparent self problem, such as loosely-structured interview styles that provide the analyst with rich data that lend themselves to theorizing. Of these, Cooke and Corbo-Perkins (2018) analyze content by theme, Honig et al. (2015) report responses in the context of a pre-existing theoretical framework, and Drescher (2014) uses phenomenological methods to describe the personal experience of owning rural land. Only Farmer-Bowers and Lane (2009) provide an empirically-rooted conceptual framework to explain land management decisions, which in their case is concerned with farmers' decision-making processes. Methods like grounded theory allow an analyst to go beyond explicit statements without resorting to preconceived applications of existing theory, providing a middle way between preconceived theory and the transparent self

problem. To my knowledge, my applications of grounded theory, in Chapters 5 and 6, were the first to explain motivations in the context of PLC.

9.3 High Net Worth Individuals in Conservation

Not all participants in this research were high net worth individuals; however, some were, and the broader themes of land ownership and philanthropy have implications for the way conservationists interact with people with wealth. Research on the topic of philanthropy reinforces the present findings on PCA owners' motives. In a recent survey of global high net worth philanthropists, 73.1% gave 'for personal satisfaction' – the second highest motivator after 'making a difference' (US Trust, 2014). This is consistent with psychological research that suggests self-determination (autonomy, efficacy, and social connection) can explain the well-being benefits of philanthropic giving (Martela & Ryan, 2016; Woodyard & Grable, 2014). A study of philanthropists involved in peacemaking activities found they were driven by their 'whole-hearted engagement' in the activity (Gabriel & Goetschel, 2016), and philanthropy can also positively impact identity (Maclean, Harvey, Gordon, & Shaw, 2015). These findings intimate that the motivations identified in my study may have broader applicability in conservation philanthropy.

As I described in Chapter 1, my decision to focus on individuals with the resources to purchase land was not uniformly well-received. Detractors maintained that studying the impact of HNWIs was demeaning to non-HNWIs, that international land purchase for conservation was inherently problematic, and that, because the perspectives of people with wealth already dominate the culture, researchers should focus on giving voice to those with less power. Additional issues associated with wealth were discussed in Chapter 3, including elitism, maintenance of an unjust status quo, inequality, agenda-setting, exclusion, and self-serving motivations. These factors are real, and true in the pragmatist sense of the term. Yet, at the same time, much of the work done in conservation is made

possible by the charitable donations of HNWI's. It is estimated that the cost of reducing extinction risk for all globally threatened taxa exceeds \$76.1 billion annually (McCarthy et al., 2012). As governments slide back on commitments to support protected areas (McCarthy et al., 2012; Stolton et al., 2014), it will fall increasingly to private and community entities to contribute the resources that fund conservation work. The present research shows that at least some conservation philanthropists want to be engaged in conservation in a way that goes beyond their bank accounts. They are looking for personal projects, relationships with endeavors that are meaningful, endure over time, and result in a sense of having done something good for the world.

The area of greatest discrepancy between critical literature and landowner interviews concerned whether landowners' motives were self-serving. Critical geographers and political ecologists such as Ramutsindela (2015), Geisler (2015), Holmes (2015a), and Brockington (2009) contend that landowners are trying to maintain a favorable political status quo and serve their own interests in networking, status, and being on-trend. I raised several points of critique in several interviews and asked if they resonated with participants. Not surprisingly, interviewees generally disagreed. From their perspective, they are expending time, effort, and considerable resources for an activity to benefit the public good. One response was that the critics had little idea of what private land conservation was like on the ground:

I would say they are completely wrong. I would say it fizzles down to prejudice, to the idea that anyone with money couldn't possibly do any good... No, I wouldn't agree with those criticisms at all. (F332)

It's a myth. Tell the academics to work a bit more and see the reality. I'm not a rich person, and I'm losing money on this. I'm not an elite. (F252)

Despite their disagreement, nearly all I questioned engaged with me on issues of critique, sometimes sympathizing with the sentiments.

I can only speak for our family. We live relatively simply. We live our entire professional lives for this... we have worked in philanthropy to responsibly decide how to give away our resources. And we don't just listen to wealthy people. We think about what communities need, about inequality, how to give more opportunities to make communities better. It takes a lot of learning, research, testing...*But at the end of the day, we make the decisions.* It's the burden of philanthropy. It sounds ridiculous to people who aren't in the situation. Maybe it's more of a responsibility than a burden. It's very complex. (M280)

Additionally, in January 2018 I presented some of the material from Chapter 3 at the biannual congress of the International Land Conservation Network. In the talk I focused on three issues: neocolonialism, self-serving motives, and accountability. During the Q&A period, discussion immediately turned to the fact that attendees had encountered these issues in their work, but because the issues had not been articulated previously, attendees had neither vocabulary nor tools to address them. Two PCA owners in attendance requested that the material be turned into a workshop for landowners. From the interviews and presentation, I concluded that PCA owners are willing to discuss, deliberate, and otherwise engage with the ideas but that there are few if any fora in which they could do so. Deliberate attention to conservation governance could provide a way forward (Lockwood, 2010). A governance effectiveness approach (Chapter 3, p. 74) would allow landowners to engage proactively with questions of power, authority, and responsibility within a framework that is both intelligible and manageable.

More work must be done to assess needs and opportunities in this area, but it seems clear that critique delivered without an effort to understand landowners' perspectives will be counterproductive, closing down opportunities to engage. Based on this concern, I would recommend that tools for engaging PCA owners in discussion on governance be informed by critique but rooted in an empathic approach.

9.4 Reflection on Research Design

There are a number of ways this research might have been undertaken differently. Here, I reflect on how the outcomes would have differed had I taken either of two alternative routes commonly used in the field: a deductive approach or a critical approach.

Researchers including Drescher et al. (2017), DeAngelo and Nielsen-Pincus (2017), Farmer et al. (2016), and Raymond and Brown (2011) have employed deductive research designs in their studies of private land conservation. Methods were generally quantitative or ‘little q’ qualitative (Willig, 2013), most commonly surveys and structured interviews. Had I adopted this approach, my findings would have benefitted from being more generalizable, at least to the population studied, and more conclusive in terms of either supporting or disconfirming theory. However, because these studies formed hypotheses based on prior research, the range of findings was limited to what was already published or deduced by the researchers. Adopting this approach in my research would have meant that new findings would have been more difficult to achieve, and new theory development such as that presented in Chapters 5 and 6 would have been outside the range of potential outcomes.

Other researchers, including Cooke and Corbo-Perkins (2018), Shanee et al. (2015), Massé and Lunstrum (2016), and Holmes (Holmes 2014, 2015b) have employed critical methods in their work. This approach is theory-driven and supported by empirical evidence. Data were derived from interviews and interpreted through the lens of critical theory, including themes such as governmentality, accumulation, neoliberalism, and neocolonialism. The methods are similar to the theoretical analysis I employed in Chapter 7, except that the range of theoretical options is usually limited to concepts that explore power, structure, resources, and conflict. Using this approach would have yielded richer insight into the economic and social structures in which PCA owners operate, and it would have given

greater attention to the response of people who are affected by PCAs. However, this approach would also have come with some limitations: my results would have been framed in terms of a predetermined theoretical lens and my contribution constrained to an assessment of the applicability of theory to new cases.

Both the deductive and critical approaches might have yielded results that were more readily recognizable in the conservation literature, as both have dedicated journals and broadly accepted disciplinary epistemologies and methodologies. In addition, working within established disciplinary methods yields a greater return on investment of research time. Comparing my own application of inductive, exploratory methods (Chapters 5 and 6) with theoretical analysis and Q methodology (Chapters 7 and 8) made me aware of the difference in academic ROI: the later studies came together much more quickly in terms of data collection, analysis, and manuscript preparation. However, in my case, they would not have been possible without the novel insights of the former.

9.4.1 Inductive Research in Conservation Psychology

Throughout this thesis I have emphasized the analytical opportunities made available through qualitative, inductive research. Qualitative methods are sometimes justified for their place in the Barton and Lazarsfeld phase model, which calls for the use of qualitative studies to generate hypotheses that are subsequently tested in quantitative investigations (Kelle & Erzberger, 2004). In this framework, exploratory research delimits the range of areas worthy of investigation when a new field of inquiry is initiated. As exploratory work uncovers potential avenues of inquiry, quantitative approaches then assess the generalizability. In grounded theory, the exploratory, inductive process is referred to as theory-generating, and the deductive process as theory-confirming (Glaser & Strauss, 1967). In applied research, the early stages of the phase model are often skipped, as was the case with research on private reserves (e.g., Alderman, 1994). An alternative

justification for inductive research, which I offer here, is that it is more sensitive to dynamic phenomena and therefore provides utility throughout the life cycle of a field of inquiry. Just as people, groups, and social movements are dynamic, so must be the research programs that study them. A suitable model for studying dynamic phenomena would include both theory-generating and theory-confirming research at multiple scales, both within a research program and within the field of study.

The lack of inductive research in conservation psychology could be due to several factors: concern about the validity of qualitative research, lack of resources, lack of research training, or a premature conclusion that the scope of potential findings has been delineated. There is also the risk that inductive psychological research will uncover phenomena that are difficult to define and operationalize. This occurred in the present research, in which constructs like identity, autonomy, efficacy, and generativity emerged during analysis. In spite of, or perhaps because of, its focus on human thought, feeling, and behavior, psychology since the cognitive revolution has exhibited an “antimentalist zeal”²⁴ (Bruner, 1990, p. 8). Using the computer as a metaphor for brain functioning, psychological research has focused on the information-processing aspects of mental activity at the expense of theorizing meaning. There is “no place for ‘mind’ in such a system – ‘mind’ in the sense of intentional states like believing, desiring, intending, grasping a meaning” (Bruner, 1990, p. 8). The information-processing model of mental activity has taken hold in psychology because it is comprehensible through a hypothetico-deductive scientific paradigm in a way that mental states are not. The same rationale justifies the hypothetico-deductive approach to psychology in conservation science. I hope the present research demonstrates that methods such as grounded theory can allow an

²⁴ See Fish (2000) for a discussion of ‘physics envy.’

analyst to work with mental states and other ‘fuzzy’ concepts by shifting primary concern to interpretation of their meaning to participants, rather than operationalization of their definitions. Doing so will take analysts deeper into the minds of participants and open up paths of understanding that remain blocked to other paradigms.

9.5 Summary

In this chapter, I have explored several themes that run throughout the thesis. I have discussed how pragmatist epistemology influenced the implementation and outcomes of the research and the opportunities enabled by inductive research. I have also explored how two dimensions of motivation – degree and awareness – manifest across the analytical chapters and how they influenced the structure of the thesis. I have returned to the issue of high net worth individuals, acknowledging contentious issues and arguing that they have been and remain important to conservation. I conclude that their involvement can be best managed with processes that support engagement and resources that encourage them to reflect on and enact practices of good governance. I return to the topic of governance in the following chapter, in which I close the thesis with a summary of my findings and their implications.

Chapter 10

Conclusions and Implications

10.1 Factual and Conceptual Conclusions

Chapters 5-8 resulted in a series of factual and conceptual conclusions. The analysis in Chapter 5 illustrated that, in their PLC narratives, PCA owners identified multiple personal co-benefits, including factors such as making a contribution to the world, having a responsibility to protect land, enjoying recreation, connecting or escaping, experimenting, setting an example for others, preserving assets, or accumulating social capital; however, no one set of co-benefits was applicable to all participants in the study. Conceptually, grounded theory analysis revealed that personal co-benefits of PCA ownership can be located along two dimensions (one dimension from self-oriented to other-oriented and one dimension from intrinsic value to instrumental value) and that they can be classified into four categories: beneficence, direct experience, demonstration, and investment.

In Chapter 6, an analysis of narratives found that landowners seek engagement with PCAs both as projects and as places to access nature. I also found that autonomy, efficacy, and social connection were contributing factors to engagement with the project and that familiarity, animal encounters, solitude, and time contributed to engagement with nature. Conceptually, I found that engagement in PCAs is similar to engagement in personal projects more generally. There was alignment between the facilitators of project engagement and the core constructs of both project analytic theory and self-determination theory: autonomy, efficacy, and social connection. This correspondence provided me some assurance that my analysis had tapped into fundamental drivers of behavior.

Chapter 7's theoretical analysis was based on the finding that people talk about their land in ways that suggest it is part of their identity. Drawing on theory from philosophy, psychology, anthropology, and consumer behavior literature, I showed that three facets of

PCAs are incorporated into the self: land as place, land as possession, and land as project. The aspects of PCA as possession and as project have not been addressed elsewhere in the conservation literature; these provide new theoretical perspectives on avenues for identity development.

Lastly, the analysis for Chapter 8 found that PCA owners in the study form a cluster of people who have similar priorities for land, relative to other stakeholders in a new private land conservation program. Many goals were seen as valuable by all groups, but they prioritized them differently. For PCA owners, intrinsic motivation was stronger than for other landowners who depended on the land for their livelihoods. Conceptually, an important point was that landowners are heterogeneous: we cannot talk about a single landowner perspective, particularly across groups of people who use land differently or who come from different geographic locations. However, even with a range of different stakeholders, points of convergence in priorities provide opportunities for collaborative action.

10.2 Policy Implications

In recent years, several governments, including Chile and South Africa, have enacted new policy instruments to support PLC, and NGOs such as the Mexican Fund for the Conservation of Nature have developed new programs. The present research provides some insights that can inform such policies and programs.

10.2.1 Governance

Governance effectiveness is a relatively new and underdeveloped area in conservation. While management effectiveness has been part of the IUCN's global conservation policy since the early 2000s (Thomas & Middleton, 2003), issues of governance, as the term is used in Chapter 3, have not yet become widespread (Chapter 3, p. 73). IUCN's governance framework collapses governance into the single dimension of land ownership (Dudley,

2008). This emphasis on ownership as control of resources ignores the obligations associated with power, authority, and responsibility. The absence of guidance on governance has left landowners without frameworks for interacting with other entities, such as local communities and governments, even though collaborative landscape-level governance holds promise (Leménager et al., 2014). My work suggests the conservation community needs to engage actively with landowners on issues of governance and that landowners would welcome such resources. This could take the form of workshops, discussion groups, or written guidance. Such tools could enable networks to function not only for social support, dissemination of information, and advocacy, but also for social transformation (Goldstein et al., 2017).

10.2.2 Self-Determination

As I have discussed in Chapters 2 and 6, autonomy, efficacy, and social connection are basic psychological needs (Ryan & Deci, 2000a).²⁵ They are referred to as basic not because they are simple, but because they are foundational to psychological well-being, and this appears to be the case across a wide range of cultures, geographies, and demographics (Grouzet et al., 2005). Many activities can satisfy needs for self-determination, including family, volunteering, hobbies, and work. Based on the present research, it appears that owning a PCA can, too.

In my study, even the most conservation-minded of landowners were concerned with autonomy over their land. Policy instruments available for conservation include options that offer more or less autonomy to landowners. Educational services, technical assistance, and regulation, for example, vary in the degree to which landowners experience self-

²⁵ There is a difference in terminology between my analysis and self-determination theory. I use the terms autonomy, efficacy, and social connection, whereas self-determination theory uses the terms autonomy, competence, and relatedness.

determination. In addition, as Cetas and Yasué (2016) argue, the implementation of policy instruments can flexibly provide more or less autonomy. This leaves conservation policymakers two options for increasing landowners' autonomy: the policy instruments themselves and how they are implemented. Actions to increase autonomy in either of these areas is likely to increase landowner engagement.

PCAs also provide an opportunity to demonstrate efficacy (Ryan & Deci, 2000a). It is notable that many landowners had connections with universities, other research institutions, or consultants who conducted inventories and research on the properties. However, all research described during interviews concerned biological or ecological sciences; only one, a project to test alternative fencepost materials, concerned the interaction between people and nature.²⁶ This could be due to either a lack of awareness of social issues in conservation or a lack of access to resources for conducting the research. Given the centrality of human action to conservation, this is a topic in need of investigation. Still, it is not surprising that conservation social science is underdeveloped as an area of practice, considering the relatively recent emphasis on PLC in the international policy arena (Drescher & Brenner, 2018). The PPA Specialist Group, to which I contribute, has recently published best practice guidelines for privately protected areas (Mitchell et al., 2018). These guidelines represent a step forward in an effort to compile policy-relevant information for those involved in private land conservation, including governments, network administrators, and landowners. However, the guidelines have several limitations, including targeting a diffuse audience, overemphasis on management compared to governance, and a liberal approach to best practice selection. There remains

²⁶ Note that this finding is based on narrative interviews, not on a survey of the topic. It is possible that social science research is taking place but was not mentioned in interviews.

an opportunity to produce information oriented toward practicing conservation landowners.

Lastly, social connection is a demonstrated component of PLC engagement. After conducting this research, I contend that strengthening landowner-to-landowner networks is the best opportunity to improve the extent and effectiveness of private land conservation activity. Networks provide a governance mechanism that is fit for purpose for self-determination. Compared to top-down regulatory approaches, networks offer landowners more autonomy, and they provide avenues for discussion of standards and innovation and development of expertise, meeting needs for efficacy. Grassroots networks result in collective efforts that have true on-the-ground, practical relevance, as the direction arises from those who are facing the daily challenges involved with land conservation. They can provide resilience and offer opportunities for transformations (Yabes & Goldstein, 2015), and they allow communication to flow from peer to peer, an essential element of effective messaging.

10.2.3 Messaging

Persuasive messaging requires assessment of the factors that influence behavior, development of materials that appeal to those factors, and distribution through appropriate channels (Clayton & Myers, 2015; McKenzie-Mohr 2000). “If one wants to intervene in intentional behaviors...knowing the types of feedback, significant cognitions, meanings, and perceived social contexts that support or thwart these behaviors provides considerable leverage” (Ryan, 2012b, p. 5). Resonance is an essential ingredient for inspiring voluntary action (Kusmanoff et al., 2016). Opportunities to improve the effectiveness of conservation communication include strategies like identity campaigning, which is an approach to environmental communications and campaigns that embraces an understanding of identity (Crompton & Kasser, 2009). Its proponents argue that

environmental campaigns need to understand how people think of themselves and how identities influence environmental behavior. In conservation campaigns targeted toward private landowners, messaging might emphasize the potential for connection to land as projects, places, or possessions, drawing attention to opportunities for personal engagement and relationship with the land.

For communication to be persuasive, the messenger is as important as the message (McKenzie-Mohr, 2000). People are more likely to respond to messages that come from known ingroups or from others who are perceived as being similar to themselves.

Influential individuals are often those with large social networks and respected spokespersons who convey personal conviction and authenticity (Eigner & Schmuck, 2002; McKenzie-Mohr, 2000). The ability of networks to distribute and reinforce messaging provides additional support for network-based PLC governance.

10.2.4 Financial Incentives

Incentive-based PLC programs usually conceptualize land conservation as opportunity cost and compensate landowners for all or a portion of those costs. In the present studies and others (Farmer et al., 2011b; de Snoo et al., 2012), financial incentives sometimes served as a means of paying for conservation activities, but they were not the source of landowners' desire to protect land. Framed in purely transactional terms, incentive programs may not maximize opportunity to stimulate land conservation because they do not tap into the most fundamental drivers of PLC behavior (Steg & Vlek, 2009). If policy is to align with the perspectives of landowners who identify with their land, policy should be built not only upon rational choice theories, but also upon theories of meaning and identity. However, I do not imply that financial incentives should be abandoned. On the contrary, financial incentives have been shown to generate positive conservation outcomes, and the progress made with these mechanisms should not be lost. Instead, my

findings suggest that incentives might be more effectively reframed as a mechanism for recognition. For example, tax credits could be conceptualized as a symbol of appreciation for work done by private landowners for public benefit. Changing the framing from incentive to recognition would allow financial instruments to serve an enabling function, resonate with landowners' views on PLC, and, by avoiding transactional framing, be less likely to undermine intrinsic motivation (Ryan & Deci, 2000a).

10.3 Research Implications

The present research used empirical data from narrative interviews to develop and apply a conceptual framework that illuminates the psychological processes involved in PLC. It also tested some of the theoretical findings in the context of a new private land conservation program combining conservation and sustainable use in northern Mexico. The results of this research open up several opportunities for further study.

The studies in this thesis sampled PCA owners and other interviewees using non-probability sampling methods. This facilitated theory development, but it did not permit generalizability of findings beyond the specific population studied. The theoretical models presented here could be validated with deductive research that tests, for example, which motives and co-benefits are relevant, and at what frequency, in different geographic, sociocultural, and policy contexts.

Methodologically, work facilitating the use of qualitative psychological research in conservation would be useful to the field. Qualitative psychology's use is currently very limited; for example, the publication of Chapter 7 (Gooden & Grenyer, 2018) was the only study of its kind in *Conservation Biology* in the two years prior to submission. For conservationists, whose idea of social science is predominantly 'little q' research, foundational work needs to be done to alleviate concerns about the value of inductive and interpretive methods that aim for theory generation rather than description. This can be

addressed through the publication of methods texts describing how to use these analytical techniques and the publication of empirically grounded, methodologically rigorous studies.

In addition, interview content hinted at topics that I was not able to address in the thesis but that are worthy of further inquiry. Based on their narratives, PCA owners are concerned with the biological and ecological outcomes on their conservation properties. However, they have few resources to help with management and even fewer for governance. Given landowners' high degree of motivation, it seems unlikely that the PCAs of the type studied here will be vulnerable to the 'paper parks' problem (Chapter 1, p. 15), but capacity-building resources could be of use. Landowners are currently frustrated that existing tools and policy are designed for large and established organizations and consequently poorly suited for smaller, entrepreneurial entities. As described in Chapter 3, much of the critical literature on PLC is concerned with issues of governance, and tools for navigating these difficult issues are both needed and wanted by landowners. Resources on management effectiveness and governance effectiveness need to be tested for relevance to PCAs owned by individuals and small organizations. If they are not suitable, new tools need to be developed.

Additionally, results of all four empirical chapters pointed to the importance of social support for private land conservation. As previously noted, strong networks have the potential to increase the effectiveness and extent of privately protected land. Moving forward, a research agenda on land conservation networks should be two-pronged. A descriptive program is needed to identify networks that currently exist, such as the European Land Conservation Network and *Así Conserva Chile*, and to describe how they are structured, how they function, what their goals are, how well they are achieving their goals, and how they have evolved over time. A normative component should consider how

networks can be structured to achieve their goals most effectively, enhance their resilience, and amplify the efforts of their members.

Most significantly, this thesis has introduced two concepts that have broad applicability to the field of conservation social science: prudential value and the psychological importance of personal projects. The substantial explanatory potential of prudential value is not limited to the context of land conservation. In a time when some of our most vigorous debates are between traditional conservationists and ecomodernists, who argue over biocentric and anthropocentric values, prudential value provides a third option that captures important components of each. Compared to biocentric value, prudential value demonstrates more relevance to most people's daily lives, and I expect it will also have more cross-cultural relevance. Compared to anthropocentric values, prudential value has greater affective resonance, feeling less cold, selfish, and short-sighted than ecomodernism. While it shares many of the virtues of the well-being lens, it is more useful conceptually, as it can delineate the incremental value added by actions without the limitation of depending on global well-being measures.

The conceptualization of conservation activities as personal projects is also of use in the broader field of conservation. Conservation is a mission-driven discipline, and consequently many people who work in the field do so out of a desire to make a difference. Project analytic theory can be used to examine conservation projects' prudential value – actual or potential – for volunteers, employees, researchers, and others. Application of project analytic theory could help agencies, organizations, and institutions better understand the conditions that lead to well-being, enhancing both the effectiveness and satisfaction of the many people involved in biodiversity conservation.

10.4 Summary of Contributions

In my review of the literature on private land conservation, I found that past research has emphasized the importance of conservation outcomes (Ernst & Wallace, 2008; Horton et al., 2017), the influence of personal factors such as place attachment and significant life experiences (Farmer et al., 2011a; Farmer et al., 2011b), the effect of social factors (Vizek, 2016), and the significance of financial incentives (Ernst & Wallace, 2008; Langholz et al., 2000). However, this literature did not provide a satisfactory answer to what motivates people to create or protect a PCA. Ascribing causal attribution to factors such as values left an important question unanswered: why PCA owners would choose to express their values – whether conservation, personal, social, or financial – by purchasing land, rather than participating in a variety of other actions that could also, presumably, express those values. I have focused my thesis on answering this question.

I made two research design decisions that opened my studies to results that differed from prior studies: i) the application of ‘big Q’ qualitative research methods and ii) the selection of a group of people who had not previously been defined as a researchable group: individuals who had purchased or created a privately conserved area anywhere in the world. In qualitative research, ‘little q’ and ‘big Q’ analyses provide different ways of analyzing data, and they offer different types of explanatory power and relevance to objectives (Kidder & Fine, 1987). ‘Little q’ analysis provides value through description, but it is less applicable beyond the context of the study (Willig, 2013). ‘Big Q’ analysis results in concepts that are more abstract, providing a conceptual framework that explains or interprets phenomena. Using ‘big Q’ analysis meant that I approached the question without limiting the range of possible findings. This enabled me to contribute to the literature by identifying a set of motivations that had not previously been found. Motivations identified in this study, such as project engagement, are regnant in that they are significant and functionally relevant to the PLC actions. Defining a new target of

inquiry by action, rather than by geographical boundaries, allowed me to observe psychological processes that were not particular to geographical locations or cultural conditions. My analysis revealed that the factors that drive PCA ownership, such as project engagement, are much the same as the factors that drive other meaningful personal pursuits. This finding forges new connections between conservation land ownership and a body of psychological literature on the drivers of purposive action. This conceptual linkage has created new opportunities for research on PCAs, some of which were investigated in this thesis, and many more of which are now open to inquiry.

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Appendices

Appendix 1

Co-Authorship Statements

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

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To the Director of the Graduate School
SOGE

Wednesday, 17 October 2018

I write to confirm that my contribution to papers submitted or published by Jennifer Gooden as part of this thesis was in distinct minority, and consisted almost entirely of mentorship and critical revision of manuscripts as part of training in the publication process. The vast majority of the intellectual components of these chapters belongs to the candidate.

A handwritten signature in black ink, appearing to be 'R. Grenyer', with a long horizontal stroke extending to the right.

Richard Grenyer

Associate Professor of Biogeography and Biodiversity

SOGE, and Jesus College

University of Oxford

November 29, 2018

Dear Professor Dorling:

I confirm that I co-authored the following manuscript with Jennifer Gooden and support her submitting it as part of her DPhil thesis at the University of Oxford. The majority of the work was carried out by Jennifer.

Gooden, J. and Moir, F. (In review). Clusters, consensus, and trade-offs in wildlife-friendly ranching: An advance analysis of stakeholder goals in northern Mexico. Biological Conservation.

This study was led by JG, who conceived of the research question and developed the research design. Both authors collected data by administering Q sorts. JG analyzed data and prepared the manuscript. FM reviewed and edited the manuscript. Both authors read and approved the final manuscript.

Sincerely,



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Appendix 2

Interview Information Sheet (Example)



Graduate Research on Private Land Conservation
Jennifer Gooden, University of Oxford



Research Topic and Interview Questions

The topic of this study is private land conservation, with a focus on the experience and perspective of individuals and families who have purchased land for conservation. Questions include topics such as how the interviewee became interested and involved in conservation land acquisition, how properties were selected, costs and benefits of owning conservation land, and how investment decisions are made.

Interview Information

When possible, informal interviews are conducted in person, but they can also take place by telephone or Skype. Interviews typically take 45-60 minutes.

Data Use

The data collected from this study will be used in the DPhil (PhD) dissertation and in publications, such as journal articles, books, or book chapters. Prior to publication, interviewees will be contacted to review any identifying information.

Confidentiality

A list of all interviewees will be included in the dissertation. The interviewee can indicate during or after the interview if any information provided during the interview is confidential.

Conflict of Interest

The purpose of this research is to generate useful information for academic and conservation purposes. There are no business interests or conflict of interest regarding the research.

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Appendix 3

Introductory Email (Example)

Dear [Name],

I am a PhD student researching private land conservation, and I am currently doing a study to better understand the experiences and perspectives of people who have purchased land for biodiversity or ecosystem conservation.

Last week I spoke with [Name], who shared your name and contact information with me. I am writing to ask if you would be available to speak with me about your conservation activities. Examples of questions I ask in interviews include how you became interested in private land conservation, what the rewards and challenges are, and the range of professionals or organizations you work with.

I have attached a PDF with information about the study, and I would be happy to answer any questions you have any advance. If you are available, I could call by Skype or telephone at your convenience.

Best wishes,

Jennifer

Jennifer Gooden

Doctoral Student, University of Oxford

School of Geography and the Environment

Smith School of Enterprise and the Environment

Appendix 4

Interview Guide for Chapters 5-7 (Example)

All interviews began with the following question:

- Could you tell me the story of how you became interested in buying land for conservation?

When relevant, follow-up questions queried the rationale of purchase and the challenges and rewards of ongoing involvement. Unanticipated directions in conversation were followed when relevant to the conversation topic. Examples of follow-up questions include the following.

- When you first began conservation on the property, what were your hopes/goals/vision for the reserve? Have those come into being? Have they changed?
- How did you select the property you purchased?
- What was your thought process as you found out about the land availability and decided to purchase the property?
- What are some of the benefits associated with having a private reserve?
- What are some of the challenges associated with having a private reserve?
- Why purchase property, compared to, say, making a donation to an NGO?
- When you think of your property now, what do you think about?
- Are you concerned about the permanence of conservation activity on your land?
- How, if at all, have your thoughts or feelings about conservation changed since you bought the property?
- What is it that keeps you involved?
- Have you changed as a person through this project?
- After doing this, what advice would you give to someone else who wanted to establish a nature reserve?
- Is there anything else you think I should know to understand private land conservation better?

Appendix 5

Interview Guide for Chapter 8

Preparation

- Choose appropriate deck of cards.
- Shuffle deck of cards.
- Request permission to do exercise.
If you are willing, I have a card-sorting exercise I would like you to complete. It involves sorting a set of 46 goal statements in order of importance.
- Find space and lay out sorting board.

Verbal Instructions

This is a card-sorting exercise, and the purpose is to determine which goals are most important for a regenerative ranching program. There are 46 cards, and on each card is a statement of a potential program goal. Your task is to sort them in order from least important to most important.

The cards have a variety of statements. Some you may agree with, some not. You may find them all important. Either way, you'll be ranking them according to importance to you.

We will begin with you sorting the cards into three piles: those you think are most important, those in the middle, and those you think are least important. You may find it helpful to read the whole deck first to familiarize with the statements.

You are welcome to ask questions or talk through the task.

First Sort

Complete preliminary 3-pile sort.

Second Sort

Now the next step is to sort these three piles onto this board. Each box is space for one card. As you can see, there are fewer boxes at the ends, with more in the middle.

- R3: *We'll begin at the "most important" end, on the right. Could you look through the cards and identify the three most important goal statements for you?*
- R4: *Next I need the four most important goal statements from the remaining cards.*
- L3: *Now we'll go to the left end. Could you look through the cards and identify the three least important goal statements for you?*
- L4: *Now the four least important goal statements from the remaining cards.*
- R5: *Back to the right side. Please choose the five most important statements from the remaining cards.*
- R7: *And then the seven most important statements from the remaining cards.*
- L5: *And to the left side: the five most least statements from the remaining cards.*
- L7: *And the seven least important statements from the remaining cards.*
- M8: *There should now be eight cards left, which will go in the middle.*

Follow-up questions

- As you look at the whole board now, do you feel it reflects your views on priorities?
- What was the exercise like for you?
- Did you think all statements were important, or did some seem unimportant to you? Did you disagree with any statements?
- In general, were there themes or categories of goals that were more important for you?

Appendix 6

Research Interviews

PCA Owners (Chapters 5, 6, and 7)

Interview date	Property location	Interview location
3-May-16	South Africa	Cape Town, South Africa
11-May-16	Scotland	London, UK
13-May-16	South Africa	Oxford, UK
21-Jun-16	South Africa	London, UK
22-Jul-16	India	Telephone
27-Jul-16	US	Telephone
30-Jul-16	Colombia	Skype
3-Aug-16	Australia	Email
5-Aug-16	Argentina	Email
10-Aug-16	US	Telephone
16-Aug-16	Argentina	Telephone
23-Aug-16	US	Telephone
4-Sep-16	New Zealand	Honolulu, HI, US
6-Sep-16	Chile	Honolulu, HI, US
11-Sep-16	Argentina	Email
24-Sep-16	Argentina	Email

27-Oct-16	Mexico, US	Minneapolis, MN, US
4-Nov-16	Argentina	Telephone
4-Nov-16	Colombia	Telephone
14-Nov-16	Colombia	Telephone
15-Nov-16	Canada	Telephone
2-Dec-16	India	Telephone
13-Dec-16	Argentina	Skype
15-Dec-16	Mexico, US	Telephone
16-Dec-16	India	Telephone
16-Dec-16	Spain	Skype
10-Feb-17	Zimbabwe	Cape Town, South Africa
2-Mar-17	South Africa	Telephone
3-Mar-17	Spain	Skype
18-Jul-17	Mexico	Telephone
25-Jan-18	Chile	Santiago, Chile

Stakeholders in Development of Northern Mexico PLC Program (Chapter 8)

Interview date	Role/Affiliation	Interview Location
1-Oct-17	Ranch owner	Monterrey, Mexico
2-Oct-17	Ranch owner	Monterrey, Mexico
2-Oct-17	Rancher representative	Monterrey, Mexico
3-Oct-17	Ranch owner	Monterrey, Mexico
4-Oct-17	FMCN	Monterrey, Mexico
5-Oct-17	Ranch owner	Monterrey, Mexico
5-Oct-17	FMCN	Monterrey, Mexico
5-Oct-17	Ranch owner	Monterrey, Mexico
5-Oct-17	FMCN	Monterrey, Mexico
23-Nov-17	Ranch owner	Saltillo, Mexico
23-Nov-17	Ranch owner	Saltillo, Mexico
23-Nov-17	Ranch owner	Saltillo, Mexico
23-Nov-17	Soluciones Ganaderas	Saltillo, Mexico
23-Nov-17	Red de Manejo Regenerativo de Ranchos	Saltillo, Mexico
23-Nov-17	Red de Manejo Regenerativo de Ranchos	Saltillo, Mexico
12-Dec-17	Profauna	Agua Prieta, Sonora, Mexico

12-Dec-17	IMC Vida Silvestre	Agua Prieta, Sonora, Mexico
12-Dec-17	Santa Lucía Conservancy; Rancher	Mexico City, Mexico
12-Dec-17	Ranch owner	El Paso, Texas
6-Feb-18	Cuenca Los Ojos; Rancher	El Paso, Texas
7-Feb-18	Bird Conservancy of the Rockies	El Paso, Texas
7-Feb-18	Ranch owner	Juarez, Mexico
8-Feb-17	Ranch owner	Chihuahua, Mexico
9-Feb-18	Ranch owner	Nuevo Casas Grandes, Mexico
9-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Ranch owner	Chihuahua, Mexico
10-Feb-18	Consultant	Chihuahua, Mexico

Private Land Conservation Professionals (Background/context)

Interview date	Affiliation	Interview location
4-Apr-16	WWF South Africa	Cape Town, South Africa
29-Oct-16	Lyme Timber, US	Minneapolis, MN, US
29-Oct-16	LandVest, US	Minneapolis, MN, US
3-Nov-16	LandVest, US	Telephone
22-Nov-16	Creative Conservation, US	Telephone
8-Dec-16	Tasmanian Land Conservancy, Australia	Telephone
18-Jan-17	Birdlife South Africa	Johannesburg, South Africa
26-Jan-17	Birdlife South Africa	Cape Town, South Africa
1-Feb-17	WWF South Africa	Telephone
15-Feb-17	Paisatges Vius, Catalonia, Spain	Telephone
16-Feb-17	WildNet Africa Properties, South Africa	Telephone
17-Feb-17	WWF South Africa	Newlands, South Africa
23-Feb-17	Wilderness Foundation/Consultant, South Africa	Telephone
28-Feb-17	Sanbona Wildlife Reserve	Telephone
1-Mar-17	Cape Nature, South Africa	Telephone
7-Mar-17	Footprint Environmental Services, South Africa	Telephone

7-Mar-17	Anderson Wildlife Properties, South Africa	Telephone
9-Mar-17	Xarxa de Custòdia del Territori, Catalonia, Spain	Telephone
27-Mar-17	International Ranger Federation	Telephone
24-Jan-18	Parque El Bolder, Chile	Santiago, Chile

Appendix 7

Research Outputs

Published papers included in this thesis

Gooden, J. and Grenyer, R. (2018). The psychological appeal of owning private land for conservation. *Conservation Biology*. 10.1111/cobi.13215.

Submitted papers included in this thesis

Gooden, J. Critical perspectives on private land conservation: A literature review. *Ambio*.

Gooden, J. The personal benefits of conservation land ownership. *Journal for Nature Conservation*.

Gooden, J. Cultivating identity through private land conservation. *People and Nature*.

Gooden, J. and Moir, F. Clusters, consensus, and trade-offs in wildlife-friendly ranching: An advance analysis of stakeholder goals in northern Mexico. *Biological Conservation*.

Other publications related to this research

Gooden, J. (2018) Motives for private land conservation: Insights from six continents. Briefing for the European Land Conservation Network.

Unrelated publications during this period

Gooden, J. The red tape of rewilding. (2016). *ECOS* 37(2) 11-18.

Root-Bernstein, M., Gooden, J., and Boyes, A. (2018). Rewilding in practice: Projects and policy. *Geoforum*. 10.1016/j.geoforum.2018.09.017.

Presentations delivered during the DPhil

Invited speaker. Motives for private land conservation: Insights from six continents. European Land Conservation Network workshop: Incentives for private land conservation. Madrid, Spain. Fully funded. 2018. (Figure 15).

Panel: New applications of text-based analysis for biodiversity conservation. Oxford Internet Institute. 2018.

Assessing critique of private land conservation, International Land Conservation Network Global Congress. Santiago, Chile. Fully funded. 2018.

What makes holistic management appealing to ranchers? Motivations for participation in conservation programs. Latin America in the Era of Sustainability Conference. Oxford Department of International Development. 2017.

Extending the boundary of the self. St Antony's College, University of Oxford. 2017.

Recognizing and encouraging conservation where we live and work. Conservation Optimism Summit. Interdisciplinary Centre for Conservation Science and Zoological Society of London. 2017.

Poster. What motivates private land conservation? Experiences and perspectives of private landowners. Student Conference on Conservation Science. Cambridge, UK. 2017.



Figure 15. Presentation on motives for private land conservation at ELCN workshop on financial incentives, 11/2018. Credit: Jofre Rodrigo.. Credit: Jofre Rodrigo.

Appendix 8

List of Changes from Submitted Versions of Papers

Chapter 3

- Included references to other chapters in thesis.
- Removed some text from the introductory paragraph, which was redundant to section 1.1.
- Included several sentences that were deleted from submitted manuscript due to word count limitation.

Chapter 5

- Made minor changes to text for consistency across chapters.
- Extended the methods section to provide a thorough account of the application of grounded theory. The methods section in Chapter 5 is largely derived from the methods included as Supplementary Information for the published version of Chapter 6 (Gooden & Grenyer, 2018).

Chapter 6

- Integrated quotes from table into text. In the published version, quotes and anecdotes were placed in a table to comply with word count requirements.
- Made minor changes to text for consistency across chapters.

Chapter 7

- Made minor changes to text for consistency across chapters.

Chapter 8

- Changed the name given to Factor 4 from Lifestyle Ranchers to PCA Owners for consistency with the rest of the thesis.

General

- Revised figure and table captions for stylistic consistency.
- Presented all references at end of thesis.