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FEELINGS OF PSYCHOLOGICAL OWNERSHIP TOWARDS PRIVATE FORESTS

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ESIPUHE

Väitöskirjan esipuheen pitäisi kuulemma alkaa kuvauksella siitä, kuinka työn tekeminen on ollut polku, jota pitkin on hiihdetty "kouluun" kesät ja talvet, ja jonka varrelle on sattunut opettavaisia ja antoisia kokemuksia. Tämä prosessi ei ole ollut suoraviivainen polku. Ennemminkin maaseudun tutkimuksen umpimetsää, jossa olen harhaillut etsien niitä kultahippuja tai suppilovahveroita, mitä milloinkin. Siinä harhaillessa jotkut asiat ja ilmiöt ovat kuitenkin alkaneet vaikuttaa enemmän omilta, oikeastaan tuntuneet tavallaan kuuluvan minulle. Ehkä jopa itsestään selvinä.

Metsät ovat aina olleet minulle henkilökohtaisesti merkityksellisiä. Eivätkä suinkaan taustakoulutuksen vuoksi, vaan ennen kaikkea hengähdyspaikkana. Paikkana rauhoittua ja elpyä. Jokapäiväiset metsälenkkini koirien kanssa ovat henkiselle hyvinvoinnilleni likipitäen välttämättömiä ja lähimetsäni minulle tärkeitä. Nehän tuntuvat vähän niin kuin omiltani. En kuitenkaan ole itse metsänomistaja ja suvunkin metsät sijaitsevat toisella puolen Suomea. Hyvinvointini on siis itseasiassa riippuvainen toisten, minulle tuntemattomien, henkilöiden metsistä. Ja silti minulla on vahvoja tunteita näitä alueita kohtaan. Närkästyn syvästi, jos näen puita katkotun tai polkuja roskatun. Mielenkiintoista – eikö vaan? Ehkä jopa ihan maaseututkimuksenkin kannalta?

Tämä umpimetsässä harhailu tuskin olisi kuitenkaan koskaan löytänyt sen tarkempaa tutkimuksellista suuntaa ilman apua ja opastusta. Ja nyt onkin kiitosten aika. Aluksi haluaisin kiittää ohjaajiani, professori Pasi Puttosta sekä MMT Heimo Karppista Helsingin yliopistosta asiantuntemuksestanne, hyvistä neuvoista ja tuestanne väitöskirjaprosessin aikana. Kiitos myös joustavuudestanne työn ohessa toteutettua väitöskirjaprosessia kohtaan. On myös olemassa henkilöitä, joita ilman en olisi todennäköisesti edes ryhtynyt väitöskirjan tekoon, puhumattakaan että olisin selvinnyt siitä edes puoliksi kuivin jaloin. Yksi tällainen henkilö on työni kolmas ohjaaja professori Sami Kurki Helsingin yliopisto Ruralia-instituutista. Haluankin kiittää häntä lukemattomista teeman ideoimiseen käytetyistä tunneista sekä ennen kaikkea innostamisesta väitöskirjan tekoa kohtaan. Rehellisesti voin sanoa, että ilman tätä "painostusta" olisin tuskin tälle metsäiselle taipaleelle astunut. Toinen keskeinen henkilö, jonka ansiosta olen nyt tilanteessa, jossa voin kirjoittaa tätä esipuhetta, on työni seurantaryhmän jäsen, kollegani sekä ystäväni KTT Merja Lähdesmäki. Hänen kanssaan olen saanut ideoida artikkeleita, toteuttaa monitieteellistä tutkimusta sekä jakaa työn toisinaan aiheuttamaa ahdistusta ja vastaavasti myös niitä onnistumisen hetkiä. Voin vilpittömästi todeta, että apusi on ollut korvaamatonta! Suuret kiitokset myös toiselle seurantaryhmäni jäsenelle, FT Mari Pohja-Mykrälle, jonka kanssa työskennellessäni olen saanut pohtia sitä, mitä psykologinen omistajuus voisi parhaimmillaan olla puhuttaessa liikkuvasta luonnonresurssista, suurpedoista.

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Seinäjoella 07.03. 2019

Anne Matilainen

CONTENTS

LIST OF ORIGINAL ARTICLES

This thesis is based on the following original articles published in peer reviewed journals. The articles are referred to in the text by the Roman numerals I-III.

I. Matilainen, A., Pohja-Mykrä, M., Lähdesmäki, M., & Kurki, S. (2017). "I feel it is mine!"–Psychological ownership in relation to natural resources. *Journal of Environmental Psychology*, *51*, 31-45.

II. Lähdesmäki, M., & Matilainen, A. (2014). Born to be a forest owner? An empirical study of the aspects of psychological ownership in the context of inherited forests in Finland. *Scandinavian journal of Forest Research*, *29*(2), 101-110.

III. Matilainen, A., & Lähdesmäki, M. (2014). Nature-based tourism in private forests: Stakeholder management balancing the interests of entrepreneurs and forest owners?. *Journal of Rural Studies*, *35*, 70-79.

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Anne Matilainen was the lead author and corresponding author in Articles I and III. In Article II, both authors participated equally in the data analysis and writing process of the article. Matilainen was also responsible for research design and data collection in all articles in cooperation with Dr Merja Lähdesmäki. In Article I, the wildlife-watching-business data and a hunters' representative interview were collected by Dr Mari Pohja-Mykrä, who also contributed to the analysis of the wildlife-watching case. Prof Sami Kurki provided comments on Article I and participated in the development of the article idea.

ABSTRACT

This dissertation focuses on analysing the feelings of ownership that the owners and other users of forests have developed towards privately-owned forest resources. These resources play a major part in providing forest-based benefits to society, as a large proportion of the forests in Europe and the US are privately owned. Furthermore, the majority of privately-owned forests are owned by so called non-industrial private forest owners (NIPF), typically referring to individual persons or family forest owners. Therefore, the decisions the NIPF owners make regarding their forest resources have a direct impact on the availability of forest-based ecosystem services.

Due to the importance of the private forest resources at global, national and local levels, it is not surprising that a vast number of regulations and land use practices have been developed, that set the regulatory framework for the use of forests. Also, users other than the owners feel that they have the right to speak about the use of forests. Due to these demands and the expectations from the wider society, the forest owners do not have sole control over their forest areas. Thus, the ownership of forests cannot be directly compared to the ownership of cars or stocks, for example.

In the best case, the objectives of both private forest owners and various society's objectives for the use of forest resources could be met at the same time by matching the forest owners' values with the alternative needs users had for the resource. Managing the different expectations in a socially sustainable way necessitates a profound understanding of the forest owners' own objectives, values and motivations regarding their forests. However, previous research has shown that the forest owners' socio-demographic characteristics or the objectives of the use of forests no longer explain the values and behaviour very well. It has also been suggested that the traditional forest owner typologies capture only the most salient objectives and therefore do not properly reflect the forest owners' behaviour. Also, other approaches are needed.

This dissertation contributes to the abovementioned research by introducing a novel concept, psychological ownership, as a potential approach to understanding the possessive feelings towards privately-owned forest resources, and via that, a better understanding of the role of these feelings in the behaviour of forest owners and other forest users (in this case nature-based tourism entrepreneurs) . Psychological ownership is based on the idea that ownership should not be understood only as a legal construct, but also to include certain psychological elements i.e. to the feeling "it is mine". Originally, psychological ownership was introduced in the field of organizational research, but it has since been applied increasingly in other sectors. In this study, it is used as the theoretical background to understand the ownership feelings about private forest resources. Psychological ownership can also bring a new approach to study the co-operation relationships related to the use of forests by multiple stakeholders, for example, when introducing new potential uses of forest resources (in this case nature-based entrepreneurs).

The study is qualitative in nature and the data consist of thematic interviews with private forest owners and nature tourism entrepreneurs. The results summarise the findings from three published journal articles. They show that both the legal owners and the nature-based entrepreneurs utilizing private forest areas seem to have developed psychological ownership feelings towards these forests. However, these feelings are not necessarily dependent on the legal ownership of the resource. Furthermore, the psychological ownership experienced seems to influence the behaviour of the persons expressing these feelings, for example, related to the private forest owners' forest management decisions. The results also illustrate that recognizing psychological ownership can help in understanding successful co-operation relationships and potential conflict situations relating to the multiple use of forest resources. In practice, it could help to foresee or even manage the potential conflicts. However, before psychological ownership can serve as a proper "management tool" in these situations, further research is warranted.

Key words: non-industrial private forest owners, psychological ownership, nature tourism, nature-based entrepreneurship, conflict, stakeholder management

TIIVISTELMÄ

Metsät tarjoavat yhteiskunnalle runsaasti erilaisia hyötyjä. Osa näistä on taloudellisia, kuten esimerkiksi puun kasvatukseen ja jalostukseen perustuvat arvoketjut, mutta metsät tarjoavat myös muun muassa virkistyshyötyjä, ilmastohyötyjä, luonnontuotteita ja suojeluarvoja. Euroopassa, samoin kuin Yhdysvalloissa, suurin osa näitä hyötyjä tuottavista metsävaroista on kuitenkin yksityisten perhemetsänomistajien omistuksessa. Metsävaroista yhteiskunnalle koituvat hyödyt siis tavallaan tuotetaan yksityisten metsänomistajien mailla. Näin ollen päätöksillä, joita yksityiset metsänomistajat tekevät metsiensä käytön suhteen on laajempaa merkitystä paitsi paikallisella, mutta myös kansallisella sekä jopa globaalilla tasolla.

Johtuen metsävarojen tärkeästä yhteiskunnallisesta merkityksestä, ei ole yllättävää, että on olemassa runsaasti erilaisia säädöksiä ja lakeja, jotka vaikuttavat yksityismetsien käyttöön ja käyttömahdollisuuksiin. Lisäksi Suomessa esimerkiksi jokamiehenoikeudet ns. "maan tapana" mahdollistavat metsien virkistyskäytön kaikille. Metsävarat nähdäänkin osittain yhteisenä resurssina, kansallisena hyvinvoinnin lähteenämme. Tästä johtuen, yhä enenevässä määrin myös muut kuin metsien lailliset omistajat vaikuttavat, ja kokevat että heillä on oikeus vaikuttaa, metsäresurssin käyttöön sen eri muodoissaan, sekä asettavat erilaisia, joskus jopa ristiriitaisia, vaatimuksia sen käytölle. Tästä johtuen metsänomistamista ei voidakaan suoraan verrata esimerkiksi auton tai osakkeiden omistamiseen.

Parhaassa tapauksessa kuitenkin sekä metsänomistajan omat, että yhteiskunnan tavoitteet metsäresurssin käytölle pystytään yhdistämään samanaikaisesti. Tämä kuitenkin edellyttää metsänomistajien omien tavoitteiden syvällistä tuntemista. On keskeistä ymmärtää, mitä *metsänomistajuus* merkitsee, jotta erilaisten tavoitteiden yhdistäminen onnistuisi sosiaalisesti kestävällä tavalla. Tutkimus on perinteisesti lähestynyt metsänomistajien tavoitteita ja heidän metsien käyttöään luomalla erilaisia kvantitatiivisia typologioita metsänomistajista ja pyrkimällä linkittämään tavoitteet metsänomistajien taustamuuttujiin, kuten ikään, sukupuoleen tai asuinpaikkaan. Typologiat tuovat arvokasta tietoa, siitä keitä metsänomistajat ovat ja minkälaisia käyttötavoitteita heillä on metsilleen. On kuitenkin myös todettu, että taustamuuttujat eivät enää ennusta metsänomistajien käyttäytymistä kovinkaan hyvin. Samoin typologioiden on todettu monesti tuovan esille vain ilmeisimmät metsien käyttötavoitteet, jonka vuoksi ne eivät heijastu läheskään aina käytännössä metsänomistajien käyttäytymiseen. Onkin tarve löytää myös uusia lähestymistapoja tarkastella metsänomistajuutta ja metsänomistuksen tavoitteita.

Tämä tutkimus pyrkii osaltaan kontribuoimaan metsänomistajatutkimukseen tuomalla uuden käsitteen, *psykologisen omistajuuden*, metsänomistajuuden tarkasteluun. Psykologisen omistajuuden teoria on alun perin lähtöisin organisaatiotutkimuksesta. Sen lähtökohtana on ajatus siitä, että omistajuus on laillista omistajuutta laajempi ilmiö. Objektiivisen eli laillisen omistajuuden lisäksi omistamiseen liittyy myös psykologinen puoli. Tunne siitä, että omistamisen kohde "kuuluu minulle" tai "on minun". Psykologisen omistajuuden teorian mukaan on olemassa neljä motiivia eli syytä siihen, miksi henkilö tuntee tarvetta kokea psykologista omistajuutta: vaikuttavuuden ja tehokkuuden tarve (effectance/efficacy), minä-kuvan ja oman identiteetin rakentaminen (self-identity), oman paikan löytämisen tarve ("having a place") sekä tarve virikkeille (stimulation). Nämä motiivit ovat osittain synnynnäisiä, mutta sosiaalinen ympäristö ja kulttuuri vaikuttavat niihin ja niiden ilmenemiseen.

Lisäksi teoria on tunnistanut kolme reittiä, joita kautta henkilö pääsee kehittämään tai tuntemaan psykologista omistajuutta. Ensimmäinen reiteistä on omistuksen kohteen kontrollointimahdollisuus. Mitä enemmän henkilöllä on mahdollisuuksia kontrolloida psykologisen omistajuuden kohdetta, sen vahvemmin se usein koetaan omaksi. Toinen reitti on kohteen syvällinen tunteminen. Tieto kohteesta, jota kohtaan tunnetaan psykologista omistajuutta, vahvistaa omistajuuden tunnetta. Kolmanneksi reitiksi on nimetty itsensä investointi omistamisen kohteeseen. Tällä tarkoitetaan sitä aikaa, rahaa tai muita resursseja, joita henkilö on investoinut omistamaansa kohteeseen. Esimerkiksi mikäli metsänomistaja tekee itse metsänhoitotöitä metsissään tai käyttää niitä virkistykseen, sitä vahvempaa on monesti omistajuuden tunne omia metsiä kohtaan. Sekä psykologisen omistajuuden motiivit että reitit ovat usein tiiviisti linkittyneitä toisiinsa. Henkilö voi myös kokea psykologista

omistajuutta kohteisiin, joita hän ei laillisesti omista. Esimerkiksi kaksi jokamiehenoikeudella metsiä käyttävää henkilöä voi ajautua sanaharkkaan siitä, kummalla on ensisijainen oikeus vaikkapa marjastaa kyseisellä alueella, ilman että kumpikaan heistä laillisesti omistaa aluetta.

Tässä tutkimuksessa psykologisen omistajuuden teoriaa käytetään käsitteellistämään metsänomistajien sekä muiden yksityismetsien käyttäjien (tässä tutkimuksessa luontomatkailuyrittäjien) metsäresurssia kohtaan tuntemaa omistajuutta sekä ymmärtämään heidän käyttäytymistään. Tutkimusongelmaa lähestytään laadullisella tutkimusotteella. Aineisto koostuu sekä yksityisten metsänomistajien että luontomatkailuyrittäjien teemahaastatteluista. Tulokset vetävät yhteen kolmeen julkaistun tutkimusartikkelin löydökset.

Tulosten mukaan sekä yksityiset metsänomistajat että yksityismaita hyödyntävät luontoyrittäjät kokevat psykologista omistajuutta näitä alueita kohtaan. Omistajuuden tunteen kokeminen ei kuitenkaan liity automaattisesti lailliseen omistajuuteen tai yhteistyösopimuksiin. Esimerkiksi osa luontomatkailuyrittäjistä koki käyttämänsä metsäalueet osittain omakseen ja näkivät omaavansa moraalisen oikeuden niiden käyttöön, vaikkakin tiedostivat samanaikaisesti, ettei heillä ole varsinaista laillista oikeutta alueisiin. Vastaavasti osa metsänomistajista ei vaikuttanut tuntevan kovinkaan paljon psykologista omistajuutta metsiään kohtaan. Nämä metsänomistajat olivat usein ns. passiivisia omistajia, joille metsällä ei ollut suurta

merkitystä. Tulokset myös paljastavat, että psykologinen omistajuus ilmenee hieman eri tavoin riippuen siitä, mitkä motiivit ensisijaisesti vaikuttavat sen kokemiseen. Tällä puolestaan oli vaikutusta käyttäytymiseen, kuten esimerkiksi yksityisten metsänomistajien metsänhoitopäätöksiin.

Psykologinen omistajuus voi myös tuoda uusia näkökulmia tarkasteltaessa metsien monikäyttöä ja eri sidosryhmien näkemyksiä siihen, erityisesti pohdittaessa uusia potentiaalisia metsänkäyttömuotoja kuten luontoyrittäjyyttä. Tulosten mukaan ymmärtämällä psykologisen omistajuuden roolia erilaisissa yhteistyösuhteissa ja sidosryhmätyössä, voi olla mahdollista vähentää potentiaalisten konfliktien syntymistä sekä mahdollisesti ymmärtää paremmin niiden perimmäisiä syitä. Lisäksi vaikuttamalla reitteihin, jotka johtavat omistajuuden tunteen kokemiseen, voidaan myös mahdollisesti vaikuttaa toimijoiden psykologiseen omistajuuteen ja sitä kautta heidän käyttäytymiseensä. Kuitenkin ennen kuin psykologisen omistajuuden ymmärtämistä voidaan todella hyödyntää työkaluna esimerkiksi luonnonvarakonfliktien hallinnassa tai metsänomistajien aktivoimisessa, lisätutkimus psykologisen omistajuuden ja käyttäytymisen välisestä yhteydestä, erityisesti luonnonvarakontekstissa, on tarpeen.

1. INTRODUCTION

Forest resources provide many benefits, not only to their owners, but also to the wider society. In addition to contributing to the national or regional economy, such benefits include maintaining biodiversity, supporting water resources and preventing erosion and landslides. Forests also play an important role in global CO_2 mitigation (Routa et.al., 2012). Furthermore, forests have so-called social values, which refer to values relating to human experiences of forests (Bjärstig & Kvastegård, 2016), such as recreational and leisure values, scenery benefits, health and wellbeing or identity and heritage values (e.g. Church & Ravenscroft 2008; Hendee & Flint, 2014; Horne et al., 2005; Ingermarsson et al., 2006; Park et. al., 2010).

However, a large portion of the forests generating the above-mentioned benefits in Europe and the US are privately owned. According to the State of Europe's Forests report (2015), approximately 60% of the forests in the EU-28 area are privately owned, while in the US, the figure is 58% (Butler et al., 2016; Oswalt et al., 2012). Furthermore, the majority of privately-owned forests are owned by so-called non-industrial private forest owners (NIPF), i.e. private forest owners who are individuals or corporations other than the forest industry, and the management may include objectives other than timber production (Dictionary of Forestry, 2016). Typically, the term NIPF owners refers to individual persons or family forest owners (Harrison et al., 2002). For example, in the US, 95% of all private ownership is classified as family or individual ownership (US Dept. of Agriculture, 2013). In Europe, private, non-industrial ownership is dominant, for example, in countries such as Austria, Finland, France and Slovenia (Schmithüsen & Hirch, 2010). Thus, the decisions NIPF owners make regarding their forest resources have a direct impact on the availability of the benefits forest resources provide to society.

It is therefore unsurprising that a vast number of regulations and land use practices exist that set the regulatory framework for the use of forests by their owners (e.g. Hiedanpää, 2002; Mattila et al., 2013; Saaristo & Vanhatalo, 2015; Tuunanen et al., 2012). Moreover, in addition to actual legislation, different policy incentives (taxes, voluntary schemes, management programmes etc.) are introduced to encourage forest owners to use their forests in certain ways (e.g. Act of Jointly-owned Forests, 2003; Mayer & Tikka, 2006). These can be seen, in principle, as attempts to safeguard the demands of the public and society regarding private forest resources. Due to these demands and expectations, forest owners do not have sole control over their forest areas. Thus, ownership of forests cannot be directly compared to ownership of cars or stocks, for example. For instance, in Finland national policies have promoted commercial timber production in private forests to support the forest industry for decades, which in turn has accounted for a significant part of the national economy. In addition, the regulatory framework provides recreational opportunities for all in private forests through the right of public access (Everyman's Rights). Similarly, EU legislation contains certain climate and conservation goals to which Finland as a nation and the EU as an institution have committed. Many of these originate from private forests.

Due to the important role NIPF owners play in the sustainable use of forest resources, an extensive amount of research has also focused on identifying NIPF owners and their objectives for their forests (e.g. Boon et al., 2004; Hogl et al., 2005; Ingemarson et al., 2006; Karppinen, 1998; Karppinen & Tiainen, 2010), how they intend to use their forests (e.g. Favada et al., 2009; Gruchy et al., 2012; Rämö et al., 2009; Silver at al., 2015), and their attitudes towards issues such as forest management strategies, environmental protection, forest owners associations or new forest-owning forms (e.g. Bieling, 2004; Glück et al 2010; Lidestav & Arvidsson, 2012; Lähdesmäki et. al., 2016; Mäntymaa et al., 2009; Põllumäe et. al., 2014). Several studies have also analysed the effectiveness of different policy measures or mechanisms, such as financial incentives, in the context of private forestry (e.g. Church & Ravenscroft, 2008; Cubbage et al., 2007; Kilgore, 2007; Serbruyns & Luyssaert, 2006).

In these studies, a clear change among NIPF owners has been identified. Forest owners are becoming a more heterogeneous group, and accordingly, their objectives and values towards the forests are increasingly diverse (Hänninen et al., 2011;

Karppinen, 1998). Some of the main drivers behind this development are socio-demographic changes in the rural population, owners' economic independence from their forests, and urbanization as a wider phenomenon (Živojinović et al., 2015). In Finland, these changes have been on-going on a larger scale since the 1960s. As early as 1975, Reunala reported changes among Finnish forest owners and a *"concerning declining trend in the number of farmer-forest owners and an increasing number of forest owners with no agricultural connection"* (Reunala, 1975, free translation).

These changes among forest owners and their objectives have been seen as entailing certain threats. Several scholars have identified so-called increased passivity among forest owners (Kline et al., 2000; Ni´ Dubhain et al., 2007), and forest owner types categorized as passive or indifferent have been empirically found in several forest owner studies around Europe and the US (e.g. Bieling, 2004; Ingemarson et al., 2006; Kline et al., 2000; Ulizcka et al., 2004). Passive forest owners have been defined as owners who *"do not appear to own forest land for any specific stated purpose."* (Kline et al., 2000, p. 306) or as a *"type of owner for whom no objectives are really important, except simply to own the forest and keep it in the family"* (Boon et al., 2004, p. 47). From society's perspective, this can be seen as a potential waste of forest resources, as such forest owners typically respond poorly to policy incentives and place less importance on any kinds of benefits drawn from forests (Boon et al., 2004; Follo, 2011). Nevertheless, the passivity of forest owners in previous studies has often been understood quite narrowly, referring only to owners' passivity in forest management and wood production (e.g. Mattila et al., 2013). Thus, owners' indifference towards their forests has also been interpreted as a sign of some degree of alienation from the industrially-driven culture of forest management (Häyrinen et al., 2015). In fact, it has been suggested that owners who are passive in relation to timber markets or wood production may still be very dedicated forest owners (Butler et al., 2016; Hujala et al., 2013; Häyrinen et al., 2015; Matilainen & Lähdesmäki, 2014). This might indicate that these so-called passive forest owners could potentially be more interested in using their forest resources in some other way which better matches their own values and objectives. This provides new opportunities for considering the sustainable use of forests from a wider perspective and opens the door for new innovative, also economic, forest use.

Forests indeed also provide an important resource for diversifying local-level rural econo-mies in sectors other than the forest sector (Pilz & Molina, 1996; Saarinen, 2003; Živojinović, et al., 2017). For example, consumers' growing interest in healthy living and increasing respect for pure and authentic nature (CREST, 2016; Dodds et al., 2010; Fredman & Tyrväinen, 2010) provide new business opportunities for nature-based entrepreneurship (NBE). Nature-based entrepreneurship is defined as environmentally responsible entrepreneurship based on resources and experiences offered by nature (Rutanen & Luostarinen, 2000). In nature-based entrepreneurship, nature is a significant factor of production, either through material or immaterial values, and it must be taken into consideration in a sustainable way. Good examples of nature-based entrepreneurship are utilizations of nature-based tourism and non-wood forest products like berries, mushrooms, herbs or decorative arts and crafts. As two-thirds of Finland is covered by forest, forests are also one of the main environments for nature-based entrepreneurship. However, the forests used in these activities are not typically owned by the nature-based entrepreneurs[1] themselves. Instead, especially in Southern and Western Finland, they often rely on privately-owned land and are partly implemented within the Everyman's Rights, in which case no permit from the landowner is required.

As society's needs and demands for the use of forest resources seem to be continuously increasing (e.g. Lindahl et al., 2017; Wilkes-Alleman et al., 2015), to be successful, the multiple use of forest resources, policy incentives and practical solutions need to match both the objectives of the forest owners and the public need for forest resources in a sustainable way. As forest-based resources provide benefits at several levels (local, national, global), increasingly people other than forest owners feel that they have the "right to enjoy" and, therefore, also the "right to a say" on the use of natural resources based on their own values (Jacoby, 2001). In other words, several interest or stakeholder groups have developed feelings of possession towards privately-owned forest resources. In the

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1   In this study, the terms small business owner-manager and entrepreneur have been used synonymously, although there is a conceptual difference between these two terms, see for example, the study of Carland, et al. (2002). The main reason for this is the fact that in the Finnish language, the term "entrepreneur" (yrittäjä) is not exclusively reserved for those business persons with certain entrepreneurial characteristics or who are aiming for growth or innovativeness. Accordingly, in Finnish the term "entrepreneur" usually includes, although is not restricted to, small business owner-managers.

worst case, disagreements between objectives can escalate into a natural resource conflict (Bennett et al., 2001). Although natural resource conflicts are often non-violent, they are still destructive, as they impede development of cooperative relationships – sometimes even conservation efforts (von Essen et al., 2015; Woodroffe et al., 2005) – and hinder the multiple use of forest resources in a socially sustainable way (Shanley et al., 2012; Wilkes-Allemann et al., 2015). From society's perspective, they can thus hinder the effective and sustainable use of forest resources.

Conversely, in the best case, the various objectives of both private forest owners and society for the use of forest resources can be simultaneously met. For example, the increasing variation in the preferred use of forests by their owners could be combined with different ecosystem services that rely on forest resources (Westin et al., 2017). Managing different expectations for the resource in a socially sustainable way nevertheless necessitates a profound understanding of forest owners' own objectives, values and motivations regarding their forests. However, previous research shows that forest owners' socio-demographic characteristics or objectives for the use of their forests no longer adequately explain their values and behaviour (e.g. Bourke & Luloff, 1994; Church & Ravenscroft 2008; Ficko et al., 2017; Hujala et al., 2009). As one example, Silver et al.'s (2015) extensive literature review of research focusing on private forest owners' timber harvesting behaviour can be mentioned. They found that some background characteristics have been reported to have, in fact, both positive and negative influences on harvesting/harvesting intentions. Furthermore, for example Bjärsting and Kvastegård (2016) have found no major differences between resident and non-resident forest owners' views on the social value of forests. On the other hand, several studies have found that such factors as age, gender and ownership objectives can be linked to harvesting activity or environmental attitudes (e.g. Kumer, 2017; Kuuluvainen et al., 2014; Uliczka et al., 2004). In addition, it has been suggested that forest owner typologies based on ownership objectives identified in the surveys, capture only the most salient objectives and therefore do not properly reflect forest owners' behaviour (Ficko et al., 2017). Thus, it can be summarised that based on the previous studies, the connection between the background characteristics or forest owners' objectives and forest management can fluctuate and also other approaches are needed to understand the forest owners behaviour better (Ficko et al., 2017).

In addition, policy initiatives created to influence private forest owners' activities often rely on the idea that private forest owners take an economically logical approach to decision making. However, previous research has shown that the assumption that a forest owner aims to maximize their utility in forest decisions is not valid; in reality, decision making is influenced by a range of emotional and social factors (Burton, 2004; Hujala et al., 2007; Markowski-Lindsay et al., 2016). Thus, it may be difficult for traditional forest-owner typologies or decision-making models based on "comprehensive rationality" to capture this variety (Ananda & Herath, 2009; Mendoza & Martins, 2006; Rosenhead, 1989). To respond to this problem, forest-owner research has increasingly adopted more sociological and psychological elements and theories in order widen the approach to forest owners' behaviour. For example, several scholars have used the widely recognized theory of planned behaviour (TPB) (Fishbein & Ajzen, 2011) to analyse forest owners' intentions to perform a certain activity (e.g. Brough et al.,2013; Becker et al., 2013; Karppinen & Berghäll, 2015; Primmer & Karppinen, 2010; Thompson & Hansen, 2013). In addition, other socio-psychological theories have also been used (e.g. Bjärsting & Kvastegård, 2016; Hokajärvi et al., 2009; Van Herzele & Aarts, 2013). Even though not every study has provided positive evidence of the usefulness of sociological and behavioural theories for forecasting the behaviour of forest owners or forest-related stakeholders (Hoogstra-Klein et al., 2012), these approaches have nevertheless provided new information on the "underlying motivations and values" of private forest owners, called by several scholars for better to understand private forest owners' behaviour (Ficko et al., 2017; Ingemarsson et al., 2006; Häyrinen et al., 2016; Karppinen, 1998). Psychological and sociological approaches to forest-owner research have placed greater emphasis on self-identity, place attachment, links to heritage, a sense of land custodianship, a sense of ownership and perceived property rights as the objectives of forest or woodland ownership (Church & Ravenscroft, 2008; Ross-Davis et al., 2005). Thus, there is an indication that a better understanding of the essence of forest ownership as a mental state could provide new information on the behaviour of private forest owners' in different situations. For this, new conceptual tools are also needed.

This study aims to contribute to the abovementioned research by focusing on analysing the feelings of ownership that both private forest owners themselves and other groups of forests users have developed towards privately-owned forest re-

sources. Moreover, a further aim is to identify how these feelings of ownership impact the multiple use of forests. To achieve these aims, a novel concept in the forest-research context, psychological ownership, is introduced as a potential approach for understanding the values forest owners attribute to their forests as well as to explain, on its part, their behaviour. Psychological ownership is based on the idea that ownership should not be understood solely as a legal construct; rather, ownership should be considered to be a "dual creation, part attitude, part object, part in the mind, part 'real'" (Etzioni, 1991). "Real", objective ownership is related to economic or legal reality, while ownership "in the mind", i.e. psychological ownership, is related foremost to possessiveness, to the feeling "it is mine" (Pierce & Rogers, 2004; Pierce et al., 2001).

The concept of psychological ownership originates from organizational research and most experimental studies have been conducted in this context (e.g. Brown et al., 2014b; Mattila & Ikävalko, 2003; Pierce et al., 2001; Pierce et al., 2003; Pierce

& Jussila, 2011). However, the subject of this research has nevertheless been human behaviour. Thus, since the introduction of the concept, ideas of psychological ownership have been successfully applied to other fields of research, such as consumer behaviour and hospitality (e.g. Asatryan & Oh, 2008), entrepreneurship (e.g. Townsend et al., 2009) and health studies (e.g. Karnilowicz, 2011). Therefore, there is no reason to assume that the same phenomenon or logic would not also apply in the context of human-natural resources interaction. In fact, psychological ownership has recently been used to study wildlife conservation (Pohja-Mykrä, 2014). As there is previous evidence of the possessive feelings that individuals other than the legal owners have towards natural resources (e.g. Peltola et al., 2014), psychological ownership also offers a new approach for studying cooperative relationships related to the use of forests by multiple stakeholders, and thereby helping to maintain the social sustainability of forest activities.

2. THEORETICAL APPROACH

2.1. FROM SOCIAL SUSTAINABILITY TO PSYCHOLOGICAL OWNERSHIP

As the aim of this study is to contribute to the socially sustainable use of forest resources, the theoretical approach is based on two concepts: the stakeholder approach and psychological ownership in the context of social sustainability. Currently, social sustainability is generally seen as one dimension of sustainable development (McKenzie, 2004; Rouhinen, 1991), even though the discussion on sustainable development initially emphasized mainly ecological sustainability (Colantonio, 2009; Littig & Griessler, 2005; Vallance et al., 2011). In many cases it has, in fact, been evident that in order to achieve or maintain ecological sustainability, issues of social sustainability must first be solved (see e.g. Colding & Folke, 2001; Pohja-Mykrä, 2014). Social sustainability has been found to be essential in order to maintain economic sustainability as well. For example, in a rural setting, social sustainability has a direct link to the survival of companies (Lähdesmäki & Suutari, 2012), and managing it can be one of the key competencies of rural entrepreneurs (Matilainen & Keskinarkaus, 2010). Thus, managing people plays a critical role in achieving sustainable use of natural resources or sustainable development in a wider sense.

As a concept, social sustainability is nevertheless very policy orientated and ambiguous. For example, the term has been used regularly in policy documents (e.g. the European Union Strategy for Sustainable development, 2001; EU Forest Strategy, 2013), even though it seems to lack an explicit, generally accepted definition. Instead, several scholars have suggested diverse ways to organize the concept and its dimensions. In their extensive literature review Vallance et. al., (2011) divided the understanding of the social sustainability concept into three wider categories. In the first one, social sustainability is seen as developing equal opportunities, such as provision of basic infrastructure and services, and freedom or access to influential decision making (development social sustainability). In the second category, some researchers have under-

stood the concept as the human potential to generate improved environmental outcomes i.e. building better connections between people and the biophysical environment (bridge social sustainability). Thirdly, some associate social sustainability as maintaining traditions, practices or places people want to see sustained, such as access to traditional fishing grounds (maintenance social sustainability) (Vallance et al., 2011). These different approaches further confuse building a mutual understanding of what is meant by social sustainability. In addition, debate has centred on the main social objectives that should be considered in sustainable development and thus in social sustainability (Littig & Griessler, 2005; Omann & Spangenberg, 2002). The concept is also under-theorized and thus often oversimplified as a theoretical construct (Colantonio, 2009; Littig & Griessler, 2005).

In the natural resource context, social sustainability has been defined as development which reinforces individuals' control of their own lives and in which the results of development are distributed equitably (Iisakkala, 1993; Rouhinen, 1991). In the context of sustainable forest management, the social element of sustainability has been described as a "*contribution to the fulfilment of human needs in a broader scope*" (Lähtinen et al., 2014, p.1204) or as "*a social, multi-valued process in which ecological sustainability is considered in society in such a way that the welfare of humans remain at the highest possible level*" (Juurola & Karppinen, 2003, free translation, p.134). In sustainable forest management certification (e.g. PEFC, FSC), social sustainability has been included in the certification criteria as "*maintenance of other socio-economic functions and conditions of forests*" and introduced at a practical level as guidance for respecting traditional rights related to the local people, engaging them in the decision making processes and enhancing their employment related to forest resources (PEFC, 2010, p. 12). However, to determine the essence of the concept or operationalize it, a more accurate approach is needed. Some studies in the organizational research literature state that transferring social sustainability to business objectives is best undertaken by using the stakeholder approach (Clarkson, 1995; Epstein & Buhovac,

2014; Mendoza & Prabhu, 2006). In the natural resource context, this relates to both to the situations in which the social sustainability of local-level activities of individual nature-based companies and the multiple use of natural resources in a wider sense are discussed. In this study the stakeholder approach has been used to understand cooperation between nature tourism entrepreneurs and private forest owners.

The origins of the stakeholder approach lie in organizational research. A stakeholder is any group or individual who can affect or is affected by the achievement of an organization's aims (Freeman, 1984). The impact and influence mechanism vary according to the type of stakeholder group. Stakeholders can be divided into "primary stakeholders", who have a formal, official or contractual relationship with the organization, and secondary stakeholders, who represent the remaining interest groups in the operational environment, such as local people and forest owners (Carroll, 1989; Clarkson, 1995; Näsi, 1995). Therefore, stakeholders can relate directly to a company's product or service provision, but they can also be groups which are less directly connected to the business itself but are influenced by its activities, for example when a company's activities set limitations on land use by local people.

Stakeholder groups are specific to each case and often form extremely complex networks (Neville & Menguc, 2006). In many cases, it is impossible to satisfy fully all the stakeholder groups. Therefore, it is important to find the key stakeholders for each case (Bryson, 2004). Several types of stakeholder analysis and mapping practice have been developed to locate the most critical stakeholders for different processes and activities (e.g. Bryson, 2004; Bourne & Walker, 2005; Cleland, 1999; Mitchell et al., 1997; Neville & Menguc, 2006). According to one widely applied stakeholder classification (Mitchell et al., 1997), the critical attributes of key stakeholders are their power, legitimacy concerning the stake, and urgency of the claim. Stakeholders are considered to have power to the extent that they have access to or can gain access to coercive (based on physical resources), utilitarian (based on material or financial resources), or normative (based on symbolic resources) means to impose their will concerning the stake (Mitchell et al. 1997). Legitimacy, on the other hand, has been defined as the generalized perception that the claims of the stakeholder group are desirable or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995). Finally, stakeholder urgency can be defined as the stakeholder's claim

for immediate attention. It is based on the idea of time sensitivity and criticality (Mitchell et al., 1997). The most important key stakeholders typically have all these attributes.

Bryson (2004) emphasises the importance of finding ways to satisfy key stakeholders, at least minimally, according to their own criteria for satisfaction. This highlights the need to understand the stakeholder's perspective. Sometimes a stakeholder's primary agenda is difficult to identify, and this challenge has led to countless project and business failures (Bourne & Walker, 2005; Nutt, 2002). This highlights the critical role of effective and successful cooperation and stakeholder management strategies, especially as stakeholder groups in rural areas typically tend to place more expectations on companies than stakeholder groups in urban areas (Lähdesmäki, 2005). A stakeholder management strategy can be defined as a set of methods, either strategically considered or unconscious, used by an organization to act sustainably with a range of stakeholder groups. Typically, stakeholders are provided value and decision-making influence related to the organization's activities (Freeman et al., 2007). According to Harrison et al., (2010) organizations act in this way because "*they believe (1) it is the right way to treat stakeholders (normative view), (2) it is economically advantageous (instrumental view), or (3) both of these*" (Harrison et al., 2010, p. 61).

In the planning and use of natural resources on a wider scale, stakeholder management is often described as participatory planning processes or multi-criteria decision making, in which stakeholder groups should have a meaningful chance to participate in planning and decision making related to the use of natural resources. A body of literature on participatory management highlights the critical role of stakeholders in utilizing natural resources (e.g. Bisi & Kurki, 2008; Driscoll & Starik, 2004; Henriques & Sharma, 2005; Kantola et al., 2018; Pohja-Mykrä, 2014; Reed et al., 2009). There are several approaches to participation, but, according to Rowe and Frewer (2000), participation is conceptualised as two-way communication in which information is exchanged between the parties. In the context of the use of natural resources, participation has typically been seen as pragmatic (instrumental) rather than normative; i.e. the aim of participation is to deliver higher quality decisions (Reed et al., 2009).

The general conclusion from this large body of literature is that, typically, participatory management indeed increases the success of the planning process and the sustainability of the decisions made

(Reed et al., 2009). However, at the same time, the participatory approach has also faced criticism. In addition to the discussion on the power relations and complex social relationships that effect in these processes (Eversole, 2003), researchers have also observed that participatory management can easily fail to take adequate account of the emotional aspects that affect stakeholders' opinions (see e.g. Buijs & Lawrence 2013; Idrissou et al., 2013; Parkins & Mitchell, 2005; Morales & Harris, 2014). In the worst case, this can lead to a conflict between stakeholders (e.g. Filteau, 2012; Hiedanpää, 2005; Pohja-Mykrä, 2016). Thus, identifying and better understanding the underlying causes of stakeholder disagreements is vital (Kovács et. al., 2015).

One significant phenomenon influencing stakeholders' attitudes towards an organization's activities and thus also social sustainability is the ownership experienced of the resource or process in question. According to Grunebaum (1987), ownership refers to the relationship between human beings and the things and objects surrounding them and concerns not only possessiveness, but also the rights and responsibilities towards what is (considered) possessed (Dittmar, 1992; Pierce et al., 2001). Ownership is thus primarily a conceptual matter. As Snare (1972) p. 200 wrote in his study, "*a stolen apple does not look any different from any other apple*". Understanding the ownership better as a complex and multidimensional concept with certain psychological aspects could reveal new insights into both the stakeholder and conflict management situations.

2.2. PSYCHOLOGICAL OWNERSHIP

Psychological ownership can be defined as a state in which individuals perceive the target of ownership, an object, entity or idea, as "theirs" (Furby, 1978; Mattila & Ikävalko, 2003; Pierce et al., 2003). It thus reflects a relationship between an individual and an object in which the object is experienced as having a close connection with the self (Mattila & Ikävalko, 2003). Psychological ownership is foremost a mental state with both affective and cognitive elements (Pierce et al., 2001). It is also associated with certain rights and responsibilities in relation to the target of the ownership, such as the right to receive information about it and the right to have a say over the decisions affecting it (Hall et al., 2005). It must be noted, though, that similar fundamental rights are associated with objective ownership. For example, according to Pierce et al. (1991), there are three fundamental rights that ac-

company objective ownership: the right to a share of the owned object's physical being and/or financial value; the right to information on the status of that which is owned; and the right to exercise influence (control) over that which is owned. Similarly, the property rights literature highlights elements like control, right to access and withdrawal rights (Nichiforel & Schanz, 2011; Ribot & Peluso, 2003; Schlager & Ostrom, 1992). Thus, the views of legal and psychological ownership sometimes overlap and can reinforce each other.

However, there are significant differences between these two phenomena as well. Objective ownership is recognized foremost by society, and the rights that come with ownership are specified and protected by the legal system, while psychological ownership is recognised foremost by the individual who holds that feeling and manifests the felt rights associated with it. Similarly, the origin of the responsibilities associated with legal and psychological ownership differs. The responsibilities that come with legal ownership are often an outgrowth of the legal system, whereas those associated with the psychological state stem from the individual, i.e., from his or her feelings of being responsible (Pierce et al., 2003). It should also be noted that psychological ownership can exist in the absence of legal ownership. Similarly, people can legally own an object yet never claim possession of it as their own (Pierce et al., 2003). In addition, like legal ownership, psychological ownership can also be exclusive or shared in nature (Pierce & Jussila, 2011).

Even though psychological ownership is always primarily experienced at an individual level, in other words, in someone's mind, there is also evidence of psychological ownership as a group-level phenomenon (Gibson & Earley, 2007; Pierce & Jussila, 2010; Rantanen & Jussila, 2011). In this "collective psychological ownership", a group of people consider the object of ownership as theirs. Collective ownership is seen as an extension of personal feelings of ownership, especially personal feelings of shared ownership. In other words, among group members, a sense of shared ownership is also vital at a personal level (not mine, but ours). The conditions that affect the emergence of individual psychological ownership are also necessary for the emergence of collective psychological ownership (Pierce & Jussila, 2011). However, in addition, a collective understanding of shared actions towards the target of ownership is needed.

There is no common consensus among researchers about the basis of the psychology of mine, i.e. where ownership feelings originate, but

based on previous work (Belk, 1988; Furby, 1991), Pierce et al., (2003) proposed that the emergence of psychological ownership was related to the fulfilment of three motives or human needs, namely "efficacy and effectance", "self-identity" and 'having a place'. Later, a fourth motive, stimulation, was included in the theory to explain the dynamics of psychological ownership (Pierce & Jussila, 2011). Avey et al. (2009) have also proposed "accountability" to be included as one dimension of psychological ownership. This approach has not raised much interest among researchers though, and in general, accountability has been seen more as an antecedent or a consequence of psychological ownership rather than an individual dimension of it (Dawkins et al., 2017). This is also the approach chosen for this study.

All the motives defined by Pierce et al. (2003) are very much interlinked. Some researchers see these motives as innate needs, meaning that they are more "biological instincts" than learned behaviour (e.g. Pyszczynski et al., 2009). For example, the primitive drive to possess has also been detected in animals (Ellis 1985, Jones & Gosling, 2005). In addition, the tendency to act possessively develops at a young age in humans (Fasig, 2000; Isaacs, 1933). However, feelings of ownership can also be seen as socially constructed, as they have a different meaning in Western cultures than in some indigenous cultures (Pierce & Jussila, 2011). Litwinski had already developed in 1942 a socio-biological perspective on ownership feelings according to which possessive behaviour can be seen as an innate tendency, even if it "*doubtless owes much of its strength and direction to social example and education*" (Litwinski, 1942, p 36). Dittmar (1992) also stated in her work that biology may play a role in the development of possessions, but not an overriding one, as social and cultural factors influence how people relate to these possessions (see also Fasig, 2000). This socio-biological approach is the one adopted by Pierce et al. (2003) in developing the concept of psychological ownership and the approach of this study to the dimensions of psychological ownership and the psychology of mine.

The first motive of psychological ownership, **efficacy and effectance**, relates to feelings of control. According to White (1959), people have an innate need to produce desired outcomes in their environment. Following Isaacs (1933), Pierce & Jussila (2011) state that this need for control over the object of possession becomes an issue of power and powerlessness and psychological consequences of these states, like the feeling of safety. Similarly, it has been stated that the feeling of being

in control of something and therefore absence of a sense of helplessness are considered to be the basic ingredients of a healthy personality. Also, neural responses to this situation have been found (Decklerck el al., 2006). According to Dittmar (1992), to possess an object is the ultimate form of control. It has also been stated that possessions are important and become a part of the extended self, since they express a person's ability to exercise control over the environment and other people (Dittmar, 1992; Furby, 1978). Thus, the motive of effectance produces both intrinsic and instrumental satisfaction (Pierce & Jussila, 2011). It can also be seen to have a close link to constructing one's self-identity. In the forest context, the feeling of self-efficacy can manifest itself as a desire to decide on forest management alternatives or limit the access of other potential users to the forest and forest resources. Nevertheless, it must be noted that, at a personal level, perceived control is particularly important. Actual control options, such as through property rights, are likely to increase feelings of control, but they are not a prerequisite of such feelings. Thus, psychological ownership can also exist without legal ownership, as mentioned earlier.

In addition to efficacy and effectance, psychological ownership stems from the motive of **self-identity.** Psychological ownership feelings, for their part, help people define who they are, and they play a significant role in the expression of that identity to others (Pierce & Jussila, 2011). In other words, the target of ownership becomes part of the extended self (Belk, 1988). For example, Bliss and Martin (1989) have found that a forest contributes to the identity of the family who owns it. Possessions are thus used to gain self-understanding.

Some scholars have proposed that self-identity is located between the individual and society (Allport, 1955; Ellemers et al., 2002; Terry et al., 1999). Through socialisation processes, individuals learn the meaning and importance of certain possessions and in time, people tend to integrate the socially defined meanings of owning certain objects into their own values via the process of internalization (Deci & Ryan, 2000). As a result, they derive pleasure from being around these socially valued objects (Mead, 1934). In addition, people use ownership to express their self-identity to others. According to Dittmar (1992), possessions play a significant role in social interaction and are symbolic expressions of a person's self-identity. This has been studied widely in the field of consumer research (Smith et al., 2008; Wallendorf et al., 2008). Possessions are also used to maintain the continuity of self-identity and provide feelings that connect oneself to the

life one has already experienced (Pierce & Jussila, 2011).

In their work, Hillenbrand and Money (2015) claimed that it was nevertheless over-simplistic to consider self-identity a single entity. Rather, as one motive for psychological ownership, it should be understood as a multi-layered phenomenon. They point out that in identity research, scholars have described three main classes of self-conception: the actual self, the ideal self and the ought self (Higgins, 1999). The actual self describes who we are at a given time; the ideal self refers to what we would like to be in an ideal world; and the ought self describes individuals' perception of what they think they ought to be in the eyes of others. In addition, self-identity can be seen as "a collection of identities" that reflect the roles a person occupies in different social structures (Terry et al., 1999). Other scholars have also divided identity into personal identity and social identity, which may differ from each other (Ellemers et al., 2002).

Based on the abovementioned research, Hillenbrand and Money further divide in their study self-identity into four different layers: core-self, learned self, lived self and perceived self. Core self is seen as representing the innermost aspects of personal identity, conscious or unconscious. In turn, learned self comprises the norms and values of society and family and provides the basis for individuals' understanding of right and wrong behaviours. Lived self presents a range of activated cognitions and emotions learned from day-to-day life, while perceived self-identity refers to our understanding of how others see us. Hillenbrand and Money highlight that psychological ownership manifests itself differently according to which identity layer it relates to. They also observe that potential incongruence between the layers generates dysfunctional behaviour, and thus people may seek the experience of psychological ownership both to enhance congruence and also in a way to compensate for the incongruence between the "layers of self" (Hillenbrand & Money, 2015, p.153). For example, people might ask themselves, either consciously or unconsciously, whether owning a forest area would help them become who they really are or whether owning a forest area would help them to be seen by others as they should be seen. Hillenbrand and Money also highlight the dynamic nature of identity building and its fluctuation over time. Similarly, the manifestation of psychological ownership towards the object may change over time (Pierce & Jussila, 2011).

The third motive for psychological ownership, **having a place, need for home,** arises from the need to have a certain space in which to dwell (Pierce et al., 2003). For example, recreational forest users can feel "at home" in their favourite, often-visited place. According to Pierce and Jussila (2011), humans need to understand themselves in time and place. Thus, the motive of "having a place" is closely connected to the motive of self-identity. Also, Edney (1976) sees that the need for a certain place (territory) contributes to identity. Moreover, both Porteous (1976) and Ardrey (1966) claim that the need to possess a certain place is an innate need, even though the social environment and norms undoubtedly influence the emergence of territoriality.

In the literature, the motive for "having a place" has also been strongly associated with the concepts of a "sense of belonging" and "being familiar with" (Avey et al., 2009: Pan et al., 2014; Van Dyne & Pierce, 2004). To have roots and to belong to something are seen as an important human need (Maslow, 1954; Weil, 1952). Such needs can be seen to stem from the importance of feeling of safe, both physically and psychologically (Hagerty et al., 1992; Porteous, 1976). In the theory of psychological ownership, the concept of place is not limited to physical place. Rather, it can also be seen as a psychological state (Pierce & Jussila, 2011).

The motive of **stimulation** was added to the theory later on by Pierce and Jussila (2011) as it became evident that the theory also has to capture the people's need for arousal or activation, which could explain some dynamics of the concept of psychological ownership (Pierce & Jussila, 2011). It has been argued by scholars (see e.g. Ryan & Deci, 2000) that humans have an innate need to seek stimulation. This explains why people might leave their comfort zone even when their physical or psychological balance is not disturbed or endangered or when there is no extrinsic motivation to do so. In this approach, humans are seen as proactive organisms that actively promote growth and seek novelty and new opportunities (Deci & Ryan, 2000). From an evolutionary perspective, this need has helped humans to adapt to new circumstances.

Possessions have been connected in previous research to the need for stimulation (Duncan, 1981; Kamptner, 1989). Stimulation can be viewed as being closely linked to the motive of effectance, as the need for stimulation drives humans to explore and interact effectively with their environment and therefore experience competence and effectance (Pierce & Jussila, 2011). In the theory of psychological ownership, the need for stimulation is seen to answer the question of why objects fall into a person's possession in the first place (Pierce

& Jussila, 2011). Thus, it is seen as an explanation for why people seek new possessions. Pierce and Jussila (2011) also suggest that the experience of psychological ownership stimulates the individual both in terms of action and memory.

2.2.1. ROUTES TO PSYCHOLOGICAL OWNERSHIP

Each of the motives described above facilitates the development of psychological ownership, and according to the theory, only one of the motives needs to be aroused for feelings of ownership to develop (Pierce & Jussila, 2011). Nevertheless, the close links between the motives would suggest that more than one motive is typically present at the same time. It must be noted, though, that no direct causal relationship exists between the motives and psychological ownership. The emergence of the feeling of psychological ownership, i.e. how people come to experience psychological ownership, is often a lengthy process which might also be affected by individual differences. According to the theory, even though every person has innate needs linked to the motives of psychological ownership, the cultural and social circumstances are often different. Moreover, there may be individual traits that affect how feelings of psychological ownership emerge. One such trait presented by Pierce and Jussila (2011) is individualism/collectivism. The authors suggest that individualists are more likely to experience exclusive ownership, while more collectively-orientated people are more likely to experience shared ownership. In addition, the role of possessions and their meaning also changes during the lifespan (Kamptner, 1991).
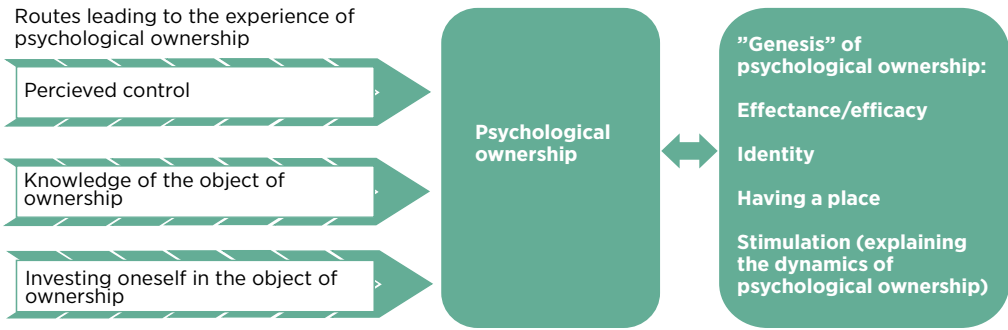
Despite these individual and circumstantial differences, Pierce et al. (2001) nevertheless identified three potentially interrelated routes through which people come to experience psychological ownership, namely controlling the target of ownership, coming intimately to know the target of ownership, and investing self in the target of ownership. First, being in control of an object creates feelings of ownership. In other words, the greater the amount of control a person can exercise over certain objects, the more they will be psychologically experienced as part of the self (Furby 1978, cited in Pierce et al., 2003). Several studies have also provided empirical evidence on the positive relationship between experienced control and psychological ownership (Brown et al., 2014b; Dunford et al 2009; Jussila & Puumalainen, 2005; Pierce et al., 2004). Exercise of control becomes tangible by having access to the use of the object.

Second, the more knowledge and information an individual has about an object, the deeper is the relationship between the self and the object, and hence the stronger is the feeling of ownership towards it. In other words, psychological ownership reflects the psychological proximity between the owner and the object (Beggan & Brown, 1994). In their study on psychological ownership and job complexity, Brown et al., (2014b) empirically observed a positive relationship between psychological ownership and intimately knowing the object of ownership. According to their study, the more complex job was, the more opportunities there were for the employee to get know the job more thoroughly and further, the more familiar the respondents were with the job in question, leading to stronger psychological ownership.

The third route to psychological ownership defined by Pierce et al. (2003) is investment of the self in the target of ownership. Investment of the self allows individuals to see their reflection in the target and to feel their own effort in its existence (Pierce et al., 2003). Thus, the investment of individual energy, time, effort and attention in objects causes the self to become one with the object and develop feelings of psychological ownership towards it (Ikävalko et al. 2006). In addition, empirical studies by Brown et al., (2014b) and Jussila and Puumalainen (2005) have found positive correlations between psychological ownership and investing oneself in the object of ownership and between intimate knowledge of an object and the emergence of psychological ownership.

Each route can enforce any motive of psychological ownership, and they can be complementary and/or additive in nature. Moreover, any single route can still result in feelings of ownership independent of each other. However, feelings of ownership of a particular target have been estimated to be stronger when an individual arrives at this state through multiple routes rather than through a single route (Pierce et al., 2003). For example, the more someone invests personal values, time and energy in a target, the more intimate is their knowledge of it and the more it becomes a representation of the self. This, in turn, results in stronger impetus for control and again in more time invested (Hall et al., 2005). Although there is no clear consensus on whether some routes are more effective in generating psychological ownership than others, Pierce et al. (2003) speculate that the routes of control and investing oneself in the target have the potential to be the most effective. Nevertheless, it should be noted that psychological ownership is also a context-bounded phenomenon. In addition to "the

Routes leading to the experience of psychological ownership

Percieved control

Knowledge of the object of ownership

Investing oneself in the object of ownership

Psychological ownership

"Genesis" of psychological ownership:

Effectance/efficacy

Identity

Having a place

Stimulation (explaining the dynamics of psychological ownership)

Figure 1. The genesis i.e. motives for a person to experience psychological ownership and the routes leading to the experience of psychological ownership according to the literature.

direct routes" mentioned above, several indirect factors (i.e. influencing psychological ownership through direct routes) have also been identified (Pierce & Jussila, 2011). In addition to individual characteristics, these factors can be structural (e.g. laws and norms) as well as cultural (Mattila & Ikävalko, 2003; Pierce et al., 2003; Pohja-Mykrä, 2014).

2.2.2. ANTECEDENTS AND BEHAVIOURAL EFFECTS

Feelings of ownership are also considered to have important and potentially strong attitudinal, motivational and behavioural effects, for example, on satisfaction (the individual feels comfort and security when in close contact with the object of ownership), commitment, organisational internalization (an organisation's goals and values become personal goals and values) and experienced responsibility. Several scholars have empirically identified a positive relationship between commitment and psychological ownership (Avey et al 2009; Mayhew et al., 2007; O'Driscoll et al., 2006; Van Dyne & Pierce 2004). For example, the more feelings of ownership people experience towards, say, an organization or other target of ownership, the more committed they become to staying close or remaining in connection with the target of ownership feelings, like staying in a job or in the company they have developed psychological ownership of. There is also evidence indicating that psychological ownership increases both loyalty towards an object and willingness to pay more in connection to that object, such as paying to maintain a hiking trail (Lee et al., 2013). Psychological ownership is also positively associated with behaviours that contribute to community well-being, voluntarism, and so-called stewardship behaviour (Hernandez, 2012; Pierce &

Jussila, 2011), behaviours which all are interesting in related to the management of natural resources. Pierce and Jussila (2011) further hypothesize that experiences of responsibility and psychological ownership are reciprocally related; i.e. responsibility can be both a consequence and an antecedent of psychological ownership feelings. A lack of psychological ownership, on the other hand, can lead the "owner" becoming alienated or psychologically withdrawing from the target of ownership (Li, 2008; Pierce & Van Dyne, 1993). The findings by Brown et al. (2014b) also show a positive relationship between psychological ownership and owners' internal motivation towards the target of ownership. In other words, the more owners experienced psychological ownership, the more intrinsically motivated they were to focus on the target of ownership. In the forest owner context, all this could mean a closer and more active connection between a private forest owner and their forest holdings.

Nevertheless, psychological ownership also has a "dark side", as it can entail certain more negative attitudinal or behavioural effects. Such behaviour can impede cooperation between people (Pierce et al., 2003) and can lead to conflict situations related to the use of the target. Some of these have been territorial behaviour, escalation of commitment, and counterproductive organizational behaviour (Baer & Brown, 2012; Brown et al., 2005; Pierce & Jussila, 2011). Spector and Fox (2010) defined counterproductive behaviour as behaviour intended to produce negative consequences for an individual or group or the organization itself. However, Pierce and Jussila (2011) hypothesize that the relationship between psychological ownership and counterproductive behaviour can be both positive and negative. If people feel that their psychological ownership is at risk, they may act destructively towards the object of ownership so "at least no

one else can get it". On the other hand, the more the object of ownership is considered to be part of the self (i.e. the stronger the psychological ownership), the more a person is likely to take good care of it, and the less likely that person is to engage in counter-productive behaviour. In addition, if psychological ownership is strong, it can sometimes lead to the escalation of commitment. This means that a person continues to commit to a course of action despite "the warning signs" that commitment is harmful or that a "bad decision" has been made (Staw & Ross, 1987). For example, people may be unwilling to let a certain project go even though there is no realistic hope of its success.

In relation to the multiple use of natural resources, territorial behaviour is probably one of the more relevant behavioural consequences of psychological ownership impeding the joint use of the resources (Brown et al., 2005). Territorial behaviour can cause defensive behaviour and could lead, for example, to the refusal to share knowledge or resources with others or the refusal to co-operate with other actors. This behaviour can also occur in reaction to others' suggestions for change or generate the need to retain exclusive control over the object of ownership (e.g. Baer & Brown, 2012). In their study, Brown et al. (2014a) also provide empirical evidence for the positive relationship between psychological ownership and territory marking (in an office context) and defending behaviour. However, they also note that psychological ownership does not automatically lead to territorial behaviour; in addition, other conditions, like personality traits, must support the development of this behaviour. Sometimes, when people witness radical alteration in targets that they perceive as being theirs, they may also experience personal loss, frustration, and stress (Pierce et al., 2003). One explanation offered for this is that when a person's self-identity experiences too excessive risks caused by strong psychological ownership, self-identity experiences an erosion causing stress, anger and tiredness (Korman, 1991; Pierce & Jussila, 2011). These elements are also often present in conflicts related to the use of natural resources (see e.g. Bisi & Kurki, 2008).

There are also certain antecedents that have been found to impact the development of psychological ownership. These typically affect one or all three routes through which a person develops feelings of psychological ownership. To date, these antecedents have mainly been studied in an organizational context and thus are related to organisation research. For example, job design, organization structure, organizational processes, participative decision making, and leadership have been investigated. Many of these topics are also relevant to the management of natural resources. It is important to keep in mind though that neither the antecedents nor the consequences described above automatically lead to or are the result of psychological ownership. In addition, frame conditions like the characteristics of the object of ownership and the people experiencing ownership also have an influence (Brown et al., 2005; McIntyre et al 2009; Pierce & Jussila, 2011). It has also been suggested that length of tenure plays a significant role in the development of psychological ownership (Raffelsberger & Hällbom, 2009).

2.2.3. PROXIMATE CONCEPTS

As the concept and theory of psychological ownership were originally developed for organizational research, some comparison with the proximate concepts already used in natural resource research is in order. These concepts vary according to their disciplinary roots and therefore they also highlight different aspects of an individual's relationships with the resource (e.g. Brehm et al., 2013, Smith et al., 2011, Trentelman, 2009). Nevertheless, in the natural resource research literature, several commonly used concepts exist with similar elements to the concept of psychological ownership. In these, the object of the emotion is typically seen as a natural site or its interpretation. In the following, the differences between the concept of psychological ownership and some of the common proximate concepts found in natural resource research are presented.

Place meaning, Sense of Place (SOP) and Place Attachment
The emotions and meanings related to natural or wilderness places have largely been studied by using the concept of "**place meanings**" (e.g. Cheng at al., 2003; Kyle et al., 2004 ; Smith et al., 2011,) , "**sense of place (SOP)**" (Brandenburg & Carroll, 1995; Jorgensen & Stedman, 2001; Semken & Freeman, 2008), and, perhaps more commonly, "**place attachment**" (e.g. Brehm et. al., 2013; Stedman, 2002; Williams et. al., 1992; Williams & Vaske, 2003). They are typically used to illustrate the relationship between people and spatial settings at an individual or group level (Brandenburg & Carroll, 1995; Jorgensen & Stedman, 2001; Shamai, 1991; Semken & Freeman, 2008). However, neither place meaning and place attachment, nor sense of place are intrinsic to the physical setting itself; rather they reside in human interpretations, constructed through experiences (Davenport & Andersson

2005; Stedman, 2002). Spaces become "places" as they are imbued with meanings through lived experience (Steele, 1981; Tuan, 1989; Williams & Patterson, 1996).

Place attachment has generally been seen to include two dimensions: place dependence and place identity (e.g. Brehm et al., 2013, Stedman, 2002; Williams & Vaske, 2003, Williams et al., 1992). Thus, it has certain central similarities with the concept of psychological ownership, especially related to the dimension of identity. Scholars have suggested that both place identity and the identity dimension of psychological ownership form a component in the construction of a person's self-identity (Dittmar, 1992; Korpela, 1989, Pierce et al., 2001; Proshansky et. al., 1983). In previous studies in the context of natural resources, the concept of place attachment has been used to understand, for example, people's reactions to natural resource management in cases of public recreation areas or tourism destinations and link it to the landscape values (Brown & Raymond, 2007). In addition, the concept of place attachment has been used in second-home-owner studies, in which the focus, however, has been more on its impact on the larger landscape, environment or community than on the relationship between an individual and the target of ownership, such as the house or cottage (e.g. Brown et al., 2003; Stedman, 2006). It has also been used in forest owner studies. For example, Markowski-Lindsay et al., (2016) used the place attachment discussion to understand the values family forest owners hold for the forest beyond the market value of the property.

Sense of place (SOP) is a concept which is quite close to place attachment. In fact, is has been said that sense of place is a geographers' equivalent to an environmental psychologists' place attachment (Williams & Vaske, 2003). Jorgensen and Stedman (2001) argue that the idea of SOP comprises identity (beliefs about the relationship between self and place), attachment (emotional connection to a place) and dependence (degree to which a place, in relation to alternative places, is perceived to underpin behaviour). In some cases, SOP is also regarded as including sense of community (e.g. Pretty et al., 2003). The concept has been used in the literature in contexts like property owners (Jorgensen & Stedman, 2001), residents (Hay, 1998; Kaltenborn, 1998; Pretty et al., 2003), local community members (Davenport & Anderson, 2005), and tourism (Kianicka et al., 2006). In forest owner studies, sense of place has been used as one attribute or ownership value the forest owners link to their forest (see e.g. Creighton et al., 2002) and to under-

stand the changes in forest owners' emotions towards their forests based on the owners' residence (Bergstén & Keskitalo, 2018). In the SOP literature, it has been argued that the meanings individuals and collectives ascribe to a place reflect their cultural and individual identities in a similar way to the feelings of psychological ownership towards a certain target. In psychological ownership, the idea of a "sense of place" can also be seen as being closely linked to one of the motives, "having a place" or the feeling of home.

Nevertheless, the dimension of experienced control and the opportunity to control the object in question are not explicitly discussed in any of these concepts. On the contrary, the control element plays a central role in the concept of psychological ownership. In the context of privately-owned forests, this element becomes even more relevant. Furthermore, rather than focusing on the natural resource as such, both place attachment and sense of place are always dependent on a certain physical place. Therefore, these concepts are of little use when the subject under investigation is not exclusively connected to a specific location, for example, in the case of wild animals. In summary, the concepts of place attachment, place meaning and sense of place generally focus on understanding the wider range of emotions that connect a person to a certain place rather than concentrating specifically on possessiveness.

Sense of belonging

Belongingness is defined by Anant (1966, p. 21) as a "*sense of personal involvement in a social system so that persons feel themselves to be an indispensable and integral part of the system*". In the other words, it can be seen as a fundamental need that exceeds mere physical concerns and satisfies the pressing psychological need to belong (Avey et al., 2009). It is also closely linked to place attachment, and they are seen to reinforce each other (Inalhan & Finch, 2004). Ardrey (1966) also argued that people take ownership of possessions, and structure their lives around them, in an effort to satisfy their need for belonging. A sense of belonging can also be seen as building a person's self-identity. The sense of belonging discussion has also found its way into forest ownership studies. For example, Kendra & Hull (2005) used it as one element among the others to build their study focusing on the forest owners' ownership motivations.

A **sense of belonging** does display certain similarities to the concept of psychological ownership. It has close links to the motive of "having a place or home" and has even been used in the pre-

vious literature as almost a synonym for or parallel concept to this motive (Avey et al., 2009). As such, it can be seen as one innate motive behind psychological ownership. However, it has also been suggested that the motive of "having a place" is a larger concept, as it refers to a person feeling at home in relation to the object of ownership; thus, the motive of "having a place" also includes other elements, such as feeling safe. Therefore, a sense of belonging seems to be just one element in this motive for psychological ownership. In a research context of natural resources, a sense of belonging does not fully describe possessive feelings towards the object of ownership; it describes the feeling that "I belong here" rather than "this belongs to me".

Psychological distance

Psychological distance is a construct referring to the extent to which an object is mentally removed from the self (McDonald et al., 2015), and it has often been described by using four dimensions: spatial, temporal, social and hypothetical (Trope & Libermann, 2010). According to McDonald et al. (2015) citing Trope and Libermann (2010), when an object is perceived to be psychologically close to oneself, it tends to be perceived in a more concrete way. By contrast, when the object is perceived as psychologically far from the self, that object tends to be construed more abstractly. Psychological distance has been used, for example, in tourism research for studying the differences that individuals perceive between their home country and a foreign country (Abooali & Mohamed, 2011) and explaining the gap between environmentally friendly attitudes and actual pro-environmental behaviour or reactions to climate change (Li et al., 2011; McDonald, 2015). In forest owner studies it has previously been used to explain the private woodland owners' timber harvesting decisions (Huff et al, 2017). In addition, Hoogstra and Schanz (2009) used loosely the time dimension of psychological distance to understand the time span of future orientation in forest management planning.

In relation to psychological ownership, psychological distance does not focus on ownership feelings or possession, even though it describes a person's relationship with an object. Instead, it can be seen more as a frame condition under which psychological ownership can arise. One could speculate that the greater the psychological distance between the owner and the object of ownership, the less likely it is that strong psychological ownership feelings will develop. However, there is no research to validate or disprove this hypothesis.

Human territoriality

Human territoriality can be defined as a set of behaviours and cognitions exhibited by a person or group based on perceived ownership of the physical space (Altman, 1975; Bell et all 1996, p. 304). The concept has been used in the development of the concept of place attachment, and it displays some general similarities. Territoriality has also been linked to identity building (Shils, 1975) and has been found to be a useful concept in conflict research for understanding spatial natural-resource conflicts, such as wars, nationalism and regionalism (e.g. Durrenberger & Pálsson, 1987; Knight, 1982). More recently, the use of this concept has also extended beyond physical spaces (Brown et al., 2005). In previous research related to natural or semi-natural environments, human territoriality has typically been used for understanding human spatial behaviour and the use of public spaces and even for customer satisfaction in tourism (Gold 1982; Kärrholm, 2007).

Human territoriality is similar to psychological ownership, and thus involves a strong idea of possessiveness, of mental ownership. The relationship between the two concepts has been studied in organizational research, and it has been suggested that territorial behaviour can indeed be seen to be a consequence of psychological ownership (Brown et. al., 2005; Pierce & Jussila, 2011). Territorial behaviour can be seen to mediate the ownership feelings to the practical actions (Brown et al., 2005).

NIMBY

Another often-applied concept, also related to territorial behaviour, is that of **NIMBY (not-in-my-backyard)**, which has been used both to describe and to explain the occurrence of local opposition, typically related to changes in the local environment. In many cases, NIMBY describes the role of proximity (spatial explanation) in such opposition, hence the name not-in-my-backyard (Devine-Wright, 2009). Thus, people can be generally positive towards some development, such as wind power or nature conservation but do not want wind turbines or restrictions on the use of forest resources in their own neighbourhood. Scholars have nevertheless criticized the concept of NIMBY for its lack of clarity over the origin of opposition and confusion over its precise referent (whether it refers to a belief or attitude towards a development, a behavioural response taken by individuals or the collective action of organized groups) (Devine-Wright, 2009). Therefore, some researchers have stressed the need for a concept that enables deeper understanding of the social and psychologi-

cal aspects related to the phenomenon of NIMBY (Devine-Wright, 2009; Wolsink, 2006). In relation to psychological ownership, NIMBY behaviour can be seen as a consequence of an experienced sense of ownership. In other words, psychological ownership can be among the elements underlying NIMBY reactions and can perhaps also be used to explain the NIMBY phenomenon.

In summary, the concept of psychological ownership can be said to have several connections to related concepts already applied in a natural-resource research context. Some of these concepts even have certain dimensions which are parallel to psychological ownership, while some can be seen more as antecedents or consequences of psychological ownership. Indeed, for its part, psychological ownership can be used to explain certain behaviours like human territoriality and the NIMBY phenomenon. However, when studying feelings of ownership, it is important to understand fully the origins of feelings of possessiveness as well as both the innate and the socially constructed motives contributing to them. Psychological ownership can help to conceptualize these, as none of the proximate concepts presented above seem to fully encompass all the elements of psychological ownership (Table 1). In the context of private forest ownership, the role of perceived control can be seen to play a particularly significant role, as NIPF owners are also the legal owners of the resource and thus can exercise, to a greater or lesser degree, direct control over their forests. In relation to natural resources, psychological ownership also represents a concept with a potentially broader application than physical place alone. The difference between the concepts and their potential use can also be illustrated by examining the potential questions they seek to answer in a research setting (Pierce et al., 2001). Psychological ownership can be linked to the basic question "*what do I feel is mine?*" (Pierce et al., 2001, p. 306), while the other concepts have a slightly different focus. (Table 1.)

In addition, there are some theories related to property rights that can be seen to have links to the concept of psychological ownership or lack of it (e.g. the Theory of Access or Tragedy of Commons). However, as they do not explicitly describe the emotional relationship between a person and an object, being more related to the multidimensional concept of ownership, they are not discussed here.

Table 1. The linkage of the proximate concepts to psychological ownership.

Concept	Motives behind psychological ownership			Potential research questions
	efficacy/effectance (control)	self-identity	"having a place"	
Psychological ownership	X	X	X	What do I feel is mine?
Place attachment		X	X	What does this place mean to me?
Sense of place		X	X	What does this place mean to me?
Psychological distance		X	X	How far do I feel I am from the object in question?
Sense of Belonging			X (part of one of the motives behind psychological ownership)	Where/to which group do I belong into? What is my place in the world?
Human territoriality	consequence of psychological ownership			
NIMBY	consequence of psychological ownership			

3. THE AIM OF THE STUDY

By using the concept of psychological ownership, the aim of this study is to understand possessive feelings towards privately-owned forest resources and therefore to understand the role of those feelings in the behaviour of forest owners and other forest users better (in this case nature-based tourism entrepreneurs). The study also aims to find out how ownership feelings should be taken into consideration in collaborative relationships when introducing potential new uses for forest resources (in this case nature-based tourism), in order to prevent conflicts.

The research questions are thus as follows:
1) How does psychological ownership manifest itself in the context of private forest owners and their forest holdings?

2) How do ownership perceptions affect private forest owners' forest management decisions?
3) Do nature-based tourism entrepreneurs perceive the natural resources they use as "their own" and how is this manifested?
4) What effects do ownership feelings have on cooperation between the parties and how have nature-based tourism entrepreneurs taken them into consideration in their stakeholder management?

The research questions are answered by combining the results of three published journal articles. The contribution of each article to the research questions is presented in Table 2. The original articles are reproduced as annexes to this study.

Table 2. The contribution of each article to the research questions. Each article brings a different perspective to the research questions.

Research question	ARTICLE 1. Matilainen, Pohja- Mykrä, Lähdesmäki and Kurki. 2017. I feel it is mine! – Psychological ownership in relation to natural resources. *Journal of Environmental Psychology*, 51, 31–45.	ARTICLE 2. Lähdesmäki & Matilainen. 2014. Born to be a forest owner? An empirical study of the aspects of psychological ownership in the context of inherited forests in Finland. *Scandinavian Journal of Forest Research* Vol. 29 Issue 2, 101–110.	ARTICLE 3. Matilainen & Lähdesmäki. 2014. Nature-based tourism in private forests: Stakeholder management balancing the interests of entrepreneurs and forest owners? *Journal of Rural Studies* Vol. 35, 70–79.
How does psychological ownership manifest itself in the context of private forest owners and their forest holdings?	The existence of psychological ownership in the context of natural resources.	The manifestation of psychological ownership among private forest owners in case of inherited forests	
How do ownership perceptions affect private forest owners' forest management decisions?		The impact of ownership perceptions to private forest owners' forest management decisions.	
Do nature-based tourism entrepreneurs perceive the natural resources they use as "their own" and how is this manifested?	The existence of psychological ownership in the context of the natural resources.		NBEs perceptions of private forest owners as their stakeholders
What effects do ownership feelings have on cooperation between the parties and how have nature-based tourism entrepreneurs taken them into consideration in their stakeholder management?	The existence of psychological ownership in the context of the natural resources.	The manifestation of psychological ownership among the private forest owners in case of inherited forests.	The cooperation strategies developed by NBEs to maintain cooperation with private forest owners

The results provide new understanding of ownership feelings in the private-forest-owning context and help identify solutions for how the objectives of forest owners and the needs of society for private forest resources could be successfully combined and how traditional recreational activities can be transformed into nature-based business activities without causing conflict or violating social sustainability.
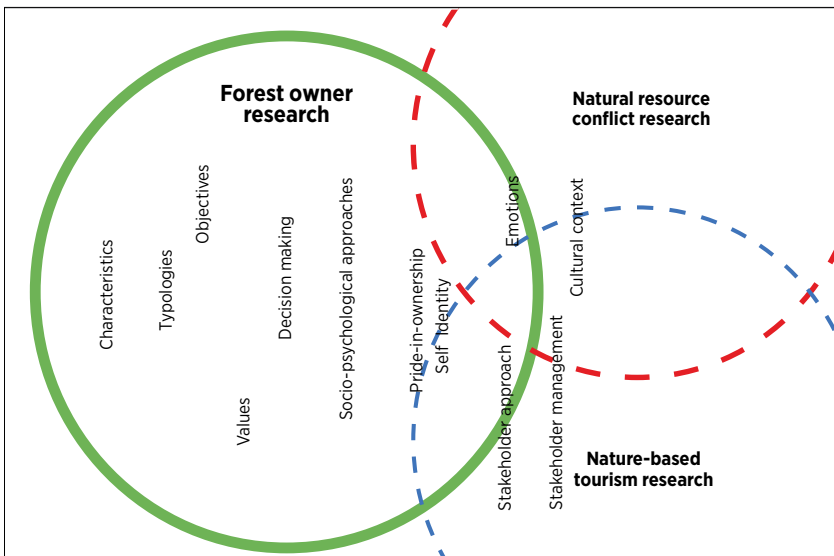
3.1. POSITIONING THE STUDY IN THE CONTEXT OF FOREST-OWNER AND NATURAL-RESOURCE-CONFLICT RESEARCH

This study positions itself in forest owner research primarily by introducing a new approach, psychological ownership, to understand better private non-industrial forest owners' decision making and behaviour. At the same time, it also contributes to the understanding of natural resource conflicts, especially in the context of nature tourism in private forests by providing insights into the role of forest owners as a critical stakeholder group for nature-based tourism entrepreneurs and by revealing the critical elements for a successful relationship between these two parties. (Figure 2.)

During the last 30 years, one of the main strands in **forest-owner research** has been the creation of forest-owner typologies. Such typologies often aim to create a link between forest owners' objectives for their forests and their socio-demographic background and then to further link these to forest management attitudes or behaviour. These typologies can be divided into extensive and intensive typologies. Extensive typologies, which represent the vast majority of forest owner typologies, refer to typologies that aim to generalize forest-owner attributes to large populations, while intensive typologies strive for in-depth understanding of the social and mental phenomena connected with forest ownership (Takala et al., 2017, following Sayer, 2000). Both kinds of typologies aim to improve understanding of the profile of private forest owners and their objectives (e.g. Hänninen et al., 2011 [FIN]; Butler & Leatherberry, 2004 [USA]; Ingemarsson et al., 2006 [SWE]; Boon & Meilby, 2005 [DEN]; Van Herzele & Van Gossum, 2008 [BE]; Hogl et al., 2005 [AUT]; Urquhart et al.,2012 [UK]; Malovrh et. al., 2015 [SLO and SBR]). Also, meta-typologies based on these typology studies have been created (Ficko et al., 2017; Ní Dhubháin et al., 2007; Urquhart et al., 2012).

In addition to forming typologies based on forest owners' background characteristics or objectives, research has focused on the factors influencing these objectives, such as forest owners' values and motivations, and on further linking them to management behaviour. In forest-owner research, motivations and values are typically closely linked as concepts, perhaps somewhat ambiguously, sometimes even used as synonyms, and connected

Figure 2. Positioning of this study in the context of forest-owner, natural-resource-conflict and nature tourism research.

further to forest owners' objectives for their forests. For example, in a literature review article summarizing information from predominantly European studies, Ni Dubháin et al. (2007) categorized forest owners' values based on their consumption goals as economic values, conservation values, place-based values, amenity and recreation values, aesthetic and biodiversity values and different mixtures of these values (multiple objective owners). In addition, they mentioned the value of ownership per se as being the motivation of passive forest owners in particular (Ni Dubhain et al., 2007). On the other hand, Bengston et al., (2011) used the National Woodland Owner Survey to group the values and motivations of US family forest owners into environmental values, forest-based recreation, investment and income, "home" as an ownership reason, non-instrumental values (intangible values, psychological experiences and benefits), family motives, farm and ranch and incidental ownership. In addition, several studies have focused on how these different types of forest owners with different values could be reached for advice and/or influenced to ensure that the forest both fulfils the owners' objectives and also meets the needs of society (Boon et. el., 2004; Hujala & Tikkanen, 2008; Leskinen et al., 2009).

Even though typologies provide valuable information on forest owners and the nature and prevalence of their values and/or objectives, it has been increasingly suggested that neither the background characteristics nor the objectives or values of forest owners are enough to predict forest owners' behaviour. Indeed, several studies have reported (e.g. Church & Ravenscroft, 2008; Ficko et al., 2017; Hujala et al., 2009) also from other sectors (Bach, et al., 2004; Diamantopoulos et al., 2003), that sociodemographic background characteristics no longer adequately explain values and behaviour. As early as 1994, Bourke and Luloff reported that "*sociodemographic characteristics, use of the forest, and ownership status have little influence on attitudes toward management*". In addition, often forest owner typologies have been found to capture only the most salient motivations for ownership, thereby leaving many underlying motivations undetected (Ficko et al., 2017). Therefore, other approaches are also needed.

Thus, in addition to the personal characteristics of forest owners, another major strand of research has focused on the decision-making process of private forest owners. Several scholars have concentrated on creating and utilizing diverse types of multi-criteria decision-making or decision-analysis methods (MCDM or MCDA) (e.g. Kangas

& Kangas 2005; Kurttila et.al., 2000; Mendoza & Martins, 2006; Pattanayak, 2003; Pukkala & Kangas, 1993). In these, to put it in a very simplistic way, forest owners' objectives for the use of their forests are mapped out and criteria for measuring these objectives are formulated. Then, different decision alternatives are created (for example for forest management), which are scaled to commensurable form and weighted with certain values for ranking. Finally, a mathematical algorithm is used to calculate the optimal solution for fulfilling the forest owner's objectives (Ananda & Herath, 2009). The same approaches have also been widely used in natural resource management (Anselin et al., 1989; Duke & Aull-Hyde, 2002; Prato et al., 1996). These models can help to map out the problem and its nature and relationships in complex, human-centred systems (Checkland, 1984; Mendoza & Prabhu, 2006). However, these approaches often assume that forest owners or the stakeholder groups make decisions in a rational way, based on profit or utility-maximization theories (Beach et. al, 2005) and that decision making is rather immune, for example, to the social norms of the environment and changes in it (Ananda & Herath, 2009; Mendoza & Martins, 2006 ; Rosenhead, 1989).

Consequently, other approaches to the forest owners' decision-making processes have also been adopted. For example, research has focused on the role of knowledge, networks, lifestyle and social "environment" (e.g. Butler et al., 2007; Hujala et al., 2007; Hujala & Tikkanen, 2008; Häyrinen et al., 2016; Korhonen et al., 2012; Primmer & Karppinen, 2010). In the Finnish context, Hujala et al. (2007) found that forest owners may apply a different decision-making mode depending on the situation and the decision in question. This is in line with traditional behaviour research (Fishbein & Ajzen, 2011; Ryan & Deci, 2000). According to the widely-recognized theory of planned behaviour (TBP), values or objectives are not the only factors influencing a person's decision making or behaviour; rather the process is much more complex (e.g. Fishbein & Ajzen, 2011). The values are intermediated to intentions through various kinds of beliefs, which create, via attitudes, the intention to form a certain behaviour. The theory also recognizes the significant influence of perceived norms and perceived behavioural control on intentions to engage in certain behaviour (Fishbein & Ajzen, 2011). For example, perceived norms have been found to affect forest owners' willingness to provide recreational opportunities on their land in England (Church & Ravenscroft, 2008) and forest owners' intentions to implement timber stand improvements (Karp-

pinen & Berghäll, 2015). Furthermore, forest ownership is not a static state. Several studies report the effect of life-cycle or cohorts on both forestry behaviour and attitudes towards forests (Butler et al., 2016, Butler et al., 2017; Karppinen, 2012).

As the forest owners are perhaps more diversified than earlier estimated (e.g. Hujala et al., 2007) and the assumption that forest owners will aim to maximize their utility in forest decisions may not be valid (Burton, 2004; Hujala et al., 2007; Markowski-Lindsay et al., 2016), forest owner research has also increasingly adopted more sociological or psychological approaches. Several scholars have used the above-mentioned theory of planned behaviour to analyse forest owners' intentions to engage in a certain activity. These include, for example, intentions for stand improvements (Karppinen and Berghäll, 2015), NIPFs' intentions to participate in carbon trading (Thompson & Hansen, 2013), intentions to provide bioenergy biomass (Brough et al., 2013), the social availability of woody biomass (Becker et al., 2013), forest owners' choice of reforestation (Karppinen, 2005), and foresters' attitudes towards and social norms in biodiversity conservation (Primmer & Karppinen, 2010). In fact, in 1987 Young and Reichenbach already used TPB to analyse forest owners' harvesting intentions. In addition, some studies have also measured actual past behaviour and its link with future intentions (e.g. Knoot & Rickenbach, 2011; Munsell et al., 2009). Moreover, other sociological approaches have also been used. For example, Bjärsting and Kvastegård (2016) attempted to understand forest owners' need for collaboration related to their forest's social values by using collaborative governance as the theoretical background. On the other hand, Van Herzele and Aarts (2013) used Luhmann's theory of self-referential social systems (Luhmann, 1990) to analyse how small forest owners cope with the policy regulations set for their forests, and Hokajärvi et al. (2009) used Activity Theory to understand forest planning as a social structure. All these approaches have increased our understanding of human behavioural approaches in forest owner research. For its part, the theory of psychological ownership and its implementation in the present study contributes to the above-mentioned literature by introducing a new social-psychological approach to the discussion.

The idea of ownership values and their central role in forest ownership is nevertheless not completely novel. At the beginning of the 1990s, researchers had already recognized pride-in-ownership as one of the more important values for forest owners (Sime et al., 1993; Wigley & Sweeney, 1993). The mental connections between forest holdings and their owners have also been investigated by using the concepts of self-identity, place attachment, link to the family/heritage, sense of land custodianship and sense of ownership (Bengston et al., 2011; Church & Ravenscroft, 2008; Ross-Davis et al., 2005). Introducing psychological ownership in the context of private forests takes this research one step further by providing a new conceptual approach for analysing these ownership feelings in more depth. Previous research mainly discusses ownership as a vague concept or fails to focus on possessive feelings directly. The psychological ownership approach enables the phenomenon to be conceptualized better.

In the forest context, this study also provides an additional approach to **natural-resource conflict research** relating to the role of emotions and cultural context (e.g. Bodtker & Jameson, 2001; Hellström, 2001; Jehn, 1994). Indeed, it has been stated that conflicts over pure environmental issues are in fact rare (Hellström, 2001) and that the dimensions of conflict do not simply concern economic or leisure interests but also aspects related to urban-rural tensions, cultural aspects, institutional change and the disparity between dominant ecological-technological expertise and subordinate forms of local knowledge (Skogen & Krange, 2003; Watts et al., 2017; White et al., 2009; von Essen et al., 2015). There is also a large body of literature focused on conflict situations which arise when local use of a resource is threatened by changing global demands for the same resource (see e.g. Dahdouh-Guebas et al., 2006; Dowie, 2011; Grau & Aide, 2008). Regardless of this, at a practical level, the suggested solutions for natural resource conflicts still often continue to focus solely on evidence of impacts or management interventions and are often based on the assumption that the persons or groups involved will act in a rational way based on economic valuation (Pohja-Mykrä, 2014). In the behavioural sciences, on the contrary, there is a long history of understanding conflict as a multidimensional, even partly unconsciously produced, phenomenon (e.g. Doise et al., 1998; Thomas, 1992). For example, it has been found that in conflicts between self-interest and concern for others, these two influence human behaviour through different cognitive systems. Self-interest is automatic, viscerally compelling, and often unconscious, while obligations to others involve a more thoughtful process. This automatic nature of self-interest often gives it a primal power to influence judgment and makes it difficult for people to un-

derstand its influence on their decision making (Moore & Loewenstein, 2004). Thus, instead of viewing a conflict situation purely as consisting of disagreements or differences of opinion or as interfering or obstructive behaviour, such situations should be viewed as a more complex combination including several emotions (Barki & Hartwick, 2004). Indeed, previous research has emphasized the importance of the role of emotions and the cultural context of conflict situations (e.g. Bodtker & Jameson, 2001; Hellström, 2001; Jehn, 1994). This study provides, for its part, new information and a conceptual tool for understanding conflict situations related to the multiple use of forest resources. Such conflicts can arise from anticipated or actual economic loss for private forest owners or from other use that hinders or disturbs forest owners' own use of their forests. However, often

these conflicts relate to violations of the ownership feelings experienced. When owners lack a sense of final control over the use of their land areas, they feel their rights as land owners have been violated (Valkonen, 2007). It can be argued that these ownership feelings and an understanding of their role can play a significant part in successful cooperation between different stakeholders as well as in conflicts related to the use and management of natural resources.

In addition, this study connects to the large body of **research on nature-based tourism**, more specifically to research related to understanding stakeholder management (e.g. Byrd, 2007; McComb et al., 2017; Silva & McDill, 2004) and the social sustainability of nature-based tourism (e.g. Jamal & Stronza, 2009; Tolvanen et al., 2004).

4. THE CONTEXT OF THE STUDY

To help elucidate the phenomenon of psychological ownership in a private forest ownership framework, this chapter provides a short overview of the contextual background of the study by describing in more detail private forest ownership in Finland and the framework of nature-based entrepreneurship in private forests.

4.1. PRIVATE FORESTS AND FOREST OWNERSHIP IN FINLAND

In Finland, private forest ownership has been significant for at least the last 100 years. As early as 1920, over half the country's forest land was owned by private family forest owners (Reunala, 1975), and with the Settlement Laws (1922 and 1935) and the privatization of state land during and after the Second World War, the proportion of private forest ownership further increased (Holopainen, 1971). Currently, approximately half (53%) the forestry land[2] and 61% of the forest land[3] in Finland is owned by non-industrial private forest owners. Of the forest land used for wood production, the proportion of NIPF ownership is even higher, at 67%, and thus NIPFs control a significant amount of the country's forest and timber resources. Most private forests are located in Southern and Central Finland. In these areas, approximately two-thirds of forests are privately owned, and in some areas of Southern Finland, this figure is as high as 90% (LUKE, 2015).

There are approximately 632 000 non-industrial private forest owners in Finland (counted from forest holdings of over 2 hectares, including those who share ownership in one way or another (Leppänen & Torvelainen 2015). The average holding size (counted from forest holdings of over 2 ha) was 30.1 ha in 2013, which is the most recently-available figure. The average age of Finnish forest owners has been increasing for the last 10 years, and was 60 years in 2009 (Hänninen et al., 2011; Karppinen et al., 2002). Forty-four per cent of forest owners are women (Karppinen & Hänninen, 2017), and at present, pensioners are the biggest forest-owner group (45%), followed by paid employees (30%) (Hänninen et al., 2011). Most forests change owners through inheritance or purchase from close relatives (85%), with only 15% exchanging hands on the open market (Hänninen et al., 2011). Often forests are also divided between heirs, resulting in the increasing fragmentation of forest ownership. At the moment, 61% of all private forest holdings are under 20 hectares (Leppänen & Torvelainen, 2015), and there was particular growth in the number of holdings under 10 hectares between the years 2006 and 2013 (LUKE, 2015).

Karppinen et al. (2002) conducted a wide-ranging survey of Finnish forest owners' objectives based on data from 1999, which was repeated by Hänninen et al. in 2009. In his study, Karppinen divided Finnish forest owners into five groups based on their objectives for their forests: 1) "income from forests", 2) "forest owners emphasizing economic security", 3) "recreational users", 4) "forest owners with multiple objectives" and 5) "indifferent forest owners." Group 1 highlights the use of forests as a source of livelihood and employment, even though it might not be the owner's main source of income. The second group also focuses on the economic use of forests by highlighting the security that forest holdings provide to owners' personal finances as a "bank". The third group, on the other hand, can be seen as having a hedonistic approach emphasizing the aesthetic and other immaterial values of nature and rural regions. The fourth group, forest owners with multiple objectives, represents forest owners who emphasize both material (economic) and immaterial values. In addition, a fifth group was found which included uncertain or indifferent forest owners with no specific objectives for their forest ownership. Based on the data from 2009, Hänninen et al. (2011) found that the profile of Finnish forest owners had changed in the intervening 10 years between the two studies (Hänninen et al., 2011; Karppinen et al., 2002). The number of pensioners and paid employees living relatively far away from their forests had grown and the number

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2 Forestry land: land that does not have any other special purpose; i.e. it is not agricultural land or built land. Forestry land includes forest land, poorly productive forest land, unproductive forest land and other forestry land (forest roads, storage areas etc.) (Statistical yearbook of forestry, 2014)

3 Forest land refers to a forest in which the potential annual increment for the rotation period is at least 1 cubic metre per hectare per year (Statistical yearbook of forestry, 2014)

of farmers had decreased. Interestingly, however, there was little change within forest-owner types based on their objectives. Nevertheless, the results indicated that the most active forest owner group was slightly decreasing (Hänninen et al., 2011). In 2009, the fourth group covered 30% of forest owners, who held 40% of the forest land area in Finland. Ten per cent of forest owners were classified as indifferent (Hänninen et al., 2011).

Even though the legal ownership structure of Finnish forests is generally quite clear, legislation and regulations exist that set limitations on forest owners' sole control over their forests. As examples of these can be mentioned the Forest Law (Forest Act 1996/1093, modified from the beginning of 2014, [Laki metsälain muuttamisesta 1085/2013]), which bans deforestation, requires obligatory reforestation after clear cutting and imposes some limitations on permissible forest management practices. Forests are one of the more important natural resources in Finland, and the importance of forest product exports to the economic development of the nation has been notable, even from a global perspective (Palo et al., 1999). Thus, the aim of the legislation has largely been to improve and maintain forest resources and the competitiveness of the forest sector (Mattila et al., 2013). When the forest law was updated in 2014, the new law gave forest owners more freedom in relation to forest management practices. This, in turn, provided more opportunities for forest management to take into consideration benefits other than wood production (Saaristo & Vanhatalo, 2015). Equally, nature conservation legislation may set limitations on the use of privately-owned forests, regardless of forest owners' own willingness to protect the natural environment or endangered species. In addition, Everyman's Rights guarantee free public access to forests regardless of who owns them.

4.2. EVERYMAN'S RIGHTS AND NATURE-BASED TOURISM IN PRIVATE FORESTS

Everyman´s Rights are based on the principle of public right of access to nature and on some laws and regulations related to the use of nature (e.g. the Criminal Code of Finland, Nature Conservation Act, Constitution of Finland, Water Act, Cross-country Traffic Act). As Everyman's Rights are a commonly agreed way of using nature, rather than an actual subjective right which has been especially granted to someone and realized through legal regulations, they can also be called the "right of public use" (Laaksonen, 1999). The roots of Everyman's Rights derive from an ancient custom allowing free travel in roadless country, including the right to stay overnight and gather nourishment (Tuunanen et al., 2012). This custom also forms a large part of the current land and natural resource utilisation culture in Finland, even though changes have occurred over time.

The utilisation of nature for recreation has a long tradition in Finland, and this role is continuously growing. According to Sievänen and Neuvonen (2011), up to 96.5% of the Finnish population utilise nature for recreation, and 75% of Finns use it based on Everyman's Rights. Everyman's Rights allow hiking, biking or skiing in natural areas and the picking of wild flowers, berries and mushrooms, regardless of who owns the area. Everyman's Rights also entitle people to ice fish, angle, boat, and swim freely. Everyman´s Rights apply to both Finns and non-Finnish nationals alike. However, Everyman's Rights do not extend to causing damage or disturbance in natural areas or to producing unreasonable disadvantages to the forest owner. For example, Everyman's Rights do not permit the killing or disturbance of animals, damage to growing trees or the collection of moss, herbs or wood without the landowner's permission. It is also forbidden to make an open fire, to drive with a motorized vehicle without a permission or to disturb privacy by being too close to settlements (e.g. Laaksonen, 1999; Mäntymaa 1998; Tuunanen et al., 2012). In addition, Everyman's Rights are based on occasional rather than regular use of forests.

The above-mentioned concepts of unreasonable disadvantages and regular use are nevertheless very much open to interpretation (see e.g. Lehtonen et al. 2007). Therefore, to some extent, Everyman's Rights also enable the utilisation of natural resources for business activities without the forest owners' permission. For example, commercial berry picking using foreign pickers has raised much discussion in the media and among policy makers and local residents (La Mela, 2014; Peltola et al., 2014; Stens & Sandström, 2013). Similarly, engaging in nature tourism activities based on Everyman's Rights has been a grey area (see e.g. Viljanen & Rautiainen, 2007), with different interest groups having their own interpretations of it (Lehtonen et al., 2007). The spirit of the guidance from the Ministry of Environment (2012) has been that if the use of nature is non-intensive (thus leaving no significant visible marks on the forest) or is random, for example, in the case of some hiking activities, the landowner's permission is not required (Tuunanen

et al., 2012). Even though this interpretation of Everyman's Rights sets the regulative framework for the professional use of forests for nature tourism, it is still open to a range of interpretations. Accordingly, 50% of Finnish nature tourism entrepreneurs have reported facing property-rights-related problems vis-a-vis private forest owners (Nousiainen & Tyrväinen, 2002).

Nature-based tourism as an industry sector has been one of the fastest growing tourism sectors worldwide in recent years. This growth is set to continue in the future, with tourists increasingly valuing pure and authentic natural environments (CREST, 2016; Dodds et al., 2010; Fredman & Tyrväinen, 2010; O'Neill & Alonso, 2009; Ryymin, 2008). Nature-based tourism can be broadly defined as tourism, the main activities of which are related to nature (Fredman et al. 2012; Andereck, 2009; Saarinen, 2001). It is also the form of tourism that often provides direct benefits to the economy of remote rural areas. The income from nature-based tourism typically remains in rural regions, the sector is labour intensive, and it usually requires a strong local knowledge base (e.g. Courtney et al., 2006; Iorio & Corsdale, 2010; Matilainen et al., 2016; Saarinen, 2003). These characteristics make it especially interesting for rural development, and the sector is highly promoted in tourism strategies.

The natural resources used in nature tourism activities are seldom owned by the entrepreneurs themselves due to the requirement of large land areas for many such activities. Thus, approximately 80% of nature-based tourism entrepreneurs in Finland have reported using land areas they do not own (Nousiainen & Tyrväinen, 2002). The natural resources utilised can be a forest area, landscape or wilderness as such or other natural resources like wild animals, fish or other non-wood forest products. As two thirds of the country is covered by forests, they are also one of the main environments for nature-based tourism. In Finland, nature-based tourism utilizes both state-owned and privately-owned forest lands, but due to the landownership structure, the pressure to use private forests for nature tourism is particularly high in Southern and Central Finland (Tyrväinen & Sievänen, 2007).

Even though Everyman's Rights enable some nature tourism activities without the forest owner's permission, forest owners have the legal right to regulate activities in their forests, especially in the case of intensive business activities. In addition, the forest owner can easily disturb the nature tourism activities on their land, for example by forest management activities, if they wish to do so. Nature-based tourism entrepreneurs, on the other hand are in many cases dependent on privately-owned forests in their business activities, whether they operate under Everyman's Rights or with the forest owner's permission. Thus, the current interpretation of the property rights provide both opportunities and challenges for business development. The main challenge is how to maintain sustainable business activities in the long term, when the key resource of production is owned by someone else.

As resource holders, private forest owners are a critical stakeholder group for nature-based entrepreneurs. Despite this, cooperation between the parties is typically quite informal, and the stakeholder role of forest owners is not always recognised by entrepreneurs. Currently it is also unusual for entrepreneurs to pay the forest owner for nature tourism activities. Moreover, when such payment is specified in an agreement, the economic benefits to the forest owner are usually marginal compared to other income gained from the forest resource, such as timber production or even voluntary conservation schemes. Cooperative relationships therefore tend to be asymmetrical. The entrepreneurs' survival depends on access to private forests, while the benefits to forest owners are essentially non-existent. Aside from the economic benefits, the forest owners have many other values and purposes for their forests, which sometimes even override the economic aspects (Ni'Dhubhain et al., 2007). Thus, the economic compensation or lack of it, is not the only factor effecting to the cooperative relationship between the nature tourism entrepreneur and private forest owner. Instead this relationship depends on several other issues stemming from the complex values that owners hold in relation to their forests (e.g., Bliss & Martin, 1988, Kline et al., 2000; Ni'Dhubhain et al., 2007).

One explanation for this oversight in nature-based entrepreneurs' stakeholder management regarding private forest owners may originate from the traditions of nature use in Finland. Due to these traditions, people other than forest owners often set demands for the use of forests and perceive natural resources as "public goods" in general. In other words, they can also experience ownership feelings towards privately-owned forests, even though they do not necessarily have any legal property rights towards the resources. The same applies to the users of private forests based on Everyman's Rights. This can endanger the socially sustainable use of forest resources in a wider sense and cause tensions and even conflicts when recreation activities are developed into nature tourism products and a price is put on traditionally free activities.

5. MATERIAL AND METHODS

The ontological approach of this study can be described as subtle realism (Hammersley, 1992). In other words, social phenomena are seen to exist independently of people's representations of them, but they can only be accessible through these representations. Subtle realism has thus been defined as a variant of realism which also contains influences of idealism (or nominalism) (Burrell & Morgan, 1993). Relating to its epistemological stance, the study aims for emphatic neutrality, meaning that while it recognizes that qualitative research can never be purely value-free, the study nevertheless strives for objectivity and attempts to make the assumptions of the researcher as transparent as possible (Burrell & Morgan, 1993).

The aim of this study is to understand the phenomenon of psychological ownership in the context of a natural resource, namely in privately-owned forests. The inspiration for the study initially came from a collection of interesting findings on every day natural resource use and management, which could not have been properly explained with the existing conceptual tools. To capture these situations in depth, a new theory from another sector was introduced. This theory has been used as a framework in analysing the data, even though the aim has also been to be open at all times to other findings. Therefore, it can be said that the study has some deductive characteristics. However, the study does not aim to verify or falsify the theory of psychological ownership (Patton, 2002) as such, but rather to understand the phenomenon, which brings it closer to abductive research orientation. Especially in the individual articles does not primarily aim to develop any actual novel theory however, which is sometimes strongly highlighted in the abductive research approach (Ong, 2012). This said, this introduction section nevertheless summarizes the findings of all the individual original articles in order to answer the research questions posed for this study and thus also provide some insights to the theoretical framework. The contribution focuses especially on insights of the theoretical framework in the context of natural resources. Therefore, the research approach can be concluded to have features of the abductive approach (Kennedy & Thornberg, 2017).

The approach to the research methodology can be described as pragmatic (Seale, 1999); i.e. the aim has been to select the most suitable research method to answer the research questions. As the problem is to understand and illustrate psychological ownership and its role in relation to natural resources and their management, a qualitative approach was seen as the most suitable and informative (Patton, 2002). Qualitative research typically aims for a holistic approach to phenomena and aims, in particular, to answer the questions 'how' and 'why' (see e.g. Burrell & Morgan, 1993; Cuba & Lincoln, 1994; Patton, 2002). It also seeks to understand the phenomenon in question from the perspective of those experiencing it (Vaismoradi et al., 2013). However, the drawback of this approach is that neither broad generalisations nor direct causalities can be found from the results (Denzin & Lincoln, 1994).

5.1. THE INTERVIEW DATA

The study data were derived from three interview datasets: thematic interviews with private forest owners, nature tourism entrepreneurs, and a dataset consisting of bear watching entrepreneurs and hunters' representatives. It is based on two national research projects conducted during 2009–2014 in Finland (Nature-based Entrepreneurship in Private Forests, and The Sustainable Social Environment and its Challenges in Carrion Baiting of Large Carnivores). The data have been used in the three articles, as presented in Table 3. In Article I, two datasets were introduced to illustrate the existence of psychological ownership in the context of natural resources. The first dataset consists of 12 interviews with private forest owners who have a cooperative relationship with nature tourism companies and 10 interviews with nature-based tourism entrepreneurs. The second dataset consists of interviews with three bear-watching entrepreneurs and four hunters' representatives. In Article II, interviews with those forest owners who inherited their forests were used, while in Article III the nature-based entrepreneurship data are analysed in more detail.

All the interviews were recorded with the permission of the interviewee. After recording, they were fully transcribed in order to guarantee rich data and to allow for precise analysis. In addition,

Table 3. The use of the data in different articles.

	ARTICLE I	ARTICLE II	ARTICLE III
Interview data I, private forest owners (n=17)	Only the forest owners cooperating with nature-tourism entrepreneurs (n=12)	Only the forest owners who inherited their forests (n=15)	
Interview data II, nature-tourism entrepreneurs (n=10)	n=10		n=10
Interview data III, 3 bear watching entrepreneurs and 4 hunters' representatives (n=7)	n=7		

for all the interviews semi-structured frameworks of themes were created, which allowed rather flexible conversations to occur while still ensuring that all the key issues were discussed with every interviewee (Hirsjärvi & Hurme, 1982).

Interview data I, private forest owners (Articles I and II)

The data consist of 17 thematic interviews with private forest owners. The sampling of the interviewees was made through a purposive sampling approach in order to ensure manageable and informative data (see Patton 2002). The private forest owners who were interviewed can be divided into two categories: those collaborating with a nature-based entrepreneur and those who had refused to allow their forest to be used for business activities not included within Everyman's Rights. The interviews were conducted between October 2008 and March 2009. The size of the forest areas owned by the interviewees varied considerably: from 5 hectares to 480 hectares. The duration of forest ownership was rather long, as most of the interviewees had owned their forest areas for 20 years or longer. Moreover, it was typical for the interviewees to have inherited the forest areas (15/17) and for ownership of the area to have remained quite stable ever since. Thus, after inheriting the forest area, most interviewees (9/15) had neither sold any part of their forest land nor were planning to sell it. The interviewees usually either legally owned the forest alone or with their spouse. The forests were located in six regions of Finland, mainly in the central parts of the country (the regions of Kainuu, Pohjois-Savo, Central Finland, South Savo, Southern Ostrobothnia and the Tampere Region). In most cases, the forest owners lived near (usually in the same municipality) to their forest areas, while only three lived in a different region from where their

forest was located. The data are described in more detail in Articles I and II.

Interview data II, nature tourism entrepreneurs (Articles I and III)

The dataset includes 10 in-depth interviews with nature-based tourism entrepreneurs. The sampling of the interviewees was made by following a purposive sampling approach. Thus, the entrepreneurs represented several kinds of nature-based tourism businesses that were located in several geographical areas of Finland (Central Finland, Kainuu, Central Ostrobothnia, the Tampere Region and Northern Savo) and provided a range of nature-based tourism experiences, such as hiking, climbing, canoeing, riding, motor safaris, and wildlife watching and hunting. The average age of the businesses (at the time of interview) was 9.5 years. The oldest business had been established 17 years before, while the youngest was only three years old. The enterprises were small when measured according to the number of employees, the average being two full-time employees. Nevertheless, it should be noted that many of the businesses had several part time employees during the season. The number of forest owners with whom the entrepreneurs collaborated varied considerably. Thus, in some cases the entrepreneur had only a couple of collaborating partners, when the operation of some entrepreneurs covered more than 100 forest owners' land areas. The data are further elaborated in Articles I and III.

Interview data III, three bear watching entrepreneurs and four hunters' representatives (Article I)

The third dataset consists of interviews with bear watching entrepreneurs (three interviews) and local hunters (one interview) conducted in 2008 in

Eastern Finland (the Kainuu and Northern Karelia regions). The data related to the local hunters were strengthened by three additional interviews conducted at the beginning of 2017. This was seen as necessary to ensure the validation of the hunters' representative data. The interviewees were selected by using purposeful snowball sampling. The aim of this sampling method is to locate information-rich key informants (Patton, 2002), which was seen as vital, as the purpose was to find rich data related to the study questions and discussion of these two stakeholder groups related to bear watching activities, involving the use of carrion baiting. The age of the representatives of the bear-watching companies interviewed varied from one to 19 years. Thus, the data included both mature businesses and new companies. The size of the companies measured according to the number of employees varied between two and seven, including seasonal employees. The regional hunters' representatives interviewed were either the heads of the local hunting clubs or game management associations. The data are further explained in Article I.

5.2. ANALYSIS

The analysis used in all the articles is generally based on thematic analysis. In Article I, the method of analysis nevertheless includes features of deductive qualitative content analysis. As content analysis can be defined as a general term for different strategies used to analyse text (Powers & Knapp, 2006), some further clarification is in order. The analysis applied in Article I did not aim to quantify or count the frequency of occurrence of the selected themes from the qualitative data, as a propose relevant to the qualitative content analysis (Vaismoradi et al., 2016). Rather, the aim was to identify themes from the data that illustrated psychological ownership and gain new understanding of and insights into the phenomenon (Elo & Kyngäs, 2008; Vaismoradi, 2016). Therefore, the approach came close to that of thematic analysis (Vaismoradi, 2016). However, the coding of these themes was generally based on earlier research (Pierce et al., 2001, 2003). Thus, in this case, the aim of the qualitative data analysis process was to sort and categorize the data according to the psychological ownership theory of Pierce et al. (2001). Moreover, the study was exploratory in nature, as it aimed to identify the phenomenon of psychological ownership in the context of natural resources, a framework in which little, if any, previous research has been conducted (Patton, 2002).

Articles II and III follow the thematic analysis approach presented by Braun and Clarke (2006). Thus, thematic analysis is understood as an independent descriptive qualitative method for analysing the content of the data and identifying and reporting patterns in the data (Braun & Clarke, 2006; Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). This approach also enables the incorporation of both manifest and latent aspects in the analysis and provides a theoretically flexible method of analysing qualitative data, meaning that it can be conducted both within realist and constructionism (nominalistic ontological position) paradigms (Braun & Clarke, 2006).

In Articles II and III, the thematic analysis further resulted in the construction of qualitative typologies, in which after seeking patterns, categories, and themes in the data, the typologies are formed based on these (Patton, 2002). Such typologies are a recognized way to organize and present the results of qualitative research. Typologies are built on ideal types or illustrative endpoints and can be seen as sets of ideal types that an observer can use as mental tools to simplify and organize a complex picture of reality (Boon et al., 2004). Each type represents a unique combination of the attributes that are believed to define the phenomenon (Doty & Glick, 1994, p. 232), and therefore they provide a simple method for presenting qualitative comparisons (Patton, 2002). They are especially helpful in describing and explaining the segmentation of the social world in the way that phenomena can be characterized or differentiated when there is a need to highlight differences between complex groups (Patton, 2002). Thus, typologies and their characteristics emerge from the data during the analysis instead of being decided on beforehand. The aim is to illustrate the results, not to make any far-reaching generalizations.

In each article, data analysis began by reading through the interview data carefully. After this, the data were coded, and excerpts related to the theoretical approach of each article (psychological ownership in Article I and II and stakeholder theory in Article III) were distinguished and marked from the data. Nevertheless, despite the theoretical framework introduced in the articles, all the relevant extracts for each theme were collected. Therefore, in the analysis the aim was also to keep the authors' minds open to any relevant new findings, rather than purely to focus on finding indications related to the theoretical approach that had been used as a framework (Fereday & Muir-Cochrane, 2006). The excerpts were then further combined into wider entities that were used to organise

the data (Article I) and then to build the typologies (Articles II and III). To ensure the reliability of the results, all the phases of data analysis and interpretation in all the articles were a collaborative and iterative effort by the authors (Article II and III) or by the first two authors (Article I). In the case of disagreement, the data were jointly re-analysed until a shared interpretation was reached. Although laborious, this use of analyst triangulation is often considered to increase the credibility of the research (Patton, 2002). Furthermore, as Eisenhardt (1989) argues, the use of several researchers builds confidence in the findings and increases the likelihood of their usefulness. Similarly, Burla et al. (2008) and Schreier (2012) emphasize that the participation of more than one person in the analysis allows for a sounder interpretation of the data. Further elaboration of the data analysis can be found in each article.

6. RESULTS

In this chapter, the results of the articles are organised according to each of the research questions of the study. The results are based on three published articles, each providing a valuable perspective on psychological ownership in the context of privately-owned forests (Table 2). Article I introduces the concept of psychological ownership related to natural resources and studies the benefits of the concept in understanding the antecedents of successful cooperation or potential conflict situations related to the use of natural resources. Article II illustrates the ownership feelings private forest owners have towards their forests and the role psychological ownership may play in private forest owners' behaviour, forest management and openness towards new innovative forest uses. Article III highlights the role of psychological ownership in the cooperative relationship between private forest owners and nature tourism companies, which can be seen as a new innovative use of forest resources.

6.1. PSYCHOLOGICAL OWNERSHIP EXPRESSED BY PRIVATE FOREST OWNERS TOWARDS THEIR FOREST HOLDINGS

The results of this study demonstrate the existence of psychological ownership as a phenomenon in the context of natural resources and privately-owned forests (Articles I and II). Natural resources arouse ownership feelings that are seemingly independent of the legal ownership of the resource. Even though legal ownership provides more opportunities to generate these feelings – for example, in the form of control opportunities – according to the results of this study, legal ownership is not necessary to generate psychological ownership; neither does it guarantee the presence of it. In addition, the private forest owners in this study described different forest holdings in different ways. For some areas, they clearly experienced close emotional connections to and considered them "theirs" or "ours" (referring to family). By contrast, of some forest areas they literally stated that "*that forest has no meaning for me*".

The different motives behind psychological ownership (effectance/efficacy, identity, having a place) can be recognized in the private forest owning context, even though these motives are interlinked with each other, as the theory of psychological ownership also recognizes (Pierce et al., 2003). At a practical level, they are often mediated by the routes leading to the experience of psychological ownership. **The effectance motive** of psychological ownership often manifests itself through the power of control, but in principle the motive arises from the need to influence one's environment (Burger & Cooper, 1979; Leotti et al., 2010). In this study, all the forest owner types other than the indifferent forest owners emphasized their right to manage the forest according to their own values and aspirations and to accomplish the goals they had set for the forest. For some this was management according to forest management recommendations and following a forest management plan, for others the aim to affect their environment was more focused on voluntary, "self-made" conservation or even on maintaining their childhood environment and scenery.

According to the results, forest owners clearly used their forests for **identity** building, maintaining their identity and expressing it to others. However, interestingly, the forest owners used the forests more to build their identity related to the family, home region or "chain of generations" than as a property owner or a forest owner as such. In addition, the results of this study highlight that sometimes maintaining this identity, in fact, was the only reason to keep the inherited forests. The third motive, **"having a place"** *or home*, is also strongly linked to forest owners' legacy and heritage, as it also defines forest owners' "place in time and space" (Pierce & Jussila, 2011). Thus, it is strongly connected with identity element and it was sometimes even difficult to distinguish the two motives separately in the data. However, the forest owners also mentioned using the forest for recreational reasons as "my place to relax" or referred to forest ownership as "a self-evident thing for which they had already been raised in childhood".

In the results, the three routes that lead a person to experience psychological ownership, the opportunity to control, having knowledge of the ob-

ject of ownership and investing oneself (e.g. in the form of time and money) in the object of ownership, provide practical level indications of the existence of psychological ownership. In many cases, the opportunity to **control** the object of ownership is present in the context of private forest ownership, as the person expressing the feelings of ownership is also the legal owner of the resource. Even though Finnish forest owners have accepted certain limitations to their exclusive ownership due to, for example the Everyman's Rights or national policies, the results show that they still wish their ownership to be "respected". This manifests itself in the expectation that other users will ask for permission even when it is not required according to the law or inform them of the other use of their forests well in advance. Forest owners also considered that they had the right to exercise their control, i.e. to place individual limits on the use of their forests, according to their own subjective aspirations and values, regardless of the legislation. Forest owners also highlighted their own independent role in decision-making related to forest management, even though all the forest owners in this study belonged to a local forest management association and the association's advice was often followed. They mentioned that while they might discuss for example, the decision to clear-cut with their family, they made the final decision themselves.

When analysing the control aspect of psychological ownership, it is important to note, however, that what is being studied is perceived control, i.e. forest owners' own perception of the control they possess over their forests, rather than actual legal property rights. Several issues, such as social norms or beliefs, affect perceived control (Fishbein & Ajzen, 2011). According to the results, forest owners feel that certain elements, such as the forest management tradition in their family and how past generations have managed the forest, limit their own perceived control in decision making situations. Similarly, local social pressure can set limitations on the control experienced. The forest owners in this study tolerated the use of their forests by local nature-based entrepreneurs because they came from the same rural village, even though they may not have been very pleased about this use. Moreover, the results of this study (especially Article II) show that forest owners' knowledge of their forests also greatly affected the perceived control related to decision making on their forests: the more **knowledge** the forest owners had of their forests, the more they seemed to experience them as "their own". This knowledge related not only to

forest management (what has been or should be done and when and where) but especially to knowledge connected to the history of the forest and its ownership, such as how long it had been in the family and who had bought it. Knowledge is often directly linked to **investing oneself in the object of ownership,** especially time-wise. In this study, the more forest owners spent time in their forest, the more they had knowledge of it, thereby further generating feelings of ownership towards it. Some of the forest owners expressing a lot of psychological ownership of their forests actively spent time in their forest by undertaking forest management. However, recreational use, picnics, and picking berries or mushrooms were also mentioned and seemed to generate feelings of ownership. Investing money in forests, on the other hand, was not brought out as strongly in the interviews as generating feelings of ownership.

According to the results, the forest owners in this study aimed to safeguard their ownership feelings by consciously or unconsciously protecting the routes leading to the experience of psychological ownership. It should be noted, however, that some of the practical ways of safeguarding these routes are related to both legal and psychological ownership, since the two are mutually reinforcing and cannot be fully differentiated (Pierce & Rodgers, 2004). Private forest owners mentioned the following requirements for maintaining successful cooperation between themselves and nature tourism entrepreneurs: avoiding damage, offering compensation (monetary or otherwise), clear agreements and a commitment to them, requesting permission (even if not legally required), regular communication, professionalism and a "good name" on the part of the company, and avoiding disadvantage to the owner. Most of the "requirements" involved the option of having closer control over the potential activities of others in the forests. In addition, access to information concerning activities in the forest was highlighted in most of the methods and in fact the role of effective communication was explicitly mentioned by the forest owners. The interviewees further described communication as an important antecedent of trust. Under the heading "avoiding damage", the forest owners specifically mentioned that the proposed activities should not obstruct their own use of the forest, whether for financial or recreational purposes. The forest owners thus wanted to ensure their continued ability to invest time and other resources in their forest in the future, thereby also enhancing their sense of psychological ownership.

6.2. THE EFFECT OF OWNERSHIP PERCEPTIONS ON PRIVATE FOREST OWNERS' FOREST MANAGEMENT DECISIONS

The results demonstrate that feelings of psychological ownership seem to have influenced the behaviour of forest owners in decision making relating the use of their forests and co-operation between them and other users of forests, such as nature tourism entrepreneurs. In general, the results indicate that the stronger the psychological ownership feelings, the more conscious were the decisions towards management or non-management. This does not mean that forest owners with strong psychological ownership feelings managed their forests more actively or in better accordance with the forest management recommendations, but simply that they "felt strongly" about their selected use of forests and thus were unlikely to be easily convinced about another type of management or use of the forest.

From the data (Article II), four types of forest owners were identified based on two dimensions of psychological ownership: efficacy (control) and identity. The third dimension of psychological ownership, having a place, manifested itself as part of forest owners' identity building, and for this reason, it was integrated under the theme of identity. Similarly, the stimulation was seen as part of the efficiency motive. (Figure 3). The types found were named "restricted forest owner", "indifferent forest owner", "detached forest owner" and "informed forest owner". In *the restricted forest owner* type, a strong forest owner identity is combined with a rather weak sense of control. Thus, forest ownership is considered to be an important part of identity construction and often connects owners to their family history. However, while this link enhances their identity, it also creates emotional restrictions to the autonomous control of the forest. Such forest owners seem to believe that they have a moral obligation to take care of the forest in the same manner as the previous generation in order to maintain the legacy. Among this ownership type, forest management decisions are guided mainly by tradition, and thus new innovations are often unheeded. Therefore, forest management may be either active or passive, depending on the family tradition. *The detached forest owner* type represents forest owners with a weak sense of forest owner identity combined with a strong sense of control. Forest owners in this type do not feel emotionally attached to their forests, but they still want to retain strong control

over their possession. The forest does not represent an identity-building element for the owner, and usually there are no forest-related childhood experiences, recreation values, or legacy-cherishing aspects related to the forest. Instead, in this type, forests usually represent an investment and are also treated like one. Thus, forest management is guided by constrained economic decision-making, and therefore forests are usually quite intensively managed. Similarly, this type of forest owner would also sell the land if it were needed to finance another investment.

The informed forest owner represents forest owners with a strong sense of both identity and control. These forest owners usually have good knowledge of their forests and have made personal investments in them. Even if the forests have been inherited, this is not considered to be a restriction to autonomous decision-making power and control over the forest. On the contrary, by exercising control over the forest, these owners believe they are best sustaining their legacy. Thus, forest owners in this type usually have both the knowledge and willingness to take care of their forest area through timber production and/or conservation decisions. By contrast, those in the fourth type, *the indifferent forest owner*, have a weak sense of both identity and control. Even though they are legal owners, forest owners in this type lack a strong sense of the forest being their own. These owners feel no emotional connection with the forest, and possess very limited knowledge of it. Similarly, such owners have made no personal investment in the forest; nor do they spend any time there. These owners' limited knowledge of their forests also influences the sense of control they have toward them, as they are rarely aware of how to manage the forest area in their possession. An inherited forest may also seem like a burden to these forest owners. An indifferent forest owner typically has low motivation concerning all the forest functions, and forest management is usually non-existent.

In general, forest owners who did not use the forest for building identity, maintaining it or expressing it to others were also the owners who were the most likely to sell the forest. On the other hand, in the case of forest owners with a high identity link to their forests, this emotional bond often seemed to hinder ideas of selling the forest even though there was little or no interest in its management. Of the four forest owner types, only indifferent owners can be classified as so-called passive forest owners, assuming that a passive forest owner is considered here as a forest owner who is simply "drifting" and is unable to make decisions related to their forest in one way or another (Kline et al., 2000).
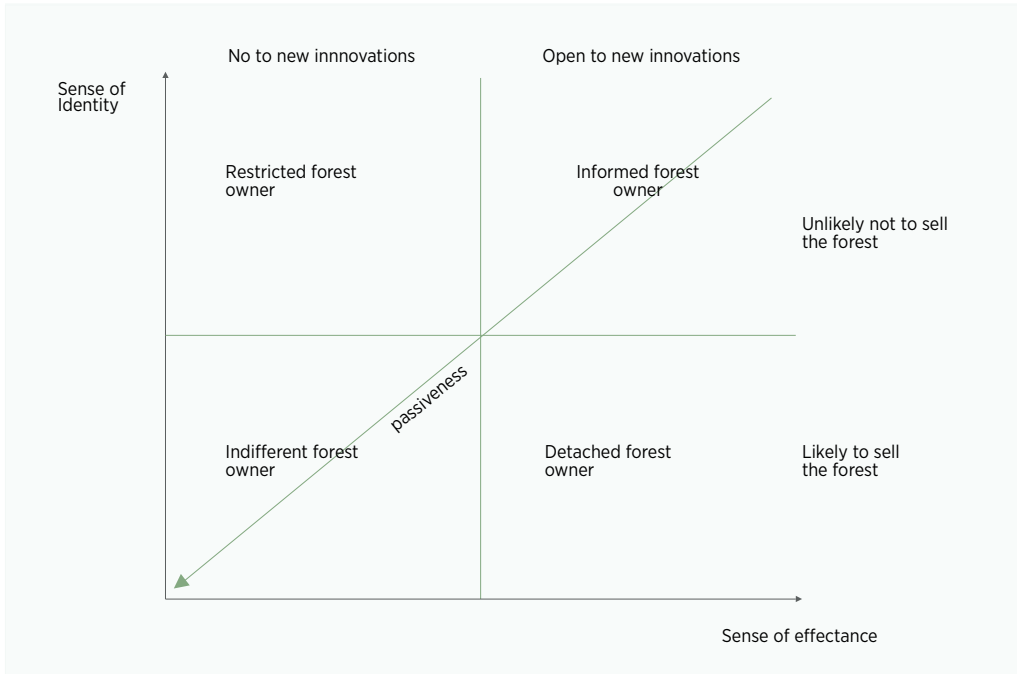
Figure 3. Forest owner types found from the data.

6.3. NATURE TOURISM ENTREPRENEURS' PERCEPTIONS OF FOREST RESOURCES AS THEIR OWN

In addition to forest owners, the results (Articles I and III) also reveal that other users of privately-owned forests, in this case nature-based entrepreneurs, feel psychological ownership towards these resources. The motives which these ownership feelings serve were visible in the data, for example, as entrepreneurs' desire to control the use of the forest resources and their access to it. Some of the entrepreneurs felt that they had the right to use the forest area for their business activities without asking permission from the forest owners, as their activities were small in scale. On the other hand, they also considered that if they had constructed any infrastructure in the forest with the forest owner's permission they had the right to limit other forest use, based on Everyman's Rights, around the area. Both examples reflect the element of *efficacy/effectance* of psychological ownership. Some entrepreneurs also seemed to use the forests involved in their business activities to fulfil the identity motivation of psychological ownership. In these cases, for example, they justified not requesting permission for forest use on the grounds that their business activities did no harm to the natural environment and that they always treated it with respect. This indicated that these entrepreneurs had constructed their own *identity* as responsible users of forest resources. In such cases, respect for the natural environment seemed to override the respect for private ownership of the area. However, at the same time, the experience of psychological ownership increased the entrepreneurs' responsible behaviour towards the natural environment. Some entrepreneurs also emphasized that their social position in the rural community "entitled them" to use forest areas owned by others for their business activities, which further seemed to strengthen their identity as a key member of local society.

Similar to private forest owners, nature-based entrepreneurs also seemed to actively attempt to strengthen or construct their ownership feelings using the three routes identified by Pierce et al. (2003). As mentioned earlier, some considered they should have more officially recognized rights to control other activities based on Everyman's Rights, such as hiking or picking wild berries, in the area agreed on for their tourism activities. They also called for public regulations to be developed, for example, to prevent a single forest owner from blocking the development of long-distance trails for hiking, riding or snowmobiling. In addition,

they wanted nature tourism to be considered to be a serious business activity requiring special access to forests, similar, for example, to reindeer herding.

Nature-based entrepreneurs also hoped for advance notice of forest owner's logging plans, etc., so they could adapt their own activities accordingly. Sometimes the nature tourism entrepreneurs even indicated that they had a better basic knowledge of the forest than the owners themselves. This clearly contributed to the psychological ownership they experienced towards the forest area, even suggesting that they felt that this knowledge entitled them to the "right" to use the forest. In particular, these entrepreneurs' ownership feelings seemed to increase in tandem with the amount of time they spent in the forest and the investments they had made in a particular area, such as resting places with a campfire or hiking routes.

6.4. THE IMPACT OF OWNERSHIP FEELINGS ON COOPERATIVE RELATIONSHIPS

Based on the results, both private forest owners and nature-based entrepreneurs felt a sense of psychological ownership towards the forest areas they owned or used. This led to the presumption that each group was entitled both to use these resources and to decide, to a certain degree, how they should be used. As practical methods, many of the "conditions for successful cooperation" mentioned by both private forest owners and nature tourism entrepreneurs seemed to safeguard the existence of the routes, leading to the experience of psychological ownership.

Nevertheless, all the nature tourism entrepreneurs interviewed in this study respected the legal ownership of forest owners in their activities. In general, they also accepted that the ownership feelings of forest owners took priority over their own feelings. To safeguard their business activities, they tried to respect these feelings by using various stakeholder strategies rather than provoking a situation of overt conflict, even if this might have been justified under Everyman's Rights. In other words, the entrepreneurs' ownership feelings were inclusive rather than exclusive: they recognized that someone else also had feelings of ownership towards the resource in question, even if they seemed to aspire to strengthen their own ownership feelings as well.

Article III presents four stakeholder management strategies used by nature tourism entrepreneurs to manage forest owners. These types were named the "proactive", "adaptive", "negligence", and "community" strategies. Through these strategies, the nature tourism entrepreneurs aimed to balance cooperation and minimize risks in their long-term activities.

Proactive strategy

In the proactive strategy, the entrepreneurs clearly acknowledged the power of forest owners as critical stakeholders.[4] As the owner of the main natural resource used by the tourism company, forest owners were seen to have great utilitarian power to influence the operation of businesses. Similarly, the entrepreneurs recognized the legitimacy of the expectations and needs of forest owners. A characteristic of this strategy was the entrepreneurs' aim to anticipate these expectations and needs beforehand, i.e. before the forest owner expressed them directly to the entrepreneur, Thus, the forest owners' claims were regarded as extremely urgent. Consequently, forest owners' expectations and concerns were actively addressed in the entrepreneurs' business decision-making. This required active stakeholder dialogue, which the entrepreneur initiated. In this study, companies representing the proactive strategy were typically very professional, operating year-round and employing staff on both a seasonal and annual basis.

The cooperation practices in the operational level were much like in any business-to-business relationship, with written agreements, if possible, and contractual rights. The entrepreneurs were ready to compensate for their use of the forests either with money or other benefits, such as lending canoes or other equipment to the forest owners for free. Additionally, the value of public relations (PR) work was highly recognized, and the companies valued their good reputation among forest owners. Smooth cooperation was seen as part of the quality guarantee of the products: satisfied forest owners were unlikely to create obstacles to the use of their forest or cause disturbances during nature tourism activities. These entrepreneurs also sought to anticipate potential problems in their product development. For example, they explained in detail to forest owners the kind of nature tourism activities they planned to implement and even demonstrated it to them before the activities were commercial-

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4 The critical stakeholder, according to Mitchel et al., 1997, is defined based on the utilitarian power of the stakeholder, the legitimacy of the stakeholder's claim and the level of urgency with which the claim has to be handled.

ized. On the other hand, entrepreneurs using the proactive strategy expected their contractual rights to use the agreed forest areas not to be challenged. Moreover, if agreement was reached on the use of certain facilities, the entrepreneurs expected, for example, potential recreational users to yield. In addition, they expressed the opinion that private forests should also be used to benefit the local economy in a wider sense. For example, they demanded legislative tools to persuade forest owners to cooperate with local entrepreneurs in order to guarantee business activities and the growth of the tourism sector.

Adaptive strategy

The adaptive strategy was a less active stakeholder management approach than the proactive strategy. Like those utilizing the proactive strategy, the entrepreneurs adopting this approach recognized forest owners as essential stakeholders and acknowledged their legitimacy and power to affect the business. However, they did not anticipate forest owners' expectations and needs beforehand and instead typically dealt with them on an ad hoc basis after they had been expressed. Thus, these entrepreneurs did not react to forest owners' needs with such great urgency as those following the proactive strategy. Moreover, the relationship between the entrepreneur and the forest owner seemed even more asymmetrical than in the proactive strategy: in their own words the entrepreneur was clearly the party required to adapt. Thus, collaboration took place entirely on the forest owner's terms. However, rather than regarding the situation as unfair, these entrepreneurs more often considered it the natural state of affairs.

Typically, entrepreneurs with the adaptive strategy relied heavily on the goodwill of forest owners regarding land use for nature-based tourism. Collaboration between the entrepreneurs and forest owners was based on verbal contracts which were informal and vague in nature. Furthermore, these entrepreneurs did not pay any financial compensation for using the forest areas, and in the rare cases when they offered other compensation (e.g. an opportunity to take part in the activities of the business), this was seldom done on their own initiative but merely in response to the forest owner's requests. However, these entrepreneurs also emphasized the importance of respecting nature and ownership by not harming the forest through their business activities. They also believed that, despite the existence of Everyman's Rights, which they partly interpreted to include their business activities, it was still their moral responsibility to ask the

forest owner for permission to use the forest area. Nevertheless, there was little communication concerning the usage of the forest area between the parties. These entrepreneurs were neither aware of the plans of the forest owner nor even expected the forest owner to share those plans. Thus, they acknowledged that their business plans had to be flexible enough to survive any sudden changes in the forest.

Negligence strategy

Entrepreneurs adopting the negligence strategy recognized forest owners' legitimate rights towards their forest areas. However, they did not consider forest owners' power to affect their business activities a major threat. Furthermore, these entrepreneurs rarely considered the urgency of forest owners' potential claims to be very important. Thus, the negligence strategy adopts a passive role when dealing with forest owners as stakeholders. This strategy typically emphasizes that no forest area is indispensable. Therefore, if a forest owner decides to prohibit the use of a certain forest or otherwise causes excessive trouble for the business, another area could always be used. Characteristically, this strategy diminished the dependence between the entrepreneur and forest owner. Typically, such entrepreneurs were unaware of the owners of all the forest areas they used, and the nature of the relationship between the forest owner and entrepreneur was not considered critical to the business's success.

Entrepreneurs utilizing this strategy acted on the basis of their interpretation of Everyman's Rights, which they slightly "extended" to include most of their business activities (such as hiking in the forest or camping on a canoeing trip). These entrepreneurs recognized, though, that their interpretation of Everyman's Rights was probably inaccurate, as it could violate ownership. Nevertheless, they were still willing to take the risk and trusted in the forest owner's goodwill. Also, their business operations were such in nature that they could be transferred to another area, if needed. They further justified the decision not to ask for permission by stating that their business activities did not harm the forest in any way and that nature was always treated with respect. In a way, they felt more responsibility towards the forests than towards the forest owners. In addition, communication between the entrepreneur and the forest owner was almost non-existent. These entrepreneurs did not believe that financial compensation was necessary because the use of privately-owned forests was not considered to be a business relationship. In this

strategy, using forests for business purposes was seen as the utilization of free natural resources whose economic value would not be reduced by this kind of business usage.

Community strategy

As with the other strategies, entrepreneurs following the community strategy recognized the legitimacy of forest owners as a stakeholder group. However, they did not consider forest owners' power to influence their business activities to be a major threat to their businesses. Furthermore, these entrepreneurs did not usually consider the urgency of forest owners' claims to be an important aspect of their stakeholder relationships. Entrepreneurs adopting the community strategy recognized, nevertheless, that access to private forests was critical to their business operations. However, unlike entrepreneurs utilizing the proactive or adaptive strategies, they were not concerned about the continuity of cooperation with private forest owners. Instead, they trusted in the social pressure of the village or the rural area to ensure that forest owners would be open to "one of the last sources of livelihood in remote rural regions." These entrepreneurs thus emphasized the rural community's responsibility to contribute to the success of their businesses, as it was believed to increase the economic activities and well-being of the whole community. Typically, such entrepreneurs had a relatively significant role in village society and thus a potentially strong social influence within the community. Although good relationships with forest owners were highly appreciated, they were often taken for granted, and no major effort was made to maintain them. Thus, from the stakeholder-management perspective, even though the entrepreneur and forest owner might see each other regularly, co-operation between the two parties could still be minimal after permission for business activities had been granted.

Entrepreneurs adopting this strategy did not directly compensate forest owners for the use of their land. They expected that it would be enough to engage in the kind of reciprocity normally existing between rural village residents. Thus, in return for the usage of forests, they were willing to help forest owners with, for instance, various kinds of farm work or maintaining private roads. It must be emphasized, though, that this was not seen as specific compensation for the use of forests, but as "normal assistance between neighbours." Here, collaboration between entrepreneurs and forest owners was based on informal verbal agreements. Entrepreneurs adopting the community strat-egy nevertheless respected forest owners' rights to make, for example, logging decisions without any notification. They were also ready to change their practices immediately if problems with forest owners or other interest groups, like summer-cottage residents, occurred, to alleviate the situation and fix the problem. However, such problems were mostly dealt with after they had become serious rather than anticipating them in advance. Moreover, entrepreneurs utilizing the community strategy seldom pondered whether their business activities exceeded Everyman's Rights or not. Even though they recognized the limits of Everyman's Rights, they considered forest resources to be the community's joint resources. Thus, local social norms set the actual "limits" on the utilization of free access, which the entrepreneurs understood and tried not to exceed. All the strategies are further elaborated and discussed in Article III.

In the stakeholder management strategies mentioned above, psychological ownership was taken into consideration in several ways (Table 4). The results indicate that the proactive strategy generally seems to avoid overlooking the ownership as a whole, as does the adaptive strategy, by clearly acknowledging the stakeholders' power (whether actual or not) and especially the urgency of forest owners' needs, both of which might not be directly connected to the legal rights of the forest owner. The negligence strategy and the community strategy, on the other hand, can be seen as partly violating both the legal and psychological aspects of ownership by using extended Everyman's Rights and social pressure and ignoring the forest owner as a critical stakeholder. When analysing the strategies in more depth by reflecting on them through the theory of psychological ownership, the proactive strategy avoids blocking forest owners' "access" to all three routes to generate psychological ownership: control, knowledge of forests and the activities occurring within them, and not disturbing the forest owners' own use of forests (i.e. the opportunity to invest oneself into the forests). The entrepreneurs even improved these opportunities by providing recreational facilities or equipment for the forest owners' use. On the other hand, while the negligence strategy acknowledges the control power of the forest owner, it neither supports it nor any other route that leads to the experience of psychological ownership. In turn, the community strategy even diminishes the experienced control of the forest owners towards their forests by using local social pressure.

Table 4. The ways psychological ownership is considered in the different stakeholder management strategies found from the data.

Route to psychological ownership	Proactive strategy	Adaptive strategy	Negligence strategy	Community strategy
Control	Respects forest owners' control power, ask permission, pay compensation	Respects forest owners' control power, ask permission	Respects forest owners' control power, does not ask permission, but does not start a conflict either (changes the place)	Diminishes forest owners' control power by social pressure
Knowledge	Provides knowledge on activities and upcoming plans even before the forest owner asks it	Provides knowledge on the activities and new upcoming plans when asked for	No communication with forest owners	Provides knowledge on the activities and new upcoming plans when asked for
Possibility to invest oneself in the object of ownership	Allows the forest owners to access built facilities and "test" the products, and lends equipment (e.g. snowmobiles) for free	Aims not to disturb forest owners' own use of forests but does not encourage participation in the company's activities.	Aims not to disturb forest owners' own use of forests excessively (so as to avoid questions over the business's activities)	Aims not to disturb forest owners own use of forests too much.

7. DISCUSSION AND CONCLUSIONS

The aim of this study was to investigate ownership feelings towards private forest resources and their impact on the behaviour of both private forest owners and other users of private forest resources, namely nature-based entrepreneurs. In addition, the aim was further to analyse the role these ownership feelings might play in co-operation relationships. Based on the results of this study, it can be concluded that:

1. Both the legal owners and nature-based entrepreneurs utilizing private forest areas seem to have psychological ownership feelings towards these forests. However, these feelings are not necessarily dependent on legal ownership of the resource.
2. Feelings of psychological ownership seem to influence the behaviour of the individuals experiencing those feelings.
3. Recognizing psychological ownership can help in understanding successful cooperative relationships as well as potential conflict situations relating to the use of natural resources.

In the following, these findings are discussed in more detail.

7.1. TRADITIONS IN THE USE OF NATURE CREATING PSYCHOLOGICAL OWNERSHIP IN FINLAND?

The finding that private forest owners have ownership feelings towards their forests is, as such, not very surprising. More interesting is that sometimes they only seem to experience weak feelings of ownership. This result thus supports the prediction of Pierce et al.'s (2003) theory that legal ownership does not necessarily entail psychological ownership. Or vice versa. The nature-based tourism entrepreneurs sometimes seemed to have a strong ownership feeling towards the forests they used even though they lacked the legal ownership of them. The Finnish tradition of providing wide opportunities for the use of natural resources regardless of the owner of the area is probably one reason for other users' psychological ownership towards

privately-owned resources today. Indeed, scholars have stated that culture plays a role in the meaning of and motivation for possessions and that there may be cultural differences related to the construct of psychological ownership (Furby 1976; Pierce & Jussila, 2011).

In Finland, rural people have traditionally considered natural resources to be theirs (Peltola et al., 2014). Before the land reform known as the Great Partition ("*Isojako*") began in the 1750s, it was possible to use the joint forest areas, community forests around each village, for individual benefit (Lähde, 2007). Since then, the legal ownership of many natural resources has been more clearly specified on several occasions, but psychological ownership feelings have not necessarily changed accordingly. The Everyman's Rights have no doubt supported the existence of these feelings, as they provide every citizen with access to the routes generating psychological ownership, i.e. the opportunity to use forest areas and gain knowledge of them, even though direct control over the use of the area might no longer exist. As urbanization has proceeded, people may no longer live in close proximity to natural resources. However, they can still consider these natural resources at least partly as their own and feel that they have the right to have a say over their use or management. These developments may also have directed the development of the "nature of social demands for the Finnish forest resources" at the national level. Thus, the culture has not only allowed the development of other forest users' ownership feelings towards private forests, but these feelings are also recognized by forest owners.

The image of the collective ownership is further enhanced by national or regional-level discourse related to "our forest resources". Folse et al. (2012) have empirically demonstrated that such ownership messages can, indeed, induce individual feelings of ownership. At its best, this kind of message will enhance the positive consequences of psychological ownership, such as responsible behaviour (see e.g. Hartley et al., 2016). However, such messages on the other hand, can also lead to discussion of forest owners' rights and responsibilities towards wider society and sometimes even place contradictory social demands on private forest

owners. It can also lead to potential conflicts relating to the use of forest resources. This presents challenges to the policy design regarding the extent to which collective ownership feelings towards private resources should be strengthened, and how to avoid violating the owners' psychological ownership at the same time.

7.2. INFLUENCE OF PSYCHOLOGICAL OWNERSHIP ON THE BEHAVIOUR OF PRIVATE FOREST OWNERS AND ENTREPRENEURS – THE ROLE OF DIFFERENT MOTIVES AND ROUTES

According to the results, psychological ownership also seems to influence the behaviour of both private forest owners and nature-based entrepreneurs related to the forest resources. As such, the results verify from their part the previous research related to psychological ownership conducted in other sectors (e.g. Avey et al., 2009; Brown et al., 2005; Li, 2008; O'Driscoll et al., 2006; Shu & Peck, 2011). In general, the experience of psychological ownership seems to increase private forest owners' conscious decision making related to forest management. Thus, is seems reasonable to assume that increasing forest owners' sense of psychological ownership would decrease their passivity or indifference towards their forests. Previous studies related to the link between psychological ownership and commitment towards the object of ownership (Avey et al., 2009; Brown et al., 2014b; Mayhew et al., 2007; Van Dyne & Pierce, 2004) support this assumption. From the forest owner types identified from the data, only the indifferent forest owner type can be seen as being truly passive and their psychological ownership feelings towards their forests seem to be weak (Figure 3). By increasing the experience of psychological ownership through the element of control or identity, forest owners may take a more conscious approach to forest management decisions. According to Pierce et al.'s (2003) theory, the three routes are the key to maintain and increase psychological ownership. Therefore, one might speculate that safeguarding or enhancing these routes would increase the psychological ownership of passive forest owners. However, it must be kept in mind that the characteristics of the object of ownership (forest) and the person experienc-

ing the ownership feelings also have an influence (Li, 2008; Van Dyne & Pierce, 1993).

It has also been suggested that the tenure of ownership has an influence on the development of the psychological ownership feelings (Pierce & Jussila, 2011; Raffelsberger & Hällbom, 2009). The longer the person owns the object, the longer they have access to the three routes generating psychological ownership. In the context of private forests, the focal role of this connection may not be quite as straight forward, as the forests, at least in the Finnish context, are often an inter-generational asset. The results show that the forest owners may use the forests in their identity building as a link to the family and thus can have strong feelings towards the family forests even before their own strong involvement with the forests. On the other hand, the passive owners seem not to have generated much psychological ownership feelings, even though they have inherited their forests and might have owned them for a long time. Forest ownership is not a static state either (Butler et al., 2016, Butler et al., 2017; Karppinen, 2012). Therefore, it also seems reasonable to assume that the psychological ownership feelings of the forest owners can change over time.

In the previous literature, the role of the perceived control route in generating psychological ownership has often been discussed (Pierce et al., 2004; Pohja-Mykrä et al., 2015). This route has also frequently been highlighted in relation to participatory planning or stakeholder management in the use of forest resources (Dyer et al., 2004; Lund, 2015; Paletto et al., 2016; Thompson et al., 2005), focus often being to provide actual influence/control possibilities to certain stakeholder groups (Dyer et al., 2004; Pohja-Mykrä et al., 2015). In the context of private forests, the owner possesses actual, legal ownership of the resource. This being the case, one might hypothesize that elements with a particular influence on *perceived* control, such as social norms, lack of skills and knowledge or emotional obstacles (Fishbein & Ajzen, 2011) are actually those issues that hinder the development of the "control route" leading to forest owners' experience of psychological ownership in the privately-owned forest context. Thus, they are the issues which should be focused on in initiatives targeted, for example, at passive forest owners. The role of forest owners' social networks, knowledge and trust has already aroused much interest among researchers (e.g. Butler et al., 2007; Hujala et al., 2007; Hujala & Tikkanen, 2008; Korhonen, et al., 2012), but more knowledge of the factors influencing perceived control in the forest-owning context is still needed.

The results of this study also indicate that forest owners' knowledge of their forest, one of the routes to psychological ownership, is various in nature, and different kinds of knowledge could perhaps have an impact on the different motives behind psychological ownership. Knowledge of forest management methods and options may very well contribute to ownership feelings, especially through perceived control. However, at the same time, as also shown by previous research (e.g. Bengston et al., 2011; Boon et al., 2004), forests are used to construct identity through connections to roots, the home village and family. Knowledge of the history of forests and stories that link them to family history (for example, the owner's grandfather proposed to his grandmother there) also generate psychological ownership towards forests. This kind of knowledge likely serves identity building and provides the owner with a place in time and space.

Pierce et al. (2003) state that the motives behind psychological ownership (efficacy, identity, having a place, stimulation) are parallel and additive in nature, and that it may not always be possible to distinguish them from each other. Pierce and Jussila (2011) also conclude that each of the motives facilitates the development of psychological ownership, and only one of the motives needs to be aroused for feelings of ownership to develop (Pierce & Jussila, 2011). Even though the close links between the motives suggest that more than one motive is typically present at the same time, and thus it is difficult to verify a direct causal relation between the motives and psychological ownership (Pierce & Jussila, 2011), by studying the predominant motive that seems to be aroused in a more nuanced way, new approaches to the behavioural consequences of psychological ownership and accordingly managerial implications could, nevertheless, be found. Based on the results, some points can be highlighted.

The results of this study imply that the role of the identity motive has sometimes been underemphasized in the context of private forests and their management. For example, the results demonstrate that the way forest owners use their forests in identity building seems be linked to considerations about selling the forest. If the link between the forest and identity building is strong, then the forest is unlikely to be sold (Figure 3). The results thus support previous research underlining that forest owning is often not comparable to possessing other assets like shares or money. Instead, it is linked to many emotions and other social meanings (Grubbström, 2011; Markowski-Lindsay et al.,

2016). It has been further suggested that there are more emotional links to inherited forests or family forests than those bought on the open market (Majumdar et al., 2009), which is the case with the most forests in Finland (Hänninen et al., 2011) .

It has also been suggested that the experience of psychological ownership increases responsible behaviour towards the object of ownership (Hartley et al, 2016; Hernandez, 2012; Pierce et al., 2001; Pohja-Mykrä, 2014). According to the results of this study, it can be speculated that in the context of privately-owned forests, supporting only the efficacy motive behind psychological ownership may not necessarily increase responsible use of the resource. For example, the results indicate that detached forest owners make decisions based on economically rational justifications and treat the forest holding as any other investment, whereas indifferent owners make no decisions at all. These types of behaviour may not necessarily increase responsible or sustainable use of the resource. On the other hand, forest owners with a high identity function for their forests may be more likely to consider their resources in more a responsible manner (Figure 3).

Similarly, the role of the different motives that psychological ownership serves can be discussed in relation to the psychological ownership experienced by nature tourism entrepreneurs. In addition to respecting forest owners' psychological ownership in different stakeholder management strategies, the selected strategies also reveal something about the psychological ownership entrepreneurs themselves feel towards the forests they use. If these strategies are placed in a matrix illustrating the efficacy (with the motive stimulation combined with this) and identity motives (with the motive of "having a place" combined with this), entrepreneurs using the community strategy seem to use forests both to build their identity and to promote experiences of strong control related to them. Entrepreneurs utilizing the negligence strategy often refer to themselves as responsible users of nature; i.e. they use the forest areas in their identity building but do not feel that they are in control of the areas nor aspire to such control. On the other hand, entrepreneurs utilizing the adaptive stakeholder management strategy seem to experience the least psychological ownership towards the forest areas they use. Moreover, entrepreneurs utilizing the proactive strategy possess a strong desire to control the area they use but use the forests less in their identity building (Figure 4).

In relation to nature-based entrepreneurs and their ownership feelings, using forests for identity building seems to influence what they feel responsi-
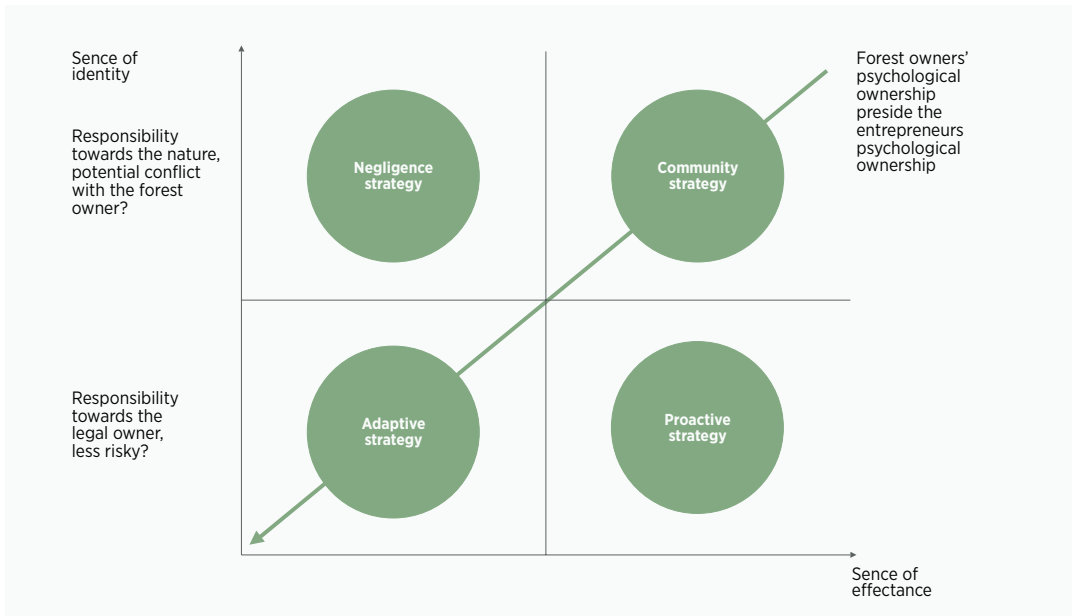
Figure 4. Stakeholder management strategies in relation to the identity and control motives of psychological ownership.

bility towards: the actual object of their ownership feelings (forest) or the legal owner of that object. Entrepreneurs utilizing the negligence or community strategies seem to feel responsibility towards the resources they use. By contrast, entrepreneurs utilizing the adaptive and proactive strategies feel responsibility foremost towards the legal owner of the resource. Thus, even though the entrepreneurs utilizing the proactive strategy might aspire to more control options, their ownership feelings may not lead to responsible use of the resource as such. Previous research related to the dimensions of place attachment (place dependence and place identity) has found that place identity, in particular, is more strongly associated with environmentally responsible behaviour (Vaske & Kobrin, 2001). This would support the findings of this study.

As the role of the identity motive as part of experienced psychological ownership seems to be important, it might be worthwhile considering it in more detail, as suggested by Hillebrand and Money (2015). According to them, a more defined structure of the identity motive, such as Higgins' (1999) *actual self, ideal self* and *ought self,* should be used. It is likely that the consequences for individual behaviour and influencing it are also different, depending on construction of which identity part or layer (Hillebrand & Money, 2015) the forest is used for. A person's perception of the ideal self or ought self is influenced more by social norms and therefore could be influenced by general discussion on

"a good forest owner" and/or by expert assistance for forest management (Christensen et al., 2004; Goldstein et al., 2008). However, in the case of the core self, the outside influence might be more difficult (or impossible). Nevertheless, more research on the topic is needed, not only in the forest context, but also in the natural resource context in general.

7.3. RESPECTING PSYCHOLOGICAL OWNERSHIP – A WAY FOR SUCCESSFUL CO-OPERATION RELATIONSHIPS AND SOCIAL SUSTAINABILITY?

The results also show that perceived violations of psychological ownership may lead to termination of cooperative relationships or even to a conflict situation related to the use and management of natural resources. Such conflicts are especially difficult to foresee and manage, since the perceived violations that cause them are based on subjective experiences and there are no legally stipulated limits on them. However, as previous research suggests (Belton & Jackson-Smith, 2010; Pohja-Mykrä, 2014) and the results of this study (particularly Article I) support the suggestion that understanding psychological ownership could provide an interesting approach to foreseeing and managing conflicts re-

lated to natural resources. It can be further argued that in the case of co-operative relationships, such as those presented in this study between private forest owners and nature tourism entrepreneurs, where the co-operative relationship is asymmetrical and the role of economic compensation in the relationship is marginal, respecting ownership feelings might be, in fact, the critical factor for a successful relationship. For example, according to a survey by Tahvanainen and Kurttila (2017), social acceptance of commercial nature-based entrepreneurship could be achieved simply by asking for permission from the forest owners (even though to do so is not legally required) and by providing them with an opportunity to participate in the activities. According to the results of this study (particularly Article I and II), forest owners usually prohibit intensive nature tourism activities or, for example, hunting on their land if those activities challenge their priorities and values regarding the forest. Furthermore, forest owners also withhold permission if they feel that it threatens the control of their territory. Both these behaviours can be linked back to the psychological ownership. Thus, one may further hypothesize that in cases in which the experience of psychological ownership is strong, any monetary compensation for the loss or limitation of psychological ownership may be ineffective and fail to prevent a conflict situation. The nature tourism, entrepreneurs' stakeholder management strategies found in this study differed in terms of their respect for ownership feelings and the routes leading to them. Even though all the strategies worked in their own contexts, it seems reasonable to assume that companies' risk level in relation to access to natural resources would decrease along with increasing respect towards private forest owners' psychological ownership.

Indeed, conflicts caused by disrespecting the psychological aspects of ownership in the cooperative relationship can be as severe as those stemming from violations of legal ownership. Furthermore, such conflicts can also occur in the private forest context between other forest users, when neither party possesses legal ownership of the resource. For example, many small and larger scale conflicts can arise between users of Everyman's Rights over different opinions on the use of forest areas (e.g. between dog walkers and mountain bikers or between berry picker groups in the most popular picking areas) (La Mela, 2014; Peltola et al., 2014). Such conflicts typically escalate as letters to newspapers and in social media, but they can also contain elements of violence when the users of

Everyman's Rights aim to harm the other user or stakeholder group's activities.

Stakeholders typically employ a range of practical-level arguments to legitimize, i.e. make socially acceptable (see e.g. Suchman, 1995), their approach to the use of natural resources. At the same time, in some instances, they attempt to stigmatize the conflicting use of the resource, i.e. to make it socially undesirable. The need for such arguments has been found to arise when coping with challenges or threats to personally-meaningful goals (Stein & Albro, 2001). Their purpose is typically to make a particular opinion acceptable to the target audience, and thus the arguments invoked may have little to do with how and why the proponent holds the opinion they are defending (Van Eemeren, 2009). The concept of psychological ownership is particularly interesting for trying to understand the primary reasons behind the arguments presented by stakeholder groups in public discussions on the use of natural resources.

In the results of this study, the interpretation of the spirit of Everyman's Rights was central in the arguments and the discussion. Both private forest owners and nature-based entrepreneurs justified their approach to cooperation because of their interpretation of Everyman's Rights or traditions of forest use. In some cases, commercial nature-based entrepreneurship was not seen as belonging to Everyman's Rights; in some cases, however, small-scale nature tourism activities were not seen to violate it. These different interpretations of Everyman's Rights are also visible in the previous studies. Even though Nousiainen and Tyrväinen (2002) found that approximately 50% of nature-based tourism entrepreneurs had encountered property-rights-related problems with private forest owners, the findings of previous research indicate that private forest owners do not see Everyman's Rights, in principle, as a problem. According to Viljanen and Rautiainen (2007), the majority (95 per cent) of private forest owners do not wish them to be limited as an institution. The same figure in a study by Tahvanainen and Kurttila (2015) regarding the region of Northern Karelia was 64%. Nevertheless, at the same time, most forest owners also hoped for some restrictions to commercial utilization and thought that they should have the right to limit activities on their forest property if they so decided (Tahvanainen & Kurttila, 2017; Väkeväinen, 2015). This tendency for desiring to limit commercial, not recreational, use has also been identified in other studies (Lehtonen et al., 2007; Peltola et al., 2014; Sievänen & Neuvonen 2011). On the other hand,

nature-based entrepreneurs justified their use of private forests by claiming it was a way to maintain the vitality of rural areas by introducing new sources of livelihood. Publicly accepted "flagship" argumentation, such as that concerning the spirit of Everyman's Rights here, can be identified in all conflicts. Behind these, however, can be found indications of safeguarding the stakeholders' sometimes quite self-centred ownership feelings and their aspiration to maintain the routes supporting psychological ownership. Thus, understanding the role of psychological ownership in the conflict situation may provide new tools and methods for finding solutions in stakeholder management.

From the managerial perspective, the idea of influencing or managing the experience of psychological ownership is, indeed, intriguing, both in relation to conflict management and in terms of influencing forest owners' behaviour (such as in the case of passive forest owners, as mentioned before). For instance, increasing local people's sense of psychological ownership of wolves has been suggested as one way to achieve conservation goals for the species (Belton & Jackson-Smith, 2010; Pohja-Mykrä et al., 2015). If locals feel a certain animal population is their own and their responsibility, they are likely to act in a more responsible way towards it (Pohja-Mykrä, 2014). However, even though strengthening an individual's or stakeholder group's experiences of psychological ownership may be achieved by supporting their access to the routes leading to psychological ownership, it may be difficult or even impossible to diminish the experienced ownership by other individuals or groups. For example, using legislative approaches to deny one stakeholder group access to the resource does not decrease their ownership feelings towards it, at least in the short term. On the contrary, this group may feel that their ownership feelings have been violated, which may cause a serious conflict. If one stakeholder's or stakeholder group's control or knowledge routes to the object of psychological ownership are blocked, they can still achieve efficacy by fighting for "their rights" (investing themselves in the target of ownership) and thereby affect their environment. This can also further support their identity building and sense of belonging (a part of "having a place"), as has been reported in many cases related to the "common enemy" (Bryan, 2004; Triandafyllidou, 1998; Wescoat, 1990). Furthermore, the fact that in these cases, monetary compensation often fails to provide a feasible solution creates challenges for policy creation (Häyrinen et al., 2016; Matilainen & Lähdesmäki, 2014).

However, it can be speculated that if the object of ownership does not strongly support the identity motive behind psychological ownership, could this more likely to lead to "disownership feelings"? Brown et al. (2005) brought out for discussion in their theoretical paper the term "disownership". In it they suggested that people may want to alienate themselves from the object of ownership and "*actively try to communicate to others that they have no relationship with objects or entities in order to protect their self-image*" (Brown et al., 2005, p. 589). However, in this case, the person him/herself initiated the process of alienation from the object of ownership. On the other hand, Jussila et al. (2015) stated that a sense of possession is likely to develop towards objects that are in close physical proximity. If the same is also valid for mental/emotional proximity as Beggan and Brown (2011) suggest, then the concept of psychological distance with its four dimensions (spatial, temporal, social and hypothetical) might prove useful for developing tools to manage psychological ownership. Moreover, picking up on the suggestion of Hillebrand and Money (2015) and Higgins (1987), the part of self-identity (core self, ideal self or ought self) to which the object of ownership is linked could provide different options for influencing the psychological ownership. The ethical aspects of this are entirely another matter. Nevertheless, it must be emphasized that the results of this study merely provide fertile ground for speculation on this topic. Further research is warranted to analyse the role of different motives of psychological ownership properly.

The existence of collective psychological ownership always entails feelings of shared ownership at an individual level (Pierce & Jussila, 2011). In stakeholder management, the existence of collective ownership feelings, the sense that "this resource is ours", is important, as it is typically impossible to respond to the demands of individuals, at least concerning wider-scale planning. In addition, to be able to create compromises or social acceptance, stakeholder groups need to be able to recognize that other groups may also have ownership feelings about the resource. In the present study, the key to a successful cooperative relationship between private forest owners and nature tourism entrepreneurs was the fact that for both parties' ownership feelings were inclusive rather than exclusive. In other words, they recognized that someone else also had feelings of ownership towards the resource in question, even if they tried to strengthen their own ownership feelings as well. In the case of this study, a privately-owned forest, legal ownership is,

nevertheless, very much connected to and influences feelings of psychological ownership. However, when the focus is a jointly owned resource, like a state forest (*res communis*) or a resource which is not actually owned by anyone (*res nullius*), such as wildlife, the role of psychological ownership in successful cooperation or co-management can be speculated to be even more significant. In fact, the three routes that generate the sense of psychological ownership seem to have some similarities with the findings of Ostrom et al. (1999) concerning her design principles (DP) for managing commons. For instance, matching the rules governing use of common goods to local needs and conditions, as well as ensuring the participatory approach to developing the rules can be linked to the control route of psychological ownership. Naturally, whether people are then able to self-organize and self-manage, i.e. have control over common-pool resources, depends on the broader social setting, such as its norms and hierarchy. The second route, intimate knowledge of the target relates to Ostrom's finding that the users have to have accurate knowledge of external boundaries and internal microenvironments and have reliable and valid indicators of resource conditions. Thirdly, in developing psychological ownership it is important to invest oneself in the target; this is also recognized by Ostrom et al. (1999), who concluded that in addition to restrictions and rules, it is important to create incentives, such as assigning individual rights or shares in the resource, for users to invest in the resource instead of overexploiting it. Therefore, the concept of psychological ownership provides an interesting perspective on the "tragedy" related to the use of common pool resources as well. Shu and Peck (2018) have already studied the connection between increased stewardship towards publicly owned resources and psychological ownership.

Based on the results of this study, it can safely be concluded that management efforts related to natural resources, including forests, should often focus more on managing the resource stakeholders than on managing the resource itself. Even in the context of privately-owned forests, due to societal demands for forests at local, regional, national and global levels, there are several stakeholder groups to be considered. Matching private forest owners' objectives with the wider demands of society is the central focus of forest management, different kinds of participatory approaches (e.g. at the regional level) and policy creation, alike. It is also a question of managing the expectations and demands of stakeholder groups. After all, it is human beings, not nature, that set these demands on the resource

in the first place. Thus, such demands can, in fact, be described as socially constructed. Therefore, in solving problems or potential conflicts related to the use of these resources, the management focus should be more on social approaches and human behaviour. Even though this approach is becoming increasingly popular (Pohja-Mykrä, 2014; Redpath et al., 2013; White et al., 2009), too often grass-roots-level practical solutions still focus primarily on ecological or technical aspects. This is understandable, as the officials responsible for forest management issues or policy creation have rarely been trained in sociological or psychological approaches to environmental problematics. The education of forest advisors and professionals, for example, would benefit greatly from the inclusion of more behavioural sciences in the curriculum.

7.4. CRITICAL REVIEW OF THE RESULTS AND SUGGESTIONS FOR FURTHER RESEARCH

At the end, some critical review of the results of this study is in order. First, the study does not claim that the experience of psychological ownership is the sole or even the main reason behind all potential conflict situations that concern the use of natural resources or influencing on private forest owners' behaviour. The study fully recognizes that human behaviour is shaped by a variety of motivations. In addition, behaviour in general has been found to be context-dependent (see e.g. Fishbein & Ajzen, 2011). Moreover, as mentioned earlier, the emergence of psychological ownership has been found to be dependent both on the personal traits of the owner and on the characteristics of the object of ownership (Pierce & Jussila, 2011), and thus no general and direct causal link has been proven to exist between psychological ownership and the motives behind it. Equally, it must be emphasized that the understanding the concept of psychological ownership does not fully cover the social sustainability or stakeholder management approaches in relation to the use of natural resources. However, the application of psychological ownership to forest-owner studies can contribute a valuable new conceptual approach for broadening understanding within this research field. Indeed, several scholars have called for a more behavioural-science-based approach to forest ownership research (Ingemarsson et al, 2006; Karppinen, 1998). The psychological ownership provides one approach to this type of research.

The data and analysis methods used in this study were qualitative in nature. This approach entails certain limitations to the conclusions that can be drawn from the results. The sampling of the data is purposeful and therefore, it is impossible to estimate its representativeness. Thus, as the dataset in this type of research is typically rather small, the role of the results was more to explore the phenomenon and describe it in the Finnish private-forest-owning context rather than provide any evidence on the generalization of the results (Mason, 2010). Accordingly, based on these results is not possible to prove a generalized direct causal connection between experienced psychological ownership and its consequences for the behaviour of different stakeholder groups. Further research with a quantitative approach is needed to confirm or refute this assumption.

To illustrate the results, qualitative typologies were constructed for both private forest owners and nature-based entrepreneurs (based on the stakeholder management strategies they used) in Articles II and III. These types were made to clarify differences between private forest owners' forest management and nature-based entrepreneurs' stakeholder management strategies. Nevertheless, it should be noted that the types represent ideal types based on the data. Thus, in reality, one forest owner or nature-based entrepreneur can have characteristics from more than one of the types constructed. In addition, even when a strong sense of identity and control is felt towards one forest area, this does not necessarily mean that those feelings are similar towards another area. It is also worthwhile to note that the typologies built here are based specifically on the data of this study. However, the typology highlights the variety and complexity of the idea of ownership in the private forest context. It thus demonstrates the issues that may explain indifferent attitudes towards forest holdings or why, for example, some forest owners are more passive regarding their forest management or do not welcome new forest management innovations.

Furthermore, the research was conducted in the context of Finnish forest ownership, where timber production values may be emphasized more than in some other countries and also broader social constructs like Everyman's Rights are likely to influence the development of psychological ownership. Nevertheless, a similar phenomenon can also be expected to exist in other countries with a high proportion of private forest ownership and free public access to nature.

Before the understanding of psychological ownership can provide practical-level management tools, more research on the causal links between psychological ownership and behaviour in the context of nature resources is warranted. The role of different motives and the effectiveness of the different routes to generate psychological ownership feelings would be an interesting avenue for further research as well analysing them more in detail. For example, experimental approaches could reveal more about the mechanism behind the phenomenon. In addition, assessing changes in psychological ownership before and after different forms of interventions would provide valuable knowledge on the effectiveness of different management tools. Need for a more experimental approach and studies has also been raised by Dawkins et al. (2017) in their proposed future research agenda related to psychological ownership. In the context of natural resources, Shu and Peck (2018) have already started exploring this research avenue, but more studies on this topic are still needed. As violations of psychological ownership often cause territorial behavioural responses, they could be useful as a mediator in studying psychological ownership in natural resource conflicts, as has been done in organizational research (e.g. Brown et al., 2005; Brown & Robinson, 2011). Furthermore, other behavioural consequences of psychological ownership already established in previous research, would provide more tools for studying psychological ownership further in the context of natural resources. For example, a more profound examination of the ownership feelings of users of private forest resources based on Everyman's Rights would create a new understanding of forest-use conflicts.

Even though psychological ownership is manifested at the individual level, it also has collective elements (Pierce et al., 2018; Pierce & Jussila, 2011). Therefore, to understand the stakeholder groups in relation to natural resources better, it would be interesting to study in more depth how collective psychological ownership is formed in this context. The same goes with shared ownership, as it is paramount to enabling the several stakeholder groups to utilize the same forest resource. Also, as social norms play a significant role in shaping attitudes (Fishbein & Ajzen, 2011) and can also play an important part in generating shared ownership, or expectations towards it, research in this context would provide valuable information on the managerial potential of psychological ownership.

REFERENCES

Abooali, G., & Mohamed, B. (2011). An analysis of motivational factors affecting Middle East tourists visiting Malaysia. *Journal for Global Business Advancement*, *4*(1), 50–69.

Act of Jointly-owned forests, 109/2003 (2003) Retrieved from: http://www.finlex.fi/fi/laki/kaannokset/2003/en20030109

Allport, G. W. (1955). *Becoming; basic considerations for a psychology of personality* (Vol. 20). Yale University Press.

Altman, I. (1975). *The Environment and Social Behavior: Privacy, Personal Space, Territory, and Crowding.* Monterey, Ca: Brooks/Cole.

Ananda, J., & Herath, G. (2009). A critical review of multi-criteria decision making methods with special reference to forest management and planning. *Ecological economics,* 68(10), 2535–2548.

Anant, S. S. (1966). Need to belong. *Canadas Mental Health*, *14*(2), 21-27.

Andereck, K. L. (2009). Tourists' perceptions of environmentally responsible innovations at tourism businesses. *Journal of sustainable tourism*, *17*(4), 489-499.

Anselin, A., Meire, P. M., & Anselin, L. (1989). Multicriteria techniques in ecological evaluation: an example using the analytical hierarchy process. *Biological Conservation*, *49*(3), 215-229.

Ardrey, R. (1966). *The territorial imperative: A personal inquiry into the animal origins of property and nations.* New York. Dell.

Asatryan, V. S., & Oh, H. (2008). Psychological ownership theory: An exploratory application in the restaurant industry. *Journal of Hospitality & Tourism Research*, *32*(3), 363–386.

Avey, J. B., Avolio, B. J., Crossley, C. R., & Luthans, F. (2009). Psychological ownership: Theoretical extensions and analysis of a multidimensional theory-based measure. *Journal of Organizational Behavior*, *29*(1), 1–19.

Bach, H., Mild, A., Natter, M., & Weber, A. (2004). Combining socio-demographic and logistic factors to explain the generation and collection of waste paper. *Resources, Conservation and Recycling*, *41*(1), 65–73.

Baer, M., & Brown, G. (2012). Blind in one eye: How psychological ownership of ideas affects the types of suggestions people adopt. *Organizational Behavior and Human Decision Processes*, *118*(1), 60–71.

Barki, H., & Hartwick, J. (2004). Conceptualizing the construct of interpersonal conflict. *International journal of conflict management*, *15*(3), 216–244.

Beach, R. H., Pattanayak, S. K., Yang, J. C., Murray, B. C., & Abt, R. C. (2005). Econometric studies of non-industrial private forest management: a review and synthesis. *Forest Policy and Economics*, *7*(3), 261–281.

Becker, D. R., Eryilmaz, D., Klapperich, J. J., & Kilgore, M. A. (2013). Social availability of residual woody biomass from nonindustrial private woodland owners in Minnesota and Wisconsin. *Biomass and bioenergy*, *56*, 82–91.

Beggan, J. K., & Brown, E. M. (1994). Association as a psychological justification for ownership. *The Journal of psychology*, *128*(4), 365–380.

Belk, R. W. (1988). Possessions and the extended self. *Journal of consumer research*, *15*(2), 139–168.

Bell, P. A., Greene, T. C., Fisher, J. D., & Baum, A. (1996). *Environmental psychology*. Harcourt.

Belton, L. R., & Jackson-Smith, D. (2010). Factors influencing success among collaborative sage-grouse management groups in the western United States. *Environmental Conservation*, *37*(3), 250–260.

Bengston, D. N., Asah, S. T., & Butler, B. J. (2011). The diverse values and motivations of family forest owners in the United States: an analysis of an open-ended question in the National Woodland Owner Survey. *Small-scale Forestry*, *10*(3), 339–355.

Bennett, E., Neiland, A., Anang, E., Bannerman, P., Rahman, A. A., Huq, S., ... & Clerveaux, W. (2001). Towards a better understanding of conflict management in tropical fisheries: evidence from Ghana, Bangladesh and the Caribbean. *Marine Policy*, 25(5), 365–376.

Bergstén, S., & Keskitalo, E. C. H. (2018). Feeling at Home from A Distance? How Geographical Distance and Non-Residency Shape Sense of Place among Private Forest Owners. *Society & Natural Resources*, 1–20.

Bieling, C. (2004). Non-industrial private-forest owners: possibilities for increasing adoption of close-to-nature forest management. *European Journal of Forest Research*, 123(4), 293–303.

Bisi, J., & Kurki, S. (2008). The wolf debate in Finland: Expectations and objectives for the management of the wolf population at regional and national level. *Publications* 12. *University of Helsinki.*

Bjärstig, T., & Kvastegård, E. (2016). Forest social values in a Swedish rural context: The private forest owners' perspective. *Forest policy and economics*, 65, 17–24.

Bliss J. C., & Martin A. J. (1988). Identity and private forest management. *Society & Natural Resources* 1, 365–376.

Bodtker, A. M., & Katz Jameson, J. (2001). Emotion in conflict formation and its transformation: Application to organizational conflict management. *International Journal of Conflict Management*, 12(3), 259–275.

Boon, T. E., Meilby, H., & Thorsen, B. J. (2004). An empirically based typology of private forest owners in Denmark: improving communication between authorities and owners. *Scandinavian Journal of Forest Research*, 19(S4), 45–55.

Boon, T. E., & Meilby, H. (2005). A forest owner typology based on forest management attitudes. In *IUFRO International Symposium*. pp. 272–278. Lithuanian Forest Research Institute.

Bourke, L., & Luloff, A. E. (1994). Attitudes toward the management of nonindustrial private forest land. *Society & Natural Resources*, 7(5), 445–457.

Bourne, L., & Walker, D. H. (2005). Visualising and mapping stakeholder influence. *Management decision*, 43(5), 649–660.

Brandenburg, A. M., & Carroll, M. S. (1995). Your place or mine?: The effect of place creation on environmental values and landscape meanings. *Society & Natural Resources*, 8(5), 381–398.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101.

Brehm, J. M., Eisenhauer, B. W., & Stedman, R. C. (2013). Environmental concern: Examining the role of place meaning and place attachment. *Society & Natural Resources*, 26(5), 522–538.

Brough, P., Rørstad, P. K., Breland, T. A., & Trømborg, E. (2013). Exploring Norwegian forest owner's intentions to provide harvest residues for bioenergy. *Biomass and Bioenergy*, 57, 57–67.

Brown, B., Perkins, D. D., & Brown, G. (2003). Place attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology*, 23(3), 259–271.

Brown, G., Lawrence, T. B., & Robinson, S. L. (2005). Territoriality in organizations. *Academy of Management Review*, 30(3), 577–594.

Brown, G., Crossley, C., & Robinson, S. L. (2014a). Psychological ownership, territorial behavior, and being perceived as a team contributor: The critical role of trust in the work environment. *Personnel psychology*, 67(2), 463–485.

Brown, G., Pierce, J. L., & Crossley, C. (2014b). Toward an understanding of the development of ownership feelings. *Journal of Organizational Behavior*, 35(3), 318–338.

Brown, G., & Robinson, S. L. (2011). Reactions to territorial infringement. *Organization Science*, 22(1), 210–224.

Brown, G., & Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied geography*, 27(2), 89–111.

Buijs, A., & Lawrence, A. (2013). Emotional conflicts in rational forestry: towards a research agenda for understanding emotions in environmental conflicts. *Forest Policy and Economics*, 33, 104–111.

Burrell, G. Morgan, G. (1993). *Sociological paradigms and organisational analysis. Elements of the Sociology of Corporate Life.* Ashgate Publishing Limited. England.

Burton, R. J. (2004). Seeing through the 'good farmer's' eyes: towards developing an understanding of the social symbolic value of 'productivist'behaviour. *Sociologia ruralis*, 44(2), 195–215.

Bryan, T. A. (2004). Tragedy averted: the promise of collaboration. *Society & Natural Resources*, 17(10), 881–896.

Bryson, J. M. (2004). What to do when stakeholders matter: stakeholder identification and analysis techniques. *Public management review*, *6*(1), 21–53.

Burger, J. M., & Cooper, H. M. (1979). The desirability of control. *Motivation and emotion*, *3*(4), 381–393.

Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings: intercoder reliability assessment in qualitative content analysis. *Nursing research*, *57*(2), 113–117.

Butler, B. J., & Leatherberry, E. C. (2004). America's family forest owners. *Journal of Forestry*, *102*(7), 4–14.

Butler, B. J., Tyrrell, M., Feinberg, G., VanManen, S., Wiseman, L., & Wallinger, S. (2007). Understanding and reaching family forest owners: lessons from social marketing research. *Journal of Forestry*, *105*(7), 348–357.

Butler, S. M., Butler, B. J., & Markowski-Lindsay, M. (2017). Family forest owner characteristics shaped by life cycle, cohort, and period effects. *Small-scale Forestry*, *16*(1), 1–18.

Butler, B. J., Hewes, J. H., Dickinson, B. J., Andrejczyk, K., Butler, S. M., & Markowski-Lindsay, M. (2016). Family Forest Ownerships of the United States, 2013: Findings from the USDA Forest Service's National Woodland Owner Survey. *Journal of Forestry*, *114*(6), 638–647.

Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: applying stakeholder theory to sustainable tourism development. *Tourism review*, *62*(2), 6–13.

Carland, H., Carland, J. W., Hoy, F., & Carland, J. A. C. (2002). Who is an entrepreneur? Is a question worth asking. *Entrepreneurship: Critical perspectives on business and management*, 2, 178.

Carroll, A.B., (1989) *Business and society: Ethics and stakeholder management*. South-Western Publishing Company, Cincinnati.

Checkland, P. B. (1984). Systems thinking in management: the development of soft systems methodology and its implications for social science. In *Self-Organization and Management of Social Systems* (pp. 94–104). Springer, Berlin, Heidelberg.

Cheng, A. S., Kruger, L. E., & Daniels, S. E. (2003). " Place" as an integrating concept in natural resource politics: Propositions for a social science research Agenda. *Society &Natural Resources*, *16*(2), 87–104.

Christensen, P. N., Rothgerber, H., Wood, W., & Matz, D. C. (2004). Social norms and identity relevance: A motivational approach to normative behavior. *Personality and Social Psychology Bulletin*, *30*(10), 1295–1309.

Church, A., & Ravenscroft, N. (2008). Landowner responses to financial incentive schemes for recreational access to woodlands in South East England. *Land Use Policy*, *25*(1), 1–16.

Clarkson, M. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, *20*(1), 92–117.

Cleland, D. I. (1999). *Project Management Strategic Design and Implementation*. Singapore, McGraw-Hill, Singapore.

Colantonio, A., 2009. Social sustainability: linking research to policy and practice. Paper presented at the Sustainable development: a challenge for European research, 26–28 May. Brussels, Belgium.

Colding, J., & Folke, C. (2001). Social taboos: "invisible" systems of local resource management and biological conservation. *Ecological applications*, *11*(2), 584–600.

Courtney, P., Hill, G., & Roberts, D. (2006). The role of natural heritage in rural development: An analysis of economic linkages in Scotland. *Journal of Rural Studies*, *22*(4), 469–484.

Grau, H. R., & Aide, M. (2008). Globalization and land-use transitions in Latin America. *Ecology and society*, *13*(2).

CREST – The Centre of Responsible Tourism (2016) The Case for Responsible Travel: Trends & Statistics 2016. Retrived from: http://www.responsibletravel.org/whatWeDo/The_Case_for_Responsible_Travel_2016_Final.pdf

Creighton, J. H., Baumgartner, D. M., & Blatner, K. A. (2002). Ecosystem management and nonindustrial private forest landowners in Washington State, USA. *Small-scale Forest Economics, Management and Policy*, 1(1), 55–69.

Cubbage, F., Harou, P., & Sills, E. (2007). Policy instruments to enhance multi-functional forest management. *Forest Policy and Economics*, *9*(7), 833–851.

Dahdouh-Guebas, F., Vrancken, D., Ravishankar, T., & Koedam, N. (2006). Short-term mangrove browsing by feral water buffalo: conflict between natural resources, wildlife and subsistence interests?. *Environmental conservation*, *33*(2), 157–163.

Davenport, M. A., & Anderson, D. H. (2005). Getting from sense of place to place-based management: An interpretive investigation of place meanings and perceptions of landscape change. *Society & Natural Resources, 18*(7), 625–641.

Dawkins, S., Tian, A. W., Newman, A., & Martin, A. (2017). Psychological ownership: A review and research agenda. *Journal of Organizational Behavior*, 38(2), 163–183.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry, 11*(4), 227–268.

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Sage publications, inc.

Devine-Wright, P. (2009). Rethinking NIMBYism: *The role of place attachment and place identity in explaining place-protective action. Journal of Community & Applied Social Psychology, 19*(6), 426–441.

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business research, 56*(6), 465–480.

Dictionary of Forestry. Retrieved from: https://forested.remote-learner.net/mod/glossary/view.php?id=367. Visited 12.3.2016.

Dittmar, H. (1992). *The social psychology of material possessions: To have is to be*. Harvester Wheatsheaf and St. Martin's Press.

Dodds, R., S.R. Graci, and M. Holmes. (2010). Does the tourist care? A comparison of tourists in Koh Phi Phi, Thailand and Gili Trawangan, Indonesia. *Journal of Sustainable Tourism* 18(2):207–222.

Doise, W., Mugny, G., & Pérez, J. A. (1998). The social construction of knowledge: Social marking and socio-cognitive conflict. In Flick, U. (ed.) *The psychology of the social.* (pp. 77–90). Cambridge University Press.

Doty, D. H., & Glick, W. H. (1994). Typologies as a unique form of theory building: Toward improved understanding and modeling. *Academy of management review, 19*(2), 230–251.

Dowie, M. (2011). *Conservation refugees: the hundred-year conflict between global conservation and native peoples*. MIT press.

Driscoll, C., & Starik, M. (2004). The primordial stakeholder: Advancing the conceptual consideration of stakeholder status for the natural environment. *Journal of business ethics, 49*(1), 55-73.

Duke, J. M., & Aull-Hyde, R. (2002). Identifying public preferences for land preservation using the analytic hierarchy process. *Ecological Economics, 42*(1–2), 131–145.

Dunford, B. B., Schleicher, D. J., & Zhu, L. (2009). The relative importance of psychological versus pecuniary approaches to establishing an ownership culture. In Lewin, D., Kaufman B.E. (eds) A*dvances in Industrial & Labor Relations* (pp. 1–21). Emerald Group Publishing Limited.

Durrenberger, E., & Pálsson, G. (1987). Ownership at sea: fishing territories and access to sea resources. *American Ethnologist*, 14(3), 508–522.

Dyer, J., Stringer, L. C., Dougill, A. J., Leventon, J., Nshimbi, M., Chama, F., ... & Muhorro, S. (2014). Assessing participatory practices in community-based natural resource management: Experiences in community engagement from southern Africa. *Journal of environmental management, 137*, 137–145.

Edney, J. J. (1976). The psychological role of property rights in human behavior. *Environment and planning A, 8*(7), 811–822.

Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of Management Review* 14, pp. 532–550.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual review of psychology, 53*(1), 161–186.

Ellis, L. (1985). On the rudiments of possessions and property. *Information (International Social Science Council), 24*(1), 113–143.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing, 62*(1), 107–115.

Epstein, M. J., & Buhovac, A. R. (2014). *Making sustainability work: Best practices in managing and measuring corporate social, environmental, and economic impacts*. Berrett-Koehler Publishers.

Etzioni, A. (1991). The socio-economics of property. *Journal of social behavior and personality, 6*(6), 465–468.

European Union strategy for sustainable development (2001). Communication from the Commission A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission's proposal to the Gothenburg European Council) /* COM/2001/0264 final */ Retrieved from: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52001DC0264

EU Forest Strategy (2013). Communication from the Commission to the European Parliament, the council, the European economic and social committee of the regions. A new EU Forest Strategy: for forests and the forest-based sector. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0659

Eversole, R. (2003). Managing the pitfalls of participatory development: some insight from Australia. *World development*, *31*(5), 781–795.

Fasig, L. G. (2000). Toddlers' Understanding of Ownership: Implications for Self-Concept Development. *Social Development*, *9*(3), 370–382.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International journal of qualitative methods*, *5*(1), 80–92.

Ficko, A., Lidestav, G., Dhubháin, Á. N., Karppinen, H., Zivojinovic, I., & Westin, K. (2017). European private forest owner typologies: A review of methods and use. *Forest Policy and Economics.*

Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Follo, G. (2011). Factors influencing Norwegian small-scale private forest owners' ability to meet the political goals. *Scandinavian journal of forest research*, *26*(4), 385–393.

Forest Act 1093/1996. https://www.finlex.fi/en/laki/kaannokset/1996/en19961093

Fredman P, Tyrväinen L. 2010. Introduction. In: Fredman P, Tyrväinen L, editors. Frontiers in nature-based tourism. *Scandinavian Journal of Hospitality and Tourism.* 10:177–189.

Fredman, P., Wall-Reinius, S., & Grundén, A. (2012). The nature of nature in nature-based tourism. *Scandinavian Journal of Hospitality and Tourism*, *12*(4), 289–309.

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach* (Pitman, Boston, MA).

Freeman, R. E., Martin, K., & Parmar, B. (2007). Stakeholder capitalism. *Journal of Business Ethics*, *74*(4), 303–314.

Filteau, M. R. (2012). Deterring defiance: 'Don't give a poacher a reason to poach'. *International Journal of Rural Criminology*, 1(2), p. 236–255.

Furby, L. (1978). Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior and Personality: an international journal*, *6*(1), 49–65.

Furby, L. (1991). Understanding the psychology of possession and ownership: A personal memoir and an appraisal of our progress. *Journal of Social Behavior and Personality*, *6*(6), 457.

Glück, P., Avdibegović, M., Čabaravdić, A., Nonić, D., Petrović, N., Posavec, S., & Stojanovska, M. (2010). The preconditions for the formation of private forest owners' interest associations in the Western Balkan Region. *Forest Policy and Economics*, *12*(4), 250–263.

Gibson, C. B., & Earley, P. C. (2007). Collective cognition in action: Accumulation, interaction, examination, and accommodation in the development and operation of group efficacy beliefs in the workplace. *Academy of management review*, *32*(2), 438–458.

Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*, *35*(3), 472–482.

Groesbeck, R. L. (2001). *An empirical study of group stewardship and learning: Implications for work group effectiveness* (Doctoral dissertation, Virginia Tech).

Grubbström, A. (2011). Emotional bonds as obstacles to land sale—Attitudes to land among local and absentee landowners in Northwest Estonia. *Landscape and Urban Planning*, 99(1), 31–39.

Gruchy, S. R., Grebner, D. L., Munn, I. A., Joshi, O., & Hussain, A. (2012). An assessment of nonindustrial private forest landowner willingness to harvest woody biomass in support of bioenergy production in Mississippi: a contingent rating approach. *Forest Policy and Economics*, *15*, 140–145.

Grunebaum, J. O. (1987). *Private ownership*. Routledge.

Favada, I. M., Karppinen, H., Kuuluvainen, J., Mikkola, J., & Stavness, C. (2009). Effects of timber prices, ownership objectives, and owner characteristics on timber supply. *Forest Science*, *55*(6), 512–523.

Folse, A.G., Moulard, G.J., & Raggio, R. D. (2012). Psychological ownership: A social marketing advertising message appeal? Not for women. *International Journal of Advertising*, *31*(2), 291–315.

Hagerty, B. M., Lynch-Sauer, J., Patusky, K. L., Bouwsema, M., & Collier, P. (1992). Sense of belonging: A vital mental health concept. *Archives of psychiatric nursing*, *6*(3), 172–177.

Hall, A., Nordqvist, M., & Melin, L. (2005, September). Qualitative research in family business studies: The usefulness of the interpretive approach. In *FBN 16th Annual World Conference, Brussels, Belgium.*

Harrison, J. S., Bosse, D. A., & Phillips, R. A. (2010). Managing for stakeholders, stakeholder utility functions, and competitive advantage. *Strategic Management Journal*, *31*(1), 58–74.

Harrison, S., Herbohn, J., & Niskanen, A. (2002). Non-industrial, smallholder, Small-scale and family forestry: what's in a name?. *Small-scale Forestry*, *1*(1), 1–11.

Hay, R. (1998). Sense of place in developmental context. *Journal of Environmental Psychology*, *18*(1), 5–29.

Hellström, E. (2001). Conflict cultures: Qualitative comparative analysis of environmental conflicts in forestry. *Silva Fennica Monographs* 2. 109 p.

Hendee, J. T., & Flint, C. G. (2014). Incorporating cultural ecosystem services into forest management strategies for private landowners: an Illinois case study. *Forest Science,* 60(6), 1172–1179.

Henriques, I., & Sharma, S. (2005). Pathways of stakeholder influence in the Canadian forestry industry. *Business Strategy and the Environment, 14*(6), 384–398.

Hernandez, M. (2012). Toward an understanding of the psychology of stewardship. *Academy of Management Review*, *37*(2), 172–193.

Hiedanpää, J. (2002). European-wide conservation versus local well-being: the reception of the Natura 2000 Reserve Network in Karvia, SW-Finland. *Landscape and urban planning*, *61*(2-4), 113–123.

Hiedanpää, J. (2005). The edges of conflict and consensus: a case for creativity in regional forest policy in Southwest Finland. *Ecological Economics*, *55*(4), 485–498.

Higgins, E. T. (1987). Self-discrepancy: a theory relating self and affect. *Psychological review*, *94*(3), 319.

Higgins, E.T. (1999), Who do Self-discrepancies have Specific Relations to Emotions? The Secondgeneration Question of Tangney,

Niedenthal, Covert, and Barlow (1998), *Journal of Personality and Social Psychology*, 77 (6), 1313–17.

Hillenbrand, C., & Money, K. G. (2015). Unpacking the Mechanism by Which Psychological Ownership Manifests at the Level of the Individual: A Dynamic Model of Identity and Self. *Journal of Marketing Theory and Practice*, *23*(2), 148–165.

Hirsjärvi, S. & Hurme, H. 1982. *Teemahaastattelu.* 2. korjattu painos. Gaudeamus. Helsinki.

Hogl, K., Pregernig, M., & Weiss, G. (2005). What is new about new forest owners? A typology of private forest ownership in Austria. *Small-scale Forest Economics, Management and Policy*, *4*(3), 325–342.

Hokajärvi, R., Hujala, T., Leskinen, L. A., & Tikkanen, J. (2009). Effectiveness of sermon policy instruments: forest management planning practices applying the activity theory approach. *Silva fennica* 43(5), 889–906.

Horne, P., Boxall, P. C., & Adamowicz, W. L. (2005). Multiple-use management of forest recreation sites: a spatially explicit choice experiment. *Forest Ecology and Management*, 207(1), 189–199.

Hoogstra, M. A., & Schanz, H. (2009). Future orientation and planning in forestry: a comparison of forest managers' planning horizons in Germany and the Netherlands. *European Journal of Forest Research*, 128(1), 1–11.

Hoogstra-Klein, M. A., Permadi, D. B., & Yasmi, Y. (2012). The value of cultural theory for participatory processes in natural resource management. *Forest Policy and Economics*, *20*, 99–106.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, *15*(9), 1277–1288.

Huff, E. S., Leahy, J. E., Kittredge, D. B., Noblet, C. L., & Weiskittel, A. R. (2017). Psychological distance of timber harvesting for private woodland owners. *Forest Policy and Economics*, 81, 48–56.

Hujala, T., & Tikkanen, J. (2008). Boosters of and barriers to smooth communication in family forest owners' decision making. *Scandinavian Journal of Forest Research*, 23(5), 466–477.

Hujala, T., Pykäläinen, J., & Tikkanen, J. (2007). Decision making among Finnish non-industrial private forest owners: The role of professional opinion and desire to learn. *Scandinavian Journal of Forest Research*, 22(5), 454–463.

Hujala, T., Tikkanen, J., Hänninen, H., & Virkkula, O. (2009). Family forest owners' perception of decision support. *Scandinavian Journal of Forest Research*, 24(5), 448–460.

Hujala, T., Kurttila, M., & Karppinen, H. (2013). Customer segments among family forest owners: Combining ownership objectives and decision-making styles. *Small-scale Forestry*, 12(3), 335–351.

Hänninen, H., Karppinen, H., & Leppänen, J. (2011). Suomalainen metsänomistaja 2010. *Working Papers of the Finnish Forest Research Institute 208*. The Finnish Forest Research Institute.

Häyrinen, L., Mattila, O., Berghäll, S., & Toppinen, A. (2015). Forest owners' socio-demographic characteristics as predictors of customer value: evidence from Finland. *Small-scale Forestry*, 14(1), 19–37.

Häyrinen, L., Mattila, O., Berghäll, S., & Toppinen, A. (2016). Lifestyle of health and sustainability of forest owners as an indicator of multiple use of forests. *Forest Policy and Economics*, 67, 10-19.

Idrissou, L., van Paassen, A., Aarts, N., Vodouhè, S., & Leeuwis, C. (2013). Trust and hidden conflict in participatory natural resources management: The case of the Pendjari national park (PNP) in Benin. *Forest Policy and Economics*, 27, 65–74.

Iisakkala, J. (1993) Seutuistuminen–kestävää kehitystäkö? Pp. 97–109 in J. Iisakkala (ed.), *Näkökulmia seutuistumiseen*. University of Tampere, Department of Regional Studies.

Ikävalko, M., Pihkala, T., & Jussila, I. (2006, November). Psychological ownership and family businesses–Identifying the common ground through discriminant analysis. In *RENT xx–Conference on Research in Entrepreneurship and Small Business. Brussels, Belgium*.

Inalhan, G., & Finch, E. (2004). Place attachment and sense of belonging. *Facilities*, 22(5/6), 120–128.

Ingemarsson, F., Lindhagen, A., & Eriksson, L. (2006). A typology of Small-scale private forest owners in Sweden. *Scandinavian Journal of Forest Research*, 21(3), 249–259.

Iorio, M., & Corsale, A. (2010). Rural tourism and livelihood strategies in Romania. *Journal of Rural Studies*, 26(2), 152–162.

Isaacs, S. (2013). *Social development in young children*. Routledge.

Jacoby, K. (2001) *Crimes against nature: Squatters, poachers, thieves, and the hidden history of American conservation*. University of California Press. Berkeley.

Jamal, T., & Stronza, A. (2009). Collaboration theory and tourism practice in protected areas: Stakeholders, structuring and sustainability. *Journal of Sustainable tourism*, 17(2), 169–189.

Jehn, K. A. (1994). Enhancing effectiveness: An investigation of advantages and disadvantages of value-based intragroup conflict. *International journal of conflict management*, 5(3), 223–238.

Jones, A. C., & Gosling, S. D. (2005). Temperament and personality in dogs (Canis familiaris): a review and evaluation of past research. *Applied Animal Behaviour Science*, 95(1), 1–53.

Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology*, 21(3), 233–248.

Jussila, I., Tarkiainen, A., Sarstedt, M., & Hair, J. F. (2015). Individual psychological ownership: concepts, evidence, and implications for research in marketing. *Journal of Marketing Theory and Practice*, 23(2), 121–139.

Jussila, I., & Puumalainen, K. (2005). Psychological ownership in organizations: Predictors of ownership feelings for physical, social and cultural dimensions of organizations. Presented at Midwest Academy of Management, Chicago, Illinois.

Juurola, M., & Karppinen, H. (2003). Sosiaalinen kestävyys ja metsien käyttö. *Metsätieteen aikakauskirja* 2/2003: 129–142.

Kaltenborn, B. P. (1998). Effects of sense of place on responses to environmental impacts: A study among residents in Svalbard in the Norwegian high Arctic. *Applied Geography*, 18(2), 169–189.

Kamptner, N. L. (1991). Personal possessions and their meanings: A life-span perspective. *Journal of Social Behavior and Personality*, 6(6), 209.

Kangas, J., & Kangas, A. (2005). Multiple criteria decision support in forest management— the approach, methods applied, and experiences gained. *Forest Ecology and Management*, *207*(1–2), 133–143.

Kantola, S., Uusitalo, M., Nivala, V., & Tuulentie, S. (2018). Tourism resort users' participation in planning: Testing the public participation geographic information system method in Levi, Finnish Lapland. *Tourism management perspectives*, 27, 22–32.

Karnilowicz, W. (2011). Identity and psychological ownership in chronic illness and disease state. *European Journal of Cancer Care*, *20*(2), 276–282.

Karppinen, H. (1998). Values and objectives of non-industrial private forest owners in Finland. *Silva fennica* 32 (1) pp.43–59.

Karppinen, H. (2005). Forest owners' choice of re-forestation method: an application of the theory of planned behavior. *Forest Policy and Economics*, 7(3), 393–409.

Karppinen, H. (2012). New forest owners and owners-to-be: apples and oranges?. *Small-scale Forestry*, *11*(1), 15–26.

Karppinen, H., & Berghäll, S. (2015). Forest owners' stand improvement decisions: Applying the Theory of Planned Behavior. *Forest Policy and Economics*, *50*, 275–284.

Karppinen H., & Hänninen H. (2017). Metsien omistaminen ja käyttö – onko sukupuolella väliä? *Metsätieteen aikakauskirja* 2017– 7708. p 4

Karppinen, H. & Tiainen, L. 2010. "Semmonen niinku metsäkansa": Suurten ikäluokkien perijät tulevaisuuden metsänomistajina. *Metsätieteen Aikakauskirja (*1) 19–38.

Karppinen, H., Hänninen, H., & Ripatti, P. (2002). Suomalainen metsänomistaja 2000–, *Finnish Forest Research Institute, Research Papers* 852. Vantaa Research Centre.

Kendra, A., & Hull, R. B. (2005). Motivations and behaviors of new forest owners in Virginia. *Forest Science*, 51(2), 142–154.

Kennedy, B. L., & Thornberg, R. (2017). Deduction, Induction, and Abduction. In Flick, U. (ed.) *The SAGE Handbook of Qualitative Data Collection*. (pp 49–64). SAGE Publications.

Kianicka, S., Buchecker, M., Hunziker, M., & Müller-Böker, U. (2006). Locals' and tourists' sense of place: a case study of a Swiss alpine village. *Mountain Research and Development*, *26*(1), 55–63.

Kilgore, M. A., Greene, J. L., Jacobson, M. G., Straka, T. J., & Daniels, S. E. (2007). The influence of financial incentive programs in promoting sustainable forestry on the nation's family forests. *Journal of Forestry*, *105*(4), 184–191.

Kline, J. D., Alig, R. J., & Johnson, R. L. (2000). Forest owner incentives to protect riparian habitat. *Ecological Economics*, *33*(1), 29–43.

Knight, D. B. (1982). Identity and territory: geographical perspectives on nationalism and regionalism. *Annals of the Association of American Geographers,* 72(4), 514–531.

Knoot, T. G., & Rickenbach, M. (2011). Best management practices and timber harvesting: the role of social networks in shaping landowner decisions. *Scandinavian Journal of Forest Research*, *26*(2), 171–182.

Korhonen, K., Hujala, T., & Kurttila, M. (2012). Reaching forest owners through their social networks in timber sales. *Scandinavian Journal of Forest Research*, *27*(1), 88–99.

Korpela, K. M. (1989). Place-identity as a product of environmental self-regulation. *Journal of Environmental psychology*, *9*(3), 241–256.

Kovács, E., Kelemen, E., Kalóczkai, Á., Margóczi, K., Pataki, G., Gébert, J., ... & Mihók, B. (2015). Understanding the links between ecosystem service trade-offs and conflicts in protected areas. *Ecosystem Services*, *12*, 117–127.

Kurttila, M., Pesonen, M., Kangas, J., & Kajanus, M. (2000). Utilizing the analytic hierarchy process (AHP) in SWOT analysis—a hybrid method and its application to a forest-certification case. *Forest Policy and Economics*, *1*(1), 41–52.

Kuuluvainen, J., Karppinen, H., Hänninen, H., & Uusivuori, J. (2014). Effects of gender and length of land tenure on timber supply in Finland. *Journal of Forest Economics*, *20*(4), 363–379.

Kyle, G. T., Mowen, A. J., & Tarrant, M. (2004). Linking place preferences with place meaning: An examination of the relationship between place motivation and place attachment. *Journal of Environmental Psychology*, *24*(4), 439–454.

Kärrholm, M. (2007). The materiality of territorial production a conceptual discussion of territoriality, materiality, and the everyday life of public space. *Space and culture*, *10*(4), 437–453.

Laaksonen, K. 1999. Jokamiehenoikeudet, laki ja perustuslaki. In Laaksonen, K. (ed.) Juhlajulkaisu Veikko O. Hyvönen, 1929-18/9–1999. Helsinki: Kauppakamari OYJ, Lakimiesliiton Kustannus.

Laki metsälain muuttamisesta 1085/2013 (2013). https://www.finlex.fi/fi/laki/alkup/2013/20131085

La Mela, M. (2014). Property rights in conflict: wild berry-picking and the Nordic tradition of allemansrätt. *Scandinavian Economic History Review*, *62*(3), 266–289.

Lehtonen, S., Heikkinen, T. & Hirvonen, J. 2007. Jokamiehenoikeuksien tulkintoja ja haasteita luontoliikunnan ja matkailun kannalta. *Maaseutupolitiikan yhteistyöryhmän julkaisuja* 1/2007.

Lee, W. S., Kim, J., Graefe, A. R., & Chi, S. H. (2013). Valuation of an eco-friendly hiking trail using the contingent valuation method: an application of psychological ownership theory. *Scandinavian Journal of Hospitality and Tourism*, *13*(1), 55–69.

Leotti, L. A., Iyengar, S. S., & Ochsner, K. N. (2010). Born to choose: The origins and value of the need for control. *Trends in cognitive sciences*, *14*(10), 457–463.

Leppänen, J., & Torvelainen, J. (2015). Tilasto: metsämaan omistus 2013. *Luonnonvara- ja biotalouden tutkimus 5/2015*.

Leskinen, P., Hujala, T., Tikkanen, J., Kainulainen, T., Kangas, A., Kurttila, M., ... & Leskinen, L. (2009). Adaptive decision analysis in forest management planning. *Forest Science*, *55*(2), 95–108.

Li, Y., Johnson, E. J., & Zaval, L. (2011). Local warming: Daily temperature change influences belief in global warming. *Psychological science*, *22*(4), 454–459.

Lidestav, G., & Arvidsson, A. M. (2012). Member, Owner, Customer, Supplier?-The Question of Perspective on Membership and Ownership in a Private Forest Owner Cooperative. In Akais, O.C. (ed.) *Global Perspectives on Sustainable Forest Management*. Intech Open.

Lindahl, K. B., Sténs, A., Sandström, C., Johansson, J., Lidskog, R., Ranius, T., & Roberge, J. M. (2017). The Swedish forestry model: More of everything?. *Forest Policy and Economics,* 77, 44–55.

Littig, B., & Griessler, E. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International journal of sustainable development*, *8*(1–2), 65–79.

Litwinski, L. (1942). Is there an instinct of possession?. *British Journal of Psychology*, *33*(1), 28–39.

LUKE (2015). Metsämaan omistus 2013 (Forest statistics, based on VMI 11) Retrieved from http://stat.luke.fi/metsamaan-omistus

Lund, J. F. (2015). Paradoxes of participation: the logic of professionalization in participatory forestry. *Forest Policy and Economics*. 60, 1–6.

Lähde, H. K. (2007). Isojako ja torpparijärjestelmät. *Maanmittaus aikakauskirja*, *82*(2), 68–88.

Lähdesmaki, M. (2005). When ethics matters–interpreting the ethical discourse of small nature-based entrepreneurs. *Journal of Business Ethics*, *61*(1), 55–68.

Lähdesmäki, M., Matilainen, A., & Siltaoja, M. (2016). Legitimating institutional choices in the forest ownership: building acceptability for jointly owned forests. *European Journal of Forest Research*, *135*(6), 1055–1069.

Lähdesmäki, M., & Suutari, T. (2012). Keeping at arm's length or searching for social proximity? Corporate social responsibility as a reciprocal process between small businesses and the local community. *Journal of Business Ethics*, *108*(4), 481–493.

Lähtinen, K., Myllyviita, T., Leskinen, P., & Pitkänen, S. K. (2014). A systematic literature review on indicators to assess local sustainability of forest energy production. *Renewable and Sustainable Energy Reviews*, *40*, 1202–1216.

Majumdar, I., Laband, D., Teeter, L., & Butler, B. (2009). Motivations and land-use intentions of nonindustrial private forest landowners: comparing inheritors to noninheritors. *Forest science*, *55*(5), 423–432.

Malovrh, Š. P., Nonić, D., Glavonjić, P., Nedeljković, J., Avdibegović, M., & Krč, J. (2015). Private forest owner typologies in Slovenia and Serbia: targeting private forest owner groups for policy implementation. *Small-scale Forestry*, 14(4), 423–440.

Markowski-Lindsay, M., Catanzaro, P., Milman, A., & Kittredge, D. (2016). Understanding family forest land future ownership and use: exploring conservation bequest motivations. *Small-scale forestry*, *15*(2), 241-256.

Mason M., (2010). Sample size and saturation in PhD studies using qualitative interviews. Forum: Qualitative Social Research 11, pp. 1–17 (available at www.qualitative-research.net).

Matilainen, A., & Keskinarkaus, S. (2010). The social sustainability of hunting tourism in Northern Europe. *Ruralia Institute, Reports 59.* University of Helsinki

Matilainen, A., & Lähdesmäki, M. (2014). Metsänomistuksen tulevaisuus Etelä-ja Keski-Pohjanmaalla – Selvitys metsänomistajakunnan muutoksesta ja palvelutarpeista. *Ruralia-instituutti raportteja* 126. Helsingin yliopisto

Matilainen, A., Keskinarkaus, S., & Törmä, H. (2016). The Economic Significance of Hunting Tourism in East Lapland, Finland. *Human Dimensions of Wildlife, 21*(3), 203–222.

Mattila, J., & Ikävalko, M. (2003, August). Participative strategy process in a professional organization and the concept of psychological ownership. In *NFF conference in Reykjavik.*

Mattila, O., Toppinen, A., Tervo, M., & Berghäll, S. (2013). Non-industrial private forestry service markets in a flux: results from a qualitative analysis on Finland. *Small-scale forestry, 12*(4), 559-578.

Mayer, A. L., & Tikka, P. M. (2006). Biodiversity conservation incentive programs for privately owned forests. *Environmental Science & Policy, 9*(7), 614–625.

Mayhew, M. G., Ashkanasy, N. M., Bramble, T., & Gardner, J. (2007). A study of the antecedents and consequences of psychological ownership in organizational settings. *The Journal of social psychology, 147*(5), 477–500.

McComb, E. J., Boyd, S., & Boluk, K. (2017). Stakeholder collaboration: A means to the success of rural tourism destinations? A critical evaluation of the existence of stakeholder collaboration within the Mournes, Northern Ireland. *Tourism and Hospitality Research, 17*(3), 286–297.

McDonald, R. I., Chai, H. Y., & Newell, B. R. (2015). Personal experience and the 'psychological distance'of climate change: An integrative review. *Journal of Environmental Psychology, 44*, 109–118.

McIntyre, N., Srivastava, A., & Fuller, J. A. (2009). The relationship of locus of control and motives with psychological ownership in organizations. *Journal of Managerial Issues*, 383–401.

McKenzie, S. (2004). Social sustainability: towards some definitions. Hawke Research Institute Working Paper Series No 27. University of South Australia.

Mead, G. H. (1934). *Mind, self and society* (Vol. 111). University of Chicago Press.: Chicago.

Mendoza, G. A., & Martins, H. (2006). Multi-criteria decision analysis in natural resource management: a critical review of methods and new modelling paradigms. *Forest ecology and management, 230*(1–3), 1–22.

Mendoza, G. A., & Prabhu, R. (2006). Participatory modeling and analysis for sustainable forest management: Overview of soft system dynamics models and applications. *Forest Policy and Economics, 9*(2), 179–196.

Miller, G. A., & Johnson-Laird, P. N. (1976). *Language and perception.* Belknap Press.

Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review, 22*(4), 853–886.

Moore, D. A., & Loewenstein, G. (2004). Self-interest, automaticity, and the psychology of conflict of interest. *Social Justice Research, 17*(2), 189–202.

Morales, M. C., & Harris, L. M. (2014). Using subjectivity and emotion to reconsider participatory natural resource management. *World Development, 64*, 703–712.

Munsell, J. F., Germain, R. H., Luzadis, V. A., & Bevilacqua, E. (2009). Owner intentions, previous harvests, and future timber yield on fifty working nonindustrial private forestlands in New York State. *Northern Journal of Applied Forestry, 26*(2), 45–51.

Mäntymaa, E. (1998). *Kainuulaisten metsäasenteet 1997.* Oulun yliopisto, Kajaanin kehittämiskeskus.

Mäntymaa, E., Juutinen, A., Mönkkönen, M., & Svento, R. (2009). Participation and compensation claims in voluntary forest conservation: A case of privately owned forests in Finland. *Forest Policy and Economics, 11*(7), 498–507.

Neville, B. A., & Menguc, B. (2006). Stakeholder multiplicity: Toward an understanding of the interactions between stakeholders. *Journal of Business Ethics, 66*(4), 377–391.

Nichiforel, L., & Schanz, H. (2011). Property rights distribution and entrepreneurial rent-seeking in Romanian forestry: a perspective of private forest owners. *European Journal of Forest Research*, 130(3), 369–381.

Ni Dhubháin, Á. N., Cobanova, R., Karppinen, H., Mizaraite, D., Ritter, E., Slee, B., & Wall, S. (2007). The values and objectives of private forest owners and their influence on forestry behaviour: the implications for entrepreneurship. *Small-scale Forestry*, *6*(4), 347–357.

Nousiainen, H., & Tyrväinen, L. (2002). Matkailuyrittäjien näkemys Etelä-Suomen luontomatkailusta. *Metsäntutkimuslaitoksen tiedonantoja* nro 866 , pp 67–89

Nutt, P. 2002., *Why decisions fail: Avoiding the blunders and traps that lead to debacles.* Berrett-Koehler Publishers, San Francisco.

Näsi, J., 1995. What is stakeholder thinking? A snapshot of a social theory of the firm. In: Näsi, J., (ed.). *Understanding Stakeholder Thinking*, Gummerus, Jyväskylä.

O'Driscoll, M. P., Pierce, J. L., & Coghlan, A. M. (2006). The psychology of ownership: Work environment structure, organizational commitment, and citizenship behaviors. *Group & Organization Management*, *31*(3), 388–416.

Omann, I., & Spangenberg, J. H. (2002, March). Assessing social sustainability. In *Biennial Conference of the International Society for Ecological Economics* (Vol. 7, p. 304).

O'Neill, M., and A.D. Alonso. 2009. Small hospitality business involvement in environmentally friendly initiatives. *Tourism and Hospitality Planning and Development* 6(3):221–234.

Ong, B. K. (2012). Grounded Theory Method (GTM) and the Abductive Research Strategy (ARS): a critical analysis of their differences. *International Journal of Social Research Methodology*, *15*(5), 417–432.

Ostrom E, Burger J, Field C B., Norgaard R B. & Policansky D (1999) Revisiting the Commons: Local Lessons, Global Challenges, *Science* 284 (5412), 278–282.

Oswalt, S. N., Smith, W. B., Miles, P. D., & Pugh, S. A. (2014). *Forest Resources of the United States, 2012: a technical document supporting the Forest Service 2010 update of the RPA Assessment.*

Paletto, A., Balest, J., Demeo, I., Giacovelli, G., & Grilli, G. (2016). Power of forest stakeholders in the participatory decision making process: A case study in northern Italy. *Acta Silvatica et Lignaria Hungarica*, *12*(1), 9–22.

Palo, M., Uusivuori, J., & Lehto, E. (1999). Forest-based Development in Finland—a Unique Success?. In Palo, M. (ed.). *World forests, society and environment* (pp. 300–318). Springer, Dordrecht.

Pan, X. F., Qin, Q., & Gao, F. (2014). Psychological ownership, organization-based self-esteem and positive organizational behaviors. *Chinese Management Studies*, *8*(1), 127–148.

Park, B. J., Tsunetsugu, Y., Kasetani, T., Kagawa, T., & Miyazaki, Y. (2010). The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): evidence from field experiments in 24 forests across Japan. *Environmental health and preventive medicine*, 15(1), 18–26.

Parkins, J.R., & Mitchell, R.E. (2005) Public participation as public debate: a deliberative turn in natural resource management. *Society & Natural Resources* 18, 529–540.

Pattanayak, S. K., Murray, B. C., & Abt, R. C. (2002). How joint is joint forest production? An econometric analysis of timber supply conditional on endogenous amenity values. *Forest Science*, *48*(3), 479–491.

Patton, M.Q., 2002. *Qualitative research and evaluation methods.* (3rd ed.). Sage, Thousand Oaks, CA.

PEFC (2010). Sustainable Forest Management (PEFC ST 1003:2010). Retrieved from: https://www.pefc.org/resources/technical-documentation/pefc-international-standards-2010/676-sustainable-forest-management-pefc-st-10032010

Peltola, R., Hallikainen, V., Tuulentie, S., Naskali, A., Manninen, O., & Similä, J. (2014). Social license for the utilization of wild berries in the context of local traditional rights and the interests of the berry industry. *Barents Studies: Peoples, Economies and Politics* 1(2), 24–49

Pierce, J. L., Rubenfeld, S. A., & Morgan, S. (1991). Employee ownership: A conceptual model of process and effects. *Academy of Management Review*, *16*(1), 121–144.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of Management Review*, *26*(2), 298–310.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of general psychology*, *7*(1), 84.

Pierce, J. L., & Rodgers, L. (2004). The psychology of ownership and worker-owner productivity. *Group & Organization Management*, *29*(5), 588–613.

Pierce, J. L., O'driscoll, M. P., & Coghlan, A. M. (2004). Work environment structure and psychological ownership: The mediating effects of control. *The Journal of social psychology*, *144*(5), 507–534.

Pierce, J. L., & Jussila, I. (2010). Collective psychological ownership within the work and organizational context: Construct introduction and elaboration. *Journal of Organizational Behavior, 31*(6), 810–834.

Pierce, J. L., & Jussila, I. (2011). *Psychological ownership and the organizational context: Theory, research evidence, and application*. Edward Elgar Publishing.

Pierce, J. L., Jussila, I., & Li, D. (2018). Development and validation of an instrument for assessing collective psychological ownership in organizational field settings. *Journal of Management & Organization*, 24(6), 776–792.

Pilz, D. & Molina, R., eds. (1996). *Managing forest ecosystems to conserve fungus diversity and sustain wild mushroom harvests*. Gen. Tech. Rep. PNW-GTR-371. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 104 p.

Pretty, G. H., Chipuer, H. M., & Bramston, P. (2003). Sense of place amongst adolescents and adults in two rural Australian towns: The discriminating features of place attachment, sense of community and place dependence in relation to place identity. *Journal of Environmental Psychology*, *23*(3), 273–287.

Pohja-Mykrä, M. (2014). Vahinkoeläinsodasta psykologiseen omistajuuteen. Petokonfliktien historiallinen tausta ja nykypäivän hallinta. *Ruralia-instituutti, julkaisuja 33*. Helsingin yliopisto.

Pohja-Mykrä, M. (2016). Felony or act of justice?– Illegal killing of large carnivores as defiance of authorities. *Journal of rural studies*, *44*, 46–54.

Pohja-Mykrä, M., Kurki, S., & Mykrä, S. (2015). Susipolitiikan suunnanmuutos: ohjailusta omistajuuteen. In Hiedanpää, J. & Ratamäki, O. (Eds.), Suden kanssa, Lapland University Press (2015), pp. 219–243

Porteous, J. D. (1976). Home: The territorial core. *Geographical Review*, 383–390.

Powers B & Knapp T. (2006). *Dictionary of Nursing Theory and Research* (3rd edn). New York: Springer Publishing Company, 2006.

Prato, T., Fulcher, C., Wu, S., & Ma, J. (1996). Multiple-objective decision making for agroecosystem management. *Agricultural and Resource Economics Review*, *25*(2), 200–212.

Primmer, E., & Karppinen, H. (2010). Professional judgment in non-industrial private forestry: Forester attitudes and social norms influencing biodiversity conservation. *Forest Policy and Economics*, *12*(2), 136–146.

Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, *3*(1), 57–83.

Pukkala, T., & Kangas, J. (1993). A heuristic optimization method for forest planning and decision making. *Scandinavian Journal of Forest Research*, *8*(1-4), 560–570.

Põllumäe, P., Korjus, H., Kaimre, P., & Vahter, T. (2014). Motives and incentives for joining forest owner associations in Estonia. *Small-scale forestry*, 13(1), 19–33.

Raffelsberger, H., & Hällbom, M. (2009). Components of identity and the family firm: An exploratory study of influences on the microprocess of strategy and firm level outcomes.

Rantanen, N., & Jussila, I. (2011). F-CPO: A collective psychological ownership approach to capturing realized family influence on business. *Journal of Family Business Strategy*, *2*(3), 139–150.

Redpath, S. M., Young, J., Evely, A., Adams, W. M., Sutherland, W. J., Whitehouse, A., ... & Gutierrez, R. J. (2013). Understanding and managing conservation conflicts. *Trends in ecology & evolution*, *28*(2), 100–109.

Reed, M. S., Graves, A., Dandy, N., Posthumus, H., Hubacek, K., Morris, J., ... & Stringer, L. C. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management*, 90(5), 1933–1949.

Reunala, A. (1975). Metsänomistuksen muutokset ja aluepolitiikka. Summary: Forest ownership changes and regional development policy in Finland. *Silva fennica*, *9*(4), 259–283.

Ribot, J. C., & Peluso, N. L. (2003). A theory of access. *Rural sociology*, *68*(2), 153–181.

Rosenhead, J. (1989). *Rational Analysis of a Problematic World*. John Wiley and Sons. New York

Ross-Davis, A. L., Broussard, S. R., Jacobs, D. F., & Davis, A. S. (2005). Afforestation motivations of private landowners: an examination of hardwood tree plantings in Indiana. *Northern Journal of Applied Forestry*, *22*(3), 149–153.

Rouhinen, S. (1991). Kestävän kehityksen kansalaisyhteiskunta aluetutkimuksen haasteena. Häkli, J. & Kuitunen, J. (eds.). *Avauksia restrukturaatioon*. Tampereen yliopisto. Aluetieteen laitos. Sarja A, 11, 163–176.

Routa, J., Kellomäki, S., & Strandman, H. (2012). Effects of forest management on total biomass production and CO2 emissions from use of energy biomass of Norway spruce and Scots pine. *BioEnergy Research*, 5(3), 733–747.

Rowe, G., & Frewer, L. J. (2000). Public participation methods: A framework for evaluation. *Science, technology, & human values*, *25*(1), 3–29.

Rutanen, J., & Luostarinen, M. (2000). Luontoyrittäjyys Suomessa: alueelliset verkostot: luontoyrittäminen, matkailu-ja maaseutuklusteri-hankkeen loppuraportti. *Maatalouden tutkimuskeskuksen julkaisuja*. Sarja B Nro 23.

Rämö, A. K., Järvinen, E., Latvala, T., Toivonen, R., & Silvennoinen, H. (2009). Interest in energy wood and energy crop production among Finnish non-industrial private forest owners. *Biomass and bioenergy*, *33*(9), 1251–1257.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, *25*(1), 54–67.

Ryymin, J. 2008. *Matkailun ohjelmapalvelut. Toimialaraportti (9/2008)*. KTM:n ja TE-keskusten julkaisu.

Saarinen, J. 2001. Luontomatkailu osana metsien käyttöä. In Kangas, J. & Kokko, A. (eds.) *Metsän eri käyttömuotojen arvottaminen ja yhteensovittaminen. Working Papers of the Finnish Forest Research Institute* 800:129–133.

Saarinen, J. 2003. The regional economics of tourism in Northern Finland: The socio-economic implications of recent tourism development and future possibilities for regional development. *Scandinavian Journal of Hospitality and Tourism* 3(2):91–113.

Saaristo, L. & Vanhatalo, K. (eds.) 2015. *Metsänhoidon suositukset talousmetsien luonnonhoitoon, työopas*. Tapion julkaisuja.

Serbruyns, I., & Luyssaert, S. (2006). Acceptance of sticks, carrots and sermons as policy instruments for directing private forest management. *Forest Policy and Economics*, *9*(3), 285–296.

Shanley, P., da Serra Silva, M., Melo, T., Carmenta, R., & Nasi, R. (2012). From conflict of use to multiple use: forest management innovations by small holders in Amazonian logging frontiers. *Forest Ecology and Management*, *268*, 70–80.

Schlager, E., & Ostrom, E. (1992). Property-rights regimes and natural resources: a conceptual analysis. *Land economics*, 249–262.

Schmithüsen, F., & Hirsch, F. (2010). Private forest ownership in Europe. *Geneva timber and forest study papers*, (26).

Schreier, M. (2012). *Qualitative content analysis in practice*. Sage Publications.

Seale, C. (1999). Quality in qualitative research. *Qualitative inquiry*, *5*(4), 465–478.

Semken, S., & Freeman, C. B. (2008). Sense of place in the practice and assessment of place-based science teaching. *Science Education*, *92*(6), 1042–1057.

Shamai, S. (1991). Sense of place: An empirical measurement. *Geoforum*, *22*(3), 347–358.

Shils, E. 1975. *Center and periphery*. Chicago. The University of Chicago Press.

Shu, S. B., & Peck, J. (2011). Psychological ownership and affective reaction: Emotional attachment process variables and the endowment effect. *Journal of Consumer Psychology*, 21(4), 439–452.

Shu, S. B., & Peck, J. (2018). Solving stewardship problems with increased psychological ownership. In Peck, J. & Shu, S. B. (eds.) *Psychological Ownership and Consumer Behavior* (pp. 227–237). Springer, Cham.

Sievänen T., Neuvonen M. (eds.). (2011). Luonnon virkistyskäyttö 2010. Working Papers of the Finnish Forest Research Institute 212. The Finnish Forest Research Institute.

Silva, G., & McDill, M. E. (2004). Barriers to ecotourism supplier success: A comparison of agency and business perspectives. *Journal of Sustainable Tourism*, *12*(4), 289–305

Silver, E. J., Leahy, J. E., Weiskittel, A. R., Noblet, C. L., & Kittredge, D. B. (2015). An evidence-based review of timber harvesting behavior among private woodland owners. *Journal of Forestry*, 113(5), 490–499.

Sime, J.D., Speller, G.M., Dibben, C., 1993. *Research into the attitudes of owners and managers to people visiting woodlands*. Report prepared for the Forestry Commission by Jonathan Sime Associates, Godalming.

Skogen, K. and Krange, O. (2003) A wolf at the gate: The anti-carnivore alliance and the symbolic construction of community. *Sociological Ruralis*, 43, 309–25.

Smith, J. W., Davenport, M. A., Anderson, D. H., & Leahy, J. E. (2011). Place meanings and desired management outcomes. *Landscape and Urban Planning*, 101(4), 359–370.

Smith, J. R., Terry, D. J., Manstead, A. S., Louis, W. R., Kotterman, D., & Wolfs, J. (2008). The attitude–behavior relationship in consumer conduct: The role of norms, past behavior, and self-identity. *The Journal of social psychology*, 148(3), 311–334.

Snare, F. (1972). The concept of property. *American Philosophical Quarterly*, 9(2), 200–206. University of Illinois Press.

Spector, P. E., & Fox, S. (2010). Counterproductive work behavior and organisational citizenship behavior: Are they opposite forms of active behavior?. *Applied Psychology*, 59(1), 21–39.

Staw, B. M., & Ross, J. (1987). Knowing when to pull the plug. *Harvard Business Review*, 65(2), 68–74.

Stedman, R. C. (2002). Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. *Environment and behavior*, 34(5), 561–581.

Stedman, R. C. (2006). Understanding place attachment among second home owners. *American behavioral scientist*, 50(2), 187–205.

Steele, F. (1981). *The sense of place*. Cbi Pub Co.

Stein, N. L., & Albro, E. R. (2001). The origins and nature of arguments: Studies in conflict understanding, emotion, and negotiation. *Discourse processes*, 32(2–3), 113–133.

Sténs, A., & Sandström, C. (2013). Divergent interests and ideas around property rights: The case of berry harvesting in Sweden. *Forest Policy and Economics*, 33, 56–62.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of management review*, 20(3), 571–610.

Tahvanainen, V., & Kurttila, M. (2017). Metsänomistajien näkemys luonnontuotteisiin perustuvista liiketoimintamahdollisuuksista. In Peltola, R. (ed.) *Luonnontuotealan valtakunnallinen tutkimusseminaari 2015.* Luonnonvara- ja biotalouden tutkimus 22/2017. Luonnonvarakeskus.

Takala, T., Hujala, T., Tanskanen, M., & Tikkanen, J. (2017). Forest owners' discourses of forests: Ideological origins of ownership objectives. *Journal of Rural Studies*, 51, 1–14.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. *Journal of organizational behavior*, 13(3), 265–274.

Thompson, D. W., & Hansen, E. N. (2013). Carbon storage on non-industrial private forestland: An application of the theory of planned behavior. *Small-scale forestry*, 12(4), 631–657.

Thompson, J. R., Elmendorf, W. F., McDonough, M. H., & Burban, L. L. (2005). Participation and conflict: lessons learned from community forestry. *Journal of Forestry*, 103(4), 174–178.

Terry, D. J., Hogg, M. A., & White, K. M. (1999). The theory of planned behaviour: self-identity, social identity and group norms. *British Journal of Social Psychology*, 38(3), 225–244.

Tolvanen, A., Rämet, J., Siikamäki, P., Törn, A., & Orell, M. (2004, June). Research on ecological and social sustainability of nature tourism in northern Finland. In *2004). Policies, Methods and Tools for Visitor Management. Proceedings of the Second International Conference on Monitoring and Management of Visitor Flows in Recreational and Protected Areas.*

Townsend, D. M., DeTienne, D., Yitshaki, R., & Arthurs, J. D. (2009). The psychological ownership of entrepreneurial organizations: Theoretical and model development. *Frontiers of Entrepreneurship Research*, 29(6), Article 3.

Trentelman, C. K. (2009). Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. *Society & Natural Resources*, 22(3), 191–210.

Triandafyllidou, A. (1998). National identity and the'other'. *Ethnic and Racial Studies*, *21*(4), 593–612.

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review*, *117*(2), 440.

Tuan, Y. F. (1989). Sense and place. In. Schoff, G.H. & Tuan, Y.F. *Two Essays on a Sense of Place*, pp. 1–13. Wisconsin Humanities Committee. 1989

Tuunanen, P., Tarasti, M., ja Rautiainen, A. (toim.). 2012. Jokamiehenoikeudet ja toimiminen-toisen alueella. *Ympäristöministeriön raportteja 30.*

Tyrväinen, L., & Sievänen, T. (2007). Virkisty-skäytön ja luontomatkailun tarkastelu eri vaihtoehtoskenaarioissa sekä skenaario virkistyskäytön ja luontomatkailun muu-toksista ja kehittämistarpeista. In Uusivuori, J., Kallio, M. & Salminen, M. (eds.) *Vaihtoehtolaskelmat kansallisen metsäohjelman 2015 valmistelua varten.* Working Papers of the Finnish Forest Research Institute 75, 87–94.

Uliczka, H., Angelstam, P., Jansson, G., & Bro, A. (2004). Non-industrial private forest own-ers' knowledge of and attitudes towards na-ture conservation. *Scandinavian Journal of Forest Research*, *19*(3), 274–288.

Urquhart, J., Courtney, P., & Slee, B. (2012). Private woodland owners' perspectives on multi-functionality in English woodlands. *Journal of Rural Studies*, *28*(1), 95–106.

Vaismoradi, M., Jones, J., Turunen, H., & Snel-grove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6(5), 100.

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health scienc-es*, *15*(3), 398–405.

Vallance, S., Perkins, H. C., & Dixon, J. E. (2011). What is social sustainability? A clarification of concepts. *Geoforum*, *42*(3), 342–348.

Valkonen, J. (2007). Luontopolitiikan paikallisuus. *Alue ja ympäristö*, *36*(1), 27–37.

Valsta, L., Tahvonen, O., Leppänen, J., & Herkiä, L. (1998). Natura 2000-verkoston puun-tuotannolliset kustannukset. *Metsätieteen aikakauskirja* 1998 (4), 588–592.

Van Dyne, L., & Pierce, J. L. (1993). Employee own-ership: Empirical support for mediated relationships. In *Eigth Annual Conference of the Society for Industrial and Organiza-tional Psychology, San Francisco, CA*.

Van Dyne, L., & Pierce, J. L. (2004). Psychologi-cal ownership and feelings of possession: Three field studies predicting employee at-titudes and organizational citizenship be-havior. *Journal of organizational behavior*, *25*(4), 439–459.

Van Eemeren, F. H. (2009). The study of argumen-tation. In Lundsford, A.A., Wilson, K. H. & Eberly, R.A. (eds.) *The SAGE handbook of rhetorical studies*, pp. 109–124.

Van Herzele, A., & Aarts, N. (2013). "My forest, my kingdom"—Self-referentiality as a strategy in the case of small forest owners coping with government regulations. *Policy Sci-ences*, *46*(1), 63–81.

Van Herzele, A., & Van Gossum, P. (2008). Typol-ogy building for owner-specific policies and communications to advance forest conver-sion in small pine plantations. *Landscape and Urban Planning*, *87*(3), 201–209.

Vaske, J. J., & Kobrin, K. C. (2001). Place attach-ment and environmentally responsible be-havior. *The Journal of Environmental Edu-cation*, *32*(4), 16–21.

Westin, K., Eriksson, L., Lidestav, G., Karppinen, H., Haugen, K., & Nordlund, A. (2017). Indi-vidual Forest Owners in Context. In Keski-talo, E.C.H (ed.) Globalisation and Change in Forest Ownership and Forest Use pp. 57–95. Palgrave Macmillan, London.

Viljanen, P., & Rautiainen, A. (2007). Jokamiehe-noikeuden toimivuus. *Ympäristöminis-teriön raportteja* 19/2007, p. 36

Williams, D. R., & Patterson, M. E. (1996). Envi-ronmental meaning and ecosystem man-agement: Perspectives from environmental psychology and human geography. *Society & Natural Resources*, *9*(5), 507–521.

Williams, D. R., Patterson, M. E., Roggenbuck, J. W., & Watson, A. E. (1992). Beyond the commodity metaphor: Examining emo-tional and symbolic attachment to place. *Leisure sciences*, *14*(1), 29–46.

Williams, D. R., & Vaske, J. J. (2003). The measure-ment of place attachment: Validity and gen-eralizability of a psychometric approach. *Forest science*, *49*(6), 830–840.

Wolsink, M. (2006). Invalid theory impedes our understanding: a critique on the persis-tence of the language of NIMBY. *Transac-tions of the Institute of British Geogra-phers*, *31*(1), 85–91.

Woodroffe, R., Thirgood, S., and Rabinowitz, A. (2005) The impact of human-wildlife conflict on natural systems. In R. Woodroffe, S. Thirgood, and A. Robinowitz (eds.). *People and wildlife: Conflict or coexistence?* Cambridge: Cambridge University Press.

Von Essen, E., Hansen, H. P., Källström, H. N., Peterson, M. N., & Peterson, T. R. (2015). The radicalisation of rural resistance: How hunting counterpublics in the Nordic countries contribute to illegal hunting. *Journal of Rural Studies*, 39, 199–209.

Watts, D., Matilainen, A., Kurki, S. P., Keskinarkaus, S., & Hunter, C. (2017). Hunting cultures and the 'northern periphery': Exploring their relationship in Scotland and Finland. *Journal of Rural Studies*, *54*, 255–265.

Wescoat, J. L. (1990). Common law, common property, and common enemy: notes on the political geography of water resources management for the Sundarbans area of Bangladesh. *Agriculture and Human Values*, *7*(2), 73–87.

White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological review*, *66*(5), 297.

White, R. M., Fischer, A., Marshall, K., Travis, J. M., Webb, T. J., Di Falco, S., ... & Van der Wal, R. (2009). Developing an integrated conceptual framework to understand biodiversity conflicts. *Land Use Policy*, 26(2), 242–253.

Wigley, T. B., & Sweeney, J. M. (1993). Cooperative partnerships and the role of private landowners. In: Finch, Deborah M.; Stangel, Peter W. (eds.). *Status and management of neotropical migratory birds: September 21-25, 1992, Estes Park, Colorado. Gen. Tech. Rep. RM-229*. Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, US Dept. of Agriculture, Forest Service: 39–44, 229.

Wilkes-Allemann, J., Pütz, M., Hirschi, C., & Fischer, C. (2015). Conflict situations and response strategies in urban forests in Switzerland. *Scandinavian Journal of Forest research*, *30*(3), 204–216.

Young, R. A., & Reichenbach, M. R. (1987). Factors influencing the timber harvest intentions of nonindustrial private forest owners. *Forest Science*, *33*(2), 381–393.

Živojinović, I., Weiss, G., Lidestav, G., Feliciano, D., Hujala, T., Dobšinská, Z., ... & Schraml, U. (2015). Forest Land Ownership Change in Europe. *COST Action FP1201 FACESMAP Country Reports, Joint Volume*. EFICEEC-EFISEE Research Report. University of Natural Resources and Life Sciences, Vienna (BOKU), Vienna, Austria.

Živojinović, I., Nedeljković, J., Stojanovski, V., Japelj, A., Nonić, D., Weiss, G., & Ludvig, A. (2017). Non-timber forest products in transition economies: Innovation cases in selected SEE countries. *Forest Policy and Economics*, *81*, 18–29.

ORIGINAL RESEARCH ARTICLES

ARTICLE I.

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"I feel it is mine!" — Psychological ownership in relation to natural resources

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ABSTRACT

The use of natural resources often generates conflict among stakeholders. Conflict analysis and management in this sector has traditionally been based on compliance enforcement and/or education. Recently, however, the need for alternative approaches has been increasingly highlighted. In this study, we address the need for in-depth analysis, and introduce the theoretical concept of psychological ownership to improve the understanding and potential management of conflict situations. We suggest that ownership feelings may play a significant role both in successful co-operation, and in conflicts related to the use of natural resources. The study is qualitative in nature. The data consisted of two interview datasets related to nature tourism: nature tourism in private forests and bear watching safaris. We show that the ways the psychological ownership of stakeholder groups is constructed and taken into account in co-operative relationships are of the utmost importance for the sustainability and success of the interplay among stakeholders.

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1. Introduction

Numerous studies and practical examples have reported conflicts and disputes related to the use or management of natural resources. Different stakeholder groups typically have different aspirations for the use of resources, which collide at some level with those of others. Conflict over natural resources has been defined as arising when the interests of two or more parties with regard to some aspect of biodiversity are in competition, and when at least one of the parties is perceived as asserting its interests at the expense of one or more of the others (Bennett et al., 2001). White et al. (2009) expanded this definition to include not only conflicting needs with regard to an environmental resource, but also situations in which actors have the same needs but disagree over the distribution of the resource to meet their requirements, or over procedures of resource exploitation and distribution. In a social context, the dimensions of conflict concern not only economic or leisure interests, but also aspects related to urban-rural tensions, economic development and institutional change, and conflicts between dominant ecological-technological expertise and subordinate forms of local knowledge (Von Essen et al., 2015; Skogen &

Krange, 2003; White et al., 2009).

Although natural resource conflicts often appear nonviolent, they are still destructive in nature, as they impede the development of social constructions such as co-operation relationships and sometimes even conservation efforts (Von Essen et al., 2015; Woodroffe, Thirgood, & Rabinowitz, 2005). One typical mistake in many attempts to resolve conflict in a natural resource context is that the stakeholders are assumed to act as economically rational actors; conflict analysis and management have therefore focused on disciplinary approaches (White et al., 2009), or simply on providing objective information concerning the process. In the analysis and management of potential natural resource conflicts, it is now commonly accepted that ecological, social and economic approaches are not the only ones relevant. The importance of social psychology and interdisciplinary methods in the integration of cultural and biophysical aspects is increasingly recognized (White et al., 2009). For example, according to Redpath et al. (2013), the conflict originates at a deep cognitive level and is linked to changing attitudes and values rooted in social and cultural history (see also Adams et al., 2003; Raik, Wilson, & Decker, 2008). Attitude formation, however, is not a fully rational process, and sometimes not even a conscious one (e.g. Fishbein & Ajzen, 2011). In addition, the arguments used to justify a particular opinion are often aimed at a wider audience, and may have little to do with how or why the proponent holds the opinion (s)he is defending (Van Eemeren,

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2009). Similarly, in the case of participatory management practices, it has been recognized that in order to succeed, efforts should focus more on the process than on the tools used in it (Reed, 2008); thus participatory management can easily fail to take into account adequately the emotional aspects that affect stakeholders' opinions (see e.g. Buijs & Lawrence, 2013; Idrissou et al., 2013; Parkins & Mitchell, 2007). It is vital for these underlying causes of conflict to be identified (Kovács, Fabók, Kalóczkai, & Hansen, 2016). In the worst case scenario, failed attempts to resolve natural resource conflicts may actually lead to an increased crime rate, for example in the form of illegal poaching (e.g. Filteau, 2012; Pohja-Mykrä, 2016; Sherman, 1993).

In rural areas, local people traditionally perceive natural resources as "their own" (Peltola et al., 2014). With increasing urbanization, however, people may no longer have the natural resources they value in their immediate proximity. Thus, for example, the valuation of natural resources has partly shifted from a utilitarian approach towards existential or non-use values (Kotchen and Reiling, 2000). In addition, many of the benefits arising from natural resources, including recreational opportunities, attractive landscapes and clean water, are perceived as being shared at a national or even global level (e.g. Schaffner, 2011; White & Martin, 2002). Therefore, others besides the local residents increasingly also feel that they have a "right to enjoy", and a "right to speak", regarding the uses of various kinds of natural resources according to their own values, regardless of the legal owner of the resource or of those who bear the costs of a particular use of it (Jacoby, 2001). Thus, for example, private forest owners may have to tolerate some damage, real or perceived, to a forest located close to a city, due to its intensive recreational use (Stein et al., 2009); or the residents of a rural community may have to accept the presence of large carnivores in the area, in the name of conservation (Skogen & Krange, 2003). In other words, a number of different interest groups have developed feelings of ownership with regard to natural resources.

This study aims to analyze, how psychological ownership manifests itself in the context of natural resources and how it may affect the co-operation relationships between the stakeholder groups related to the use of these resources. Psychological ownership can be defined as a state in which individuals perceive an object, entity or idea, as though it were "their own" (Furby, 1978; Mattila & Ikävalko, 2003; Pierce, Kostova, & Dirks, 2003). We suggest that these experienced ownership feelings can play a significant role both in successful co-operation among the different stakeholders, and in conflicts related to the use and management of natural resources. Thus, the aim of the study is also to present a novel theoretical concept in this sector to understand this element in conflict management fully.

In the following, we first describe the theoretical discussion relating to psychological ownership, then apply it to analyzing two cases of potential stakeholder conflict in two contexts of nature-based tourism — nature tourism in private forests and bear watching safaris. The aim is to illustrate the phenomenon of psychological ownership in a natural resource context. At the end, this article discusses on the potential role played by psychological ownership in conflicting opinions related to the use of natural resources, and how a better understanding of this concept may help to resolve such conflicts.

2. Theoretical background: the concept of psychological ownership

Although the concept of "ownership" is often related to a legal regime, according to a number of scholars (e.g. Brown, Crossley, & Robinson, 2014; Pierce, Kostova, & Dirks, 2001; Etzioni 1991) it should be understood as a multidimensional concept with legal and psychological aspects. Ownership can thus be seen as "a dual creation: part attitude, part object, part in the mind and part real" (Etzioni 1991, p 466). "Real," objective ownership is related to economic or legal reality, recognized primarily by society, and the rights that come with ownership are specified and protected by the legal system. Psychological ownership, in contrast, is recognized primarily by the individual, who has a feeling of ownership and assumes the rights felt to be associated with it (Pierce et al., 2001, 2003). While legal and psychological views of ownership sometimes overlap, there are significant differences between the two.

Psychological ownership as an academic concept originates from organizational research (e.g. Brown, Crossley et al., 2014; Pierce & Jussila, 2010; Mattila & Ikävalko, 2003; Pierce et al., 2003; Pierce et al., 2001). Since its introduction, it has been successfully applied in other fields of research, including consumer behavior and hospitality (e.g. Asatryan & Oh, 2008), entrepreneurship (e.g. Townsend et al., 2009) and health studies (e.g. Karnilowicz, 2011). More recently, the concept of psychological ownership has also been applied in a natural resource context in the cases of forest owners (Lähdesmäki & Matilainen, 2014) and wolf conflict management (Pohja-Mykrä, Kurki, & Mykrä, 2015). The core of psychological ownership is the sense of possession. Psychological ownership can be defined as a state in which the individuals perceive the target of ownership — whether an object, an entity or an idea — as "theirs" (Furby, 1978; Mattila & Ikävalko, 2003; Pierce et al., 2003). In other words, it reflects the person's thoughts and motivation regarding the target of ownership (see Mattila & Ikävalko, 2003; Pierce et al., 2003; Pierce et al., 2001). It should also be noted that psychological ownership can exist in the absence of legal ownership. Similarly, people can legally own an object, yet never claim possession of it as their own (Pierce et al., 2003). In the context of natural resources, for example, in the presence of free access rights, a person using a private forest for recreation can generate feelings of ownership towards it, even though the forest is legally owned by someone else.

While psychological ownership is an individual feeling, it can also manifest itself in collective forms, and a group can collectively feel the object of ownership as "theirs" or "ours" (Pierce & Jussila, 2010). Feelings of collective ownership always entail a sense of shared ownership at the personal level i.e. a person recognizes the ownership feelings of others towards the object of ownership (Pierce & Jussila, 2011). On the other hand, a person can also feel exclusive psychological ownership towards an object, in which case (s)he does not recognize others' feelings of ownership towards it.

According to Pierce et al. (2003), the emergence of psychological ownership is related to the fulfillment of both generic and socially generated motives and basic human needs. They specify three different motives: 1) efficacy and effectance, 2) self-identity, and 3) 'having a place'. Later Pierce and Jussila (2011) added a fourth motive, stimulation, to the "genesis of psychological ownership". The first motive, efficacy and effectance, relates to feelings of control. The possibility of being in control, being able to do something, in regard to the object of ownership, and to be able to gain the desired outcome of an action, are important factors in creating psychological ownership (Ikävalko, Pihkala, & Jussila, 2006; White, 1959). In addition to serving this instrumental function, psychological ownership also arises out of the expression of self-identity; in other words, people use ownership to define and express their self-identity to others, and to maintain the continuity of that self-identity. The third motive, 'having a place', arises from the need to have a certain space to dwell. It has also been linked in the previous literature with the sense of belonging (Asatryan & Oh, 2008). The fourth motive, stimulation, has been seen as explaining some of the dynamic of psychological ownership, and as one

reason why people come to acquire possessions in the first place. Stimulation arises out of an innate human need to seek activation or arousal: ownership, and objects of ownership, are seen as one way in which this motive can be fulfilled (Pierce & Jussila, 2011).

Each of these four motives facilitates the development of psychological ownership — although it should be noted that there is no direct causal connection between the motives as such and psychological ownership. The emergence of a feeling of psychological ownership, i.e. how people come to feel psychological ownership, is often a prolonged process. Pierce et al. (2001) identify three potentially interrelated routes whereby people come to experience psychological ownership: controlling the target of ownership, acquiring intimate knowledge of that target, and investing oneself in it. The first of these routes, being in control over an object, creates feelings of ownership; in other words, the greater the control a person can exercise over an object, the more that object will be psychologically experienced as part of the self (Pierce et al., 2003 cit.; Furby, 1978). Exercise of control becomes concrete by having access to use of the object. One example described in previous research has to do with the restoration of the moose population (*Alces alces*) in Finland during the 1950s and 60s: after failed attempts to protect the species by traditional top-down methods, the state allowed local hunting clubs to exercise partial control over the planning of moose harvesting. With their growing sense of control, hunters developed feelings of ownership toward the moose; the moose population started to grow, and poaching declined (Pohja-Mykrä et al., 2015).

Second, the more information and better knowledge an individual has over the object, the deeper the relationship between the self and the object, and hence the stronger the feeling of ownership towards it. And finally, investment of the self allows individuals to see their reflection in the target and to feel their own effort in its existence (Pierce et al., 2003). Thus, the investment of individual energy, time, effort and attention in an object causes the self to become identified with the object and to develop feelings of psychological ownership towards it (Ikävalko et al., 2006). According to Bliss and Martin (1988), a forest contributes to the identity of the family that owns it, and forest work/management (related to the idea of self-investment) contributes to the owners' sense of self. Similarly, childhood experience of forest management (both individual investment and knowledge) is seen as shaping the owner's identity (Lähdesmäki & Matilainen, 2014).

Each of these three routes can reinforce any motive of psychological ownership; they are complementary and additive in nature. Any single route, on the other hand, can also independently result in feelings of ownership. Feelings of ownership for a particular target, however, will be stronger when the individual arrives at this state by multiple routes rather than just a single one (Pierce et al., 2003, pp. 95—96). Although there is no clarity as to whether some routes are more effective in generating psychological ownership than others, Pierce et al. (2003) suggest that the routes of control and investment of the self in the target are potentially the most effective. Several scholars in the field of organization research have also found empirical evidence on the connections between the suggested routes and psychological ownership. Jussila and Puumalainen (2005) tested the connections between all three routes and psychological ownership and produced evidence on these connections. On the other hand, in their study on psychological ownership and job complexity, Brown, Pierce, et al. (2014) observed a positive relationship between psychological ownership and investing oneself in the target of ownership as well as with intimately knowing the object of ownership. Pierce, O'driscoll, and Coghlan (2004) instead focused especially on experienced control, finding a positive relationship between it and psychological ownership. It should be noted, however, that psychological

ownership is also a context-bound phenomenon and thus a wide range of individual, structural (e.g. laws and norms) and cultural factors contribute to the emergence of psychological ownership (Mattila & Ikävalko, 2003; Pierce et al., 2003).

Feelings of ownership toward various objects have important and potentially powerful behavioral effects. Psychological ownership is positively associated with behavior that contributes to the community's well-being and is voluntary, as well as to a willingness to assume personal risk or sacrifice. Furthermore, psychological ownership of a particular object may also promote a sense of responsibility: when an individual's sense of self is closely linked to the object, a desire to maintain, protect, or enhance that identity has been found to result in an enhanced sense of responsibility (Brown, Crossley et al., 2014; Groesbeck, 2001; Pierce et al., 2003). For example, in the previously-mentioned hunters-moose-example, the increased knowledge of the positive impact of a correctly targeted harvest on population productivity, as well as providing locals with control over population management in practice, allowed hunters to develop the feeling of psychological ownership toward moose which was manifested in the form of increased responsibility (Pohja-Mykrä et al., 2015). Psychological ownership, however, can also give rise to certain negative behaviors, related to individuals' unwillingness to share the target of ownership with others, adaptation of other's suggestions for change, or the need to retain exclusive control over the object of ownership (e.g. Baer & Brown, 2012). Such behaviors may also impede cooperation among people (e.g. Baer & Brown, 2012; Brown & Robinson, 2011; Pierce et al., 2003), and lead to a conflict situation related to the use of the target. Recreational users of forests or national parks, for example, can feel very protective of areas that they use regularly and perceive as their own. This can lead to an unwillingness to share the resource with other users (Matilainen & Lähdesmäki, 2014). In addition, when people witness radical alteration in targets that they perceive as theirs, they may come to feel a sense of personal loss, frustration, and stress (Li 2008; Van Dyne & Pierce, 2004).

Typically, several stakeholder groups have an interest in natural resources, and often develop feelings of ownership towards them. Violations of this experienced ownership may cause severe conflict situations. We therefore suggest that in the case of natural resources, the ways in which the psychological ownership of different stakeholders is a) constructed and b) viewed in co-operative relationships are of the utmost importance for the sustainability and success of the interplay between different stakeholder groups. This calls for excellent stakeholder management skills from the facilitator of stakeholder discussions, and for an understanding of the psychological ownership characteristic of the various groups.

2.1. Psychological ownership and proximate concepts in natural resource research

Conceptualizations related to the meanings of natural resources often vary in their disciplinary roots, thereby also highlighting different aspects of the individual's relationship with a resource (e.g. Brehm et al., 2013; Smith, Davenport, Anderson, & Leahy, 2011; Trentelman, 2009). The literature related to natural resources also contains other concepts with elements related to psychological ownership. In these, the object of emotion is typically seen as a natural site or its' interpretation. We claim, however, that none of these fully encompass the feeling of possessiveness in a way that they could serve as a theoretical tool in understanding it. It should nevertheless be noted that our purpose is not to criticize existing concepts, but merely to point out that to conceptualize and understand the experienced feelings of ownership, the concept of psychological ownership can make a valuable contribution in the

field of natural resource research as well.

In previous research studying the emotions and meanings related to natural or wilderness places, concepts often applied have included "***place meanings***" (e.g. Smith et al., 2011; Kyle, Mowen, & Tarrant, 2004; Cheng, Kruger, & Daniels, 2003), "***sense of place***" (Brandenburg & Carroll, 1995; Jorgensen & Stedman, 2001; Semken & Freeman, 2008), and perhaps the most common one, "***place attachment***" (e.g. Brehm, Eisenhauer, & Stedman, 2013; Williams & Vaske, 2003; Stedman, 2002; Williams, Patterson, Roggenbuck, & Watson, 1992). The concept of place attachment has generally been seen as having two dimensions: place dependence and place identity. It thus bears certain similarities to the concept of psychological ownership. Both place identity and the identity dimension of psychological ownership have been suggested to form a component of the construction of a person's self-identity (Pierce et al., 2001; Dittmar, 1992; Korpela, 1989; Proshansky, Fabian, & Kaminoff, 1983). Similarly, "sense of place" can be understood as a multidimensional construct, consisting of beliefs about the relationship between the self and a place, feelings towards the place, and the behavioral exclusivity of the place in relation to alternatives (e.g. Kaltenborn, 1998).

In the concept of psychological ownership, however, the core element is possession − I feel it is "mine" (Pierce et al., 2003) − while the concepts of place attachment, place meaning and sense of place focus on understanding the wider range of emotions that link a person and a certain place. Accordingly, the dimension of experienced control and the possibility of controlling the object are central elements in the concept of psychological ownership. In research related to the natural environment, on the other hand, place attachment and similar concepts have been more widely applied in efforts to understand reactions to natural resource management in public recreational areas or tourism destinations, typically under conditions where people do not have the direct possibility of controlling the use of natural resources, at least to any significant extent. In addition, place attachment is dependent on a specific physical place, or rather on its interpretation; it does not focus on a natural resource, and is therefore not useful when the subject under study is not connected to any particular physical place, as in the case of wild animals.

According to Bell, Greene, Fisher, and Baum (1996), the concept of ***human territoriality*** can be defined as a set of behaviors and cognitions exhibited by a person or group based on the perceived ownership of the physical space (Bell et al., 1996, p. 304). The original definition, which was much in line with the concept of territoriality used in animal ecology (Kärrholm, 2007), was modified by Altman in the 1970s to include perceived ownership of places, i.e. feelings towards places that were felt to be owned by an individual or group, but were not necessarily defended (Altman, 1975). Territoriality has also been linked to identity building (Shils, 1975) and has been found to be a useful concept in conflict research in understanding spatial natural resource conflicts such as wars, nationalism and regionalism (e.g. Durrenberger & Pálsson, 1987; Knight, 1982). Later, the use of this concept has also been widened beyond physical spaces (Brown, Lawrence, & Robinson, 2005). Human territoriality, similarly to psychological ownership, thus involves a strong idea of possessiveness, of mental ownership. The relationship between the two concepts has been studied in organizational research, and it has been suggested that territorial behavior can be seen as a consequence of psychological ownership (Pierce & Jussila, 2011; Brown et al., 2005). Territorial behavior can indeed be seen to mediate the ownership feelings to the practical actions (Brown et al., 2005).

Another often applied concept, also related to territorial behavior, is that of ***NIMBY (not-in-my-backyard);*** this has been used to both describe and explain the occurrence of local opposition, typically related to changes in the local environment (e.g. Devine-Wright, 2009), and can be seen as a consequence of an experienced sense of ownership. In other words, an experienced sense of psychological ownership is among the elements underlying NIMBY reactions, and can perhaps also be used to explain the NIMBY phenomenon.

There are also some theories related to property rights that can be seen as having links to the concept of psychological ownership. These do not explicitly describe the emotional relationship between the person and the object, but are more related to the multidimensional concept of ownership; we therefore discuss them here as well. The ***Theory of Access*** (Ribot & Peluso, 2003) distinguishes between the concept of access and that of property. Access is the possibility to derive benefits from resources, while property refers to the right to benefit from them. It is thus connected to the control element of psychological ownership. However, while access is the physical to benefit from natural resources, psychological ownership expresses a personal feeling of ownership; it does not necessarily even imply actual access. Psychological ownership can therefore be seen as a person's wanting to have control and/or maintenance over a resource, independent of their actual power over it, or even the means, processes and relations of gaining, controlling or maintaining access.

Another widely applied theory in natural resource research is the theory of ***Common property.*** It argues for the potential success of common resource management, and identifies several crucial criteria and conditions for this success to be of long term. These include autonomy and recognition of the community as an institution, proprietorship and tenure rights, the right to make the rules and viable mechanisms for their enforcement, and ongoing incentives in the form of benefits that exceed costs (Baland & Platteau, 1996; Ostrom, 1990). These elements can be seen as being closely connected to the three routes that create a feeling of psychological ownership. The successful management of common resources according to the common property theory thus aims at supporting the development of psychological ownership of the resource.

To sum up: the concept of psychological ownership can be said to have several connections to related concepts already applied in a natural resource context. Some of them even have certain dimensions which parallel psychological ownership. Nevertheless, none of these concepts fully encompass all the elements of psychological ownership. We also consider it important to understand fully the origins of feelings of possessiveness: both the innate and the socially constructed motives contributing to them. Psychological ownership can help to conceptualize these. In relation to natural resources, psychological ownership also offers a concept with potentially broader application than physical place alone.

3. Material and methods

This study is exploratory in nature. Thus, our purpose is to understand the conflicts and co-operation situations related to use of natural resources by using the theoretical framework of psychological ownership (Denzin & Lincoln, 1994; Patton, 2002). The goal is to provide a starting point for further research related to this topic. For this, we use the concept of psychological ownership to analyze two datasets gathered in previous research (Matilainen & Lähdesmäki, 2009; Pohja-Mykrä & Kurki, 2009) related to the use of natural resources. Both datasets concern nature-based tourism. We chose this context because it typically involves several different kinds of natural resources, utilized in a way that represents a shift away from the traditional use of these resources. It thus serves to illustrate the feelings of ownership experienced by different types of stakeholders. It is also a topic that potentially causes debate over

the use of natural resources, especially since a commercial element is involved along with purely recreational activities (Matilainen & Lähdesmäki, 2014). The Nordic context is especially interesting; traditionally in the Nordic countries it has been widely possible for all people to make use of natural resources, regardless of the legal ownership of the resource. In fact, even today in Finland, "Everyman's Rights", or the "right to roam", guarantee free public access to both private and public forests and includes some rights to use them for commercial purposes, for example to gather natural products or conduct nature tourism activities without the permission of the land owner. Similarly, utilization of game resources has been available to all social classes, even though hunting requires permission from the landowner. This custom also forms a large part of the current culture of land and natural resource utilization, even though it has been modified and certain legal restrictions have been introduced. The tradition is nevertheless still clearly visible in ordinary people's values and attitudes (Matilainen & Lähdesmäki, 2014); especially in rural areas people feel local natural resources to be "their own" (Peltola et al., 2014).

In this study, we analyze psychological ownership from the perspective of an individual's perceived feelings; in other words, our purpose was to examine the meaning of ownership in terms of the respondents' own experienced emotions. The data consist of two interview datasets. An approach using in-depth interviews was selected because it allows a holistic understanding on a phenomenon (Patton, 2002); it was therefore, seen as the best way to cast light on the emergence of psychological ownership in a natural-resource context. In the first dataset, psychological ownership is analyzed in the context of the use of private forests for nature tourism; the object of psychological ownership is thus a forest. In the second, the concept is approached in the context of wildlife watching, more specifically the photographing of large carnivores. Here the object of ownership are wild animals, namely the brown bear (*Ursus arctos*). These two different data types were selected to illuminate elements of psychological ownership in different natural resource contexts, one being related to place, the other to a movable element of biodiversity; one privately owned, the other not owned at all (*res communis*). Thus, the idea was not to combine two datasets, but rather to obtain variations in the data (e.g. Patton, 2002, pp. 240—241).

The first dataset was collected by interviewing two different groups: private forest owners who had experienced the implementation of nature tourism activities on their land, and nature-based tourism entrepreneurs operating in private forests. All companies engaged in activities that could have been implemented in the context of Everyman's Rights, even though for some activities, the forest owners' permission was required. Twelve respondents in the first group and ten in the second were interviewed in depth between the autumn of 2008 and the spring of 2009. The second dataset consisted of interviews with bear watching entrepreneurs (three interviews) and local hunters (one interview), carried out in 2008. The data related to the local hunters was strengthened by three additional interviews conducted at the beginning of 2017. This was seen as necessary to ensure the validation of the hunter data. All interviews were recorded with the respondents' permission and transcribed verbatim (see Table 1 and Table 2).

In both datasets, the interviews can be characterized as semi-structured and in-depth in nature (Legard, Keegan, & Ward, 2003). Before the first interview took place, we prepared a list of broad themes that we wanted to discuss with each stakeholder group. These themes included a few relatively specific questions, to prompt the discussion if needed and to provide a deeper understanding of each theme (Legard et al., 2003). In other words, we saw the interviews as conversations, with a structure that was flexible

enough to permit topics to be covered in their 'natural' order and with enough room for us to be responsive to the issues raised by the stakeholders (Legard et al., 2003).

The data analysis method applied in this study had features of deductive qualitative content-analysis, which is generally based on earlier work, such as theories, models, mind maps and literature reviews (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). More specifically, the aim of the qualitative data analysis process was to sort and categorize the data according to the psychological ownership theory of Pierce et al. (2001). We began by reading through the data several times, to find any indications of how psychological ownership is manifested in the discussion on co-operation vs. conflict between different stakeholders (e.g. Ritchie, 2003; Patton, 2002; Miles & Huberman, 1994). In the second phase of the analysis, the dimensions of psychological ownership (control, identity, having a place, and stimulation) were classified from the data, based on the interview excerpts. At the same time, the three routes leading to the feeling of psychological ownership (controlling the target, gaining intimate knowledge of it, and investing oneself in it) were also identified. Finally, we analyzed the role of psychological ownership in co-operation or conflicting relationships and in the arguments used by stakeholders. However, even though the approach was largely theory-driven, in the course of the analysis we aimed to keep the process iterative between the data sets and theory, in the sense that relevant issues not arising from the psychological ownership theory but influencing relationships among the stakeholders were analyzed.

To ensure the reliability of the results, all phases of the analysis and interpretation of the data were a collaborative and iterative effort by the first two authors. In case of any disagreement, the data were jointly reanalyzed until a shared interpretation was reached. Though laborious, this use of analyst triangulation is often considered to increase the credibility of the research (Patton, 2002). Furthermore, as Eisenhardt (1989) argues, the use of a number of researchers builds confidence in the findings and increases the likelihood of useful findings. To ensure the transparency of the data analysis, a number of interview excerpts are given below to make it easier for the reader to evaluate our interpretations. In addition, to verify that we had captured the essence of the discussion related to the cases in the interviews, we compared our results to the previous literature related to the two nature tourism contexts that we present.

4. Results: the manifestation of psychological ownership in the context of nature tourism

In this chapter, we describe our results in the two nature tourism contexts. First, we set the scene and describe the interest of each stakeholder group towards the natural resource in question. After this, the arguments that comprise the potential conflict elements between the stakeholder groups are highlighted from the data and the ways in which psychological ownership is manifested in the context of natural resources are analyzed. The results also indicate how acknowledging or ignoring these ownership feelings may contribute to a potential conflict related to the use of that resource. It is important to note that we are not suggesting that psychological ownership is always or necessarily the sole reason for a conflicting situation. We also recognize that the construction of psychological ownership is not necessarily a conscious process on the part of the different stakeholders, or something that they knowingly aim at increasing.

4.1. Nature tourism in private forests

Some 80 per cent of nature-based tourism entrepreneurs in

Table 1
First dataset: nature-based tourism in private forests.

Entrepreneurs interviewed				
Number of interview	Services provided by the company	Age of business (years)	Size of business (employees	Number of collaborating forest owners
E 1	Hunting, hiking	15	1,5	3
E 2	Hiking, climbing, cycling	11	2–3	15
E 3	Climbing, paintball, motor safaris	10	3	20–30
E 4	Hiking, canoeing	9	0,5	n.a.
E 5	Riding tours	3	3	100
E 6	Hiking, canoeing	10	1	n.a.
E 7	Hiking, hunting, climbing	11	0,5	n.a.
E 8	Riding tours	17	1,5	8
E 9	Wild life watching, canoeing	11	0,5	3
E 10	Hunting, fishing	8	1	5
Forest owners interviewed				
Number of interview	**Forest area (hectares)**	**Duration of ownership (years)**	**Does the owner live nearby**	**Co-operation with nature-based tourism**
F 1	250	20	Yes	Yes
F 2	235	28	Yes	Yes
F 3	160	28	Yes	Yes
F 4	480	n.a.	Yes	Yes
F 5	50	n.a.	Yes	Yes
F 6	40	23	Yes	Yes
F 7	43	39	Yes	Yes
F 8	>20	22	yes	Yes
F 9	90	43	Yes	yes
F 10	20		Yes	yes
F 11	60	28	Yes	yes
F 12	40	48	No	yes

Table 2
Second data set: bear watching.

Entrepreneur interviewed			
Number of interview	Product	Age of business (years)	Size of business (employees)
BE 1	Bear watching	19	5–7
BE 2	Bear watching	9	1–3
BE 3	Bear watching	1	2–3
Hunters interviewed, status		**Number of bear watching enterprises in the same regional area ()**	
H 1	A regional representative of hunters	9 (65 photography hides in 2008)	
H 2	A chairperson of local hunting club (400 members)	2 (the amount of photography hides unknown)	
H 3	A regional representative of hunters (15 000 hunters in the region)	n/a	
H 4	a chairperson of local game management association (3600 hunters as members)	2-3 (approximately 80 carrion bating places, part unregistered)	

Finland use land areas they do not themselves own (Nousiainen & Tyrväinen, 2002). Due to Finland's landscape, with 76 per cent of the land area covered by forest, nature tourism is often concentrated in forest areas, of which approximately 60 per cent is privately owned (Finnish Statistical Yearbook of Forestry, 2014). Private forest owners thus own a critical production factor in nature-based tourism. The policy of free access, the Right to Roam (known in Finland as "Everyman's Rights"), establishes a regulative framework for the use of forests for nature-based activities. Under this policy, such activities as for example hiking, cycling and skiing, horseback-riding, angling, and picking wildflowers, berries and mushrooms are allowed without permission from the landowner. Everyman's Rights do not permit users to damage or disturb nature, or to cause unreasonable disadvantage to the forest owner. It is also based on the occasional or intermittent use of forests (Kuusiniemi, Majamaa, & Vihervuori, 2000). Nevertheless, Everyman's Rights does provide some opportunities to pursue business activities in private forests (Lehtonen, Heikkinen, & Hirvonen, 2007), as the concepts of "unreasonable disadvantage" and "occasional use" are particularly fluid and imprecise in character. If the utilization of the

forest is not intensive (i.e. does not leave significant visible traces in the forest), or occurs randomly in certain forest areas, as for example, in the case of some hiking-based tourism activities, a landowner's permission is not in principle required. Neither can the forest owner forbid the activities based on Everyman's Rights in his or her forests. Typically for intensive nature tourism activities, the forest owner's permission is also required according to the law. However, conducting commercial nature tourism activities on the basis of Everyman's Rights is ambiguous (e.g., Viljanen & Rautiainen, 2007), and various interest groups have their own interpretations of it (Lehtonen et al., 2007).

4.1.1. Nature-based tourism entrepreneurs

The interest in the natural resource (the forest area) on the part of nature-based tourism entrepreneurs in this case was to gain access to suitable forest areas for their business operations. Their activities typically did not exclude other uses of the forest, but some activities, such as horseback-riding tours, were sensitive to other uses as well. According to the interview data, many companies implemented activities requiring extensive forest areas and co-

operation with numerous forest owners, in fact up to a hundred. The companies applied various strategies in co-operation with the forest owners, ranging from the proactive (very much a business-to-business approach) to a negligence strategy (ignoring the forest owner totally); these are described in more detail in Matilainen and Lähdesmäki (2014). The entrepreneurs justified their need to access the forests with a discourse which did not highlight their own company's success, but rather focused on the survival of the nature tourism sector and of rural areas in general by underlining the need to maintain one of the last economic opportunities in rural areas.

> "All the time there is this talk that tourism provides a livelihood for Finland … These opportunities should be used, and okay, if it [tourism] brings in money, it should also be made possible. At this moment, in the long run it [limited access to private forest and water areas] limits the creation of income and everything. Our politicians are seriously behind in following developments." (Int E3)

The interviewed entrepreneurs clearly had ownership feelings towards the forest areas they used. Some of them felt that they had the right to use the area without asking permission from the forest owners, as their activities were small in scale. On the other hand, some of them felt that if there was an agreement with the forest owner over the use of the forest, they had the right to limit other uses of the area which were also based on Everyman's Rights. Both examples reflect the element of control (*efficacy/effectance*) in psychological ownership, and aspirations to exercise it. The identity motivation also emerged in the interviews: some entrepreneurs justified not asking permission on the grounds that their business activities did no harm to the natural environment, and they always treated it with respect. This indicates that entrepreneurs use the forest area in building their own *identity* as responsible users of natural resources. In such cases, respect for the natural environment overrides respect for private ownership of the area.

> "In principle, for example at the campfire site … we have an agreement to use it … so yes, we do disturb other users [ask them to go away], if there are any. We don't start asking what they think. This is our campfire site and that's it." (Int. E3)

> "… If I go to the forest [with clients], I always keep the forest clean and undisturbed. We do not leave anything behind and I actually collect other garbage from there, if I see any. Well.. considering that, I think that the forest owner should be actually happy that we go there …" (Int. E7)

The nature-based entrepreneurs also seemed to be actively trying to strengthen/build up their ownership feelings using the routes identified by Pierce et al., 2003. Some of them considered they should have more opportunities to control other activities based on the Everyman's Rights, such as hiking or picking berries, in the area agreed on for their tourism activities. They also thought that public regulations should be developed so that for example a single forest owner would not be able to block the development of long distance trails for hiking, riding or snowmobiling. The purpose of these aspirations is to increase the entrepreneur's control over the use of the forest resource.

> "Somehow, if nature-based tourism were just understood at some point as a proper business … Nature tourism should be equivalent to reindeer husbandry and fishing and the like … they already have special access to use nature." (Int. E9)

The entrepreneurs also hoped for access to information in advance for example on the forest owner's logging plans, so they could adapt their own activities accordingly. Sometimes they also indicated that they have a better basic knowledge of the forest than the owner him/herself does; this clearly contributed to their experienced psychological ownership of the forest, even suggesting that the entrepreneurs felt that this knowledge entitled them to the "right" to use the forest. The entrepreneurs' ownership feelings also seemed to increase with the amount of time they spent in the forest, as well as with potential investments they had made in a particular area.

> I have been [practicing nature tourism] here for years. […] From one forest owner [name removed] it took years before he came to see my hide for beaver watching … the one I made.. The other one, I think [name removed] has not been here at all … [Int E9]

4.1.2. Private forest owners

Forest owners typically do not gain much benefit from nature-based tourism conducted on their lands. They cannot explicitly forbid the activities based on Everyman's Rights and even when permission is required, currrently financial compensation is not typical, most likely due to the tradition of the use of natural resources in Finland. In the cases in which some compensation is paid, it cannot in any way compete with the income gained from timber production, for example. Due to this, the co-operation between the forest owner and the nature tourism entrepreneur is typically based on emotional rather than rational considerations from the forest owners' perspective. Even though the forest owners cannot directly forbid the activities conducted on the grounds of the Everyman's Rights, they have considerable power to influence them in terms of forest management practices or disturbing business operations in some way.

In the interviews, forest owners' attitudes towards nature tourism on their land varied considerably, based on their subjective approach to these activities and their own interests in forest use. In many cases, they did not have anything specific against nature-based tourism, as long as it was not overly intensive and their ownership rights and feelings were respected. However, most of them saw that commercial use is not automatically consistent with the spirit of Everyman's Rights.

> "I, at least, understand it so that it [Everyman's Rights] concerns this kind of recreational use and so on.. And if someone is starting to make business out of it, then it is a different story. There should be a law about it." (F6)

The forest owners interviewed highlighted that they should have the ultimate authority with regard to their forest areas; they wanted this authority to be respected in some way, for instance by asking permission out of courtesy, even when the activities planned occurred within the framework of free access under Everyman's Rights. They considered that they had the right to place individual limits on the use of their forests according to their own subjective aspirations and values, such as nature conservation. This is a strong indication both of the *efficacy/effectance* (control) aspect of psychological ownership and of *identity*-building on the part of forest owners: who they are and what values they hold. Any violation against this authority was seen as an insult against ownership; it induced a negative attitude towards nature tourism in general, and could lead to the termination of co-operation.

The role of forest ownership in identity building was also considered to be indirect, providing a resource producing other

identities. For example, through forest ownership some owners identified themselves as part of a chain of generations or as a member of a certain community. This may pose a risk to new uses of natural resources, such as nature tourism, since these forest owners tended to use their forests the same way as previous generations.

"I think that the least one could do is to ask for permission. There could always easily be some confrontation otherwise … [if permission is not sought]. Even though one would have some kind of public rights or public access, it would be polite to ask … At least I would like this kind of behavior. (Int. F2)

"After I'm gone I want it [the forest] to stay [within the family]. It's maybe because my father, who's already deceased, had already inherited it and it has been kept ever since without damaging it or cutting it too heavily …" (Int. F11)

The analysis of the data yielded seven practical ways in which the forest owners themselves expressed their expectation that their ownership should be respected. These methods are closely connected to the routes leading to the creation of psychological ownership. Interestingly, the owners were unconsciously listing elements that would especially strengthen their sense of psychological ownership of the forest. It should be noted, however, that some of these practical methods are related to both objective and psychological ownership; since the two are mutually reinforcing, and cannot be fully differentiated (Pierce & Rodgers, 2004).

The methods mentioned by private forest owners for maintaining successful co-operation between themselves and nature tourism entrepreneurs included the following: avoiding damage, offering compensation (monetary or otherwise), clear agreements and commitment to them, requesting permission (even if not legally required), regular communication, professionalism and a "good name" on the part of the company, and avoiding disadvantage to the owner. Most of the methods involve the possibility of closer control over potential nature tourism activities. Access to information as to what is happening in the forest is highlighted in most of the methods, in addition, the role of good communication was explicitly referred to by the owners. Under the heading of "avoiding damage", the forest owners specifically mentioned that the proposed activities should not place obstacles in the way of the owner's own use of the forest, whether for financial or recreational purposes. The forest owners thus wanted to ensure that they would continue to be able to invest their time and other resources in their forest in the future; at the same time this would enhance their sense of psychological ownership.

4.1.3. Understanding the conditions for successful co-operation

Both parties had a sense of psychological ownership towards the forest areas in question. All the nature tourism entrepreneurs nevertheless respected the legal ownership of the forest owner in their activities. In general, they accepted that the ownership feelings of the forest owners took priority over their own feelings. To safeguard their business activities, they tried to respect these feelings in several ways rather than provoking a situation of overt conflict, even if this might have been justified under the Everyman's Rights. In other words, the entrepreneurs did not feel that their own psychological ownership was violated by the forest owners as such. Their ownership feelings were inclusive rather than exclusive: they recognized that someone else also had feelings of ownership towards the resource in question, even if they tried to strengthen their own ownership feelings as well. In this case the experience of psychological ownership also had a positive effect, as it increased the entrepreneurs' responsible behavior towards the natural environment.

One must have the proper attitude. After all, we [the entrepreneurs] go there as guests, so I need to be ready to change my plans and make compromises if some forest owner gets irritated by the activities." (Int. E4)

"Of course we take it into account if there are paths or trails or something like it, and for instance if they're in a poor condition we don't mess them up any more, and we don't light our own campfires outside the official campfire sites. And we don't harm any trees." (Int. E10)

The interviews show that the forest owners' attitude is much more critical towards intensive commercial use of the forest for nature tourism than towards recreational use or for simpler, less intrusive nature tourism products. In principle, nevertheless, they have nothing against Everyman's Rights. In this sense, they also accept that other stakeholder groups have an interest and some ownership feelings towards their forests. This acceptance is probably due to the Finnish tradition of the use of the natural environment.

"I do not have anything against people going into my forests with Everyman's Rights … that is.. like it always has been … everyone can go and pick berries and mushrooms and use the forests for recreation so to say … if they like the place …" (F10)

4.2. Bear watching

One recent innovation in Finnish nature tourism has been the watching and photographing of large carnivores in the eastern parts of the country, especially in the regions of Kainuu, Kuusamo and Pohjois-Karjala. These regions are the main occurrence areas of the four large mammalian carnivores in Finland: the brown bear, grey wolf, lynx and wolverine. Nature tourism is centered mainly on bear watching. The number of entrepreneurs offering an opportunity to watch and photograph brown bears from hides has increased from a few part-time actors in the first years of the century to twenty full-time actors in 2008 and at least 45 entrepreneurs in 2012 (Eskelinen, 2009, p. 15; Järviluoma, 2014; Pohja-Mykrä & Kurki, 2009). The product has been designated a "unique selling point", recognized as a specific theme supported by national the "Outdoors Finland" development project during 2009–2011 and 2012–2014. The importance of this nature tourism product has also been recognized in national and regional tourism strategies and programs (e.g. MEK, 2009; Pohjois-Karjalan maakuntaliitto, 2007).

The watching and photographing of large carnivores depends heavily on the use of animal by-products as carrion. Regular carrion baiting at the watching sites ensures the consistent and predictable presence of large carnivores. This continuous baiting has been elevated to the focus of the debate by the stakeholders in bear watching, who argue that the presence of carrion increases the density of bears in the area and may affect the bears' feeding habits. On the other hand, the need for innovative nature tourism products as a source of livelihood in remote rural areas is also highlighted in the debate (Pohja-Mykrä & Kurki, 2009).

4.2.1. The bear watching entrepreneurs

For the entrepreneurs, the occurrence of bears is crucial for the success of the business. Their interest is to maintain a sufficiently high bear density in the watching areas throughout the season, and to ensure the daily presence of bears by means of carrion baiting. They justified their activities by highlighting the need for

innovative new sources of livelihood in remote rural regions and the economic success of bear watching as a nature tourism product. The interviews indicated several ways whereby bear watching entrepreneurs try to influence the social and normative surroundings in which they work. They brought up their own opinions as to the "right" way to carry out carrion baiting, and how the bears' habituation to humans should be controlled. These opinions differed among entrepreneurs, each one justifying his own approach. They also had strong opinions as to how and when bear hunting should be carried out. Bear hunting in Finland typically starts on 20 August, which is still one of the busiest tourist seasons for the companies due to their foreign clients from Central Europe. Both of these are examples of the entrepreneurs experienced right to control the bear population and its use, reflecting the presence of effectance element of psychological ownership. In fact, entrepreneurs have had some effect on the above issues. Metsähallitus, the government agency responsible for the administration of state lands, has allowed year-round carrion baiting in some areas and has prohibited hunting in those same areas. We may also speculate that this regulative support has further strengthened the development of psychological ownership towards bears on the part of bear watching entrepreneurs in those areas.

> "Getting the bears used to people is one thing. I know some companies, if there are bears around when you're driving an ATV, they need to scare the bears away from the tracks … They go too far in terms of the customers' needs. I do not accept this [in the respondent's own company] … why cause such a risk to yourself on purpose." (Int. BE2)

> "The debate is over the use of state lands … In negotiations however, we got, [from the State] a license for carrion baiting from October-November to the end of May" (Int. BE1)

According to the data, the bear watching entrepreneurs also highlight the need for innovative new sources of livelihood in remote rural regions and the economic success of bear watching as a nature tourism product. They feel that they have been warmly welcomed to take their place contributing to Finnish nature tourism. According to the entrepreneurs there has been opportunity and space for new companies, and they have gained strong national and regional support from their own stakeholders. This suggests that bear watching entrepreneurs have found their place, i.e. they belong within the tourism industry, thus fulfilling one motive for the sense of psychological ownership.

> "The tourism authorities welcomed us with open arms. I was actually surprised to see the interest on their part, but they saw the possibilities of the new summer season product and its image potential." (Int. BE3)

> "The Finnish Tourism Board was very interested. They saw this as an important matter, especially with regard to income from tourism." (Int. BE1)

Carrying on a successful bear watching business also entails a good basic knowledge of bears, including in particular their habits and movements. After prolonged watching and photographing of specific bear individuals, the entrepreneurs have gained good knowledge of the differences between individual bears, whom they often identify by name. In addition, bear watching entrepreneurs find themselves to be important actors in reducing the public fear of bears. We can conclude that they are very familiar with the object and have invested time and effort to gain this knowledge, further supporting the feeling of psychological ownership.

> "I know, this area has always been one of the best bear areas of Kuusamo. All the landscape characteristics guide the movements of bears to end up here …" (Int. BE3)

> "It helps people get rid of their fear of bears. Once you've seen the bears, you're not 100 per cent afraid anymore in the morning, because you've seen how timid they [the bears] are and how they behave in nature. If we could get everybody in Finland to visit the watching hides, no one would be afraid of bears." (Int. BE2)

4.2.2. Representatives of the hunters

The brown bear is a highly valued big game species. Bears are hunted to control their populations but also for their meat and fur, and most of all for the hunting experience. Above all, bear hunting is conducted to maintain an enduring tradition; hunting is carried out by rural hunting communities with a strong social connotation. In Finland, traditional bear hunting, with dogs specially trained for the purpose, is a common practice. The highest densities both of bear populations and of hunters occur in the same regions as bear watching enterprises. It is therefore in the hunters' interest that this "new" and competing way of using a wildlife resource, bear watching, should not interfere with the tradition. According to the hunters, carrion baiting should be banned to support the bears' natural living habits. Hunters have a voice in the local media, and there is an ongoing debate over the harm caused to bears by carrion-baiting.

> "The behavior [of bears] is totally different. They're sociability, they're not afraid of humans at all. You take off and two minutes and fifteen seconds later the first bears are there [by the carrion]. They've got used to people and there have been some near accidents" (Int. H1)

According to the hunters, they have not only the right to hunt bears, but also a responsibility to do so to control the population. Thus, brown bear hunting has a strong impact on the hunters' identity as big game hunters and protectors of rural life and tradition, human safety, and livestock welfare. This reflects not only aspirations to control the resource but also the self-identity motive of psychological ownership. In addition, according to the hunters, in order to maintain the glamour and appeal surrounding bear hunting and bear hunters, it is also important that the bear itself should retain its species-specific traits. Carrion baiting leads the bears to getting used to permanent feeding, and their predatory skills deteriorate. In this sense, hunters also construct their own identify as protectors of the bears.

> "And then the locals are looking at us [the hunters] and saying that you should take care of the feasible population sizes, it has been your task […]but then the legislation is what it is [forbids the hunting around the carrion]" (Int. H4)

> "There is also a suggestion that the genetics of the bear is changing. Some said also that there have been 17 bears around this one carrion area. I say that is totally unnatural, not normal … this changes the natural behavior of the bear.. nowadays some bears are even shot in the hunting season so that they just walk towards you.. (Int. H2)

The hunters felt that as representatives of the rural community and defenders of the traditional use of bear resources, their way of maintaining and controlling the population should be safeguarded and thus their goal is to protect this traditional power. The law strictly prohibits the use of carrion-baiting in bear hunting; any

attempt to use carrion to lure the bears is treated as an aggravated hunting offence. According to the interviews, the hunters in general feel that the presence of carrion steers the bears' movements in the area and makes it impossible for the hunters themselves to avoid an illegal situation whereby the hunting dogs pick up the bear scent from the carrion. In such cases, hunters feel that they are wrongfully treated in the eyes of the law.

"There's the problem that the entrepreneurs "hog" every bear for themselves and then when one bear gets shot during the hunting season, there's an official investigation because they feel that their own bear has been shot" (Int. H1)

The interview material also reflects all the route types that according to the theory increase the hunters' sense of psychological ownership towards the bears. The hunters typically have good knowledge of the bear population in their area. They even voluntarily participate in population monitoring of the species. In addition, they control the population. Thus, they have invested considerable time and effort in population management, and as both hunters and local residents typically have firsthand knowledge of the brown bear as a species and as individuals. They have also traditionally been able to control the use of bears. These elements in turn have strengthened the sense of psychological ownership toward bears.

"They [hunters] have invested a lot of time in the bear population census, and there have been financial costs as well" (Int. H1)

4.2.3. Understanding the bear watching conflict

In the case of bear watching, the situation is very conflicted. In a previous study (Pohja-Mykrä & Kurki, 2009) it has been concluded that stakeholder conflicts arising from bear watching are due to differing interpretations of the regulations controlling the use of carrion. In the light of this study, we can conclude that the conflict between bear watching entrepreneurs and hunters is at bottom a dispute over the use of a scarce resource, i.e. bears, which seems to lead to resistance to change to the traditional "use" of bears.

"In such a situation, business and recreational hunting are in conflict. Both parties have an interest in the same target, bears, and hunting is therefore hindered in some areas. The conflict is over the same catch." (Int. BE2)

"That is what their [the hunters] goal is, that there should be no carrion baiting at all after the 20th of August [when the bear hunting season starts], which means that this wildlife watching business would end totally. (Int. BE1)

One interpretation is that the conflict arises out the experienced violation of the psychological ownership of both interest groups: hunters and bear watching entrepreneurs. Both parties have extensive knowledge about bears and some control over them, and both have invested time, energy and resources in bears. To some extent, the hunters interviewed recognize the ownership feelings of others toward the resource, and presents certain solutions as to how the same resource might be used in the same place and time. The hunter's own needs, however outweighed those of the entrepreneurs. Bear watching entrepreneurs, on the other hand, found negotiation with hunters to be impossible. The two parties' ownership feelings were in fact at least to some extent mutually exclusive. The bear watching entrepreneurs also clearly competed among themselves over bear resources. In this case the experienced

psychological ownership had a severe negative effect on the behavior of the stakeholder groups, impeded potential co-operation between them.

"I'm not for total prohibition of it [bear watching], but there should be some rules. Feeding should end on August 10th, so that the bears will forage on their own. In that case, the bears would remain shy towards people, and it would also allow better hunting." (Int. H1)

"We don't have any interest in talking to the hunters, since we have totally different ways of acting. We're carrying on a business, and we're looking so far ahead that there's simply no such alternative — stopping carrion baiting and putting the business on hold during the hunting season" (Int. BE2)

In addition, both stakeholder parties have made efforts to stigmatize the activities of other party and to gain as much publicity as possible for their own cause, for example in the media. They also feel that the other party is doing the same to them. At its worst, the entrepreneurs' activities were harassed for example with deliberate visits too close to a carrion-baiting site.

" What about the protection and rights of business operations? Even though our business doesn't have a roof or walls, we should be left alone and have legal protection. We can't be seen as outlaws, even if we don't have a lock on the door." (Int. BE3)

"I know that they [the entrepreneurs] have taken members of parliaments there, and of course it is impressive to see the bears..[...] they are doing such "nice PR", so to say.." (Int. H2)

4.3. Summary of the results

Based on the results of our study, all the stakeholder groups described clearly felt psychological ownership towards the natural resource in question. This led to the presumption that they are entitled both to use these resources and to decide how they should be used. As practical methods, many of the "conditions for successful cooperation" mentioned by the stakeholders in both cases seemed to safeguard the existence of the routes leading to the experience of psychological ownership: power of control over the resource, access to knowledge related to it, and the possibility of a close connection to it, i.e. of investing time and effort in it. The manifestations of psychological ownership are summarized in Table 3.

5. Discussion

The two cases presented here illustrate not only the existence of psychological ownership towards natural resources, but also two different potential conflict situations. In the first case, nature tourism in private forests, there was no actual conflict as the stakeholders in both stakeholder groups recognized the legitimacy of the ownership feelings experienced by the other group towards the resource. Also, the private forest owners accepted other groups' access to their land, even though they were the legal owners of the resource. These feelings were also considered in the co-operation by both parties, which came out in the discussions on the use of the forests. In the second case, the stakeholder groups did not seem to take into account the other parties' ownership feelings, which could have been one reason for the escalation of the conflict. Even though the same individual bear cannot be used for both hunting and wildlife watching, this does not mean that the two activities cannot co-exist at the regional level.

Table 3
Behaviors aiming at safeguarding routes to psychological ownership.

Routes of psychological ownership	Forest owners	Nature tourism entrepreneurs (nature-based tourism entrepreneurs, bear-watching entrepreneurs)	Hunters
Possibility of exercising control over object of ownership	Aim at controlling resource directly	Aim at using third party to increase control over resource through public regulations Protect right of use or control of resource by invoking tradition	Aim at controlling resource directly Aim at using third party to increase control of resource through public regulations Aim at protecting right of use or control of resource by invoking tradition
Knowledge of object of ownership	Aim at communicating/negotiating over planned activities related to use of resource Maintaining status of stakeholder group, i.e. safeguarding access to knowledge	Aim at communicating/negotiating over planned activities related to use of resource No sharing of knowledge to gain sole knowledge of object Maintaining status of stakeholder group, i.e. safeguarding access to knowledge Highlighting trustworthiness of stakeholder group's knowledge as correct Aim of protecting usage rights (possibility of gaining knowledge) of resource by invoking tradition	No sharing knowledge to gain sole knowledge of object Maintaining status of stakeholder group, i.e. safeguarding access to knowledge Highlighting trustworthiness of stakeholder group's knowledge as correct Aim of protecting usage rights (possibility of gaining knowledge) of resource by invoking tradition
Possibility of investing time and effort in object of ownership	Maintaining status of stakeholder group, i.e. safeguarding the possibility of own recreational and other uses of forests	Aspirations to mark object of ownership by naming it (e.g. bear), building facilities Maintaining status of stakeholder group Aim of protecting rights of use and access to resource by invoking tradition	Aim of using third party to increase legitimacy of invested time and effort through public game management regulations Maintaining status of stakeholder group, i.e. safeguarding the possibility of traditional hunting and game management activities Aim of protecting rights of use and access to resource by invoking tradition

In order to safeguard their psychological ownership in both contexts discussed, the stakeholders tried to legitimize, i.e. make socially acceptable (see e.g. Suchman, 1995) their ownership feelings with different arguments. At the same time, in some instances they tried to stigmatize the conflicting use of the resource, i.e. to make it socially undesirable. The need for arguments arises from coping with challenges or threats to personally meaningful goals (Stein & Albro, 2001). The purpose is typically to make a particular opinion acceptable to the target audience and the arguments invoked need not have much to do with how and why the proponent holds the opinion (s)he is defending (Van Eemeren, 2009).

According to our results, in the context of nature-based tourism in private forests, the interpretation of the spirit of Everyman's Rights was raised to the discussion. In the case of bear watching, the arguments invoked concerned the use of carrion. These discourses have also come out in the previous literature. In their study, Nousiainen and Tyrväinen (2002) found that approximately half of the nature-based tourism entrepreneurs have encountered property-rights-related problems with the forest owners, when operating in private forests. In line with our results, and also according to the previous research, the private forest owners do not see Everyman's Rights in principle as a problem and the majority (95 per cent) do not wish to limit them as an institution (Viljanen & Rautiainen, 2007). However, the majority of them hoped for some restrictions of commercial utilization and thought that they should

have a right to limit the activities on their forest property if they so decided (Väkeväinen, 2015). The tendency for desiring to limit the commercial, not recreational, use has also come out in other studies (Lehtonen et al., 2007; Peltola et al., 2014; Sievänen & Neuvonen, 2011).

Regarding the bear watching, in line with our results, Tapaninen's (2010) research confirms that the bears' unnatural behavior due to carrion baiting is seen by the local stakeholders to pose a risk to residents as bears get used to the human presence. On the other hand, Järviluoma (2014) states that the bear watching was typically seen as being positive by all stakeholder groups other than hunters and reindeer herders. This has caused ongoing public debate between the stakeholders (Järviluoma, 2014). The hunters have also recognized worries due to the changing behavior of bears, which endangers the traditional hunting options and this debate has also been raised as one of the key points in the national brown bear management plan (Mykrä & Härkönen, 2007, pp. 31–35) Thus, it can be said that our interview results seem to reflect the previous findings related to the discussion around these two nature tourism cases.

Such publicly accepted "flagship" argumentation, like the ones mentioned above, can be identified in all conflicts. Behind these, however, can be indications of safeguarding the stakeholders' sometimes quite self-centered ownership feelings and their aspiration to maintain the routes supporting psychological ownership. Table 4 shows the flagship arguments and their interpretation by

Table 4
Interpreting arguments presented in the cases in terms of psychological ownership.

Argumentation	Interpretation in terms of psychological ownership.
Forest owners: commercial use inconsistent with spirit of Everyman's Rights	Need to maintain status as forest owner: authority, respect, control
Nature tourism entrepreneurs: need to support last remaining livelihoods in rural areas	Feel entitled to use forests for business purposes.
Bear watching entrepreneurs: need to support business activities in remote rural areas; carrion baiting can be implemented in such a way that bears' natural behavior is not endangered	Feel entitled to use wildlife resource for business purposes and in nontraditional way.
Hunters: carrion baiting changes bears' natural behavior	Fear endangerment of own hunting opportunities and traditional use of bear population.

using the psychological ownership elements emerged from the data.

Traditionally the strategy in resolving conflict situations has been to provide more information, with the focus on overcoming the direct arguments used. Argumentation is always based on information, whether objective, subjective or hypothetical (Besnard & Hunter, 2008); counter arguments are used to challenge this information, and supposedly to change the arguers' beliefs (Van Eemeren, 2009). For example, a number of studies have investigated the effect of carrion baiting on bears' natural behavior (Kojola & Heikkinen, 2012) as well as the role of nature tourism in rural economies (Rinne & Saastamoinen, 2005; Vatanen, Pirkonen, Ahonen, Hyppönen, & Mäenpää, 2006). Demonstrating that a particular argument is false or invalid will not necessarily change the proponent's opinion, if the "true reason" behind the argument is concerns about, for example, a person's right to control, expand the opportunity to have knowledge or invest oneself in activities related to the natural resource in question. Thus, it is important to understand, that the stakeholders' opinions cannot necessarily be changed or the conflict resolved by focusing merely on the explicit arguments on which the public debate has centered. We further consider that safeguarding one's psychological ownership can often be one of these "true reasons". The sources of psychological ownership are located in deep human motives, whether innate or socially constructed. In a conflict solution, it is important to focus on supporting the fulfillment of these motives as well. It is also worth noting that it is not always the motive of control (effectance) that needs to be respected. In many cases threats directed at self-identity or at the "having a place" (sense of belonging) are even harder to deal with, as these are highly individual and personal processes. They have indeed been found to be connected to resistance to change (Baer & Brown, 2012; Murtagh, Gatersleben, & Uzzell, 2012; Bonaiuto et al., 2002), which both of the nature-based tourism cases used in this study also represent - a change to the traditional use of these resources. In bear watching, the change focuses on hunting practices and in the case of nature tourism in private forests, to the free recreational use of forests.

As already noted, psychological ownership does not necessarily entail legal ownership of the resource (Pierce et al., 2004). Similarly, the emergence of psychological ownership does not necessarily require support from the society. In some cases, however, it has been suggested that psychological ownership can be knowingly enhanced or respected, and the conflict managed, by offering a stakeholder group access to the routes that generate ownership feelings,: in other words, providing stakeholders with knowledge of the object and the possibility of controlling the object to some extent, and encouraging them to invest time and effort in the resource. This has been seen as a management method for example in wolf conservation conflicts (Pohja-Mykrä et al., 2015). It is nevertheless also important to recognize that strengthening the psychological ownership of one stakeholder group may enhance strong opposition from others, who already have a sense of psychological ownership toward the object and are unwilling to share it. At worst this can lead to strong resistance and destructive acts by opposing actors (Brown & Robinson, 2011; Pierce et al., 2003). When the experience of psychological ownership is strong at the start of the conflict, it may be difficult to try to reduce it by regulations or other activities, at least in the short term. For example, if a new law were introduced allowing nature tourism business activities in private forests on the basis of the Everyman's Rights, the situation would probably be severely conflicted, as such a decision might violate all the underlying motives of psychological ownership of forest owners. On the other hand, after a few generations of forest owners, such a regulation might be taken as status-quo. The time element, including length of tenure, has been suggested to have an impact on psychological ownership (Pierce & Jussila, 2011). This conjecture, however, needs to be confirmed by further research.

Sometimes the interests of stakeholder groups are simply mutually exclusive. In such cases, the conflict cannot always be resolved (Bisi, Kurki, Svensberg, & Liukkonen, 2007) and whose ownership feelings are respected is ultimately a political choice. The same forest area cannot be used simultaneously for silent retreats and hiking; the same individual bear cannot be used for wildlife watching and harvested by hunting. However, even in such situations, where the resource is scarce, the concept of psychological ownership could be applied as a tool to understand the deeper underlying reasons for the conflict situation, and to develop potential stakeholder management strategies to manage the conflict.

Following the logic related to the role experienced psychological ownership in the natural resource context, presented in this paper, one interesting example highlighting the options for using psychological ownership to understand natural resource conflicts could be the case of common pool resources. In his study of the economic theory of natural resources, Gordon (1954) came to the conclusion that users of a commons are caught up in an inevitable process that leads to the destruction of the resource on which they depend. The same conclusion was drawn by Hardin (1968) in his study of the tragedy of the commons. The starkness of Hardin's point of view has been applied by many scholars and authorities to "rationalize central government control of all common-pool resources and to paint a disempowering, pessimistic vision of the human prospect" (Ostrom, Burger, Field, Norgaard, & Policansky, 1999, p. 278). Since then, the inevitability of these conclusions has been contested and the conditions that most likely favor the sustainable use of common-pool resources have been analyzed from a different perspective (Ostrom et al., 1999). Comparing these to the three routes that generate the sense of psychological ownership, we found some similarities. First, Ostrom et al. (1999) found that participants are more likely to adopt effective rules in macro-regimes that facilitate their efforts than in ones that are implemented in a top-down manner; this is related to the effectance motivation of psychological ownership. Whether people are able to self-organize and self-manage, i.e. whether they have control over common-pool resources also depends on the broader social setting, its norms and hierarchy. Secondly, intimate knowledge of the target relates to Ostrom's findings, that the benefits of the welfare of the resource are easier to assess when users have accurate knowledge of external boundaries and internal microenvironments, and have reliable and valid indicators of resource conditions. Thirdly, in developing psychological ownership it is important to invest oneself in the target; this is also recognized by Ostrom et al. (1999), who concluded that in addition to facilitating local efforts, a call for incentives, such as assigning individual rights or shares in the resource, is also valuable, allowing users to invest in the resource instead of overexploiting it. We therefore suggest that the concept of psychological ownership may provide an interesting perspective on the "tragedy" related to the use of scarce common properties as well.

6. Conclusions

The need to understand ownership feelings in natural resource conflicts has been referred to in previous research (e.g. Hill, 2002; Naughton-Treves, 1999), but a suitable concept has not been available for its closer analysis. We suggest that the concept of psychological ownership allows a better understanding both of the reasons behind the conflicts and of cases of successful co-operation relationships among different stakeholder groups in the context of

the use of natural resources. The concept can also bring a new approach to the prevention of conflicts related to natural resources. It will not necessarily resolve such conflicts, but can be used to anticipate and manage them.

It should nevertheless be noted that even though our data show the existence of psychological ownership, we are not suggesting that the experience of psychological ownership as such necessarily has negative consequences, such as conflicts or disputes over the use of natural resources. It can be also related to various positive behaviors (e.g. Brown, Crossley et al., 2014; Avey et al., 2009; Mayhew, Ashkanasy, Bramble, & Gardner, 2007; O'Driscoll, Pierce, & Coghlan, 2006). A sense of violated psychological ownership, on the other hand, is likely to lead to negative behavior and conflict situations. There were differences between the cases examined. In the case of bear watching both parties clearly felt their ownership violated, while in the case of nature tourism in private forests the nature tourism entrepreneurs did not experience such severe violation of their psychological ownership by the forest owners, although they may have felt it violated by other groups, such as recreational hikers or berry pickers. It is possible that the presence of legal ownership lessens the sense of violation of one's psychological ownership. In the case of bear watching the resource in question is *res communis*, and there is thus no legal ownership right over the bears by either party.

Further research is needed to understand the development and potential management options of psychological ownership in the context of natural resources. A better understanding of the effectiveness of the various routes generating the psychological ownership, for example, would provide further information for conflict management; assessing changes in psychological ownership before and after different forms of intervention would provide valuable knowledge as to the effectiveness of different management tools. As violations of psychological ownership often cause territorial behavioral responses, these could be useful as a mediators in studying psychological ownership natural resource conflicts, as has been done in organizational research (e.g. Brown & Robinson, 2011; Brown et al., 2005) In addition, since psychological ownership is manifested at the individual level, but has also been found to have collective elements (Pierce & Jussila, 2011), it would be interesting to study in more depth how collective psychological ownership is formed in a natural resource context. Social norms play a significant role in shaping attitudes (Fishbein & Ajzen, 2011) and can also have an important role in generating shared ownership, or expectations towards it.

One final point should also be emphasized: we do not want to claim that the experience of psychological ownership is the only or even the main reason underlying all potential conflict situations related to the use of natural resources. We fully recognize that human behavior is shaped by a variety of motivations. The emergence of psychological ownership has been found to be dependent both on the personal traits of the owner and on the characteristics of the object of ownership (Pierce & Jussila, 2011). In addition, behavior in general has been found to be context-dependent (Fishbein & Ajzen, 2011). As the data used in this study were qualitative in nature, we cannot show a direct causal connection between experienced psychological ownership and its consequences for the behavior of different stakeholder groups that could be generalized. Further research is needed to confirm or refute this assumption. We consider, however, that applying the concept of psychological ownership in natural resource research can contribute a valuable new conceptual approach to broaden the understanding of this sector. After all, most cases related to managing natural resources are in fact about managing people.

References

Adams, W. M., et al. (2003). Managing tragedies: Understanding conflict over common pool resources. *Science, 302*, 1915–1916.

Altman, I. (1975). *The environment and social Behavior: Privacy, personal space, territory, and crowding*. Monterey, California, USA: Brooks/Cole Publishing Company.

Asatryan, V. S., & Oh, H. (2008). Psychological ownership theory: An exploratory application in the restaurant industry. *Journal of Hospitality & Tourism Research, 32*(3), 363–386.

Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior, 30*(2), 173–191.

Baer, M., & Brown, G. (2012). Blind in one eye: How psychological ownership of ideas affects the types of suggestions people adopt. *Organizational Behavior and Human Decision Processes, 118*, 60–71.

Baland, J. M., & Platteau, J. P. (1996). *Halting degradation of natural Resources: Is there a role for rural communities?* Oxford, UK: Oxford Univ. Press.

Bell, P. A., Greene, T. C., Fisher, J. D., & Baum, A. (1996). *Environmental psychology* (4th ed.). Fort Worth, TX: Harcourt Brace.

Bennett, E., Neiland, A., Anang, E., Bannerman, P., Rahman, A. A., Huq, S., ...Clerveaux, W. (2001). Towards a better understanding of conflict management in tropical fisheries: Evidence from Ghana, Bangladesh and the caribbean. *Marine Policy, 25*(5), 365–376.

Besnard, P., & Hunter, A. (2008). *Elements of argumentation* (Vol. 47). Cambridge: MIT press.

Bisi, J., Kurki, S., Svensberg, M., & Liukkonen, T. (2007). Human dimensions of wolf (*Canis lupus*) conflicts in Finland. *European Journal of Wildlife Research, 53*(4), 304–314.

Bliss, J. C., & Martin, A. J. (1988). Identity and private forest management. *Society & Natural Resources, 1*, 365–376.

Bonaiuto, M., Carrus, G., Martorella, H., & Bonnes, M. (2002). Local identity processes and environmental attitudes in land use changes: The case of natural protected areas. *Journal of Economic Psychology, 23*(5), 631–653.

Brandenburg, A. M., & Carroll, M. S. (1995). Your place or mine?: the effect of place creation on environmental values and landscape meanings. *Society & Natural Resources, 8*, 381–398.

Brehm, J. M., Eisenhauer, B. W., & Stedman, R. C. (2013). Environmental concern: Examining the role of place meaning and place attachment. *Society & Natural Resources, 26*(5), 522–538.

Brown, G., Crossley, C., & Robinson, S. L. (2014). Psychological ownership, territorial behavior, and being perceived as a team contributor: The critical role of trust in the work environment. *Personnel Psychology, 67*(2), 463–485.

Brown, G., Lawrence, T. B., & Robinson, S. L. (2005). Territoriality in organizations. *Academy of Management Review, 30*(3), 577–594.

Brown, G., Pierce, J. L., & Crossley, C. (2014). Toward an understanding of the development of ownership feelings. *Journal of Organizational Behavior, 35*(3), 318–338.

Brown, G., & Robinson, S. L. (2011). Reactions to territorial infringement. *Organization Science, 22*(1), 210–224.

Buijs, A., & Lawrence, A. (2013). Emotional conflicts in rational forestry: Towards a research agenda for understanding emotions in environmental conflicts. *Forest Policy and Economics, 33*, 104–111.

Cheng, A. S., Kruger, L. E., & Daniels, S. E. (2003). "Place" as an integrating concept in natural resource Politics: Propositions for a social science research agenda. *Society &Natural Resources, 16*(2), 87–104.

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Sage publications, inc.

Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community & Applied Social Psychology, 19*(6), 426–441.

Dittmar, H. (1992). Perceived material wealth and first impressions. *British Journal of Social Psychology, 31*(4), 379–391.

Durrenberger, E., & Pálsson, G. (1987). Ownership at sea: Fishing territories and access to sea resources. *American Ethnologist, 14*(3), 508–522.

Eisenhardt, K. M. (1989). Building theories form case study research. *The Academy of Management Review, 14*(4), 532–550.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*(1), 107–115.

Eskelinen, P. (2009). *Karhut elinkeinona – millaisia ovat katselupalveluja tarjoavat yritykset? Riista- ja kalatalous – selvityksiä*, 15/2009.

Etzioni, A. (1991). The socio-economics of property. *Journal of social behavior and personality, 6*(6), 465–468.

Filteau, M. (2012). Deterring Defiance: Don't give a poacher a reason to poach. *Journal of Rural Criminology, 1*, 236–255.

Finnish Statistical Yearbook of Forestry 2014. Finnish Forest Research Institute. Tampere, 2014.

Fishbein, M., & Ajzen, I. (2011). *Predicting and Changing Behavior: The Reasoned Action Approach*. New York, USA: Psychology Press.

Furby, L. (1978). Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior and Personality: an international journal, 6*(1), 49–65.

Gordon, H. Scott (1954). The Economic Theory of a Common property Resource: The Fishery. *The Journal of Political Economy, 62*(2), 124–142.

Groesbeck, R. L. (2001). *An empirical study of group stewardship and learning:*

Implications for work group effectiveness (Ph.D. Dissertation to the Faculty of the Virginia Polytechnic Institute and State University, USA).

Hardin, Garrett (1968). The tragedy of commons. *Science, 162*(3859), 1243—1248.

Hill, C. M. (2002). People, crops and wildlife: A conflict of interests. In C. M. Hill, F. V. Osborn, & A. J. Plumptre (Eds.), *Vol. 1. Human-wildlife Conflict: Identifying the problem and possible solutions. Albertine rift technical reports* (pp. 60—67).

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research, 15*(9), 1277—1288.

Idrissou, L., van Paassen, A., Aarts, N., Vodouhè, S., & Leeuwis, C. (2013). Trust and hidden conflict in participatory natural resources management: The case of the Pendjari national park (PNP) in Benin. *Forest Policy and Economics, 27*, 65—74.

Ikävalko, M., Pihkala, T., & Jussila, I. (2006, November). Psychological ownership and family businesses—Identifying the common ground through discriminant analysis. In *RENT XX—Conference on Research in Entrepreneurship and small business.*

Matilainen, A., & Lähdesmäki, M. (2009). *Nature-based entrepreneurship in private forests—The preconditions for the sustainable co-operation between private forest owners and entrepreneurs.* University of Helsinki Ruralia Institute. Reports 48.

Jacoby, K. (2001). *Crimes against nature: Squatters, poachers, thieves, and the hidden history of American conservation.* Berkeley: University of California Press.

Järviluoma, J. (2014). Eläintenkatselumatkailun yritystoiminnan nykytilakartoitus 2012. *Kajaanin ammattikorkeakoulun julkaisusarja B, 24.* Kajaani 2014.

Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology, 21*(3), 233—248.

Jussila, I., & Puumalainen, K. (2005). *Psychological ownership in organizations: Predictors of ownership feelings for physical, social and cultural dimensions of organizations.* Chicago, Illinois: Midwest Academy of Management.

Kaltenborn, B. P. (1998). Effects of sense of place on responses to environmental impacts: A study among residents in svalbard in the Norwegian high arctic. *Applied Geography, 18*(2), 169—189.

Karnilowicz, W. (2011). Identity and psychological ownership in chronic illness and disease state. *European Journal of Cancer Care, 20*(2), 276—282.

Kärrholm, M. (2007). The materiality of territorial production a conceptual discussion of territoriality, materiality, and the everyday life of public space. *Space and culture, 10*(4), 437—453.

Knight, D. B. (1982). Identity and territory: Geographical perspectives on nationalism and regionalism. *Annals of the Association of American Geographers, 72*(4), 514—531.

Kojola, I., & Heikkinen, S. (2012). Problem brown bears Ursus arctos in Finland in relation to bear feeding for tourism purposes and the density of bears and humans. *Wildlife Biology, 18*(3), 258—263.

Korpela, K. M. (1989). Place-identity as a product of environmental self-regulation. *Journal of Environmental Psychology, 9*(3), 241—256.

Kotchen, M. J., & Reiling, S. D. (2000). Environmental attitudes, motivations, and contingent valuation of nonuse values: A case study involving endangered species. *Ecological Economics, 32*(1), 93—107.

Kovács, E., Fabók, V., Kalóczkai, Á., & Hansen, H. P. (2016). Towards understanding and resolving the conflict related to the Eastern Imperial Eagle (Aquila heliaca) conservation with participatory management planning. *Land Use Policy, 54*, 158—168.

Kuusiniemi, K., Majamaa, V., & Vihervuori, P. (2000). *Maa-, vesi- ja ympäristöoikeuden käsikirja. Helsinki.*

Kyle, G. T., Mowen, A. J., & Tarrant, M. (2004). Linking place preferences with place meaning: An examination of the relationship between place motivation and place attachment. *Journal of Environmental Psychology, 24*(4), 439—454.

Lähdesmäki, M., & Matilainen, A. (2014). Born to be a forest owner? An empirical study of the aspects of psychological ownership in the context of inherited forests in Finland. *Scandinavian Journal of Forest Research, 29*(2), 101—110.

Legard, R., Keegan, J., & Ward, K. (2003). In-depth interviews. *Qualitative research practice: A guide for social science students and researchers,* 138—169.

Lehtonen, S., Heikkinen, T., & Hirvonen, J. (2007). *Jokamiehenoikeuksien tulkintoja ja haasteita luontoliikunnan ja matkailun kannalta.* Maaseutupolitiikan yhteistyöryhmän julkaisuja (1/2007).

Matilainen, A., & Lähdesmäki, M. (2014). Nature-based tourism in private forests: Stakeholder management balancing the interests of entrepreneurs and forest owners? *Journal of Rural Studies, 35*, 70—79.

Mattila, J., & Ikävalko, M. (2003, August). Participative strategy process in a professional organization and the concept of psychological ownership. In *A paper presented at 17th nordic conference on business studies, reykjavik, Island.*

Mayhew, M. G., Ashkanasy, N. M., Bramble, T., & Gardner, J. (2007). A study of the antecedents and consequences of psychological ownership in organizational settings. *The Journal of Social Psychology, 147*(5), 477—500.

Matkailun edistämiskeskus MEK. (2009). *Wildlife matkailutuotteiden kehittämisstrategia, 2009—2013,* 13.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* Sage.

Murtagh, N., Gatersleben, B., & Uzzell, D. (2012). Self-identity threat and resistance to Change: Evidence from regular travel behaviour. *Journal of Environmental Psychology, 32*(4), 318—326.

Mykrä, S., & Härkönen, S. (2007). *The ministry of agriculture and Forestry's hunting licence and quota system, management plan for the bear population in Finland, ministry of agriculture and Forestry 2b/2007.*

Naughton-Treves, L. (1999). Whose animals? A history of property rights to wildlife in Toro, Western Uganda. *Land Degradation & Development, 10*, 311—328.

Nousiainen, I., & Tyrväinen, L. (2002). Matkailuyrittäjien näkemys etelä-suomen luontomatkailusta. Julkaisussa: Saarinen, J. & Järviluoma, J. (toim.). Luonto matkailukohteena: Virkistystä ja elämyksiä luonnosta. *Metsäntutkimuslaitoksen tiedonantoja, 866,* 67—90.

Ostrom, E. (1990). *Governing the commons.* Cambridge: Cambridge University Press.

Ostrom, E., Burger, J., Field, C. B., Norgaard, R. B., & Policansky, D. (1999). Revisiting the Commons: Local lessons, global challenges. *Science, 284*(5412), 278—282.

O'Driscoll, M. P., Pierce, J. L., & Coghlan, A. M. (2006). The psychology of ownership work environment structure, organizational commitment, and citizenship behaviors. *Group & Organization Management, 31*(3), 388—416.

Parkins, J. R., & Mitchell, R. E. (2005). Public participation as public debate: a deliberative turn in natural resource management. *Society and natural resources, 18*(6), 529—540.

Patton, M. Q. (2002). Designing qualitative studies. *Qualitative research and evaluation methods, 3,* 230—246.

Peltola, R., Hallikainen, V., Tuulentie, S., Naskali, A., Manninen, O., & Similä, J. (2014). Social licence for the utilization of wild berries in the context of local traditional rights and the interests of the berry industry. *Barents Studies: Peoples, Economies and Politics, 1*(2), 24—49.

Pierce, J. L., & Jussila, I. (2010). Collective psychological ownership within the work and organizational context: Construct introduction and elaboration. *Journal of Organizational Behavior, 31,* 810—834.

Pierce, J. L., & Jussila, I. (2011). *Psychological ownership and the organizational context: Theory, research evidence, and application.* Edward Elgar Publishing.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of management review, 26*(2), 298—310.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of general psychology, 7*(1), 84—107.

Pierce, J. L., O'driscoll, M. P., & Coghlan, A. M. (2004). Work environment structure and psychological ownership: The mediating effects of control. *The Journal of social psychology, 144*(5), 507—534.

Pierce, J. L., & Rodgers, L. (2004). The psychology of ownership and worker-owner productivity. *Group & Organization Management, 29*(5), 588—613.

Pohja-Mykrä, M. (2016). Felony or act of justice? - Illegal killing of large carnivores as defiance of authorities. *Journal of Rural Studies, 44,* 46—54.

Pohja-Mykrä, M., & Kurki, S. (2009). Suurpetojen haaskaruokinnan sosiaalisen kestävyyden haasteet. *Julkaisuja, 16* (Helsingin yliopisto, Ruralia-instituutti. Oy Fram Ab, Vaasa).

Pohja-Mykrä, M., Kurki, S., & Mykrä, S. (2015). Susipolitiikan suunnanmuutos — ohjailusta omistajuuteen. In J. Hiedanpää, & O. Ratamäki (Eds.), *Suden kanssa* (pp. 219—243). Lapland University Press.

Pohjois-Karjalan maakuntaliitto. (2007). *Pohjois-karjalan matkailustrategia 2007—2013, julkaisu 108.* Joensuu: Kirjapaino Hyvätuuli.

Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology, 3*(1), 57—83.

Raik, D. B., Wilson, A. L., & Decker, D. J. (2008). Power in natural resources management: An application of theory. *Society & Natural Resources, 21*(8), 729—739.

Redpath, S. M., Young, J., Evely, A., Adams, W. M., Sutherland, W. J., Whitehouse, A., … Gutiérrez, R. J. (2013). Understanding and managing conservation conflicts. *Trends in Ecology & Evolution, 28*(2), 100—109.

Reed, M. S. (2008). Stakeholder participation for environmental management: A literature review. *Biological conservation, 141*(10), 2417—2431.

Ribot, J. C., & Peluso, N. L. (2003). A theory of access. *Rural sociology, 68*(2), 153—181.

Rinne, P., & Saastamoinen, O. (2005). Local economic role of nature-based tourism in Kuhmo Municipality, Eastern Finland. *Scandinavian Journal of Hospitality and Tourism, 5*(2), 89—101.

Ritchie, J. (2003). The applications of qualitative methods to social research. *Qualitative research practice: A guide for social science students and researchers,* 24—46.

Schaffner, J. (2011). *An introduction to animals and the law.* , Basingstoke: Palgrave Macmillan.

Semken, S., & Freeman, C. B. (2008). Sense of place in the practice and assessment of place-based science teaching. *Science Education, 92*(6), 1042—1057.

Sherman, L. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency, 30,* 445—473.

Shils, E. (1975). *Center and periphery. Chicago.* The University of Chicago Press.

Sievänen, T., & Neuvonen, M. (2011). *Luonnon virkistyskäyttö 2010.*

Skogen, K., & Krange, O. (2003). A wolf at the gate: The anti-carnivore alliance and the symbolic construction of community. *Sociological Ruralis, 43,* 309—325.

Smith, J. W., Davenport, M. A., Anderson, D. H., & Leahy, J. E. (2011). Place meanings and desired management outcomes. *Landscape and urban planning, 101*(4), 359—370.

Stedman, R. C. (2002). Toward a social psychology of place predicting behavior from place-based cognitions, attitude, and identity. *Environment and behavior, 34*(5), 561—581.

Stein, N. L., & Albro, E. R. (2001). The origins and nature of arguments: Studies in conflict understanding, emotion, and negotiation. *Discourse processes, 32*(2—3), 113—133.

Stein, S. M., McRoberts, R. E., Mahal, L. G., Carr, M. A., Alig, R. J., Comas, S. J., Theobald, D. M., & Cundiff, A. (2009). *Private Forests, Public Benefits: Increased Housing Density and Other Pressures on Private Forest Contributions.* US For. Serv. Gen. Tech. Rep. PNW-GTR-795, Pac. Northw. Res. Stn., Portland, OR. p. 74.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of management review, 20*(3), 571—610.

Tapaninen, T. (2010). *Bear-related safety risks in bear watching tourism* (p. 44). Kajaani University of Applied Sciences.

Townsend, D. M., DeTienne, D., Yitshaki, R., & Arthurs, J. D. (2009). The psychological ownership of entrepreneurial organizations: Theoretical and model development. *Frontiers of Entrepreneurship Research, 29*(6), 3.

Trentelman, C. K. (2009). Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. *Society & Natural Resources, 22*(3), 191—210.

Väkeväinen, T. (2015). *Metsänomistajien suhtautuminen jokamiehenoikeuteen perustuvaan marjanpoimintaan*. University of Eastern Finland, Faculty of Science and Forestry.

Van Dyne, L., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of organizational behavior, 25*(4), 439—459.

Van Eemeren, F. H. (2009). The study of argumentation. *The SAGE handbook of rhetorical studies*, 109—124.

Vatanen, E., Pirkonen, J., Ahonen, A., Hyppönen, M., & Mäenpää, I. (2006). Luonnon käyttöön perustuvien elinkeinojen paikallistaloudelliset vaikutukset Inarissa. *Metsätieteen aikakauskirja, 4*(2006), 435—451.

Viljanen, P., & Rautiainen, A. (2007). *Jokamiehenoikeuden toimivuus. Ympäristöministeriön raportteja (19/2007)*.

Von Essen, E., Hansen, H. P., Källström, H. N., Peterson, M. N., & Peterson, T. R. (2015). The radicalisation of rural resistance: How hunting counterpublics in the Nordic countries contribute to illegal hunting. *Journal of Rural Studies, 39*, 199—209.

White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*, 297—330.

White, R. M., Fischer, A., Marshall, K., Travis, J. M., Webb, T. J., Di Falco, S., … Van der Wal, R. (2009). Developing an integrated conceptual framework to understand biodiversity conflicts. *Land Use Policy, 26*(2), 242—253.

White, A., & Martin, A. (2002). *Who owns the world's forests*. Washington, DC: Forest Trends.

Williams, D. R., Patterson, M. E., Roggenbuck, J. W., & Watson, A. E. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure sciences, 14*(1), 29—46.

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest science, 49*(6), 830—840.

Woodroffe, R., Thirgood, S., & Rabinowitz, A. (2005). The impact of human-wildlife conflict on natural systems. In R. Woodroffe, S. Thirgood, & A. Robinowitz (Eds.), *People and wildlife: Conflict or coexistence?* Cambridge: Cambridge University Press.

ARTICLE II.

Born to be a forest owner? An empirical study of the aspects of psychological ownership in the context of inherited forests in Finland

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RESEARCH ARTICLE

Born to be a forest owner? An empirical study of the aspects of psychological ownership in the context of inherited forests in Finland

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Ownership is a multidimensional phenomenon that includes legal, social, and emotional aspects. In addition to legal aspects, the social and emotional aspects, "feelings of ownership," potentially have behavioral effects. Nevertheless, these aspects are often overlooked in the research influencing the forest owners' behavior and thus their forest management decisions. This article examines how private forest owners with inherited forest holdings construct feelings of ownership toward their forests and how these constructions are reflected in their forest management decisions. Forest ownership is addressed through the theory of psychological ownership. On the basis of 15 thematic in-depth interviews, we suggest that a sense of identity and control, as dimensions of psychological ownership, can influence whether forest management decisions are guided by tradition, economic incentives, or responsibility toward property. Based on the results, a forest owner typology (restricted, indifferent, informed, and detached forest owners) was constructed, further enabling us to understand the differences among private forest owners and the roots of their forest management decisions. More generally, the study highlights the important role of emotions in forest management decisions.

Keywords: private forest owner; ownership; identity; control; qualitative research

Introduction

Most of the forests in Western Europe are owned by private nonindustrial forest owners (Private forest ownership database 2006–2007). Since the economic role of forests has been essential at the national and European level (e.g. Lönnstedt 1997), private nonindustrial forest owners have been the subject of a vast amount of research. Many of the previous studies have focused on understanding private forest owners' values, motives, and diverse forest management objectives, as well as the general structure of private forest ownership (e.g. Kuuluvainen et al. 1996; Karppinen 1998; Karppinen et al. 2002; Boon et al. 2004; Hugosson & Ingemarsson 2004; Ingemarsson et al. 2006; Karppinen & Tiainen 2010). These studies have showed, for example, that broad social structural changes are reflected in the forest owner structure, which has become increasingly diverse (e.g. Boon & Meilby 2004). Similarly, they have demonstrated that private forest owners' objectives toward their forests affect their forest management decision-making (e.g. Ní Dhubháin 2007). Although previous studies have provided valuable information to be used in the planning and implementation of forest policies, one aspect that has been ignored in these studies is the role of ownership feelings toward the forest holding as an important element influencing the behavior and thus potentially

the forest management decisions of a forest owner (cf. Vandewalle et al. 1995; Van Dyne & Pierce 2004; Avey et al. 2009). Accordingly, the aim of this study is to contribute to the previous research by examining how private forest owners construct their feelings of ownership toward their forests and how these constructions are reflected in their forest management decisions.

In this study, we approach the feelings of ownership through the emerging theoretical discussion on psychological ownership (e.g. Vandewalle et al. 1995; Pierce et al. 2001, 2003; Pierce & Rodgers 2004; Van Dyne & Pierce 2004; O'Driscoll et al. 2006; Asatryan & Oh 2008). Generally speaking, ownership is about possessiveness and about rights and responsibilities toward what is (felt to be) possessed (Pierce et al. 2001; Dittmar 1992 cited in Hall 2005). Although often related to a legal regime, ownership should be understood as a more complex and multidimensional concept with certain psychological aspects. Etzioni (1991), for example, states that ownership is a "dual creation, part attitude, part object, part in the mind, part 'real'." The "real," that is, objective ownership is related to legal reality, recognized primarily by society, and the rights that come with ownership are specified and protected by the legal system. The psychological ownership is related to the feeling "it is mine" and is recognized primarily by

an individual who holds that feeling and manifests the rights felt to be associated with psychological ownership (Pierce & Rodgers 2004).

Our study focuses on psychological ownership in the context of inherited forest holdings. It has been argued that the forest as a legacy increases the stability and personal importance of forest ownership (e.g. Bliss & Martin 1989; Boon & Meilby 2004). Accordingly, it can be suggested that psychological ownership is likely to manifest itself more strongly among these forest owners. Despite the significant changes in the forest owner structure, private forests are still usually inherited or bought from family members. For example, in Finland, only 10% of the forest holdings is purchased on the open market and this share is not expected to grow in the future (Hänninen et al. 2011). Therefore, it is important to understand the roots of the decision-making of people inheriting their forests.

The recent structural changes in the forest owner base have also entailed the threat of forest owners becoming more passive or indifferent in their forest management activities (e.g. Rämö et al. 2009; Follo 2011). According to Boon et al. (2004, p. 54), for example, the indifferent forest owner type represents a challenge for policy-makers, as this type typically does not pursue explicit goals in forest management and puts less weight on externalities demanded by society. Similarly, Follo (2011) states that forest owners who lack forestry competence may create challenges for the fulfillment of political objectives related to the use of forest resources. At the national level, an increasing number of indifferent or passive forest owners are constructed as a waste of forest resources. Even though passivity or indifference toward forest management is by and large considered a threat in forestry, the deeper reasons for these perceptions are not thoroughly examined. By including the idea of psychological ownership in the focus of the research, this study demonstrates that the way the feelings of ownership are developed can have an important effect on the forest management decisions among private forest owners. Thus, this study provides new information on some reasons for passive forest management. This further contributes to the development of forest policies, as it provides policy-makers with a deeper understanding of the behavior of private forest owners.

Material and methods

Theoretical framework – psychological ownership

Due to its multidimensional and complex nature, the concept of ownership has been studied from a number of different theoretical viewpoints, including philosophical, juridical, sociological, economic, and psychological (e.g. Koskinen 2009). In this research, we study ownership from the perspective of an individual's feelings – that is, we aim to examine the meaning of ownership from the

experiences of the forest owner him- or herself. To accomplish this, we apply the theoretical concept of psychological ownership. Even though the discussion on psychological ownership is usually connected with organizational research (e.g. Pierce et al. 2001; Mattila & Ikävalko 2003; Pierce et al. 2003), it is still considered here as a prominent and applicable theoretical concept as it provides a feasible tool to study more in-depth the phenomenon of ownership, when compared to, for instance, the concept of "place attachment." Even though these two theoretical concepts share some central ideas, in previous studies the idea of place attachment has been used more for understanding people's reactions to natural resource management at public recreation areas or tourism destinations, typically in circumstances where the people do not have direct legal possibilities to control the use of natural resources, at least not extensively (e.g. Smith et al. 2011; Wynveen et al. 2012; Brehm et al. 2013).

Psychological ownership can be defined as the state in which individuals perceive the object of ownership – an entity or idea – to be "theirs" (Mattila & Ikävalko 2003; Pierce et al. 2003). It thus reflects the relationship between an individual and an object in which the object is experienced as having a close connection with the self (Grunebaum 1987; Mattila & Ikävalko 2003). Psychological ownership is an attitude with both affective and cognitive elements (Pierce et al. 2001). According to Pierce et al. (2001), psychological ownership consists of three dimensions: (1) efficacy (i.e. the ability to be in control), (2) identity, and (3) having a place. The emergence of psychological ownership is often a long process. Pierce et al. (2001) identified three potentially interrelated routes through which people come to experience the dimensions of psychological ownership, namely controlling the object, coming to know the object, and investing the self into the object. The more control a person can exercise over a given object, the more that object will be psychologically experienced as part of the self (Furby 1978 cited in Pierce et al. 2003). The concept of control has often been used as synonymous with the notions of influence, authority, and power (Tannenbaum 1962). Control usually refers to the process by which one entity influences the other (e.g. Geringer & Hebert 1989) – in this case the process by which the forest owner influences the forest. Furthermore, Furby has suggested that the control of objects, like a forest, through ownership is pleasure-producing per se and leads to perceptions of personal efficacy (Furby 1978 cited in Pierce et al. 2003). In this study, the concepts of control and power are also understood as closely related. Thus, power refers here to the control that the forest owner can exercise over the forest (cf. Tannenbaum 1962).

In addition, the more information and better knowledge an individual has about the object, the deeper the relationship is between self and the object, and hence,

the stronger the feeling of ownership is toward it. Through intimate knowledge of an object of ownership (in this case a forest), a fusion of the self with the object takes place (Pierce et al. 2001, p. 301) and thus can be assumed to become an essential part of the individual identity-building process. Furthermore, the investment of the self allows individuals to see their reflection in the object and to feel their own effort in its existence (Pierce et al. 2003). The investment of individual energy, time, effort, and attention into an object causes the self to become one with the object and develop feelings of psychological ownership toward it (Ikävalko et al. 2006). As a result, the individual investing him- or herself in the target may begin to feel that the target of ownership flows from the self that it is part of the individual's identity (Pierce et al. 2001).

Identity refers here to subjective meanings and experiences concerning the self by entwining feelings, values, and behavior and pointing them out in particular directions (Alvesson et al. 2008). Identity constitutes the core of a person's being (e.g. Bliss & Martin 1988). Ownership can be considered one way to express and/or maintain one's identity in relation to others. It has been noted that people establish, maintain, reproduce, and transform their identity through interactions with possessions. Thus, a person can, for example, identify him- or herself as a forest owner. According to Avey et al. (2009), a feeling of psychological ownership over an object (like a forest) may provide a foundation from which individuals can identify themselves as unique, thus contributing to their personal identity. Even though there are numerous studies on identity per se, the concept of identity is seldom used in the environmental social sciences (Vining 2007). Still it is a theoretical concept that is essential in enhancing the understanding, perception, and decision-making concerning the environment (Vining 2007).

All the owners in this study are legal owners of forests, which can further facilitate the feelings of psychological ownership, even though it must be noted that in the context of forest-owning in Finland, there are several regulations and laws that limit the forest owners' exclusive right to control their forests (such as the forest law enacted in 1928 and Everyman's Rights). It should be further noted that psychological ownership can also exist in the absence of legal ownership. Conversely, people can legally own an object, yet never feel it is their own (Pierce et al. 2003).

The feelings of ownership toward various objects have important and potentially strong effects on behavior, both positive and negative. Psychological ownership is positively associated with behavior that contributes to the community's well-being and responsibility. When an individual's sense of self is closely linked to the object, a desire to maintain, protect, or enhance that identity will result in an enhanced sense of responsibility (Pierce et al. 2003, p. 100–101). However, there are times when the feelings of ownership can cause an individual to feel overwhelmed by the burden of responsibility. It should also be noted, though, that psychological ownership can also entail certain negative behavioral effects, which are related to an individual's unwillingness to share the object of ownership with others, or his or her need to retain exclusive control over it (Pierce et al. 2003). In addition, when people witness radical alteration in objects that they perceive as theirs, they may come to feel personal loss, frustration, and stress. These effects originate in the lack of control over what was once theirs (Pierce et al. 2003).

Methodological framework

In this study, the research methodology we apply in order to examine the meaning(s) of forest ownership is interpretative in nature. Because of the methodological approach adopted, our study does not aim at positivistic hypothesis testing, but to understand how the dimensions of psychological ownership manifest themselves concerning privately inherited forests from the viewpoint of the forest owner and his or her personal history (cf. Bliss & Martin 1989). Thus, even though the discussion of psychological ownership provides an important framework in which the construction for ownership is examined, we do not aim to test the theoretical concepts and ideas of psychological ownership but instead to take a more inductive approach to the analysis process.

The empirical data of this study consist of face-to-face interviews with 15 private forest owners (see Table 1). The interviewees were sampled through a purposive sampling approach in order to ensure manageable and informative data (e.g. Patton 2002). Thus, even though all the forest owners in our sample are private forest owners who have inherited their forests, they also differ in many respects (Table 1). However, it should be emphasized that this selection of interviewees was made in order to increase the credibility of the empirical qualitative data, not to foster representativeness (e.g. Patton 2002, p. 240–241), as the aim of this study was not to make any sample-to-population generalizations but to gain a deeper understanding of the phenomenon (cf. Bliss & Martin 1989).

The interviews were conducted between October 2008 and March 2009. All the interviews were recorded with the interviewees' permission and then fully transcribed in order to guarantee rich data and to allow precise analysis. The interviews were based on a semi-structured framework of themes that allowed rather flexible conversations to take place while still ensuring that all the main issues covering the interview themes were discussed with every interviewee (cf. Legard et al. 2003). Our interview themes arose from the theoretical framework of psychological ownership as we asked the

Table 1. The main characteristics of the interviewed forest owners.

Number of interview	Gender of the owner	Farm relatedness	Forest area (hectares)	Duration of ownership (years)	Location of the forest (according to the NUTS two divisions)	Owner living close to the forest (= same region)
1	Male	Yes	250	20	Eastern Finland	Yes
2	Male	Yes	235	28	Western Finland	Yes
3	Male	Yes	160	28	Western Finland	Yes
4	Male	Yes	480	>30	Western Finland	Yes
5	Male	No	50	n.a.	Western Finland	Yes
6	Male	Yes	40	23	Western Finland	Yes
7	Male	Yes	More than 20	22	Western Finland	Yes
8	Male	Yes	90	43	Eastern Finland	Yes
9	Male	Yes	60	28	Eastern Finland	Yes
10	Male	No	40	48	Eastern Finland	No
11	Female	No	4	40	Eastern Finland	No
12	Male	No	6	15	Eastern Finland	Yes
13	Male	Yes	50	15	Western Finland	Yes
14	Female	No	30	8	Eastern Finland	No
15	Male	No	70	22	Western Finland	Yes

forest owners to tell us their forest ownership history and future aspirations, their forest management history and future aspirations, challenges they have faced as forest owners, and personal meanings they attach to forest-owning. These broad interview themes provided us very rich data concerning how well forest owners know their forest, what kind of self-investment they have made in their forest, and how well they thought they were able to control their properties.

We started the qualitative analysis by writing a summary for each interview, in order to point out the circumstances and other relevant issues based on the interviewer's immediate analysis (cf. Bliss & Martin 1989). The aim of the summaries was not to look for any results at this point, but rather to help in managing the large amount of data produced through the interviews. We proceeded with the analysis by reading the interviews of the forest owners several times to find any indications of how forest owners perceive the idea of ownership (e.g. Miles & Huberman 1994; Patton 2002; Ritchie et al. 2003). During the next phase, we went through these indications carefully and deliberated on what each was about and named the categories accordingly. After that, we started to organize the categorized data under more general themes by combining similar categories. As a result, the integrative sets of two key themes, identity and control, were synthesized. The third dimension of psychological owners, having a place, manifested itself as part of the forest owners' identity building, and for this reason, it was integrated under the theme of identity. These key themes were further elaborated into a typology of forest owners based on their perceptions of forest management.

To ensure the quality of the results, all phases of the analysis and interpretation of the data were a collaborative and iterative effort by both authors. Although rather laborious, this use of analyst triangulation is often considered to increase the credibility of the research (Patton 2002) and increases the likelihood of revealing findings (Eisenhardt 1989). Furthermore, to ensure the transparency of the data analysis, a number of interview citations are presented in the main body of the text in order to make it easier for the reader to evaluate our interpretations.

Empirical results: construction of psychological ownership in the context of forest ownership

The expressions of psychological ownership in the forest context are reported from the perspectives of identity and control. According to the results, these two elements of psychological ownership manifested themselves clearly in the context of private forest ownership, and although they are linked to each other, they are discussed in the results separately.

Forest ownership and identity

In this study, only a few forest owners considered the forest to be a principal element of their identity construction. That is, they did not identify themselves first and foremost as forest owners. This does not, however, mean that a forest does not have an important role in their identity construction. On the contrary, forest ownership was considered a resource to produce some other essential identities. Through forest ownership, the interviewed forest owners identified themselves as a link

in the chain of generations or as a member of a certain community. This notion reinforces the ideas presented by Bliss and Martin (1989). They argue that a forest can contribute to the identity of the family that owns and manages it by being a symbol that can endure beyond the lifespan of a single generation (Bliss & Martin 1989, p. 612). Thus, in our study forest ownership was regarded as something that linked the owners with some broader social entity, as the following citation shows:

> It [forest-owning] means that we are going to continue in the same way as the previous generation. The goals are just the same, we are keeping forests and taking care of them … It's like a self-explanatory thing. (Interview 4)

Our empirical data also showed that the more investments, especially time investments, an owner made in his or her forest, the stronger were the owner's perceptions of the forest as an essential element of the construction of identity. Similarly, Bliss and Martin (1989) have stated that forest work contributes to one's sense of self as a forest owner (see also Austin & Kaplan 2004, p. 224). In other words, those interviewees who spend time in the forest, either for recreational or forestry purposes, seemed to more explicitly construct their personal identities in their discourse through their forest ownership. This came up particularly, but not exclusively, in the interviews of those forest owners with agricultural affiliation, as typically these forest owners have regularly spent time in their forests since childhood. For them, forest ownership was a natural and important part of farming. For this reason, they also emphasized the importance of taking good care of their forests; as for the majority of them, the forests were an important resource reservation needed in farming:

> Yes, the forest is important to me. It wouldn't even have been possible to farm without the forest. It would have been impossible at the beginning. Farming is often financed by the forestry, at least in the beginning. (Interview 3)

> [Forest-owning] is a kind of way of life. You grow into it. Of course, it's a source of income at the same time. (Interview 1)

Previous research has also stated that the importance of wood production and economics seems more profound if the forest owner has an agricultural affiliation (e.g. Lönnstedt 1989). Even though this argument cannot be verified or falsified in this study because of the limited data, the economic objectives the forest owners referred to were seldom related solely to the ideas of economic profits. Instead, for the majority of interviewees, forest ownership was related to economic security and maintaining the economic value of the inheritance. In addition to the construction of identity, these two aspects of forest-owning can also be considered to fulfill the motives of "having a place" (cf. Stedman 2003), which is also one of the main aspects of psychological ownership (e.g. Pierce et al. 2001). In

other words, the forests were seen as providing their owners security while being an important element in identity construction:

> You could say that keeping forests in good condition for future generations is a kind of economic target. (Interview 16)

> There are also some emotional values in forest ownership—the forest is a peaceful place that will always exist. (Interview 13)

Although recreational and environmental objectives were less often mentioned as objectives of forest ownership, they were not totally unheeded in the data. Thus, most of the interviewees thought that the economic, recreational, and environmental objectives were not exclusive, but could be, to a certain degree, considered simultaneously. Many of the forest owners did have some voluntary areas of protection in their forests. These were places that had specific personal value for them, either in terms of the environment or scenery. They also valued their forests from a recreational perspective, as the forests provided them with a good place for various outdoor activities. In this sense, most of the interviewees in this study did not want to identify themselves exclusively as forest owners who would maximize the economic utility of the forest in the short-term but emphasized the existence of different objectives of their forest ownership. Thus, they also seemed to use the forest resource to build an identity as a "nature lover" or nature conservationist:

> Probably economic gain [is my main objective], so they [forests] should be kept in such a condition that they yield as much as possible. Nevertheless, there are many areas that are, in a way, our own conservation areas. Those areas have a good tree stand, but we're not going to manage them in any way. So you can say that our activities are somewhat diverse. (Interview 2)

In this study, forest ownership was strongly perceived as a source of intergenerational continuity. Thus, as with the study of Bliss and Martin (1989), most of the interviewees perceived the forest as a legacy that they held in trust for the coming generations. Therefore, the decisions concerning, for example, the clear-cuttings did not always concern the forest owner alone; they have an impact on the ownership of the next generation as well, since it can take more than a generation until the forest is ready again for clear-cutting. Likewise, selling the forest land was regarded by the interviewed forest owners as a very difficult decision that would involve strong emotions. Thus, for inherited forests, the realization of the investment is not just a matter of economic deliberation but includes a more complex mix of different values:

> Of course, if you buy it from the open market, you can call the forest an investment, but this family estate is a bit different in this way. (Interview 1)

> After I'm gone I want it [the forest] to stay [within the family]. Maybe it's because my father, who's already

deceased, received it, and it's been kept without wasting it or cutting down it heavily. There's some logging reserve, but it hasn't been [used] … (Interview 11)

Forest ownership and a sense of control

The feelings of control, as well as the related aspect of power, were clearly visible as the central elements of psychological ownership in the data. The forest owners felt that they had, or at least should have, the most control over their forest areas, and questioning this overriding control was seen as an immediate violation of their ownership, as the following quote illustrates:

> I think that the forest owner should have a strong right to control what is going on in his forests. This right is non-negotiable. (Interview 6)

The forest owners emphasized their interest in managing the forest and accomplishing set goals. Similarly, Ikävalko et al. (2006) has mentioned the desire to influence one's environment as a central factor in creating psychological ownership through a sense of control. The forest owners contributed greatly to the forest management work either directly or by using contractors, and they also highlighted their own central role in the decision-making related to the forest management. Even though all the forest owners in this study belonged to a local forest management association, and the association's advice was often followed or the management activities were implemented in order to keep up with the 10-year forestry management plan, the forest owners clearly stated in the interviews that the final decision was theirs. They also mentioned that while they might discuss with their family, for example, the decision to clear-cut, they themselves make the final decision. Similarly, Bliss and Martin (1989, p. 616) have suggested that through forest management decisions, forest owners seek to maintain and enhance control over their property. The following quote illustrates the forest owners' opinions on the forest management work and decision-making process:

> Of course the forestry management plan gives some help, but I make the decisions by myself. (Interview 1)

Even though the idea of being in control was often expressed in a rather definite manner, it was not such an exclusive idea when examined in detail. In other words, the forest owners believed that their control was restricted in many aspects. The interviewed forest owners were, however, accustomed to the current legislation limiting their absolute control and accepted it, at least partly, as the status quo. More importantly, the forest owners were willing to provide access to their forests for other people, and they did not oppose the free access to the forests based on Everyman's Rights. On the contrary, they mentioned that they themselves used these rights as well and felt that the current wording of Everyman's Rights did not provide too much liberty for other forest users. However, they also stressed that the utilization of Everyman's Rights should not cause any damage to the forests and feared that the more urbanized people became, the more readily they would cause damage or disadvantage to the forest owner, even unintentionally. The forest owners saw this as a risk that was uncontrollable as a result of the free-access policy, and as a threat. The forest owners also felt they had the right to set the boundaries concerning "the gray areas of Everyman's Rights," particularly concerning what was seen as unreasonable disadvantages for the forest owner:

> However, this Everyman's Rights mixes up this limit and makes it a bit fainter. People think that it is a bit like a common good, and they are allowed to be there. In that way it's seen slightly as a common good, so that everyone can use it, but some people have mixed things up, and they have even started to collect lichen from other people's land without permission. (Interview 17)

Still, much of the potential forest utilization in Finland is not included within the scope of Everyman's Rights, like hunting and many forms of nature-based tourism activities (e.g. building nature trails). The forest owners usually forbid these kinds of activities insofar as they challenge their priorities and values toward the forest. Furthermore, in some cases forest owners withheld permission because they felt that it threatened their control of their territory. Still, the results of this study also demonstrate that in some cases the forest owners felt their control over the forests was restricted to some degree through the social norms of the local community. Even though the majority of the forest owners interviewed had willingly allowed hunting in their forests, and some of them also had cooperation with nature-based entrepreneurs, sometimes they had permitted these activities out of fear that they might otherwise face social sanctions. Thus, the local community was seen as limiting the forest owners' autonomy and control somewhat. Accordingly, forest owners who did not live near their forests usually considered it easier to forbid hunting or nature-based tourism activities in their lands:

> I have sometimes considered prohibiting hunting in my forests, but I haven't done it because of the social pressure. […] In a small village like this, it would be such a radical thing to do. (Interview 2)

> In a small community it is difficult [to deny a permission to build nature trails]. For me it was easier because I don't live in that village. Otherwise how I could say no if someone asks for permission, if I had known him or her for ages. (Interview 16)

In addition to forest laws, Everyman's Rights, and the fear of potential social sanctions, the idea of a forest being a legacy sometimes manifested itself as a restriction of the forest owners' autonomous control over their forest possessions. In other words, in some instances when someone inherits a forest, he or she is also bequeathed the objectives toward that forest, either

explicitly or implicitly. Thus, the forest owners thought they had a moral obligation to take care of the forest in a similar manner as previous generations did, which may influence their forestry decisions, either by enhancing or preventing active forest management (cf. Bliss & Martin 1989):

> My father didn't make any cuttings in that forest, but it was kept in its natural state. That's the way I have also kept it, and that's the way I'll pass it to my children. […] That forest somehow restricts me. I feel that I can't utilize it, since it has been kept in its natural state so long. So even though there is a need to use it, I just can't do it. (Interview 2)

Similarly, most of the forest owners interviewed stated that they would consider selling forest land only if there was a very strong economic necessity. Thus, even though they considered themselves able to make their forestry decisions autonomously as well as control the use of the forest in general, this autonomy and control was usually not extended to decisions to sell the forest land. In the same manner, the majority of the forest owners believed their future heirs would accept the same principle of keeping the forest under their family's control:

> I think that it's more than important that the forests remain in the possession of this family. When I've passed away, it must remain ours, because my late father has inherited this, and it has always been taken care of in such a manner that it hasn't been wasted. (Interview 11)

Discussion

In this chapter, we discuss how psychological ownership was constructed and may be reflected in the owners' forest management decisions. The discussion is based on organizing the findings of the interviews into typologies to better illustrate and clarify the results. Typologies are seen as a feasible way to present the findings of the qualitative data (e.g. Patton 2002). Forest management decisions refer here to the active and sustainable management decisions of a forest either for timber or nontimber production (like conservation or nature-based entrepreneurship). Essential here is the idea of forest management being an activity resulting from conscious decision-making. Accordingly, based on the results of this study, we suggest the following forest owner typology to illustrate the results in relation to the sense of identity and control (see Figure 1).

Type A represents forest owners with a strong sense of forest owner identity combined with a rather weak sense of control. In other words, in this type forest ownership is considered an important part of identity construction, as it often connects an owner to family history. The inheritance, while enhancing one's identity, also creates emotional restrictions to the autonomous control of the forest. The forest owners believe that they have a moral obligation to take care of the forest in the same
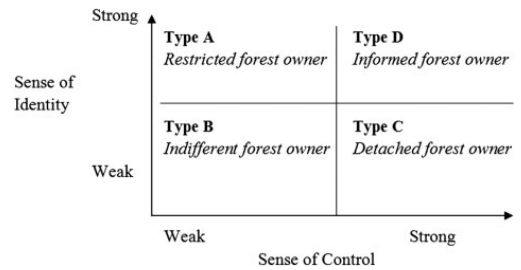

Figure 1. The typology of forest owners.

manner as the previous generation did, in order to maintain the legacy. A similar argument was found by Lidestav (2010) among those women who had inherited their forests instead of their male relatives. Accordingly, here this forest owner type is called a restricted forest owner. The forest management decisions among this type are guided mainly by tradition, and thus new innovations are often unheeded. The forest management may thus be either active or passive, depending on the family tradition.

Type B represents forest owners with a weak sense of both identity and control. Even though they are legal owners, the forest owners in this type do not have a strong sense of the forest as being their own. The owner feels no emotional connection with, and has very limited knowledge of, the forest. Similarly, the owners have not made any personal investment in the forest; nor do they spend any time there. The owners' limited knowledge of their forests also influences the sense of control the owners have toward them, as they are not usually aware of how to manage the forest area in their possession. The inherited forest may also seem like a burden to the new forest owners. Here this forest owner type is called an indifferent forest owner. Thus, an indifferent forest owner typically has low motivation concerning all the forest functions (Wiersum et al. 2005) – that is, the forest management is usually nonexistent. Increasing knowledge of forestry may, however, positively affect the activity of the forest owners in this type.

Type C represents forest owners with a weak sense of forest owner identity combined with a strong sense of control. The forest owners in this type do not feel emotionally attached to their forests, but they still want to retain strong control over their possession. Here this type of forest owner is called a detached forest owner. Thus, the forest does not represent an identity-building element for the owner and usually there are no forest-related childhood experiences, recreation values, or legacy-cherishing aspects related to the forest. Instead, in this type, forests usually represent an investment and are also treated like any other investment object. The forest management is guided by rational economic decision-making, and thus the forests are usually

intensively managed. Similarly, the forest owner would also sell the land if it were needed to finance another investment.

Type D represents forest owners with a strong sense of both identity and control. In this type, the forest owners usually have good knowledge of their forests and have made personal investments in it. Even though forests are inherited, this is not considered a restriction of the autonomous decision-making power and control over the forest. On the contrary, by exercising control over the forest, the owners believe they are best sustaining their legacy and leaving it in a good condition. Thus, the forest owners in this type usually have both the knowledge and willingness to take care of their forest area through timber production and/or conservation decisions. Accordingly, here this type is called an informed forest owner.

Conclusions

This article demonstrated, by using the interpretative approach, how forest ownership is constructed through two important and interlinked dimensions of psychological ownership, namely identity and control. We suggest that psychological ownership is an important factor in the forestry management decisions. Indeed, the results of this study indicate that the more the forest owners are willing to invest themselves (time, money, and work) into their forests, the deeper and stronger the feelings of psychological ownership are, and the more conscious and active their forest management decisions might be. Furthermore, the willingness to make investments in the forest is related to the amount of information and knowledge of the forest (cf. Hujala et al. 2007). In other words, forest owners who knew their forests well tended to be more willing to invest their time and energy into the forests. It can also be seen that taking the time to acquire the needed information is already an investment in the forest.

This study also showed that inherited forests are often seen as a means to identify the owner as a link in the chain of generations, which can emotionally restrict forest owners' sense of autonomous control over the forest. In other words, for inherited forests, the owners often consider themselves to be responsible for their forest-related decision-making, both for the previous and future generations, which is reflected in how they manage their forest. In some cases, this may be expressed as active forest management, but in some cases it can initially appear to be a passive or indifferent attitude. More generally, the study highlighted the important role of emotions in the forest management decision-making process. For private forest owners, forest management decisions are often far from rational economic decision-making but are instead based on a variety of different emotions. Accordingly, based on the findings of this study, we suggest that the emotional aspects of forestry decisions are an important area of future research in the context of forest-owning.

Based on the results of this study, it can be further concluded that the way ownership is perceived by the forest owners seemed to be reflected in their forest management decisions. In this sense, this study validates and further contributes to the results of previous studies on the concept of ownership in the forest context (e.g. Bliss & Martin 1988, 1989). The sense of identity and control as essential dimensions of psychological ownership can contribute to whether forestry decisions are guided mostly by tradition, economic incentives, or responsibility toward property. To illustrate this, we constructed a forest owner typology (restricted, indifferent, informed, and detached forest owner) which further clarifies the differences among private forest owners' forest management and the roots of these forest management decisions. Nevertheless, it should be noted that one forest owner can be categorized into more than one of the forest owner types constructed on the basis of our study. In other words, even when a strong sense of identity and control is felt toward one forest area, this does not necessarily mean that the feelings of ownership are similar toward another area. Furthermore, based on this study it is not possible to make far-fetched conclusions on the strict classification between the forest owner types. More likely, the dimensions of control and identity are continuous "variables." However, the typology brings out the variety and complexity of the idea of ownership in the forest-owning context. It thus demonstrates what kinds of issues may explain the indifferent attitudes toward forest holdings or why some forest owners do not welcome new forest management innovations.

As is typical to the qualitative research, the empirical data in the study was also rather small (cf. Mason 2010). Thus, based on this research, estimates of the sizes of the categories or speculation about the demographics of the forest owners in a certain category cannot be made. Indeed, to clarify these issues, further research is needed. Similarly, future research should also examine how the changes in the forest owner structure (with more female, older, and urban forest owners) may be reflected in the forest owner typology provided in this study. Furthermore, the research was conducted in the Finnish forest-owning context in which, for example, timber production values may be emphasized more than in some other countries. Still, the idea of psychological aspects of ownership is more or less universal, and for this reason the findings of this study can be transferred to other forest-owning contexts as well.

Some practical implications can be proposed based on the findings of this study. It can be suggested that forest owners with different ownership feelings do respond in very different ways to external forest management advice or incentives (cf. Hujala et al. 2009

concerning the forest management decision support). Among the forest owner categories presented in this research, type C (detached forest owners) and type D (informed forest owners) can be considered the most likely to apply new ideas from outside to their forestry management. The detached forest owners are likely interested in innovations in forestry management that contribute to the effective production of forest-based economic benefits. The informed forest owners may also be interested in other kinds of new forest management methods, based on their general interest toward the forest holdings. The informed forest owners might be the ones who could be most easily interested in new forms of forest utilization, such as conservation schemes. It should also be noted that since both these types feel strong control over their forests, they are unlikely to use any comprehensive consulting services provided by an external adviser, such as hiring a forest manager. More likely they would accept certain specialized services that would not threaten their own overall control over the forest.

Since tradition is one of the main driving forces for restricted forest owners (type A) in forest management decisions, they are not likely to be particularly eager to introduce any innovations to the forest management. Still, they can be very active in the management in general. Even if they are passive in forest management compared with the recommended forestry plans, this is most likely still a conscious decision that they have made. By contrast, the indifferent forest owners (type B) are not likely to manage their forests at all. For indifferent forest owners, the lack of forest management may in some cases result from lack of proper forestry knowledge or the interest to acquire the needed information. Thus, external advice can increase the level of involvement of these forest owners. Similarly, new forest-owning methods, like jointly owned forests or the hiring of an outside forest manager, could be effective in making the forest owners in this category more active, since the sense of control does not form a psychological obstacle to joining these kinds of activities.

References

Alvesson M, Ashcraft KL, Robyn T. 2008. Identity matters: reflections on the construction of identity scholarship in organization studies. Organization. 15:5–28.

Asatryan VS, Oh H. 2008. Psychological ownership theory: an exploratory application in the restaurant industry. J Hosp Tour Res. 32:363–386.

Austin ME, Kaplan R. 2004. Identity, involvement, and expertise in the inner city: some benefits of tree-planting projects. In: Clayton S, Opotow S, editors. Identity and the natural environment. Cambridge: MIT Press; p. 205–226.

Avey JB, Avolio B, Crossley C, Luthans F. 2009. Psychological ownership: theoretical extensions, measurement, and relation to work outcomes. J Organ Behav. 30:173–191.

Bliss JC, Martin AJ. 1988. Identity and private forest management. Soc Nat Res. 1:365–376.

Bliss JC, Martin AJ. 1989. Identifying NIPF management motivations with qualitative methods. Forest Sci. 35:601–622.

Boon TE, Meilby H. 2004. Relations between owner characteristics and forest ownership objectives. In: Baumgartner DM, editor. Proceedings of human dimensions of family, farm and community forestry international symposium. Pullman (DC): Washington State University; p. 75–79.

Boon TE, Meilby H, Thorsen BJ. 2004. An empirical based typology of private forest owners in Denmark: improving communication between authorities and owners. Scand J For Res. 19:45–55.

Brehm JM, Eisenhauer BW, Stedman, RC. 2013. Environmental concern: examining the role of place meaning and place attachment. Soc Nat Res. 26:522–538.

Eisenhardt KM. 1989. Building theories from case study research. Acad Manag Rev. 14:532–550.

Etzioni A. 1991. The socio-economics of property. J Soc Behav Personal. 6:465–468.

Follo G. 2011. Factors influencing Norwegian small-scale private forest owners' ability to meet the political goals. Scand J For Res. 26:385–393.

Geringer JM, Hebert L. 1989. Control and performance of international joint ventures. J Int Bus Stud. 20:235–254.

Grunebaum JO. 1987. Private ownership. London: Routledge.

Hall A. 2005. Beyond the legal: psychological ownership and responsibility in the family business. Paper presented at: Family Business Network 16th Annual World Conference; Brussels, Belgium.

Hugosson M, Ingemarsson F. 2004. Objectives and motivations of small-scale forest owners: theoretical modelling and qualitative assessment. Silva Fenn. 38:217–231.

Hujala T, Pykäläinen J, Tikkanen J. 2007. Decision making among Finnish non-industrial private forest owners: the role of professional opinion and desire to learn. Scand J For Res. 22:454–463.

Hujala T, Tikkanen J, Hänninen H, Virkkula O. 2009. Family forest owners' perception of decision support. Scand J For Res. 24:448–460.

Hänninen H, Karppinen H, Leppänen J. 2011. Suomalainen metsänomistaja 2010 [Finnish forest owner 2010]. Vantaa: Working Papers of the Finnish Forest Research Institute, p. 208.

Ikävalko M, Pihkala T, Jussila I. 2006. Psychological ownership and family businesses: identifying the common ground through discriminant analysis. Paper presented at: RENT XX—Conference on Research in Entrepreneurship and Small Business; Brussels, Belgium.

Ingemarsson F, Lindhagen A, Eriksson L. 2006. A typology of small-scale private forest owners in Sweden. Scand J For Res. 21:249–259.

Karppinen H. 1998. Values and objectives of non-industrial private forest owners in Finland. Silva Fenn. 32:43–59.

Karppinen H, Tiainen L. 2010. "Semmonen niinku metsäkansa": Suurten ikäluokkien perijät tulevaisuuden metsänomistajina ["Kind of forest people": inheritors of the postwar baby-boom generation as the future forest owners]. Metsätieteen Aikakauskirja. 1:19–38.

Karppinen H, Hänninen H, Ripatti P. 2002. Suomalainen metsänomistaja 2000 [The Finnish forest owner in 2000]. Vantaa: Metsäntutkimuslaitoksen tiedonantoja 852.

Koskinen M. 2009. Omistajuus erilaisten yrittäjien käsitteinä ja tulkintoina. Fenomenografinen tutkimus [Ownership as understood and interpreted by different entrepreneur types: a phenomenographic study]. [Doctoral dissertation, Jyväskylä Studies in Business and Economics 74]. Jyväskylä: University of Jyväskylä.

Kuuluvainen J, Karppinen H, Ovaskainen V. 1996. Landowner objectives and nonindustrial private timber supply. For Sci. 42:300–309.

Legard R, Keegan J, Ward K. 2003. In-depth interviews. In: Ritchie J, Lewis J, editors. Qualitative research practice: a guide for social science students and researchers. Thousand Oaks: SAGE; p. 138–169.

Lidestav G. 2010. In competition with a brother: women's inheritance positions in contemporary Swedish family forestry. Scand J For Res. 25:14–24.

Lönnstedt L. 1989. Goals and cutting decisions of private small forest owners. Scand J For Res. 4:259–265.

Lönnstedt L. 1997. Non-industrial private forest owners' decision process: a qualitative study about goals, time perspective, opportunities and alternatives. Scand J For Res. 12:302–310.

Mason M. 2010. Sample size and saturation in PhD studies using qualitative interviews. Forum: Qual Soc Res. 11:1–17. Available from: http://www.qualitative-research.net

Mattila J, Ikävalko M. 2003. Participative strategy process in a professional organization and the concept of psychological ownership. Paper presented at: The Nordic Academy of Management annual conference; Reykjavik, Iceland.

Miles MB, Huberman AM. 1994. Qualitative data analysis. An expanded sourcebook. Thousand Oaks: SAGE.

Ní Dhubháin Á, Cobanova R, Karppinen H, Mizaraite D, Ritter E, Slee B, Wall S. 2007. The values and objectives of private forest owners and their influence on forestry behaviour: the implications for entrepreneurship. Small-Scale For. 6:347–357.

O'Driscoll MP, Pierce JL, Coghlan AM. 2006. The psychology of ownership: work environment structure, organizational commitment, and citizenship behaviors. Group Organ Manag. 31:388–416.

Patton MQ. 2002. Qualitative research and evaluation methods (3rd ed.). Thousand Oaks: SAGE.

Pierce JL, Kostova T, Dirks KT. 2001. Towards a theory of psychological ownership in organizations. Acad Manag Rev. 26:298–310.

Pierce JL, Kostova T, Dirks KT. 2003. The state of psychological ownership: integrating and extending a century of research. Rev Gen Psychol. 7:84–107.

Pierce JL, Rodgers L. 2004. The psychology of ownership and worker-owner productivity. Group Organ Manag. 29:588–613.

Private forest ownership database 2006–2007. United Nations Economic Commission for Europe, Forestry Department. Available from: http://www.unece.org/forests/fr/outputs/privateforest.html (29.05.2013).

Ritchie J, Spencer L, O'Connor W. 2003. Carrying out qualitative analysis. In: Ritchie J, Lewis J, editors. Qualitative research practice: a guide for social science students and researchers. Thousand Oaks: SAGE; p. 219–263.

Rämö A-K, Mäkijärvi L, Toivonen R, Horne P. 2009. Suomalaisen metsänomistajan profiili vuonna 2030. Asenteiden ja näkemysten muutokset yhden sukupolven aikana [The profile of the Finnish forest owner 2030. The changes of the attitudes and perceptions during one generation]. Helsinki: Pellervo Economic Research Institute, Reports 221.

Smith JW, Davenport MA, Anderson DH, Leahy JE. 2011. Place meanings and desired management outcomes. Landscape Urban Plann. 101:359–370.

Stedman RC. 2003. Is it really just a social construction? The contribution of the thysical environment to sense of place. Soc Nat Res. 16:671–685.

Tannenbaum AS. 1962. Control in organizations: individual adjustment and organizational performance. Admin Sci Q. 7:236–257.

Vandewalle D, Van Dyne L, Kostova T. 1995. Psychological ownership: an empirical examination of its consequences. Group Organ Manag. 20:210–226.

Van Dyne L, Pierce JL. 2004. Psychological ownership and feelings of possession: three field studies predicting employee attitudes and organizational citizenship behavior. J Organ Behav. 25:439–459.

Vining J. 2007. A review of "Identity and the natural environment." Soc Nat Res. 19:475–478.

Wiersum KF, Elands BHM, Hoogstra MA. 2005. Small-scale forest ownership across Europe: characteristics and future potential. Small-Scale For. 4:1–19.

Wynveen CJ, Kyle GT, Sutton SG. 2012. Natural area visitors' place meaning and place attachement ascribed to a marine setting. J Environ Psychol. 32:287–296.

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Nature-based tourism in private forests: Stakeholder management balancing the interests of entrepreneurs and forest owners?
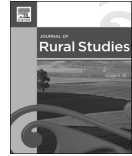
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ABSTRACT

Nature-based tourism is currently one of tourism's fastest-growing sectors. It is also the form of tourism that often benefits the economy of rural areas. In addition to publicly owned forests, nature tourism is in many countries situated in private forests that are not owned by the tourism entrepreneurs. Typically the forest owners gain only minimal benefits from hosting nature tourism on their land. However, access to private land can be essential to tourism entrepreneurs. Therefore, maintaining good relationships between entrepreneurs and private forest owners, as well as combining their interests, is vital for sustaining nature tourism activities. Despite this, the co-operation is usually very informal. Furthermore, some activities are implemented by utilizing traditional free public access, which further complicates the operational framework. To develop a high-quality nature tourism sector in rural areas, it is important to understand better the sustainable co-operation strategies between entrepreneurs and private forest owners. This explorative study seeks to learn how nature-based tourism entrepreneurs perceive the private forest owners as stakeholders of their business and what kind of stakeholder management strategies they have developed in order to maintain their activities. As a result, four stakeholder management strategies are presented in which the perception of the forest owner as a stakeholder varies according to the risk level for sustaining the business in the future.

1. Introduction

Nature-based tourism can be broadly defined as tourism whose main activities are related to nature (e.g. Fredman et al., 2012; Andereck, 2009; Saarinen, 2001). It is currently one of the fastest-growing tourism sectors worldwide, and the growth is projected to continue, as consumers' respect for unspoiled and authentic nature grows (Dodds et al., 2010; O'Neill and Alonso, 2009; Ryymin, 2008). Especially in northern Europe, the share of nature tourists of all international travel is high, *i.e.* in Finland it has been estimated that a third of all foreign tourists participate in nature activities (Fredman and Tyrväinen, 2010). It has reportedly provided new sources of livelihood to rural areas to diversify the economy from the traditional agriculture and forestry (e.g. Fredman and Tyrväinen, 2010; Wilson et al., 2001). Indeed, tourism has found to an important means to revitalize farms that otherwise might have been abandoned (Brandth and Haugen, 2011).

As typical rural enterprises, apart from skiing resorts and theme parks, nature tourism enterprises are usually microenterprises (Vail

and Hultkrantz, 2000; Ryymin, 2008). Finland has an estimated 3000 nature tourism enterprises (Petäjistö and Shelby, 2011). Also the multiplier economic effects of nature tourism are significant. Estimates are that about two-thirds of the income generated from nature tourism ends up in businesses other than nature tourism enterprises (Ministry of Environment, 2002, Matilainen et al., 2010). In addition, the income generated from nature tourism typically remains in the rural regions; the sector is labor-intensive and usually requires knowledge of local conditions (e.g., Iorio and Corsale, 2010; Courtney et al., 2006; Saarinen, 2003; Honkala, 2001). These characteristics make it especially interesting concerning rural development (cf. Hakkarainen and Tuulentie, 2008).

Approximately 80 percent of nature-based tourism entrepreneurs[1] in Finland use land areas they do not own (Nousiainen and

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[1] In this study, the terms "small business owner-manager" and "entrepreneur" are used synonymously, although there is a conceptual difference between these two terms; see for example, the study of Carland et al. (1984). The main reason for this is the fact that in the Finnish language, the term "entrepreneur" (yrittäjä) is not exclusively reserved for those business persons with certain entrepreneurial characteristics or who are aiming for growth or innovativeness. Accordingly, in Finnish the term "entrepreneur" usually includes, but is not restricted to, small business owner-managers.

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Tyrväinen, 2002). Due to Finland's landscape (76 percent of the land area is covered by forests) (MetINFO, 2012), nature tourism is often concentrated in forest areas. In addition to state-owned forests, nature-based tourism is concentrated also on privately owned forest lands. In Finland approximately 60 percent of the forests are privately owned. Especially in southern Finland, there is considerable pressure to use private forest areas for nature tourism activities (e.g., Tyrväinen and Sievänen, 2007). Furthermore, 60 percent of all private forest holdings are under 20 ha (Hänninen and Peltola, 2010), which typically calls for co-operation with several private forest owners concerning nature tourism activities. The forest owners thus possess a critical factor of production for nature-based tourism; in many cases the business activities could not continue smoothly without it. Forest owners can be considered a very influential primary stakeholder group for nature-tourism enterprises. Therefore, maintaining good relationships between private forest owners and entrepreneurs, as well as combining their interests, is vital to nature-based tourism (Weiss et al., 2007).

Nevertheless, the co-operation between the entrepreneurs and private forest owners is typically very informal, and entrepreneurs often have only a vague understanding of the forest owners' role as a stakeholder (Matilainen et al., 2011). Accordingly, half of Finnish nature-tourism entrepreneurs have reported facing property-rights-related problems vis-a-vis private forest owners (Nousiainen and Tyrväinen, 2002). One explanation for the oversight and problems in stakeholder relationships may originate from the traditions of use of nature in Finland. Although the land might be privately owned, traditionally there have been wide opportunities for others to use it. Even today Everyman's Rights grant a free public access to forests for recreational purposes. Still, for intensive nature-tourism activities, the forest owner's permission is always required, also according to the law. However, currently it is not very common to pay the forest owner for nature-tourism activities. When such payment is specified in the agreements, the economic benefits to the forest owner are very marginal compared to other income gained from the forest resource, like from timber production or even from the voluntary conservation schemes. Sometimes it does not necessarily even cover all of the forest owner's economic costs of co-operation, such as damage to the forest paths or vegetation. The co-operative relationships are therefore very asymmetrical. The entrepreneurs' survival depends on access to the private forests, while the economic benefits to the forest owners are essentially nonexistent. Aside from the economic benefits, the forests have many other complex values and purposes, like recreation or preserving family tradition, for their owners (e.g., Ni'Dhubhain et al., 2007; Karppinen et al., 2002; Bliss and Martin, 1988). Nature tourism activities can also reduce these values from the forest owner's point of view. Therefore, co-operation also depends on several issues other than economic compensation, due to the complex values that owners set on their forests.

We argue that in order to develop high-quality nature-tourism products and enhance the growth of the sector as a relevant livelihood in rural areas, it is important to understand better the co-operation between private forest owners and nature-based entrepreneurs. Because of the marginal role of nature tourism in the forest owner's income, various ownership values, and traditions of wide opportunities for all to freely utilize forests in Finland (Sairinen, 2001), the co-operative relationships cannot be directly compared to a typical business relationship. That might be one reason why the existing compensation schemes to distribute the economic benefits to the forest owners have not been used in rural areas as widely as expected (cf. Ahtikoski et al., 2011).

This study will evaluate 1) nature-based tourism entrepreneurs' perceptions of private forest owners as stakeholders, and 2) the strategies they have developed to manage this vital stakeholder group. In other words, this study examines how a successful relationship can be developed in the co-operation between the nature-based entrepreneurs and private non-industrial forest owners. The phenomenon is examined using the explorative approach. Ten nature-based tourism entrepreneurs were interviewed in depth in order to understand how they perceive using private forests in their business and how they have built and maintained their co-operative relationships with forest owners. The stakeholder status of forest owners is described here by using the classification by Mitchell et al. (1997). In addition, the entrepreneurs' stakeholder management strategies are analyzed and compared to previous stakeholder management strategy classifications. At the end the practical implications of developing the co-operation, as well as the tools for improving it, are presented.

2. Everyman's rights setting the cultural context for nature-based tourism in Finland

The current way of using nature in Finland, as in many Nordic countries, is rooted in an ancient custom allowing free travel in roadless country, including the right to stay overnight and gather nourishment. This custom also forms a large part of the current spirit of land and natural resource utilization culture in Finland, even though it has since been reformed. Today, Everyman's Rights guarantee free public access to both private and public forests. These rights are a commonly agreed-upon way of using nature, not an actual subjective right, and can be called the "right of public use" (Laaksonen, 1999).

Free public access has been found to have both negative and positive influence on the development potential of nature tourism in general (e.g. Fredman and Tyrväinen, 2010). Firstly, it has been found challenging to balance nature-tourism and recreational activities in forests (e.g. Sandell and Fredman, 2010; Vail and Hultkrantz, 2000). The nature-tourism companies can rarely exclude the areas from free access, especially if the areas are not owned by themselves. Therefore, recreational activities can disturb the business activities, or vice versa. For instance, local berry pickers may disturb commercially organized bird watching tour. Thus, the nature experience can be reduced by factors like noise or crowding (Kaltenborn et al., 2009). In addition it may be difficult to keep the demand pressure within capacity limits of the environment at prime sites and peak times (Vail and Hultkrantz, 2000), in which may cause damages to the natural environments. On the other hand, the free access can also contribute positively to the development of nature-based tourism as it provides nature-tourism companies possibilities to utilize forest areas not owned by them in business activities. It has, in fact, been reported that in Sweden the nature tourism entrepreneurs consider free public access more as a success factor than an obstacle (Sandell and Fredman, 2010).

In Finland the interpretation of Everyman's Rights sets a regulative framework for the professional use of forests for nature tourism, though at the moment it is still very much open to various interpretations. According to Everyman's Rights, for example, hiking, biking, or skiing in the nature, angling, and picking natural flowers, berries, and mushrooms are allowed, without a permit from the land owner. However, Everyman's Rights do not permit damage or disturbance to nature nor unreasonable disadvantages to the forest owner. In addition, Everyman's Rights are based on occasional use of forests (Kuusiniemi et al., 2000). Nevertheless, Everyman's Rights provide some opportunities to pursue business activities in the private forests (Lehtonen et al., 2007). The concepts of unreasonable disadvantages and occasional use of forests are always highly disputable. If the use of nature is not intensive (leaving significant visible traces on the forests) or is random in

certain forest areas, as with some hiking activities, a landowners' permit is not in principle required. Conducting nature-based tourism activities based on Everyman's Rights is, however, ambiguous (e.g., Viljanen and Rautiainen, 2007), and various interest groups have their own interpretations of it (Lehtonen et al., 2007). There has not been much debate on Everyman's Rights when they are used purely for recreation. Nevertheless, when these traditionally free non-wood forest services are increasingly commercialized along with, for instance, the growing nature-tourism sector, conflicts in the rural areas are likely to increase.

3. Stakeholder theory: describing the relationship between nature-based tourism entrepreneurs and private forest owners

The theoretical framework of this study is based on the stakeholder approach. Non-industrial private forest owners constitute an essential group of stakeholders for nature-based tourism enterprises, since they possess a critical factor of production for nature-tourism activities. Therefore, the stakeholder theory was considered a practical approach to conceptualize and examine the manifestation and essence of the relationship between nature-based tourism entrepreneurs and private forest owners.

The stakeholder approach emphasizes the importance of interaction between a business and those parties intertwined in its operation. According to Freeman's (1984) definition, virtually any person or group who can affect or is affected by the operation of the business can be considered a stakeholder. Stakeholders can be divided into "primary stakeholders," who typically have a formal, official, or contractual relationship with a company, and "secondary stakeholders," who represent the other interest groups in the business environment (Carroll, 1989; Näsi, 1995). Primary stakeholders are those whose continuing participation is crucial to the business's survival because of the high level of interdependence between these two parties. Stakeholders can thus relate directly to the company's product or service provision, like the private forest owners in this study.

The stakeholders' influence on the company's activities can be direct or indirect. If the company's dependence on the stakeholders' resource, for example in the case of forest land, is high, direct influence mechanisms are more likely to be used in the co-operation and interactions between the company and stakeholders. When dependence is low and stakeholders do not control the critical resources, indirect influence methods, for example political means, are used (Frooman, 1999; Sharma and Henriques, 2005).

A widely applied classification for identifying the most important stakeholder groups is the one suggested by Mitchell et al. (1997). According to them, different kinds of stakeholders can be identified by their possession of one or more of the following attributes: the *power* to influence the firm, the *legitimacy* of the claim on the firm, and the *urgency* of the claim. In line with Etzioni (1964), a stakeholder is considered to have power insofar as it has or can gain access to coercive means (based on physical resources of force, violence, or restraint), utilitarian means (based on material or financial resources), or normative means (based on symbolic resources) in order to impose its will in the relationship (Mitchell et al., 1997, p. 865). Legitimacy, on the other hand, has been defined as the generalized perception that the actions of an entity are desirable or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995). Although these two notions are sometimes conflated in different stakeholder definitions, powerful stakeholders are not necessarily legitimate, nor do legitimate stakeholders necessarily have power over the business. Finally, stakeholder urgency can be defined as

the degree to which stakeholder claims call for immediate attention from the entrepreneur. It is based on the idea of time sensitivity (Mitchell et al., 1997, p. 867). Based on these three attributes, Mitchell et al. defined different stakeholder types. In this study Mitchell et al. (1997) approach is used to analyze the role of private forest owners as a stakeholder group of nature-based companies.

The survival and success of a business depend upon the ability of its managers to create sufficient wealth, value, or satisfaction for its stakeholders, so that they continue to be a part of the business's stakeholder system (e.g., Clarkson, 1995; Besser, 1999). Thus, in addition to identifying the important stakeholder groups, the stakeholder theory also focuses on how these stakeholder groups can be managed. The concept of "stakeholder management" concerns the adoption and practical application of the principles of stakeholder theory. It presumes that a business must operate in such a manner that the stakeholders are satisfied, but the company can simultaneously generate economic benefits. The more dissatisfied stakeholders are with a business, the more likely it is that the activities will cease (e.g., Freeman, 1984; Näsi, 1995). Bryson (2003) stresses that it is important to find ways to satisfy the critical stakeholders at least minimally, according to their own criteria. Thus entrepreneurs must be able to understand and manage the stakeholder's point of view, not just their own agenda. Sometimes the stakeholders' primary agenda is difficult to identify. The failure to understand the hidden power and influence of stakeholders has led to countless project and business failures (Bourne and Walker, 2005; Nutt, 2002; Rannikko, 1999; Sharma and Henriques, 2005).

Although these strategies can vary widely, one well-known categorization of different stakeholder-management strategies, introduced by Carroll (1979), modified by Wartick and Cochran (1985), and extended by Clarkson (1995), includes four different strategies (Table 1). According to these scholars, proactivity involves extensively addressing stakeholders' issues, including anticipating and actively focusing on specific concerns or leading an industry effort to do so. Relative to proactivity, the adaptive strategy is a less active approach in dealing with stakeholders' issues. The defensive strategy involves doing only the minimum that is legally required concerning stakeholder's issues. The strategy of reaction, on the other hand, involves either resisting addressing a stakeholder's issues or completely withdrawing and ignoring the stakeholder (Jawahar and McLaughlin, 2001, p. 400). Clarkson (1995) extended this typology to develop an RDAP (Reactive, Defensive, Accommodative, Proactive) scale to measure a business's approach to social issues (see Table 1). The Clarkson's (1995) typology is used in this study to help interpret our results in relation to the previous research.

4. Research design

In this study, the research methodology we apply in order to examine the co-operation between the nature-based tourism entrepreneurs and private forest owners, is interpretative in nature. Because of the methodological approach adopted, our study seeks not to conduct positivistic hypothesis testing but to understand the

Table 1
The Reactive-Negligence-Accommodative-Proactive (RDAP) scale (Clarkson, 1995, p. 109).

Rating	Strategy/Posture	Performance
1. Reactive	Deny responsibility	Doing less than required
2. Defensive	Admit responsibility but fight it	Doing the least that is required
3. Accommodative	Accept responsibility	Doing all that is required
4. Proactive	Anticipate responsibility	Doing more than is required

elements of the co-operation strategies. Since the aim was to understand the phenomenon rather than make sample-to-population generalizations, the face-to-face interviews were seen as an appropriate data collection method. The empirical data includes in-depth interviews with 10 nature-based tourism entrepreneurs in Finland (Table 2). The businesses of the entrepreneurs we interviewed were located in five different regions: Central Finland, Kainuu, Central Ostrobothnia, Pirkanmaa and Northern Savo. The selection of the interviewed entrepreneurs was done by applying the purposeful sampling method in order to ensure informative and rich but still manageable data (Patton, 2002, p. 230–246). The main criterion for the purposeful selection was the line of business. In other words, the aim of the purposeful sampling was to cover different kinds of nature-tourism activities and therefore, also cover different intensity of the use of nature since that was considered to influence the co-operation between the entrepreneur and forest owners. Within these criteria the interviewed entrepreneurs were randomly selected by using the existing, freely accessible, Internet business catalogs.

Since the aim of the study is to understand the co-operation and stakeholder-management practices in depth, 10 interviews were regarded as adequate for explorative study (e.g. Mason, 2010). The interviews were conducted between October 2008 and March 2009. All the interviews were recorded and fully transcribed in order to guarantee rich data and to allow precise analysis. The interviews were based on a semi-structured framework, which allowed rather flexible conversations to take place while still ensuring that the main issues were discussed with every interviewee (Legard et al., 2003). Accordingly, open-ended questions were used, covering topics such as business characteristics, how the collaboration with the forest owners had started, how it is maintained, what are the main challenges in working with the private forest owners and what kind of future plans is there for the collaboration.

The nature-based enterprises in this study were rather small in staff size; they had an average of two full-time employees. This is, however, a typical size for Finnish nature-based tourism companies (Ryymin, 2008). There were three businesses that did not provide full-time employment even for the entrepreneur; that is, they were all part-time entrepreneurs whose main occupation was farming. It should be mentioned, though, that many of the businesses had additional part-time employees during the high season. The more detailed characteristics of the interviewed companies are presented in Table 2. It must be noted, though, that the variation between the interviewees was sought in order to increase the credibility of the empirical qualitative data, not to foster representativeness (see Patton, 2002, pp. 240–241). Thus our aim was to gather informative data through in-depth interviews, not to make any assumptions or conclusions based on the demographic background of the interviewed businesses.

4.1. Data analysis

The data was analyzed by first studying the experiences the companies had with co-operation and its management. Based on this information, stakeholder-management strategies were formed. Finally the role of forest owners as stakeholders in each strategy was analyzed.

The analysis was made using the construction of typologies, in which patterns, categories, and themes are sought in the data and typologies are formed based on these (Patton, 2002). The typologies are an essential and recognized way to organize and present the results of a qualitative research (Patton, 2002). The aim is to illustrate the results, not to make any far-reaching generalizations. Thus, our study is exploratory, not explanatory in nature (see Neuman, 1994). Typologies are built on ideal types or illustrative endpoints rather than a complete and discrete set of categories, and they provide one simple form for presenting qualitative comparisons (Patton, 2002). Therefore, typologies usually identify multiple ideal types, each of which represents a unique combination of the attributes that are believed to determine the relevant outcome (Doty and Glick, 1994). Thus the typologies and their characteristics emerge from the data during the analysis instead of being decided beforehand. Furthermore, since typologies present complex ideal types, the cases can have elements from several different typologies.

The analysis was started by writing a summary for each interview in order to point out the circumstances and relevant issues affecting the interview based on the interviewer's immediate analysis (Patton, 2002). These summaries were written immediately after each interview. The aim of the summaries was not to look for any results at this point but to help manage the data produced through the interviews. The entrepreneurs' interviews were read through several times. Interview excerpts were sought that would describe the entrepreneurs' attitudes towards the forest owners and their ways of collaborating with them. We paid particular attention to the excerpts describing the start of the co-operation, positive/negative aspects of the co-operation, the activities conducted to maintain the co-operation, contractual aspects, communication, commitment to the co-operation and future plans, and the role of the private forest owners in the co-operation. During this phase, any congruencies and discrepancies in the data were sought on which typologies could be based to further elucidate the findings (Patton, 2002). The data was then organized into four different categories as the typology of the nature-based entrepreneur/private-forest-owner relationship was constructed. These categories were then further examined in relation to stakeholder classification provided by Mitchell et al. (1997) in order to clarify how different stakeholder attributes were reflected in each category.

Table 2
Main characteristics of the interviewed enterprises.

Number of interview	Products	Age of the business (years)	Size of the business (full time employees)	Number of forest owners with whom collaborates
1	Hunting, hiking	15	1.5	3
2	Hiking, climbing, cycling	11	2–3	15
3	Motor safaris, paintball, climbing	10	3	20–30
4	Hiking, canoeing	9	0.5	Did not know the exact amount
5	Riding tours	3	3	100
6	Hiking, canoeing	10	1	10
7	Hiking, hunting, climbing	11	0.5	8–10
8	Riding tours	17	1.5	8
9	Wild life watching, canoeing	11	0.5	3
10	Hunting, fishing	8	1	5

To ensure the quality of the results, all analysis and interpretation phases were a collaborative and iterative effort by both authors. In the event of any disagreements, the data was jointly reanalyzed until a shared interpretation was reached. This way of utilizing analyst triangulation, though rather laborious, is often regarded as bolstering the credibility of the research (Patton, 2002). As Eisenhardt (1989) argues, the use of more researchers builds confidence in the findings and increases the likelihood of new and valuable findings. Furthermore, to ensure the transparency of the data analysis, interview citations are presented in the main text to make it easier for the reader to evaluate our interpretations.

5. Empirical results

In studying the nature-based entrepreneurs' methods to manage the relationships, we found four different strategies. In the spirit of Clarkson's (1995) stakeholder management discussion, these types were named the proactive, adaptive, negligence, and community strategies. With these strategies, the nature-based entrepreneurs aim to balance the co-operation and minimize the risks in long-term activities. It must be noted that, although these strategies are constructed on the basis of the empirical data, they do not necessarily represent any particular business per se, but each interviewed business may reflect more or less the essence of a strategy, and they should not necessarily be assigned to one of them. Through these typologies it is, however, possible to analyze the risks and benefits of nature-based tourism stakeholder strategies and find practical guidelines for co-operation with private forest owners.

5.1. Proactive strategy

In the proactive strategy, the entrepreneurs clearly acknowledged the power of the forest owners as stakeholders. As the owner of the main natural resource used by the tourism company, the forest owners were seen to have great utilitarian power to influence the operation of businesses. Similarly, the entrepreneurs recognized the legitimacy of expectations and needs of the forest owners. Characteristic of this strategy was the entrepreneurs' aim to anticipate these expectations and needs beforehand, that is, before the forest owners expressed them directly to the entrepreneur, and they were regarded as very urgent.

The forest owners' expectations and concerns were actively addressed in the business's decision-making. This required active stakeholder dialog, which the entrepreneur initiated. In this study, companies representing the proactive strategy were typically very professional, operating year-round and employing staff for the season as well as year-round. Another typical characteristic was the high percentage of business customers among their clientele.

The starting point for the co-operation negotiations was mutual benefits, and the co-operation practices were very much like in any business-to-business relationship, with written agreements and contractual rights. The entrepreneurs using this strategy typically co-operated with several private landowners. They were primarily selected based on the suitability of their forests for the company's activities and not so much on the familiarity of the forest owner. Co-operation with private forest owners was seen as very important to smooth-running business operations and opportunities, even though alternative forest areas existed, if needed. In this case, though, the activities would become significantly more complicated.

The entrepreneurs typically preferred clear, long-term, or continuous written agreements but were very flexible about using different kinds of negotiation strategies with the forest owners. For instance, written agreements were not imposed if the forest owner seemed to oppose a legalistic approach. Local connections were also used in negotiations as middlemen, in order to prepare the right approach for each forest owner.

"You have to go and knock gently on the door. You have to think what your point is, and you have to have many alternatives, many different cases, in your back pocket, how to proceed with negotiations." (Int. E3)

The entrepreneurs were ready to pay for their use of the forests either with money or some other benefits, like lending snowmobiles, canoes, or other equipment to the forest owners for free. Additionally, the value of public relations (PR) work was highly recognized, and the companies valued their good reputation among the forest owners. Smooth co-operation was seen as part of the quality guarantee of the products: satisfied forest owners were not likely to create obstacles to their own forest's use or cause disturbances during the nature tourism activities. The entrepreneurs also sought to anticipate the potential problems in their product development. For example, they explained in detail what kind of nature tourism activities they planned to implement and even demonstrated them for the forest owners before the activities were commercialized.

"My bottom line… is that you always chat and present your activities in advance and ask if it's okay. In that way it's much easier to work out an agreement…" (Int. E2)

"However, you can say that the most important competitive advantage is that if people have heard about the enterprise, they have heard something good. That's the baseline. Then things [starting point for the co-operation] are good." (Int. E3)

On the other hand, the entrepreneurs using the proactive strategy expected that their contractual rights to use the agreed forest areas would not be challenged. If agreement was reached on the use of some facilities, the entrepreneurs expected, for example, potential recreational users to yield. The entrepreneurs realized the asymmetrical nature of the business relationship, understood its long-term risks, and sought to balance the situation with, for instance, preferring detailed written contracts whenever possible. The entrepreneurs utilizing proactive strategy clearly considered their business activities to fell outside of Everyman's Rights and sought for close co-operation with the forest owners. However, they also expressed an opinion that it should be possible to use private forests to benefit the local economy in wider sense. They for example demanded legislative tools for persuading the forest owners to co-operate with the local entrepreneurs, in order to guarantee the economic business activities and the growth of the tourism sector.

" Somehow, nature-based tourism should be recognized [by the local society] at some point, as a proper livelihood in rural areas… Nature-based tourism should be seen in parallel with reindeer husbandry and fishing and such… They have a special right to use the natural resources, even privately owned, and move around in nature…" (Int. E9)

"If there are attempts to make tourism a source of livelihood in Finland, business possibilities should be also improved. So, if it brings money to the region, you also need to organize public possibilities to persuade the private forest owners. […] Our legislation is too much behind." (Int. E3)

5.2. Adaptive strategy

The adaptive strategy is a less active stakeholder management approach than the proactive strategy. The entrepreneurs recognized

the forest owners as essential stakeholders and acknowledged their legitimacy and power to affect the business like those utilizing the proactive strategy. However, the entrepreneurs did not anticipate forest owners' expectations and needs beforehand and instead typically dealt with those needs ad hoc, after they were expressed. Thus, the entrepreneurs did not react to the forest owners' needs with such great urgency as in proactive strategy. The relationship between the entrepreneur and the forest owner seemed even more asymmetrical than in proactive strategy; the entrepreneur was clearly the adaptable party, according to their own words. Thus the collaboration takes place entirely on the forest owner's terms. However, the entrepreneurs did not regard this situation as unfair, but more often as the natural state of affairs:

> "... this is so that we should be quite humble and take what we get. So we are operating according to what we are given.." (Int. E1)

> "We are careful and never do anything that might disturb these people [i.e. the forest owners]. You just have to make sure that there won't be any negative thoughts." (Int. E8)

The businesses' activities within this strategy were often seasonal and rather small-scale. The number of private forest owners with whom the entrepreneur collaborated was not very high either. Typically these forests were located close to the business and belonged to family members, friends, or other people in the community whom the entrepreneur knew personally. Because of the forests' location and their suitability for the business activities, close collaboration with the forest owner was seen as very important for the businesses' success by the entrepreneurs. Since the collaboration between the entrepreneur and the forest owner was based on existing personal relationships, permission to use the forest was usually easily gained.

> "My activities are in such a small-scale. But if I took a busload of people there every day, then They [forest owners] would ask for written agreements from me. However, this kind of small-scale activity doesn't necessitate it." (Int. E7)

Typically, entrepreneurs with the adaptive strategy relied heavily on the goodwill of the forest owners to allow use of the land for nature-based tourism. The collaboration between the entrepreneurs and forest owners was based on verbal contracts, which were informal and vague, since the rights and duties of the entrepreneur were not clearly defined. Furthermore, the entrepreneurs did not pay any financial compensation for using the forest areas. In some cases, the entrepreneurs provided other compensation (e.g., an opportunity to take part in the activities of the business), though this was usually not done on their own initiative, but merely in response to the forest owners' requests.

The entrepreneurs emphasized the importance of respecting nature and ownership by not harming the forest through their business activities. They also believed that, despite the existence of Everyman's Rights, which they partly interpreted to include their business activities, it was still their moral responsibility to ask the forest owner for permission to use the forest area. This was explained to guarantee the successful co-operation with the forest owners, particularly to maintain good social relationships with the forest owners they personally knew.

> "We cannot rely on the Everyman's Rights. As I see it, it's a bit like a moral question — you have to ask permission if you do it regularly and earn money from it. I don't know, if one would take it to the court, how powerful the Everyman's Rights actually are […] but for me it is more like a moral question." (Int. E8)

Although the collaboration in this strategy was characterized by close personal relationships, there was not much communication concerning the usage of the forest area between the parties. The entrepreneurs did not know what plans the forest owner had, for example, concerning loggings. In fact, usually they did not even expect that the forest owner would share their plans. Thus the entrepreneurs acknowledged that their business plans had to be flexible enough to survive any sudden changes in the forest. Therefore, they usually had some alternate venues lined up for the business's activities, though relying on a substitute for unique forest areas could pose serious difficulties.

5.3. Negligence strategy

The entrepreneurs executing the negligence strategy recognized the forest owners' legitimate rights towards their forest areas. However, they did not consider the forest owners' power to affect their business activities to be a major threat. Furthermore, the entrepreneurs did not usually consider the urgency of the forest owners' potential claims to be very important.

The negligence strategy adopts a passive role when dealing with the forest owners as stakeholders. This strategy emphasizes that typically, no forest area is indispensable. Therefore, if a forest owner decides to forbid a certain forest's use or otherwise creates too much trouble for the business activities, another area could always be used. Characteristically this strategy diminished the dependence between the entrepreneur and the forest owner.

Like the adaptive strategy, the business activities in this strategy were small-scale. The number of forest areas used may, however, be rather high because of the idea that one area can easily be substituted for another. Typically the entrepreneur did not know who the owners were of all the forest areas he or she used, and the nature of the relationship between a forest owner and an entrepreneur was not considered critical to the business's success.

Despite those situations specifically defined by the law, like building a permanent base camp or utilizing motorized vehicles, the entrepreneurs did not collaborate with the forest owners at all. Instead the entrepreneurs used Everyman's Rights and even slightly "extended" them by broadly interpreting them to include the most of their business activities (such as hiking in the forest or camping in the canoeing trip) as well. The entrepreneurs recognized that their interpretation of Everyman's Rights was probably not accurate, as it could violate ownership. But they were still willing to take the risk and trusted in the forest owner's goodwill, as the following quotes show:

> "…I move about there quite confidently with this kind of extended Everyman's Rights. However, if some land owner came and mentioned it to me, I wouldn't fight over it, because I understand that it isn't a part of Everyman's Rights and we would need to go and make an agreement about it." (Int. E4)

> "I haven't asked anyone's permission for it. I know quite well that Everyman's Rights don't include commercial groups like these. Everyman's Rights don't apply there at all. And I understand that I'm often going close to the limits or even pass them." (Int. E4)

The entrepreneurs further justified the decision not to ask any permission by stating that their business activities do not harm the forest in any way and that nature is always treated with respect. In a way they felt more responsibility towards nature than the forest owner did. Communication between the entrepreneur and the forest owner was almost nonexistent; there were neither contracts nor compensation for the forest owner. Indeed, the entrepreneurs

did not believe that financial compensation was necessary, because the use of privately owned forests was not considered a business relationship, meaning the renting of a factor of production. In this strategy, using forests for business purposes was seen as a utilization of free natural resources, whose economic value would not be reduced by this kind of business usage.

> *"I solve it by often just going [to the private forest areas], but I take full responsibility for it, too. […] But I try—I have succeeded in working in a way that hasn't raised anyone's eyebrows."* (Int. E4)

5.4. Community strategy

As with the other strategies, the entrepreneurs executing the community strategy recognized the legitimacy of the forest owners as a stakeholder group. However, they did not consider the forest owners' power to influence the business activities to be a major threat to their businesses. Furthermore, the entrepreneurs did not usually consider the urgency of the forest owners' claims to be an important aspect of their stakeholder relationships.

The entrepreneurs using the community strategy recognized that access to private forests was critical for their business operations. However, unlike the entrepreneurs utilizing the proactive or adaptive strategies, they were not worried about the continuity of the co-operation between them and the private forest owners. Instead they trusted in the social pressure of the village or the rural area to ensure that the forest owners would be open to "one of the last sources of livelihoods in the remote rural regions," as one interviewee put it. The entrepreneurs emphasized the rural community's responsibility to contribute to the success of their businesses, as it was believed to increase the economic activities and the well-being of the whole community. Typically, the entrepreneur had a relatively significant role in village society, and thus had a strong social influence potential in the community.

> *"There is this social pressure in remote rural villages, so [the forest owners] don't refuse permission even if they aren't that thrilled about it; they just don't react that way."* (Int. E10)

The entrepreneurs co-operated with several forest owners—up to one hundred. As with the adaptive strategy, the forest areas used for the business activities often belonged to family members, friends, or other people living in the same community. Although good relationships with the forest owners were highly appreciated, they were often taken for granted, and no major effort was made to maintain them. In other words, living in the same community was considered enough to maintain the relationships. Thus even though the entrepreneur and the forest owner may see each other regularly, from the stakeholder-management viewpoint the co-operation between these two parties can still be rather minimal after permission for business activities has been granted.

The entrepreneurs did not directly compensate the forest owners for the use of their land. They expected that it would be enough to engage in the kind of reciprocity normally existing between rural village residents. Thus, in return for the usage of the forests, the entrepreneurs were willing to help the forest owners with, for instance, various kinds of farm work or maintaining private roads. It must be emphasized, though, that this was not seen as a specific compensation of the use of the forests, like for instance in the proactive strategy, but "normal assistance between neighbors." The collaboration between the entrepreneurs and forest owners was based on informal verbal agreements. However, the entrepreneurs did not anticipate that the vagueness of the contracts would cause any serious problems.

> *"Usually he [a land owner] is given a hand when he needs help with something. Like he has a farm so we can help him with harvesting or something like that. […] so that it's like a normal neighborhood thing.."* (Int. E10)

In this strategy, the relationship between the forest owner and entrepreneur seemed to be more balanced, if not tilted in the entrepreneurs' favor, than in the other strategies. The entrepreneurs compensated for the power and legitimacy of the forest owners' stakeholder claims with their own social power in the community. Nevertheless, the entrepreneurs adopting the community strategy respected the forest owners' ownership of their forests and appreciated the forest owners' rights to make, for example, logging decisions without any notification. They were also ready to change their practices immediately if problems with the forest owners or other interest groups, like summer-cottage residents, occurred, in order to alleviate the situation and fix the problem very similarly to adaptive strategy. The problems were mostly dealt with after they had become serious; they were not anticipated well in advance. The entrepreneurs utilizing the community strategy did not ponder much, whether their business activities exceeded Everyman's Rights or not. Even though they recognized the limits of Everyman's Rights, they considered the forests as community's joint resources related to their business activities. Instead, the local social norms set the actual "limits" to the utilization of free access, which the entrepreneurs understood and tried not to exceed.

> *"Well, you know them personally and there are all kinds of other co-operation and all social activities and this is basically just one part of it. […] So when operating in this village, social relationships are essential, if relationships aren't in good order, it [business] wouldn't succeed."* (Int. E10)

6. Discussion

According to the framework created by Mitchell et al. (1997), the forest owners theoretically have all the main characteristics of key stakeholders operating with nature-tourism companies: a disputable legal right to the stake, power to directly influence the companies' activities, and claims that need to be addressed with a certain level of urgency. All four stakeholder management strategies found here recognized the legitimacy of the forest owners. However, there are differences in the degree to which the two other characteristics have been taken into consideration (Table 3).

When comparing the stakeholder strategies, it must be noted that all strategies presented here are legal and have proven successful in practice. The selection of stakeholder management strategy depends a great deal on the intensity and form of nature-based tourism activities. However, the risk level to the successful business operations varies between the strategies depending on how the forest owners are perceived as stakeholders. The proactive strategy acknowledges the forest owners' stakeholder role from all aspects, but it entails great effort from the nature-based entrepreneurs, especially if the nature-tourism activities are based on random utilization of the forests. The entrepreneurs aim to balance the asymmetry in the co-operative relationship by striving for clear commitments which stipulate the nature-based tourism entrepreneurs' rights not only the obligations, and by trying to anticipate potential problems. Therefore, the proactive strategy can be seen relatively secure for long-term business activities. The adaptive strategy does not have any active aspiration to balance the co-operative relationship. Therefore, the entrepreneurs utilizing the adaptive strategy are typically at the forest owners' mercy in the

Table 3
The recognition of forest owners as stakeholders in the different strategies, based on Mitchell et al. (1997) stakeholder attributes.

Characteristics of stakeholder	Proactive strategy	Adaptive strategy	Negligence strategy	Community strategy
Legitimacy concerning the stake	Clearly acknowledged	Clearly acknowledged	Clearly acknowledged	Clearly acknowledged, but compensated by entrepreneurs' social power in the community
Power concerning the stake	Clearly acknowledged	Clearly acknowledged	Acknowledges the power, but does not consider it significant concerning business activities	Somewhat acknowledged, but compensated by their own social power in the community; does not consider it a major threat
Urgency in which the claims of the stakeholder should be reacted	Great urgency, anticipation of the forest owners' needs	Medium urgency, rather reactive approach to the forest owners' needs	Does not usually consider the urgency related to the forest owners' needs at all	Does not usually consider the urgency related to the forest owners' needs very important

event of disagreement. This creates a clear risk for the business operations. On the other hand, this strategy is a less laborious stakeholder management strategy for the entrepreneurs, while still maintaining a trustful relationship.

The negligence strategy respects the forest owners' legal position in principle, but it can be seen as somewhat risky concerning long-term business operations. On the other hand, the stakeholder management does not require any resources from the businesses and enables utilization of wide forest areas, which would otherwise be almost impossible. The relationship between the forest owners and entrepreneurs is balanced by diminishing it. In the community strategy the social pressure of the rural community clearly lowers the forest owners' sensitivity towards violations of ownership values and goes a long way toward explaining the existence of co-operation in this strategy. It seems to balance the relationship from the entrepreneurs' viewpoint, at least in the short term. However, the potential changes in the forest-owning structure may create major challenges for the business activities, since social control cannot usually be extended to the forest owners living outside the community. The results indicate that the entrepreneurs do not always seem to realize this risk. The community strategy is, nevertheless, very flexible for the entrepreneurs (Table 4).

There were also indications in the results that the traditional use of forests as a common resource affects the development of the stakeholder management strategies. Accordingly, the interpretations of the limits of Everyman's Rights related to commercial nature tourism clearly varied in the practical level between the stakeholder strategies. The entrepreneurs with proactive and adaptive strategies explicitly interpreted Everyman's Rights in the narrow sense in order to maintain good business and/or personal relationships. In other words, they did not want to violate the forest owners' ownership values with too broad an interpretation of Everyman's Rights, since they considered that it would risk the continuity of their business and/or personal relationships. Furthermore, typical for the entrepreneurs with proactive strategy was that they tried to guarantee their access to the nature resources by supporting the creation of policy tools for persuading private

forest owners to co-operation and thus, have some ways to legally extend Everyman's Rights.

Those entrepreneurs adopted negligence and community strategies considered that the commerciality of nature-tourism activities somewhat blurs the limits of Everyman's Rights. However, their business activities often extended Everyman's Rights' limits as the stakeholder power of forest owners was not considered essential for the continuity of business activities. For example, in the community strategy, forests were seen, at least partly, as a joint resource for the livelihoods of rural villages. The community's norms included certain business activities in the private forests in order to maintain the vitality of rural life. Thus, only one of the strategies, the negligence strategy, explicitly used the ambiguity of Everyman's Rights as a competitive advantage by taking conscious risk potentially violating the forest ownership values.

When considering the stakeholder strategies found in this study, it must be noticed that the forest owners are not a homogenous stakeholder group, neither are the values they set on their forest similar (see Karppinen, 2000). It is especially challenging to understand and take into consideration in the co-operation relationships the non-economic values. It can be speculated, that the strategies presented here also seem to take the wider feelings of ownership into account in different ways, which may affect the success of each strategy. It has been stated that ownership can be seen as a dual phenomenon that includes both legal aspects and the "feelings of ownership" (Etzioni, 1991; Pierce and Rodgers, 2004). These "feelings of ownership," that is, psychological ownership, relate to the feeling "it is mine" and are recognized primarily by an individual who holds that feeling and manifests the rights felt to be associated with them (Pierce and Rodgers, 2004).

In many cases insulting these psychological aspects of ownership can cause conflicts for the co-operation that are as severe as violating legal ownership. They are especially difficult to foresee and manage, since there are no legally stipulated limits on them, and the experience of violation of psychological ownership is subjective. However, it can be suggested that in the case of co-operative relationships like the one presented in this paper, where the co-operative relationship is asymmetrical and the role of economic compensation from the co-operation is marginal, respecting psychological ownership might be the critical factor in a successful relationship. Our results indicate that the proactive strategy seems to avoid overlooking the ownership as a whole, as does the adaptive strategy, by clearly recognizing the stakeholders' power (whether it is actual or not) and especially the urgency of the forest owners' needs, both of which may not be directly connected to the legal rights of the forest owner. The negligence strategy and the community strategy, on the other hand, can be seen as partly violating both the legal and psychological aspects of ownership by using extended Everyman's Rights and social pressure and ignoring the forest owner as a critical stakeholder. Psychological ownership is an interesting concept, especially related to primary reasons

Table 4
Summary of the tools used by the entrepreneurs in different strategies for balancing the co-operative relationship.

Co-operation strategy	Tools to balance the relationship
Proactive strategy	• Professional documents and agreements • PR work • Clear compensation • Public tools, changes to legislation
Adaptive strategy	• No real attempt to balance the relationship
Negligence strategy	• The relationship "balanced" by diminishing it
Community strategy	• Social pressure • Regional occasional reciprocity

behind the arguments presented in the discussions related to the use of natural resources, in cases where they are partly felt as common resources due to tradition, and towards which the different interest groups have various objectives. This phenomenon may have a significant role in land use conflicts as well as affecting the development possibilities of nature-based tourism in rural areas. However, wider research to fully understand the role of psychological ownership in the context of natural resource management is needed.

7. Conclusions

This study aimed, through an explorative approach, to understand how nature-based tourism entrepreneurs perceive private forest owners as stakeholders of their business and what kind of stakeholder management methods they are currently using. The results of this study show that nature-based tourism entrepreneurs operating in privately owned forests are typically in an asymmetrical co-operative relationship with the forest owners. Therefore, successful stakeholder management is essential. The four stakeholder management strategies found here can be reflected in the categorization of RDAP-stakeholder-management strategies developed by Clarkson (1995). The proactive strategy found from this data is fairly similar to the proactive strategy presented by Clarkson. The adaptive strategy seems to be closely related to the accommodative strategy, and the negligence strategy can be seen as a combination of the defensive strategy (doing the minimum that is legally required) and the reactive strategy (ignoring the stakeholders). However, in this study another strategic approach to stakeholder management in rural areas, the community strategy, was found. The community strategy has several features similar to the other strategies, but the most interesting aspect, the one that differentiates it from the others, is how social pressure is used in stakeholder management. Social pressure and proximity have been found to have a significant, but unpredictable, role in business relations (Lähdesmäki and Suutari, 2012). Furthermore, social identity and social relations have been found to have a clear effect on access to natural resources and their utilization (Ginger et al., 2012; Ribot and Peluso, 2003). The social pressure is an interesting "stakeholder management tool" and one probably more common than anticipated, especially in small rural communities. Thus further research is needed to examine, for example, whether this strategy is also used in other rural business settings.

This study also demonstrated that the co-operation between the nature-tourism entrepreneurs and private forest owners cannot usually be considered as a typical business-to-business relationship. The traditional possibilities to use nature regardless of the owner, in the form of Everyman's Rights, seemed to influence the construction of the co-operation relationships, as well as the stakeholder management strategies. Thus, it might be difficult to introduce traditional business-to-business approaches to develop co-operation between nature-based tourism entrepreneurs and private forest owners. It is also important to understand the wide set of values the forest owners set on their forests. This naturally creates challenges for the relevant public rules and regulations. For example, even though Everyman's Rights are based on ancient tradition, there has been a growing public debate among forest owners whether commercially organized nature activities should be explicitly excluded from Everyman's Rights (e.g. Tuulentie and Rantala, 2013). If there were national attempts to limit Everyman's Rights concerning the nature tourism activities, the entrepreneurs utilizing the proactive strategy, would benefit, since they already aim to treat private forest owners as their business partners. However, since it is likely that there is a vast amount of rural entrepreneurs utilizing other strategies, explicitly excluding the commercial activities from Everyman's Rights might harm the sector and more in general the development of rural areas. Therefore, it would be utmost important for the entrepreneurs to consciously understand the risks related to their interpretation of Everyman's Rights in each stakeholder management strategy.

It must be noted, though, that as is typical of the qualitative research aiming to understand the phenomenon in question, the empirical data in the study was also rather small (cf. Mason, 2010). Thus, based on this research, estimates, for example, of the distribution of the Finnish nature-tourism entrepreneurs between the presented stakeholder management strategies or the frequency of use of a certain stakeholder strategy cannot be made. To clarify these issues, further research with larger sample and more explanatory nature is needed. However, the typology presented in this study illustrates the findings from the data: the use of different types of stakeholder management methods and variety of the entrepreneurs' stakeholder perceptions. Furthermore, the research was conducted between the years 2008—2009 in the Finnish forest-owning context, in which, for example, timber production values may be emphasized more than in some other countries. Still, a similar phenomenon can be expected to exist in other countries with high private forest ownership proportion and free public access to nature, and therefore the findings of this study can also be useful in them. This problematic is likely to remain topical as the nature-based tourism sector is foreseen to continue to grow.

References

Ahtikoski, A., Tuulentie, S., Hallikainen, V., Nivala, V., Vatanen, E., Tyrväinen, L., Salminen, H., 2011. Potential trade-offs between nature-based tourism and forestry, a case study in northern Finland. Forests 2, 894—912.
Andereck, K.L., 2009. Tourists' perceptions of environmentally responsible innovations at tourism businesses. J. Sustain. Tour. 17, 489—499.
Besser, T.L., 1999. Community involvement and the perception of success among small business operators in small towns. J. Small Bus. Manag. 37, 16—29.
Bliss, J.C., Martin, A.J., 1988. Identity and private forest management. Soc. Nat. Resour. Int. J. 1, 365—376.
Brandth, B., Haugen, M.S., 2011. Farm diversification into tourism e implications for social identity? J. Rural Stud. 27, 35—44.
Bourne, L, Walker, D.H.T., 2005. Visualising and mapping stakeholder influence. Manag. Decis. 43, 649—660.
Bryson, J.M., 2003. What to do when stakeholders matter? Public Manag. Rev. 6, 21—53.
Carland, J.W., Hoy, F., Boulton, W.R., Carland, J.A.C., 1984. Differentiating entrepreneurs from small business owners: a conceptualization. Acad. Manag. Rev. 9, 354—359.
Carroll, A.B., 1979. A three-dimensional conceptual model of corporate performance. Acad. Manag. Rev. 4, 497—505.
Carroll, A.B., 1989. Business and Society: Ethics and Stakeholder Management. South-Western Publishing Company, Cincinnati.
Clarkson, M.B.E., 1995. A stakeholder framework for analyzing and evaluating corporate social performance. Acad. Manag. Rev. 20, 92—117.
Courtney, P., Hill, G., Roberts, D., 2006. The role of natural heritage in rural development: an analysis of economic linkages in Scotland. J. Rural Stud. 22, 469—484.
Dodds, R., Graci, S.R., Holmes, M., 2010. Does the tourist care? A comparison of tourists in Koh Phi Phi, Thailand and Gili Trawangan, Indonesia. J. Sustain. Tour. 18, 207—222.
Doty, H.D., Glick, W.H., 1994. Typologies as a unique form of theory building: toward improved understanding and modelling. Acad. Manag. Rev. 19, 230—251.
Eisenhardt, K.M., 1989. Building theories from case study research. Acad. Manag. Rev. 14, 532—550.
Etzioni, A., 1964. Modern Organizations. Prentice-Hall, Englewood Cliffs, NJ.
Etzioni, A., 1991. The socio-economics of property. J. Soc. Behav. Personal. 6, 465—468.
Freeman, R.E., 1984. Strategic Management: a Stakeholder Approach. Pitman, Boston, MA.
Fredman, P., Tyrväinen, L., 2010. Frontiers in nature-based tourism. Scand. J. Hosp. Tour. 10, 177—189.
Fredman, P., Wall-Reinius, S., Grundén, A., 2012. The nature in nature-based tourism. Scand. J. Hosp. Tour. 12, 289—309.
Frooman, J., 1999. Stakeholder influence strategies. Acad. Manag. Rev. 24, 191—205.
Ginger, C., Emery, M.R., Baumflek, M.J., Putnam, D.E., 2012. Access to natural resources on private property: factors beyond right of entry. Soc. Nat. Resour. 25, 700—715.

Hakkarainen, M., Tuulentie, S., 2008. Tourism's role in rural development of Finnish Lapland: interpreting national and regional strategy documents. Fennia 186, 3–13.

Honkala, A.M., 2001. Oulangan kansallispuiston kävijätutkimus 2000. Tutkimuksia (2/2001). Naturpolis Kuusamo koulutus- ja kehittämispalvelut.

Hänninen, H., Peltola, A., 2010. Metsämaan omistus 2006–2008. Metsätilastotiedote, 28/2010.

Iorio, M., Corsale, A., 2010. Rural tourism and livelihood strategies in Romania. J. Rural Stud. 26, 152–162.

Jawahar, I.M., McLaughlin, G.L., 2001. Toward a descriptive stakeholder theory: an organizational life cycle approach. Acad. Manag. Rev. 26, 397–414.

Kaltenborn, B., Haaland, H., Sandell, K., 2009. The public right of access – some challenges to sustainable tourism development in Scandinavia. J. Sustain. Tour. 9, 417–433.

Karppinen, H., 2000. Forest values and the objectives of forest ownership. In: Working Papers of the Finnish Forest Research Institute, vol. 757.

Karppinen, H., Hänninen, H., Ripatti, P., 2002. Suomalainen metsänomistaja 2000 (The Finnish forest owner in 2000). Working Papers of the Finnish Forest Research Institute, vol. 852.

Kuusiniemi, K., Majamaa, V., Vihervuori, P., 2000. Maa-, vesi- ja ympäristöoikeuden käsikirja. Helsinki.

Laaksonen, K., 1999. Jokamiehenoikeudet, laki ja perustuslaki. In: Laaksonen, K. (Ed.), Juhlajulkaisu Veikko O. Hyvönen, 1929-18/9-1999, Kauppakamari OYJ. Lakimiesliiton Kustannus, Helsinki, 1999.

Legard, R., Keegan, J., Ward, K., 2003. In-depth interviews, 2003. In: Ritchie, J., Lewis, J. (Eds.), Qualitative Research Practice: a Guide for Social Science Students and Researchers. Sage, Thousand Oaks, CA.

Lehtonen, S., Heikkinen, T., Hirvonen, J., 2007. Jokamiehenoikeuksien tulkintoja ja haasteita luontoliikunnan ja matkailun kannalta. Maaseutupolitiikan yhteistyöryhmän julkaisuja (1/2007).

Lähdesmäki, M., Suutari, T., 2012. Keeping at arm's length or searching for proximity? Corporate social responsibility as a reciprocal process between small businesses and the local community. J. Bus. Eth. 108, 481–493.

Mason, M., 2010. Sample size and saturation in PhD studies using qualitative interviews. Forum: Qual. Soc. Res. 11, 1–17 available at: www.qualitative-research.net.

Matilainen, A., Weiss, G., Sarvaová, Z., Feliciano, D., Natase, C., Prede, M., 2011. The role of co-operation in enhancing innovation in nature-based tourism services. In: Weiss, G., Pettenella, D., Ollonqvist, P., Slee, B. (Eds.), Innovation in Forestry: Territorial and Value Chain Relationships. CABI, London, 2011.

Matilainen, A., Keskinarkaus, S., Törmä, H., 2010. The economics of hunting tourism in Finland. In: Matilainen, A., Keskinarkaus, S. (Eds.), The Economic Role of Hunting Tourism –Examples from Northern Areas. University of Helsinki, Ruralia Institute, Seinäjoki, 2010.

MetINFO, 2012. MetINFO-Forest Information Services available at: http://www.metla.fi/metinfo/index-en.htm.

Mitchell, R.K., Agle, B.R., Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. Acad. Manag. Rev. 22, 853–886.

Ministry of Environment, 2002. Ohjelma luonnon virkistyskäytön ja luontomatkailun kehittämiseksi. Suomen ympäristö, vol. 535.

Neuman, L.W., 1994. Social Research Methods: Qualitative and Quantitative Approaches. Allyn & Bacon, Boston.

Ni'Dhubhain, A., Cobanova, R., Karppinen, H., Mizaraite, D., Ritter, E., Slee, B., Wall, S., 2007. The values and objectives of private forest owners and their influence on forestry behaviour: the implications for entrepreneurship. Small-Scale For. 6, 347–357.

Nousiainen, I., Tyrväinen, L., 2002. Matkailuyrittäjien näkemys Etelä-Suomen luontomatkailusta, 2002. In: Saarinen, J., Järviluoma, J. (Eds.), *Luonto matkailukohteena: virkistystä ja elämyksiä luonnosta*, Working Papers of the Finnish Forest Research Institute 866.

Nutt, P., 2002. Why Decisions Fail: Avoiding the Blunders and Traps That Lead to Debacles. Berrett-Koehler Publishers, San Francisco.

Näsi, J., 1995. What is stakeholder thinking? A snapshot of a social theory of the firm. In: Näsi, J. (Ed.), Understanding Stakeholder Thinking. Gummerus, Jyväskylä, 1995.

O'Neill, M., Alonso, A.D., 2009. Small hospitality business involvement in environmentally friendly initiatives. Tour. Hosp. Plan. Dev. 6, 221–234.

Patton, M.Q., 2002. Qualitative Research and Evaluation Methods, third ed. Sage, Thousand Oaks, CA.

Petäjistö, L., Shelby, A., 2011. Luontomatkailuyritystoiminnan laajuus: Internet-aineistoon pohjautuva selvitys. Finnish Forest Research Institute. Working papers 217.

Pierce, L.P., Rodgers, L., 2004. The psychology of ownership and worker-owner productivity. Group Organ. Manag. 29, 588.

Rannikko, P., 1999. Combining social and ecological sustainability in the Nordic forest periphery. Sociol. Rural. 39, 394–410.

Ribot, J.C., Peluso, N.L., 2003. A theory of access. Rural Sociol. 68, 153–181.

Ryymin, J., 2008. Matkailun ohjelmapalvelut. Toimialaraportti (9/2008). KTM:n ja TE-keskusten julkaisu.

Saarinen, J., 2001. Luontomatkailu osana metsien käyttöä. In: Kangas, J., Kokko, A. (Eds.), *Metsän eri käyttömuotojen arvottaminen ja yhteensovittaminen*, Working Papers of the Finnish Forest Research Institute 800, 2001.

Saarinen, J., 2003. The regional economics of tourism in Northern Finland: the socio-economic implications of recent tourism development and future possibilities for regional development. Scand. J. Hosp. Tour. 3, 91–113.

Sairinen, R., 2001. Public support for environmental policy in Finland: cultural interpretations of survey results. Scand. Polit. Stud. 24, 129–148.

Sandell, K., Fredman, P., 2010. The right of public access – opportunity or obstacle for nature tourism in Sweden? Scand. J. Hosp. Tour. 10, 291–309.

Sharma, S., Henriques, I., 2005. Stakeholder influences on sustainability practices in the Canadian forest products industry. Strateg. Manag. J. 26, 159–180.

Suchman, M., 1995. Managing legitimacy: strategic and institutional approaches. Acad. Manag. Rev. 20, 571–610.

Tuulentie, S., Rantala, O., 2013. Will "free entry into the forest" remain? In: Müller, D.K., Lundmark, L., Lemelin, R.H. (Eds.), New Issues in Polar Tourism. In New Issues in Polar Tourism. Communities, Environments, Politics. Springer, pp. 177–188.

Tyrväinen, L., Sievänen, T., 2007. Virkistyskäytön ja luontomatkailun tarkastelu eri vaihtoehtoskenaarioissa sekä skenaario virkistyskäytön ja luontomatkailun muutoksista ja kehittämistarpeista. In: Uusivuori, J., Kallio, M., Salminen, M. (Eds.), Vaihtoehtolaskelmat kansallisen metsäohjelman 2015 valmistelua varten. Working Papers of the Finnish Forest Research Institute, vol. 75, 2007.

Vail, D., Hultkrantz, L., 2000. Property rights and sustainable nature tourism: adaptation and mal-adaptation in Dalarna (Sweden) and Maine (USA). Ecol. Econ. 35, 223–242.

Viljanen, P., Rautiainen, A., 2007. Jokamiehenoikeuden toimivuus. Ympäristöministeriön raportteja (19/2007).

Wartick, S.L., Cochran, P.L., 1985. The evolution of the corporate social performance model. Acad. Manag. Rev. 4, 758–769.

Wilson, S., Fesenmaier, D.R., Fesenmaier, J., van Es, J.C., 2001. Factors for success in rural tourism development. J. Travel Res. 40, 132–138.

Weiss, G., Martin, S., Matilainen, A., Vennesland, B., Nastase, C., Nybakk, E., Bouriaud, L., 2007. Innovation processes in forest-related recreation services: the role of public and private resources in different institutional backgrounds. Small-Scale For. 6, 423–442.