

More-than-human geographies of property: Moving towards spatial justice with response-ability

Abstract

In this paper we examine how animal and more-than-human agency matters in changing property relations and the related production of spatial (in)justice. We do this by examining conflicts arising between farmers, land owners and reindeer herders in the Norwegian outfields resulting from policy imperatives towards agricultural diversification. At the heart of the conflict we find issues of animal agency and mobility that the current regulatory system negotiating the interests of different rightsholders struggles to comprehend or deal with. We propose Haraway's concept of response-ability as one way in which more-than-human agency could be made more visible, and therefore better accounted for, in the unsettling and resettling of property relations and the law-space nexus generally. It allows us to interrogate more precisely on multiple levels of spatial and temporal production the responses available to human and nonhuman actors in various assemblages of property. Different rightsholders can have different capacities to respond when property assemblages are stabilised and destabilised. We also call for more attention to be paid to property and broader legal geographies and spatial justice in the current 'animal' and posthuman turn in social science.

Keywords

Property, animals, justice, space, legal geography, Norway

Introduction

“What role does law, including property, play in the mediation of human–nonhuman relations ... and which agents play a role in the construction of law's spaces?” (Ojalammi & Blomley (2015, 51)

Systems of property rights fundamentally shape human-environment relations through delineating who receives benefits from, and has control over, particular spaces, places and landscapes, who shoulders related burdens, and how this may unfold. Property is always exposed to possibilities of unsettling (Blomley, 2004). When land become unsettled and revalorised, the ways in which property is enacted by rightsholders also shifts (Brown, 2007). Such revalorisations of land and destabilisation of property relations can be observed in the outfields (utmark) of Mid-Norway. Here, the economic and policy pressure for farmers to diversify their agricultural incomes into tourism, leisure and energy generation has led to increased conflicts with South-Sámi reindeer herders, who hold use rights to the same land.

In this article, we explore how more-than-human relations complicate property in situations where established enactments of land rights become unsettled. We examine in particular how non-human agency affects peoples' abilities to respond to the repurposing of property, and how this affects the production of spatial justice. Our empirical study is from Norway where established practices of reindeer herding meet the economic revalorisation of land previously often deemed 'marginal'. Theoretically, we draw on, and connect, insights from animal geographies, legal geographies and thinking on spatial justice.

More-than-human property relations

Blomley (2014) explains differing models of property as a tension between space constituted as absolute or as relational. In absolute spaces of property, space itself is conceived of as pre-given, measurable, abstract, technical, independent and asocial, whilst property has clear boundaries with a sharp divide and zero-sum approach between what is in and out, included and excluded (Nedelsky, 1990). This underpins the dominant western conception of property which favours what Singer (2000) calls the 'ownership model'. Here, to talk of ownership is to talk of rights linking individual persons or companies to a discrete and exchangeable material space, over which they have substantial autonomy and the ability to exclude others. In this way property is often reified and conflated with land or a particular material thing, asset or 'resource', rather than being seen as a socially produced, co-constitutive relationship between particular people in relation to this materiality (Cohen, 1927; Macpherson, 1978). The reification and territorialisation of property in this regard make land seem divorced from other ecological and social entities with which it is networked, concealing and naturalising the power relations imbued therein (see e.g. MacPhearson, 1978; Freyfogle, 2003; Linklater, 2013 for substantial discussions on conceptualisations of property and land ownership).

There has been growing critical interest in how legal systems produce, re-produce and legitimize spatial power relations (Whatmore, 2002). As Blomley (2004) states, "property is not a static, pre-given entity, but depends on a continual, active 'doing' ... property is an enactment" (p.xvi). Rose (1994), for example, explains how a property claim must not only be asserted but also, at least tacitly, accepted by others to gain the legitimacy that allows it to function meaningfully as a right. This persuasive work happens through a range of regulatory mechanisms varying in formality from supreme courts to cultural norms and custom, and entailing the enrolment of various bodies, objects, buildings, documents, imaginaries, practices, movements and fixings into particular assemblages of property (Blomley, 2013).

Particular assemblages of property gain relative stability over other possible configurations to the extent that they resonate, align with or are legible to powerful representations, materialities and practices. Blomley (2013) conceives of this as sustained citational labour in that particular enactments of property work to fix and reinforce those particular property claims. Sometimes the way property and space mutually constitute in these assemblages is obvious, such as through the clear spatial bounding of parcelling off and fencing plots of land as private property. However, often it works in more implicit, complex modes of spatial configuration, especially when collectively held rights are involved (Brown, 2007). This complexity is particularly intensified if we acknowledge nonhuman agency and attend to the "largely invisible roles that animals have been performing in legal norms and regulatory regimes" (Braverman, 2016, 5, see also Anker, 2018).

Socio-legal studies have tended to be very anthropocentric (Delaney, 2003; Anker 2018). Legal geographies scholarship has worked to address the neglect of nonhuman agency by highlighting the work done by materialities, such as fences, signs, vegetation or energy 'resources' (e.g. Blomley, 2004, 2007; Delaney, 2017), but even here attention to the role of animals in co-constituting law and space has generally been notable by its absence. However, in the wake of recent advances in animal geographies (see e.g. Philo & Wilbert, 2000; Steinberg, 2010; Buller, 2013; Urbanik, 2016) this is beginning to change. The work of Braverman has been instrumental in positioning animality in the task of understanding the geographies of law (e.g. Braverman et al., 2014; Braverman, 2015, 2016). She raises important questions, such as "what happens when nonhuman animals are forced to fit into humanistic regulatory frameworks?" (Braverman et al., 2014, 12). Moreover, she asks what taking better account of animals – and their relational entanglements with humans and other nonhumans – in the workings of the law might look like. This includes the physical mobilities of animals, which have long proved "especially challenging for law's order" (Braverman, 2015, 17), by paying more specific attention to how the regulation and policing of animal movement is achieved, transgressed, and sometimes reworked, such as through (re)orderings and classifications (Braverman, 2013).

Similarly, Ojalampi & Blomley (2015) take what we learn from Philo and Wilbert (2000) about the spatial coding of animals – i.e. that the classification of animals into categories of 'wild', 'domestic', 'vermin' and so on affects *where* those animals are allowed (or not) to belong, live or die – and explore some implications for the performance of property. They move the debate on from existing discussion of animals and property, which has tended to focus on how animals are owned (see Braverman, 2016). Ojalampi and Blomley focus on "the importance of property's territory as both marker and container" (p. 59) and how the legal coding of identities and expected animal spatialities allows particular animal movements, and indeed the movement of people in relation to animals. In recognising that "humans' spatial practices and other species' spatial practices entangle with each other in complex and precarious ways" (Collard, 2012, 37), Ojalampi and Blomley (2015) urge us to consider more deeply the assumed relations of animals, humans, mobility and territoriality imbued within particular legal categories.

Braverman et al. (2014) suggests that engaging with animality ought to be a valuable way to bring corporeality and vitalism to the fore in considerations of spatiality and law, helping to move beyond the tendencies of legal frameworks towards valorising the abstract and universal. She is less clear how this might proceed, asserting only that "we must find a way to trace what it is that they [animals] are communicating" (Braverman 2016, 5). One way might be to engage the work of Haraway (2008) and Despret (2004) on the inescapable conjointness of becoming in more-than-human encounters. This has been done in studies of how rights of outdoor access are enacted, which highlight that we cannot fully understand human agency in constituting legal spaces without acknowledging its embodied *co-agency* with animals and broader nonhuman ecologies (Brown and Dilley, 2012; Brown, 2015). Here Haraway's (2008) notion of *response-ability* is key, emphasising how the ability of humans and animals to articulate, attune and respond to each other – often in bodily, more-than-verbal ways – is central to understanding animal-human relationality and indeed its grounding in notions of right and wrong, just and unjust.

Justice can be described as “who gets what, where, when and how” (Smith 1994, 26). Two of the types of justice scholars have distinguished (see Waterstone 2010) are *procedural justice* – the fairness in e.g. decision-making processes or the equitability of the procedures that resolve disputes and allocate resources – and *productive justice* – concerning e.g. who has *control* or *agency* in designing mechanisms, creating procedures or framing choices and decision-making, and how that then leads to particular outcomes. Young (2011) highlights the diffuseness and complexity of culpability in bringing about injustice, and moreover the challenge posed by the logic that if everyone is to blame, no-one is to blame. This is complicated further if we take seriously Haraway’s (2018) assertion that “[t]here can be no environmental justice ... without multispecies environmental justice” (p. 102). Yet Haraway (2008) also offers a way out of this impasse by asking instead: who is *response-able* in generating ethical relations of living together across difference? Her approach not only places the focus on the performative and corporeal capacity of myriad actors to *respond* to particular sociomaterial articulations (which as suggested before could include articulations of property), conceptual space is made for how the nonhuman responds.

To this, however, we must connect a deeper sensibility to the spatiality of justice to help understand justice as constituted geographically on multiple scales rather than absolute or universal (Soja, 2010; Philippopoulos-Mihalopoulos, 2014; Harvey, 1996; Massey, 2005, Dikeç, 2001). There is no agreed definition of spatial justice. Previous work (e.g. Harvey, 1996) tended to look at how justice produced space, emphasising the spatial distribution of resources or access to them. However, recent critique suggests that this has left the agency of space and the spatial consciousness of actors too implicit in producing justice, and so instead conceive of justice and spatiality as co-constituted (Soja, 2010; Philippopoulos-Mihalopoulos, 2014; Dikeç, 2009). They argue that there is no justice that is not spatial justice as there is no justice that is not articulated in and through space. We will now turn to some of the articulations of spatial justice in the Norwegian outfields.

Destabilisation of property in the Norwegian outfields

In Norway, the outfields [*utmark*] are understood as mainly uncultivated countryside areas such as forest and upland, and make up over 70 per cent of the country’s land area. This is distinct from infields [*innmark*] which is privately own cultivated land close to the farm, making out only 3 per cent of the country’s total land. The outfields are the grounds for land uses such as grazing, forestry, hunting, fishing, recreation, wind- and hydropower production and mining. The outfields, and user rights to them, are also crucial for Sámi reindeer herding. Reindeer herders have lost large amounts of grazing land to hydropower developments and mining from the 19th century and onwards. Now a large number of other types of land consuming activities represent a new threat to established, and low intensive grazing practices (Fjellheim, 2012). Norway is currently experiencing intensified and diversified commodification and commercialisation of the outfields’ land resources with considerable sum-effects (Rønningen and Flemsæter, 2016). Rural researchers have emphasised commodification processes as central to contemporary rural change, in which established economic, cultural, social and legal arrangements are challenged and modified (Soliva et al. 2008, Perkins 2006). Rights to land are established based on certain purposes people see in the land, and when the purpose changes, land rights systems often become controversial (MacPherson, 1978; Freyfogle, 2007).

Most farms have property or land use rights in the outfields, and a crucial move in unsettling outfield property relations has been the latest decades' agricultural diversification policy. This is particularly exhorted in a White paper from 2000 on agriculture, encouraging farmers 'to take a larger part of the agricultural properties' resources into use' and to gain 'increased economic profit from the outfield resources' (Ministry of Agriculture and Food, 1999-2000, 18). As part of its economic strategy for rural areas the government is thus seeking opportunities for new commodifications. Since then, the conflict level has increased, but without the commensurate means to resolve them. Additionally, increasing numbers of protected carnivores is often referred to by reindeer herders as another land use pressure, as reindeer avoid areas of carnivores. Norway has wolves, bears, wolverine, lynx and eagles, where the three latter prey heavily on reindeer.

Power exerted through the moral axis of livelihoods is central to the agency of this policy shift in unsettling of property relations (Brown, 2007). Outfields become explicitly connected to the well-articulated crisis of agricultural incomes and the urgent imperative to address it. But instead of finding ways to make agriculture itself more profitable, as previous policy did, the onus has been put on farmers to find alternative ways of making income. Farmers' infields have already been economically optimised in many ways, so the rights to *outfields* attached to them are the next frontier, as a representative from the regional agricultural authorities explained:

... the agricultural policy (...) forces farmers to look beyond 'skigarden' [fence between infields and outfields] to make their living. (...) It is because we have fewer opportunities in the primary sector. (County Governor)

To understand the agency of this policy exhortation it is helpful to parse the three key discursive elements in the quotes from the abovementioned White paper, which are given force through their spatiality: 'taking', 'whole property' and 'into use'. Crucially, it involves more than just 'looking beyond' the infield fence.

By calling the outfields part of a farmer's 'agricultural property' there is a categorical shift in which outfields slip inside a metaphorical fence within which the 'ownership model' reigns supreme; the private, individual parcel of ground that is the infields. Outfields become an *extension* of infields rather than land to which use rights apply because they are attached to infields. This is an act of territorialisation (Blomley, 2015) because the spatial practices and imaginaries of 'owning' are thus allowed to bleed into land that was hitherto not constituted through the lens of exclusive private property, and which is still subject to a complex array of legally inscribed collective use rights and diversified land use. Even though the land might be registered as privately owned (individually or shared), these are areas where user rights have been established over a long period of time after a "bundle of rights" principle, where different people have rights to different resources within the same area (Sevatdal 1998). Mobilising language that shifts the boundary of infields in this way constitutes a normative green light for considering one's own something that hitherto was not enclosed or considered fully one's own. It invites treatment of outfields as if they were infields, and collective as if individual property. Moreover, after Blomley (2013), farmers' claims to outfields have huge performative power because they successfully cite established 'ownership model' (Singer, 2000) imaginaries and materialities of the private property they already possess, and are thus imbued with the same individualised, exclusionary logic.

Furthermore, the word 'take' implies a kind of unilateral enactment that one is at liberty to do; a gesture of permission to the farmers that the land is theirs to 'take' without issue. The question of 'take' *from whom* is obscured by the third crucial discursive move 'into use'. With the invitation to take land 'into use' is the strong implication that the land is currently not in use or that it is seriously under-used. Resonant of long-established Lockean tactics of property appropriation, deeming land under-used constitutes space as an empty vessel where little is happening.

In the diversification of the rural economy the calculus is one of maximising profitable use. The question of precisely whose use is maximised and whose is curtailed is complicated by the array of different entities holding legal rights to outfields. One of these entities is the South-Sámi reindeer herders.

South-Sámi reindeer herding

The South Sámi area in Mid-Norway is one of the regions where the more-than-human aspects of property are vital, and which is indeed vulnerable to the repurposing of the outfields. The South Sámi people is a minority group within the indigenous Sámi minority, and reindeer herding constitutes an important basis for the threatened South Sámi culture and language. Reindeer require large areas due to their seasonal migration patterns, and thus flexible management practices. The Sámi reindeer herders normally do not own the land they use, but they have grazing rights as part of Norway's long history of property rights characterised by time-honoured traditions of split property rights, where resources and benefits are divided between owners and rightsholders (Riseth, 2007). The reindeer grazing rights are established through usage since time immemorial, and not on the basis of the Sámi being an indigenous group (Bull, 2001). The Reindeer herding Act states that the South Sámi population has, based on rights of use based on immemorial use (§ 4) the right to exercise reindeer herding in Mid-Norway. While legislation and court decisions appreciated Sámi reindeer herding rights in the 18th and 19th centuries, the interpretation of these rights has changed, favouring Norwegian farmers and other land use interests (Bull, 2010). The reindeer herders' user rights are stated in several Supreme Court cases rather than in written agreements between stakeholders (Bull, 2010).

The South Sámi reindeer herders' land rights are intimately tied to the spatialities of reindeer behaviour and thus established on the basis of a close relationship between human and non-human agency. The requirements of the reindeer, and consequently reindeer herding land rights, are however not necessarily compatible with the diversification of outfield practices, or modernisation processes in general. Second home development, windmills, and micro hydro power plants, as well as diversified recreational use, increase the pressure on the regular patterns of reindeer movement and associated spatial practices of herders. The sum effects of land fragmentation and land losses lead to increased need for transporting the reindeers between seasonal pastures. This is costly, labour intensive, and as one reindeer herder we interviewed stressed, this is counter to what reindeer herding ought to be about – environmentally friendly utilisation of natural resources, 'producing the best and most natural and ecological meat there is'. While previous routes are cut across by various developments, reindeers may take alternative routes into areas they are not supposed to be, or used to be, generating further conflicts. The status of reindeer as a semi-wild animal, and law specifying

rights over use rather than any specifics of animal needs, lend ambiguity to the current encounters between reindeer herding and commercial imperatives experienced by other outfield users.

More-than-human performance of property

In this section, we present and discuss an empirical study of animal and more-than-human aspects of performing property, which we argue are central in the multiple acts of material, metaphorical and affective expression that bring *outfield* property into being; firstly, the more-than-human agency in the outfields, and secondly the performance of more-than-human property through law and policy.

The analysis is based principally on 22 in-depth interviews with representatives from local, regional and national agricultural as well as reindeer herding authorities and representatives from both reindeer herding and farmers' organisations. The interviews aimed at detecting how different actors experience economic and policy changes, which have affected land use in the outfields, and how these actors experience issues related to property and ownership in the South Sámi areas (Fig. 1). As conflicts over land use and rights have brought about heated debates, and partly a difficult climate for discussing these issues within parts of the South Sámi area, many of the informants are reindeer owners or farmers but have been selected to participate in the interviews due to holding a representative position within relevant organisations. In addition, we have carried out a literature review of relevant hearing and policy documents, court cases and debates in the media, which have provided us a platform from which to understand the historical background as well as on-going outfield commodification processes. We have employed computer-aided qualitative data analyses using cross-sectional indexing.

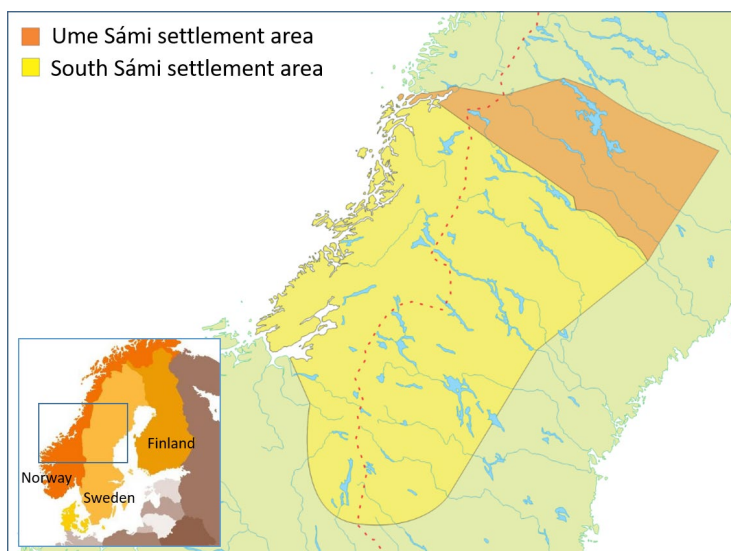


Figure 1. Map of Trøndelag and Nordland in Norway, and Jämtland and Västerbotten in Sweden; showing the traditional areas of the South Sámi and the related Ume Sámi in Norway and Sweden. Map made by Finn Bjørklid, based on similar map in Maja Dunfjeld's book *Tjaalehtjimmie* (2006). The study area is on the Norwegian side of the border.

Nonhuman agency in the outfields

The extent to which the agency of animals and other nonhuman entities affect the work of property was striking in the case of co-performing property with human actors.

Reindeer articulate their complex set of needs contingent upon seasons, weather, topography, and their breeding cycle, through their proclivity towards highly mobile and flexible use of large areas of land, irrespective of any administrative boundaries. Even though these are semi-domesticated reindeer, their behaviour and seasonal migrations are relatively similar to wild reindeer, which roam in other parts of the country (Hagen et al., 2007). Reindeer herding takes place in an arctic production system, where the scarce resources are carefully utilized and the reindeer are vulnerable to carnivores. The animals move between particular kinds of terrain and vegetation at different times of year according to factors such as snow cover, grazing availability and reproductive requirements (e.g. calving). How reindeer use the land varies from year to year, since the lichen, which is their main fodder, does not necessarily recover every year due to climate variations and often grows very slowly due to the harsh climate (Fryxsell et al., 1998). Herders stressed that responding in ways that match up reindeer breeding and husbandry needs with fluctuating biophysical conditions, both temporally and spatially, means that it can be decades between periods of use between some areas of land. The growing unpredictability of cyclical variations due to global climate change poses a particular challenge to the worthwhile enactment of herder land rights in terms of having the scope to adapt spatial practices to access the required pasture qualities (see Benjaminsen et al., 2015).

A crucial co-agency in the outfields emerges between reindeer and various kinds of developments and their related practices. The South Sámi reindeer are semi-wild and, although slightly less disturbed by human activity than the wild reindeer, tend to be sensitive enough that they seek to avoid infrastructure such as cabins, roads, tracks, wind turbines, masts, dams, vehicles, and fencing and related human activities (Hagen et al., 2007) - especially in periods when they are particularly vulnerable, such as during calving and when calves are young. This means that while young males may be wandering around wind turbines, females with calves will shy away from infrastructure, but most of all from human disturbance and especially dogs, reindeer herders stressed. Hence, the range of objects and technologies of outfield development exert agency directly through their physicality and the affective relations of fear this generates with the reindeer.

If you look at cabins, that has changed a lot. Large areas have been developed. (...) Most of the reindeer will not use those areas.

And then you have the infrastructure, that's all kinds of things, roads, railroads, and you have power lines, and various power plant developments, small and large. (Local authority)

Furthermore, cabins built on outfields as objects of leisure facilitate new spatial mobilities of human recreation. These can be more expansive in extent and enrol an increasing range of technologies going beyond traditional walking to include for example mountain biking and kite surfing. In addition, people are using cabins more regularly and for more of the year than they used to.

We have large groups that use, and will use, the outfields in the countryside more than before. It might be cabins, and the activities attached to cabin development. It is trails, ski tracks, alpine ski slopes, small and large, motor sports and such things. And dog training. (Local authority)

These recreational practices radiate out from the cabins and work to alter where and when reindeer will use particular areas. This contrasts with the impression of some people that cabins don't take up much space:

Those who have a cabin, they think: «This is only a cabin. That doesn't cover up a large area.» But the cabin in itself does not matter that much, (...) it is the use that is the problem. If it's many people in an area, then the reindeer naturally avoid that area. (Representative, Reindeer herding organisation)

The expansiveness of the outfields feeds the notion/spatial imaginary that the few square feet of a cabin are insignificant in comparison to the enormity of the outfields, when in fact large areas of ground can be taken out of production in a 'halo effect' as the associated corporeal practices of recreationists and their aural, olfactory and terrestrial traces divert reindeer away from pasture and cut off corridors linking pasture. What appears expansive space to a human is not necessarily sufficient space for reindeer - and therefore their herders.

The spatio-temporal constraining, coercion and preclusion of the more-than-human mobilities that make the enactment of herding rights possible - and meaningful - lie at the very heart of how problematic property assemblages in contemporary outfields are brought into being. Cabins and associated practices reassemble property in ways that not only structures experience in particular ways (after Delaney, 2015) but also invite and preclude particular human and animal responses to that experience.

The scope of reindeer and herders to adapt spatial practices in rights enactment is further constrained by the co-agency of carnivores in relation to reindeer and livestock.

Well, we have two main challenges. It is carnivores and land (Local authority)

Losses from large predators directly hampers breeding success. The exact numbers of losses due to carnivores, as regards both reindeer and sheep, are difficult to obtain. This is subject to widespread public debates, however, the loss of 17700 reindeers were *compensated* for in 2015-16 (Statistics Norway, 2018). Informants referred to individual reindeer herders having lost up to 80% of their calves in some of the worst years. In addition to the direct losses, participants reported that increased presence and predation from carnivores cause reindeer to avoid areas that would otherwise be utilized for calving, grazing and migration. In general, reindeer herding is something many young Sámis want to pursue, but the carnivore problems are by some seen as one of the main factors hindering recruitment to the sector as it prevents young people to build up a sustainable herd. Their breeding programs where they are building a herd on the best animals is devastated by carnivores:

A problem we see with carnivores is that the young herders who want to start, they can't build up a herd. That's maybe the biggest problem for the recruitment, as we see it (Local authority)

Farmers face similar difficulties with carnivores preying on their sheep. One should expect that there might be potential for the farmers and reindeer herders to form alliances to strengthen their voice in the carnivore debate. However, according to our interviewees this seems so far to happen to a limited extent. Even though there are common interests regarding carnivores, the conflicts related to land use in many areas overshadow this:

*When you are in forums where carnivores are discussed, then the emotions are so bitter that you still don't make any good alliances, no matter what.
(Local authority)*

Interferences with reindeer herding practices such as developments of cabins, roads wind mills and so on are looked at with even greater concern due to their irreversibility:

The number of animals, carnivores and how many herders there should be, these are reversible things that can be adjusted ... But when you have ruined a mountain area with roads, or hydropower dams, then it's irreversible. That's what makes it so serious. (Regional authority)

According to one representative from the county government, the alliances that farmers form with second home owners pertaining to the development of land are stronger than, and work against, the potential alliances that farmers and reindeer herders could form based on their resistance to carnivores.

In practice reindeer herding enactments become confined to smaller and smaller areas as the more-than-human agency of both development and carnivores – exacerbated by climate change - affects reindeer health and movement. Reindeer become caught between the most 'domesticated' outfields on one hand (recreation-based pressure) and the 'wildest' on the other (carnivore-based pressure), leaving altered and reduced spatialities within which flexible mobile practices must operate.

A further complication in the unsettling of outfield property relations is the agency of various technological objects brought into herding practices. On one hand, the snowmobiles, motorbikes, helicopters, and trucks work corporeally on the reindeer to encourage and channel particular mobilities so that breeding and nutritional needs can be met from available pasture. On the other hand, these technologies generate particular affective relations between herders and non-herders and are often used as metaphorical weapons against Sámi and their 'special' rights:

I sympathise a little bit with the property owners (...) Because they [reindeer herders] can legitimize the use of motorized vehicles in their work, they drive when they want and where they want. Those who want to take out some firewood on their own property have to apply to the local authorities. If they want to develop some tourism, and just bring some building materials to a cabin on their own property, they have to apply (County Governor).

Even if many claim that the Sámis use snowmobiles and ATVs, the use of these vehicles are subject to strong regulations, as the use is only allowed when the purpose is connected to their reindeer business activities. However, the way in which new technologies are utilized in reindeer herding practices differs:

Yes, I introduced the cross motorbike (instead of helicopter, to gather the herd). That's ... a different way of thinking. But still it's more towards the old way of thinking than using helicopter, (...) it is less stressful [for the reindeer]. (Representative, Reindeer herding organisation)

A key question infusing talk of technology and reindeer herding is whether and to what extent new technological practices are shifting away from tradition, and can therefore be legitimate enactments of outfield rights. This is deemed unfair by many farmers, and by some people in management such as this representative from the Ministry of Food and Agriculture:

Well, I should be a bit careful, but as I have understood (...) the reindeer herders also use snowmobiles, because it's fun. And there are restrictions for others. So the reindeer herders have to be responsible, and use their rights in a sensible way. They have rights to use the snowmobiles for herding. Not that I believe they use the snowmobiles so much for other purposes (...) but it might be that they use it to reach fishing lakes, to where other people have to walk, but that is their right ...

Most resentment stems from notions of Sámis “misusing” their right, while others argue that what is use and what is misuse is often a matter of subjective assessment. The local farmers union, for example, claims that there are just as much recreational use of the snowmobiles among the Sámis as use connected to actual reindeer herding:

They [Farmers union members] often meet young Sámis on snowmobiles with their friends on the back, going fishing, inside the national park, right, and this is very restricted for others, and as long as they can claim that they are doing reindeer herding, then no one can stop them or control them. It is no doubt among my members that there are just as much use for recreational as for herding purposes. (Representative, Farmers union)

Herders do not see this as a major issue but rather highlight motorized vehicles as just as an integrated part of their business as tractors and forest machines are for farmers and the forest industry:

You know, they have the right to use tractors and forest machines, and they ruin the forests when harvesting timber. So, that is exactly the same thing, and a farmer without his tractor, what is that? (Regional authority)

Performing more-than-human property through law and policy

Official procedures for securing local authority approval for outfield developments involve planning processes which includes formal meetings with involved actors, hearing rounds, often media debates and lobbying at the local, regional or state level. In such processes there are often alliances formed in order to strengthen the power of certain points of view. Institutional challenges in performing more-than-human property relate, firstly, to representativeness, procedural justice and stakeholder resources and burdens, and, secondly, to the contested spatialities of mapping as a tool in planning processes, which will be discussed in turn.

The material suggested that different rightsholders and stakeholders exert differential agency over the unfolding of planning practices, due to ways in which financial, informational and human resources were mobilised, and the benefits and burdens thus effected. One of the most obvious and striking aspects is the fact that reindeer herds move over large areas across administrative borders, and hence one reindeer herding family might be involved in many different planning processes at the same time, in different administrative regions, crossing not only municipal and county borders, but even national borders:

It's everywhere [cabin development]. One reindeer herding district I know has reindeer in two counties in Norway and one in Sweden – I don't remember how many local authority districts, maybe 11 (...) So they have a really large area. It's an enormous amount of proceedings. (Representative, Reindeer herding organisation)

It is felt that without more human and economic resources, herding interests are not able to follow all the different land use cases and processes closely enough to provide a nuanced, early or strategic response. For example, without any alliances local reindeer herding interests have felt the burden of singlehandedly fighting against a cross-country skiing project:

The conflict level has escalated, almost so they don't talk to each other anymore, and the local authorities are sitting on the same side as the event organisers. The reindeer herders, that already are weakened, are left alone. (Regional authority)

This case is only one of many where reindeer herders feel they are forced into a reactive role in which they have no choice but to give a 'black and white', negative response, which means that a number of conflicts and land disputes are continuously on-going in the legal system. Constant court cases have earned the reindeer industry a reputation to be "brake on rural development":

We are known to be against development (laughter) (Representative, Reindeer herding organisation)

Both the legal proceedings and the associated stigma add significantly to the psychological burden experienced by the industry's practitioners, and paradoxically absorb resources that might have allowed a more nuanced response to applications to be made; one that could take account of reindeer co-agencies in a more spatially and temporally sophisticated way. In addition, there is frustration that it is left to herders alone to resist developments, when those looking after environmental and public good interests benefit from this resistance but do not share responsibility for it. Among others, a representative for the Ministry of Agriculture and Food point out:

Well, in some cases reindeer herders can be an alliance partner, but in the main questions they are not. They have more in common with the environmental movement. Having said that, I have heard from reindeer herding sector that the conservationists have been very happy that the reindeer herders have taken the debates, and been in front of the conflicts. (...) The Environmental movement have waited for the reindeer herders to make the objections, and take the blame.

The reindeer-herding sector feel they bear a disproportionate burden of legal procedural costs of outfield developments, whilst not standing necessarily to gain any benefit. Due to the centrality of animal mobility to herding viability, herding organisations are forced to spend the majority of staff time administering and responding to cabin development applications and occasionally associated court cases, and report serious implications in terms of time, money, intellectual and emotional energy, and mental health for those involved.

A recent national strategy has urged reindeer herders to identify and map areas and routes of special importance for herding. The principle of requesting stakeholder groups to map, visualize and rank some values above others have become a key principle in modern land use planning in order to provide sufficient inputs to mainstream planning tools. Some believe this is the right thing to do, since this part of following the norms for modern democratic land use planning. In order to “get something”, you also have to “give”, at least you have to “play by the same rules”, as argued here in a quote from a representative from the Ministry of the Environment:

... To put things on a map, (...) to visualise things, is against what some think is right to do. (...) This is peculiar, because it's so far from a rational planning model we more or less operate within. (...) They [herders] don't want to show things on a map. This makes them lose in a society where everything is digitalized, where you visualise and put things on top of each other (on a map). (...) It takes something to make things work, and the agricultural sector has improved a lot here.

The need for a flexible range of possibilities for reindeer pasturing at particular times of year constitute a key reason that herders are reticent about engaging in prioritization exercises. Some perceive such acts of fixing animal movement as an injustice since it will lead to a less strict policy towards other, also important, areas, and might constrain flexibilities regarding future access to productive areas. There is a mistrust that any such representations of herding mobilities will be of any benefit:

I'm getting crazy about these things. Crazy. 30% of the area is supposed to be key areas! But what about the remaining 70%?! You cannot just throw away 70% of your area. (...) This is a process from the Ministry of Agriculture that ... This is not about protection of the reindeer herding grazing land. (Representative, Reindeer herding organisation)

Ultimately the parties imagine and perform outfield space very differently. Planners are attempting to constitute space using a more fixed, abstract and Cartesian logic than the herders who wish to respond to the situated, contingent articulations of the reindeer's embodied experience of outfield biophysical conditions prevailing in a given season or year.

The planning system has trouble with such animal mobilities in part due to reindeer exceeding and troubling established, dualistic animal categories; being neither wholly 'wild' nor 'domestic' (see Srinivasan, 2013 on how such categories shape animals' protections and expected agencies and mobilities). As Braverman (2016) notes “[l]aw, as a system of ordering, is deeply ambivalent toward hybrids” (p.13), yet highly influential in shaping the emotional and legal response we are to have towards such animals.

The possibility of some pasture being rested or available for contingent animal mobilities, which could see crucial areas remain unused for a decade or more, is felt vulnerable when forced into the framework of modern land use planning spatialities. Indeed, a representative for the County Governor thinks that even if there are some challenges to face, it is unavoidable that reindeer herders have to adapt to modern planning practices by engaging in discussions about reindeer mobility, not at least in order to strengthen the dialogue between different parties. If not, the herders will remain “those who always say no” to developments and thereby might undermine the legitimacy upon which the enactment of Sámi reindeer herding rights depend:

A classification of the grazing land - it would have been really interesting to do this here in this county – to be a good example. (...) They say they are so tired of being those who always say no. (...) Then they probably have to accept such processes as this classification system. (...) it has to be comparable, their management and the public management. So it becomes easier to communicate. (Regional authority)

The more-than-human agency of reindeer mobilities is fundamental in shaping herders’ enactments of land use rights, and the lack of a meaningful way to take this agency into account in planning and policy allows outfield land to be deemed ‘under-used’. Yet the control over nonhuman vagaries of land use required to fix boundaries on a map is very hard to obtain for reindeer herders who co-constitute their practices with law, space and time in unpredictable and non-Cartesian ways.

Dimensions of more-than-human property relations

A key way in which new property claims gained constitution in our empirical material was through the particular co-production of human and animal practices; especially the clash of spatialities and temporalities that differentiated the imaginaries and practices of ‘plenty space for all’ and thus cabins, from the constrained reindeer and herder ways of performing outfields. We can draw here on Foucault’s (1986) notion of space doing work through its simultaneity and juxtaposition. On one hand, there are acts of enclosure in which maps of planned cabins and actual cabins suggest outfield space as minimally affected by the removal of a few square metres. These combine with the enactment of rights of public access (*Allemansretten*) to promote imaginaries and human experiences of outfields as vast, spacious and empty. On the other hand, the affective dispositions of reindeer lead them to enact and experience outfields differently. Their nervousness at the presence of buildings, roads and people works as a form of corporeal discipline – in ways distinct from sheep who are less affected - which fixes and restricts the fluidities of reindeer and herder movements, often leading to a critical contraction of available territory.

Together, romantic and Cartesian mobilisations of outfields as empty and endlessly plentiful – coupled with the citational power of small plots of individual, private property - belie the spatial and temporal needs articulated through reindeer responses to recreational infrastructure and practices. There is a failure to capture the agency and excesses of climate and vegetation variability that might make the infrequent use of a particular pasture by reindeer a critical use nonetheless, giving herders and reindeer the ability to respond. This is

an entanglement of spatialities that is in part juxtaposition of abstract and bodily practiced ways of mobilising outfield space, and, in part, juxtaposition of human and nonhuman ways of doing outfield space. Not 'seeing' the animal ways of doing space make outfields divisible and commodifiable, suggesting emptiness and predictability where none exists. Producing space divorced from nonhuman articulations and agency serves to obscure how reindeer and herders are increasingly constricted in how spatial and temporal enactments of their outfield property rights can be made – and be made meaningfully – due to vegetation, climate, cabins, recreation and carnivores. This is a human-nonhuman co-production of objects, experience and mobility.

The tendency previously to understand land use conflicts involving indigenous groups solely through lens of ethnic struggles has tended to divert attention away from the full array of ways in which property rights enactment work. If we looked solely at injustices rooted in ethnicity and history, as regards South-Sámi reindeer herding, we might miss injustices wrought by the geographies of reworked property relations. The doing of justice depends on how myriad performative acts work to destabilise outfield property assemblages. As we have seen, far from being a set of technical institutional transactions and transformations, commodification practices not only entail changing the orientation of land with respect to particular markets and policies, but also creating flux in previously stabilised practices and identities that link people, land and animals. It could be argued thus that possession of legal rights has been insufficient for justice to be done in this case (cf. Mitchell, 2003). Both farmers and herders have, in a sense, a right not to be excluded. However, for the herders this right is becoming less meaningful. Even though farmer and herder use rights are not identical, there are uneven performative possibilities for enacting and defending the use rights that do exist, which go beyond differences in their detailed legal configuration. For herders, their ways of doing outfield property have become both less practically possible and lost legitimacy. Their rights are intact whilst their ability to enact them through more-than-human co-agency has diminished.

If we are to deepen understandings of the more-than-human doing of property we need to take on board Haraway's (2008, 2016, 2018) insistence on the need to attend better to response-ability. She explains response-ability in terms of capacity of human and nonhuman actors to articulate, attune and respond to each other, and highlights that issues of justice and ethics are invoked as this capacity is often differentiated; both within and between groups of humans and nonhumans. This conceptualisation can be useful applied to property enactment as different property claimants demonstrate differential capacities to articulate their claims, attune to the enactments of others, and to respond to those enactments, and in ways important to explain how property works beyond the legal scripts. The uneven response-ability in the reworking of more-than-human property relations is shown in our findings to have at least two key dimensions:

1. Biophysical (in)visibility of more-than-human property enactments (and their contingencies): Regular, physical presence is considered an important form of citational labour (Blomely, 2013). Likewise, Philippopoulos-Mihalopoulos (2014) asserts that the ultimate doing of justice is the occupation of, and movement through, physical spaces. However, we have learned in previous sections that the bodily, material enactments of herders and reindeer faced particular difficulties in being visible as outfield property claims.

Their wide-ranging mobility coupled with the sometimes-remote locations and sometimes irregular and infrequent intervals of herding practices – whilst still critical for allowing flexibility under variation and uncertainty (see also Horstkotte et al., 2014) – creates a physical invisibility that lacks performative force, making it easier for developers and recreationists to see outfields as empty or under-used land. Not experiencing or constituting spaces as animals do likewise facilitates a misunderstanding of reindeer responses to the repurposing of ‘only’ small areas of land for developments. Such enactments of farmers’ rights understood through the logics of abstract, boundable Cartesian and ‘ownership model’ spatialities work on the assumption that reindeer could move through or graze all but the individual plots of land upon which cabins sit. Yet reindeer simply do not respond to the articulation of material buildings and associated recreational use in this way. Reindeer sensitivities meaning that herders cannot enact their rights as fully as abstract spatialities would suggest. There is an anthropocentrism in what constitutes successful citation labour of a property claim that does not recognise such multispecies co-agency. Essentially, reindeer adapting their physical movement to the presence of infrastructure, carnivores, or changes in the natural environment, are reindeer articulating a response to reworkings of the property assemblage, but these articulations of altered corporeal mobility seem to have low legibility as successful labour in the work of property. Indeed, the more reindeer avoid such spaces they previously used, the more the problem of enacting spatial justice through physical movement and presence are exacerbated.

2. Reliance on anthropocentric procedural justice for property enactment: Due to the legal, cultural and biophysical invisibility and citational failures of herders’ property enactments, they were consequently forced to rely upon the procedures of the local planning system for securing citational possibilities and purchase for their property claim. Yet here they were vulnerable to procedural limitations in terms of: (a) the herders’ subjectivity as holder of property rights being taken less seriously compared to others possessing user rights to outfields – due to their more-than-human legal constitution as based on use associated to animal transience versus ownership of a fixed piece of associated land - sometimes denied herders a proper or timely ‘seat at the table’, meaning that in procedural forums citational labour could only be channelled into reactive roles. Herders often faced the additional citational challenges of becoming suddenly and negatively visible in property repurposing processes, as illustrated by the contestation over the varying validity of technologies associated with different outfield land use practices. Such stigma and relating more-than-human doings of cultural injustice and procedural injustice seemed to fuel each other in property enactment; (b) the subjectivity of animals (and co-agency with human rightsholders) not being visible, congruent with or taken seriously in the ‘democratic’ planning procedures required to arbitrate between different property interests. If, as Haraway suggests, response-ability is intimately caught up in how we come to know and be in the world, the fact that reindeer-herding co-becomings did not sufficiently fit established, western, legal frameworks of property, was consequential for the citational power of their property enactments. The requests to map reindeer routes through human Cartesian spatialities cultivated spatial injustice by foreclosing current and future spatialities and temporalities of animal mobility becoming legible in meaningful ways; (c) the widespread and fundamental necessity of outfield access for reindeer herding leading to herders taking the burden of resistance in fighting developments for other interests and wider ecologies, despite the onerous demands

– financially, organisationally, emotionally, and time-wise – of defending use rights across multiple authority boundaries.

This shows how animals can matter in where the citational burdens are placed to uphold particular property claims. If multispecies justice is the means and not just the ends of flourishing in this world (Haraway, 2018) then we must pay attention to how procedural justice is performed in more-than-human ways.

Conclusion

Property relations are co-constituted not only through law and space, but also through the conjoint practices and mobilities of human and animal agency. Philippopoulos-Mihalopoulos (2014) defines spatial justice as the struggle of various human and nonhuman bodies to occupy – and circulate through – certain material and metaphorical spaces at a certain times. He links the ability to occupy and move corporeally across spatiality and temporality to the movement of other bodies. In our study, property was reworked such that the capacity of herders and their animals to occupy and move through material and metaphorical spaces was curtailed by the metaphorical fixings of land (as spacious and underused) and deliberative space (as the preserve of ‘owners’, developers and those prepared to constitute space in the abstract, reductive ways demanded by planning procedures), enabling the material fixings of objects (cabins and energy developments), which in turn curbed the movement of reindeer bodies.

We find conceptions of spatial justice valuable for understanding the contested repurposing of property but stress the importance of dealing not only with the occupation of, or movement through, space but the conditions that enable it. If we want to understand how different rightsholders respond to changing valorisation of a resource, we must interrogate what it is about particular property assemblages of bodies (human and animal), objects, ecologies, imaginaries, mobilities and fixings that make the repetitive and citational labour of property enactment achievable and effective (and not) for particular claimants.

We propose in particular that more attention be paid to the more-than-human geographies of property and their role in bringing about spatial (in)justice, and suggest Haraway’s (2008, 2016, 2018) configuration of multispecies response-ability as one way in which to make visible the more-than-human relationality of changing property assemblages, and the law-space nexus generally. Our empirical case highlights promise in two key areas for understanding property enactment and associated institutional and normative apparatus.

Firstly, if response-ability - the cultivation of the capacity for mutual response - is vital for building of ethical relations across difference, then we need to look further into the co-agency of various animals and humans as they struggle to make and remake legal space. Attending to the performative and corporeal agency of various human, animal and inanimate actors highlights how rights are worth very little without the ability to articulate and respond in the more-than-human ways necessary to enact those rights visibly and meaningfully. For Haraway (2016, 2018), a fundamental part of response-ability is to take risks in making experimental, hybrid kin, which could involve forming new, experimental subjectivities of property as we enact with nonhuman others. This could include experimenting with more-than-human categories of rights, such as rights explicitly held conjointly by animals and humans together,

rather than by one or the other, or with categories of subjectivity, such as animals having space to be hybrid (e.g. reindeer as semi-wild) in legal and moral regulatory framings.

Secondly, we need to address better how conceptions of spatial justice and property enactment cope with the potentiality – and not just the actuality – of movement, including more-than-human mobilities, and all the uncertainty and ‘unruliness’ this implies. Blomley (2013) understands property in terms of the possibilities of performance, but this needs to be extended further to deal with the performance of possibility, of latent movement and action, of particular rhythms and spatialities that might be possible. To illustrate with regard to reindeer and herders, there may be a need to occupy and move across land in particular ways in the future – perhaps next year, perhaps in 10 or 20 years, depending on how reindeer might respond to the prevailing climatic and reproductive conditions – but such enactments are not necessarily needed now, or cannot necessarily unfold in the continuous, repetitive and sustained manner noted as important for a successful property claim by Blomley (2013). This demands greater consideration of just how ‘sustained’, ‘continual’, predictable or frequently repeated legitimate property enactment has to be. Making conceptual space for the ongoingness of multispecies becomings – co-constituting what is now and what might yet be – as Haraway (2016) does, is an area requiring more attention regarding contested property relations. How do we account for property inhabiting multiple moments as well as spatialities simultaneously? Recognising these more-than-human ways in which “time is materially in play” (Haraway 2018) is important for becoming more alive to how temporal and spatial tactics of doing property implicate each other (see also Valverde, 2016). Indeed, our work suggests that spatial justice in property enactment is not fully meaningful without temporal justice.

We co-produce spaces with animals and other non-human entities, and more-than-human agency are bringing about particular fixings and flows. Through our work, we have learned that we need to pay greater attention to the ways in which animals articulate preferences and our capacities as humans to attune and respond appropriately. This involves giving credence to ways of knowing beyond the verbal, and ‘rational’, as well as the Cartesian spatial frameworks with which we are familiar. The space-times of human response to nonhuman articulations might then include, as Haraway (2018) suggests, being prepared to “not know so as to know otherwise and to know-with-unruly-others” (p.103). Making legal space materially and metaphorically for such ‘unruliness’ is key to taking the more-than-human seriously in understanding and generating fair and effective property relations. It means property systems letting go to some degree of their imperative to bound and control the nonhuman tightly in a quest for clarity that struggles to map onto the more lived and liveable spatialities of the messy, multispecies world.

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