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Constructing forest owner identities and governing decisions and relationships: the owner as distant consumer in Swedish forestry

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Increasing diversification, urbanization, economic restructuring, and distances, as well as declining economic dependence on forestry, are changing the characteristics of forest ownership and the conditions for environmental governance. Through an interview-based case study of Swedish forestry industrial actors, this article examined the organizational and governing aspects and implications of recent shifts by exploring the strategies and marketing/governing technologies of private/industrial forestry organizations. With a focus on local implementation, this study shows that forest owners are largely constructed, and engaged, as consumers (rather than, for example, as timber suppliers) and are governed, partly at a distance, through specific forms of guidance, technologies, and knowledge to overcome the lack of social and physical presence in the design and interaction of sale. This stresses the need to understand the role, function, and power of the forestry organizations and sales processes in research on environmental and forest policy implementation on multiple levels.

Keywords: Organization; sale; technology; agency; forest ownership

1. Introduction

In recent decades, the role of the consumer has been emphasized in various areas, including forest products (e.g. Rametsteiner and Simula 2003) and forestry (e.g. Mattila and Roos 2014; Berlin, Lidestav, and Holm 2006). As in other markets, there has been a shift from product-led (Morgan and Sturdy 2000) to consumer need-led marketing (Knights, Sturdy, and Morgan 1994, 44), particularly in relation to communication across distance and to changing groups, through the use of different technologies. However, in marketing, 'needs' should not be directly understood as a reflection of reality, but rather as practices of power that are constitutive of a specific reality that produces specific forms of subjectivities and identities (Knights and Sturdy 1997). The role of marketing practices is therefore largely to create the 'consumer' as an object that can be governed (Hudgson 2001), e.g. through new means of consumption (Ritzer 2001) and technologies of agency and performance (Dean 1999). The specific relationships and expectations of the consumer contribute to shaping their decisions and

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agency through the environmental design of interactions. Within contexts that have traditionally relied on social regulatory practices of/within social settings and relationships, the shifts in human interaction with the physical environment and greater distance thus highlight the need for new forms of governing (cf. Castree 2008) and environmentalities (cf. Fletcher 2017).

From the perspective of the forest industry, the needs of the bio-economy emphasize the necessity to ensure the supply of forest resources through forest owners' relationships and engagements (Lähdesmäki and Matilainen 2014). At the same time, the shift in characteristics of forest ownership resulting from diversification, urbanization, economic restructuring, and declining economic dependence on forestry poses new challenges as 'new' forest owners – who may not live on their properties or be dependent on forestry income – become more common (Westin *et al.* 2017; Weiss *et al.* 2019; UNECE/FAO 2020; Keskitalo 2017; Ficko *et al.* 2019; Follo *et al.* 2017; Lawrence *et al.* 2020). As owners continue to move away from the physical forest, existing social settings and forest networks may become less present and accessible, which will affect the subjection and power position of forest owners (Westin *et al.* 2017). The changing geographical and social conditions will also affect the forest industry, and its organizations, in terms of aspects such as how trading and relationship-building processes are organized and the tools and services that are developed and marketed (e.g. Mattila and Roos 2014; Berlin, Lidestav, and Holm 2006; Hujala and Tikkanen 2008; Hokajärvi *et al.* 2009). Actions that could help enforce specific notions and perceptions of ownership include empowering a sense of identity and perceived control (e.g. through increasing knowledge and tailored services) (cf. Andersson and Lidestav 2016; Lawrence *et al.* 2020), which has been shown to shape and guide decision-making to move in the direction of stressing traditions, economic incentives, and responsibility for property (Lähdesmäki and Matilainen 2014).

With a focus on local implementation, this study examines the organizational and governing aspects and implications of recent shifts in forest ownership by exploring the strategies and marketing/governing technologies of private/industrial forestry organizations. This is done through a Swedish, boreal-based case study and by drawing upon interviews with representatives of all the main private/industrial forestry organizations (i.e. a total study) in Sweden – which include larger forestry companies, midsize forest industries, forest owners' associations, and forest management organizations, most with their own industries and dependent on the forest resources of non-industrial private forest (NIPF) owners. The specific research questions studied are: (1) How are forest owners constructed through these forestry organizations? and thereby, (2) With a focus on technologies of government (Rose 1999; Dean 1999), how are forest owners, in a time of change, rendered governable in specific ways? Applying the Foucauldian concept of governmentality (Rose 1999; Dean 1999), it examines the relationships between conceptions of forest ownership, power, and knowledge in the everyday processes and practices of forestry and interaction with the physical environment (cf. Winkel 2012).

2. Forestry and forest ownership: in the Swedish context and beyond

Forests provide both environmental and economic benefits in terms of biodiversity and various ecosystem services (e.g. Mori *et al.* 2017). About a third of Europe is covered by forest (Forest-Europe 2015), of which 40% is owned and managed by private

individuals or families (Lähdesmäki and Matilainen 2014; Toivonen *et al.* 2005). In general, the share of privately owned forests in Europe is increasing (Lawrence 2020). However, there is great variation between countries; not only in the share of private ownership but also in the size of holding (Weiss and Nichiforel 2020), geographical and psychological distance (Weiss *et al.* 2019; Ficko *et al.* 2019), and other ownership characteristics (e.g. Westin *et al.* 2017; Weiss *et al.* 2019; UNECE/FAO 2020; Keskitalo 2017; Ficko *et al.* 2019; Follo *et al.* 2017). In relation to effective policy and management development and implementation, this highlights the importance of understanding forest property ownership based not only on its specific characteristics but also within its institutional, regulatory, and political context (Andersson, Keskitalo, and Lawrence 2017; Nichiforel *et al.* 2018; Krott 2005). This is mainly due to the specific ways that these conditions, settings, and structures shape, for instance, rationales, decision-making, and management in relation to various types of ecosystem services (Lockie 2013), forest management concepts (Winkel *et al.* 2009), climate change adaptation (Andersson *et al.* 2017; Andersson and Keskitalo 2018), nature conservation (Winkel *et al.* 2015), and the renewable product market (the bio-economy) (Schmithüsen and Hirsch 2010; Kleinschmit *et al* 2014).

In Sweden, half of the forest is owned by some 330,000 NIPF owners within small-scale or family forestry (SFA 2014). Forest companies, both private and state-owned, hold 39% of the remaining forest, and 11% is owned by other private owners, state authorities, or public owners (SFA 2014). This forest ownership structure, in combination with an early development of the forest industries, has contributed to Sweden having one of Europe's largest forestry sectors in terms of area and contribution to GDP and export value (SFA 2014). Sweden is the world's third-largest exporter of sawn goods and fourth-largest exporter of pulp and paper (SFIF 2017). There is relatively strong coordination within Swedish forestry, including individual small-scale or family forest owners in forestry production, brought about by four main forest owners' associations that provide supporting services such as purchasing wood and selling logging services to forest owners (Mårald and Westholm 2016; Andersson and Keskitalo 2019). Despite the fragmented ownership, forestry organizations, including both private companies and forest owners' associations, have historically had a great influence on forest management and operations in Sweden. The shared rationales and mentalities of Swedish forestry and its organizations have helped maintain high activity in family forestry and a steady supply of timber to the industry (Appelstrand 2007; Törnqvist 1995). This has led to the development of relatively intensive semi-natural forestry (McDermott *et al.* 2010), with wide-scale production of even-aged stands with a single dominant tree species (Axelsson and Östlund 2001). Since the deregulation of forest policy through the 1993 Forest Act, forestry has also been pursued under the governing concept of 'freedom with responsibility' to, for instance, uphold the (equal) balance between the policy targets of production and environmental concerns (Appelstrand 2012; Löfmarck *et al.* 2017). This concept permits the forestry organizations to choose the instruments by which to achieve environmental and state aims in forestry (for instance, biodiversity), leaving the specifics of governing largely to the sector (Appelstrand 2007, 2012; Löfmarck *et al.* 2017). To date, forestry has largely utilized market-based certification systems to illustrate adherence to sustainability norms (Johansson 2013; Gulbrandsen 2010). However, the Swedish Forest Agency, a public authority, has suffered organizational downsizing and budget reductions in recent decades, in combination with a free-market adaptation (e.g. to avoid unfair

competition with private businesses) (Lidskog and Sjödin 2016; Appelstrand 2007). In terms of multi-level governance (Hooghe and Marks 2001), this can be interpreted as a privatization of forest governance in terms of both market expansion (Pattberg 2005; Cashore, Auld, and Newsom 2004) and rollback state (Castree 2010). In the limited separation between public and private – i.e. governmental and industrial – actors, in the Swedish context, the influence of private/industrial forestry organizations, especially in relation to NIPF owners, has historically been strong on several levels (Mårald and Westholm 2016). Given the rollback amongst governmental actors, the importance of the social regulatory function and role of the private/industrial forestry organizations, including forest companies, forest owners' associations, timber purchasing organizations, etc., in advisory and commercial services is emphasized.

Besides the changing forest ownership characteristics and relationships (Lidestav and Nordfjell 2005; Nordlund and Westin 2010; Berlin, Lidestav, and Holm 2006; Keskitalo 2017), the growing geographical and psychological distance between the owners and their forest (Westin *et al.* 2017) is imposing spatial limitations in forest governance systems dependent on social regulatory practices (e.g. shared rationales) and performative spaces of voluntary regulations ('freedom with responsibility') (Appelstrand 2012; Törnqvist 1995). Consequently, owners residing in urban areas are now less practically involved in the management of their forest (e.g. Mattila and Roos 2014; Follo *et al* 2006), and compensate for this by purchasing forestry services (Haugen, Karlsson, and Westin 2016). This challenge of distance limits social and normative settings, as many forest owners reside outside traditional forestry-dominated areas (e.g. in cities) (cf. Lind-Riehl *et al* 2015; Meadows, Herbohn, and Emtage 2013; Domínguez and Shannon 2011). Moreover, the increasing emphasis on environmental and recreational values may drive other types of ideas, attitudes, and behaviors than those associated with timber production (Lindkvist *et al* 2012; Bjärstig and Sténs 2018).

The increasing heterogeneity of private forest owners and the variations in views and values on forest and forestry, however, has only to a limited extent been reflected in differentiation in forest management and use. However, factors shown to have some impact on forest management are the size of the property (Bolkesjø and Baardsen 2002; Kuuluvainen and Salo 1991), the amount of debt, and the number of loans on the property (Conway *et al* 2003; Kuuluvainen and Salo 1991), the ownership form (single or joint) (Lidestav and Berg Lejon 2013), gender (e.g. Lidestav and Berg Lejon 2013), and the distance to urban areas (Størdal, Lien, and Baardsen 2008; Munn *et al.* 2002). This may be partly because of the wide diversity and heterogeneity of forest owners and the multidimensionality of their needs (Häyrinen *et al.* 2015; Hujala, Kurttila, and Karppinen 2013), creating demand for many different services (Nordlund and Westin 2010; Rose 1999) as well as a need for more diverse communication strategies (Salmon, Brunson, and Kuhns 2006) and for understanding these forest owners in relation to forestry organizations (Lidestav and Arvidsson 2012). As forestry services generally focus on roundwood (e.g. Favada *et al.* 2009; Häyrinen *et al.* 2015; Andersson and Keskitalo 2019), values other than monetary aspects are not fully covered by forestry service organizations (Häyrinen *et al.* 2015). To engage a wider group of forest owners, service logics may need to shift from raw material production to customer value creation (Mattila and Roos 2014), and forest organizations' trading practices need to adjust to the varied property interests of forest owners (Berlin, Lidestav, and Holm 2006). Such adjustment is hampered by the current emphasis in Swedish

forestry on maximizing production (e.g. clear-cut felling, with small species variations within stands) and providing material for a specific set of industrial products (e.g. quantity, quality, and species) (Lodin, Brukas, and Wallin 2017; Lidskog and Sjödin 2014; Andersson and Keskitalo 2018; Andersson and Keskitalo 2019).

3. Theoretical framework

As traditional societal structures, institutions, and technologies of governing (e.g. the church and the state) weaken, individuals are more frequently 'linked into a society through acts of socially sanctioned consumption and responsible choice' (Rose 1999, 166). This has a geographical dimension in the spatial distinction of rural/urban and the production of space (Marsden 1999). The role of marketing practices is thereby to create the 'consumer'/forest owner as an object that can be governed (Hudgson 2001), e.g. through new means of consumption (Ritzer 2001) and technologies of agency and performance (Dean 1999) (such as personalized forest websites, forest management plans, forest courses, and information) (Rose 1999). As individuals in modern society are driven to practise their individuality and freedom through choices (Rose 1999), 'by working on the environment and the spaces within which [choice] is exercised' (Dean 1999, 159), these new marketing practices can augment conventional disciplinary power by managing the population indirectly in a time of shifting spatial, temporal, and economic relations in forest ownership.

The increasing role of both private actors and other means of steering has often been defined in terms of multi-level governance (Hooghe and Marks 2001). This term emphasizes the way in which not only government but also other actors, including private actors on different levels, influence decision-making (Pattberg and Stripple 2008; Biermann and Pattberg 2008), creating patchworks of partly overlapping jurisdictions (Hooghe and Marks 2001). This increasing recognition of a broader range of actors has thereby also led to the recognition of a broad use of different instruments, particularly voluntary self-regulation in sectors and information instruments (with potential economic incentives) to support action (Cashore *et al.* 2004; Castree 2008). This type of development seems to increasingly open for a style of steering whereby private industry actors utilize information instruments, amongst other things, and the linkage they can develop to consumers or producers in order to steer development in a sector within, or in relation to, the maneuvering room allowed by more binding (or state-mandated) frameworks (Cashore, Auld, and Newsom 2004).

Within such a focus on sectoral implementation, the concept of governmentality, targeting the 'governing mentality' and technologies applied by and in specific organizations or sectors, provides theoretical tools to explore and study the interactions of discipline, freedom, and nature within forestry organizations' sales processes (Rose 1999: cf. Stanley, Marsden, and Milbourne 2005). These governing mentalities are evident in, for example, the ways in which statements construct forest owners and what they can and cannot do. These can be identified, for instance, in expressions of how forest owners are imagined by forestry actors and in statements showing how they implicitly assume the forest owner to be, want, or act. As a form of power, subjection constitutes subjects, and their subjective space and agency (subjectivity), through the interrelated practice of identity/ categorization and knowledge/truth (discourses) (Foucault 1982) – in which the subject is constituted as an object of both external and internal practices of power (Rose 1999). For example through the discursive

construction of a specific set of identities/categories (e.g. active/passive forest owners) and their own and others' recognition of this relationship/position. In the conception of entities – such as identities – as ongoing and always incomplete, practices – such as subjection – have 'constitutive effects' in producing them as 'real' (Mol 2002, 160). Here, power manifests in the capacity exercised in the production of entities; i.e. subjects and objects. Relationships and targeted marketing, through for instance segmentation processes based on specific 'lifestyles' (Desmond 1998) or typologies of forest owners (e.g. Ficko *et al.* 2019), therefore often shape rather than reflect reality (Knights and Sturdy 1997, 171).

The theoretical tools that are studied, in order to reveal these governmentalities and how they are practised, can be separated into *technologies of agency* and *technologies of performance*. Technologies of agency encourage individuals (forest owners) to take responsibility (active), encouraging them to act in specific ways that are seen as coherent with assumptions regarding forest owners. Technologies of performance set the regime of standards for these actions (Rose 1999; Dean 1999) by enabling specific forms of expertise and 'calculative regimes' (Rose and Miller 1992). These may include forest certification (e.g. Gulbrandsen 2010; Cashore, Auld, and Newsom 2004) or other specific ways of measuring, assessing, or valuing forest, creating an interface that can be used to steer forest owners and industrial actions; that is, to render forestry governable (e.g. Scott 1998; Baldwin 2003).

These various technologies of government can be described as indirect means of regulating agencies for transforming individuals and groups in Swedish forestry into subjects of particular calculative regimes (Miller 1992). Using the distinction between technologies of agency and technologies of performance enables an examination of two different strategies and aspects of governmentality and their specific functions in governing 'at a distance' (Rose and Miller 1992). In Swedish forestry, this makes it possible to explore "how different locales are constituted as authoritative and powerful, how different agents are assembled with specific powers, and how different domains are constituted as governable and administrable" (Dean 1999, 21) and the object of experts and scientific control (DeLuca and Demo 2001; Scott 1998; Baldwin 2003).

4. Material and methods

To scrutinize the practice of subjection and the function and use of various technologies of government in Swedish forestry, semi-structured interviews were conducted with representatives of all the main private/industrial-organizational actors in Swedish forestry, in what can thereby be regarded as a full study of the private Swedish forestry sector (Swe. *skogsnäringen*). A total of 16 organizations were represented by 17 interviewees, covering all categories of actors in the private/industrial sector: (1) Large national and multinational forest companies (LFCs) that own forest resources and forest industries, which buy timber from NIPF owners to supplement their own resources; (2) Midsize forest industries (MFIs) that rely on procuring timber from NIPF owners and have their own timber procurement organization; (3) Forest owners' associations (FOAs), i.e. cooperative organizations owned by the forest owners themselves that sell their members' timber to both self-owned and external forest industries; and (4) Forest management organizations (FMOs) without any industries of their own that provide full-service management of the forest property, including administrative services, to both private and public forest owners. All these organizations have a direct or indirect

(or both) influence on forest management and operations, for instance through advisory services or guidance in relation to the sale of timber or forestry-related services. The state-owned forest (3.9 m hectares) is operated and managed by Sveaskog on a commercial basis (falling under the first category above). The remaining companies within this category own and manage about 1.3–2.6 million hectares each (besides the contracted forest of NIPF owners), and the four main FOAs organize about a third of the 330,000 NIPF owners as members (who own about 6 m hectares). Besides the forest management category, all the organizations are reliant on private owners for timber – often extensively. The organizations represented by the interviewees are evenly distributed over the whole of Sweden, but with less representation in southern Sweden due to its smaller area of forest cover. The interviewees selected were those responsible for strategic planning in relation to sales and marketing to forest owners within the organizations. The individual selection was made by the organizations. For one organization, two interviews were conducted due to a divided responsibility between two individuals. To maintain the interviewees' anonymity and reflect the sectoral and organizational focus of this study, only the organization category is indicated in the material presented in this paper.

The interview guide covered broader themes of trends, strategies, and developments in marketing, customer relations/management, and organization of sales transactions based on their conceptions and understandings of the shifts in various aspects of the group of forest owners. The interviewees' statements, articulations, and descriptions are understood not primarily as reflections but as constituted both of and in the reality (Mol 2002) that is situated within the organizations. All interviews were conducted face-to-face and in Swedish, with all quotations presented here translated by the first author and checked by the second author. The interviews, which lasted about 90 min, were transcribed verbatim and deductively coded into themes and subthemes in relation to the theoretical framework. The results are presented based on three main themes: *Construction and subjection of the forest owner*, which deals with conceptions of change and the potential need for shifts in how forest industry approaches, constructs, and subjects forest owners; and *Technologies of agency* and *Technologies of performance*, which deal with the types of technologies applied to do so. The first main theme is also divided into two subthemes: *Production of knowledge, relationships, and actions*; and *Defining knowledge and rationalities and their borders.*

5. Results

5.1 Construction and subjection of the forest owner

All the interviewees agreed that the changes in the characteristics of forest owners (e.g. increased urbanization/distance and a decrease in forestry-related knowledge and dependence on income from timber) have various implications for their organization, their processes, and their interaction with the forest/environment. Differences in perceptions and understandings among the interviewees mainly concerned the range and dimensions of the changes. This in turn resulted in differences in strategic planning and the management of sales processes and relationships with forest owners, for instance offering new services and products based on various values and interests, to facilitate timber sales in the longer perspective.

5.1.1 Production of knowledge, relationships, and actions

One recurring issue among many of the interviewees concerned the knowledge and competence of forest owners in relation to shifting characteristics. Many of the interviewees claimed that decreased knowledge among forest owners in recent decades has resulted in an increased need for guidance and advice. For instance:

> We're finding that we have a number of suppliers, a fairly large proportion, who don't live on their property. We're also finding that there's a greater need for knowledge, as fewer have a forestry background and more are forest owners based on other perspectives (than conventional timber production). You might have inherited the forest or invested (…). Linked to this, we see an increasing need for guidance and forest competence. (LFC)

> It's becoming the case that we're doing many more consultations than before, when the forest owners did much more themselves. (FOA)

The described lack of knowledge and the stated need for advisory services is strengthening the position of the forestry organizations and their influential function. Within this context, a number of interviewees reported that access to a forestry expert through consultations has become an integral part of the sales process. Thus, in their sales process many organizations "allocate more time [for their personnel] to be forest experts and do consultations" (MFI). One interviewee explained that they have "quite a lot of forest owners who say that if you tell me that I should do that now, then I'll do it now" (MFI). In relation to the level of knowledge, another interviewee highlighted the influential position of the timber purchaser:

> Naturally, our timber purchaser has a big influence on, primarily, the less knowledgeable forest owners, where the consultation has a big effect, while with an increasing level of knowledge and experience the forest owners are directing more themselves. (…) We're of course looking to our own interests and trying to steer the forest owners in the direction that we think is right. (MFI)

Although many of the organizations acknowledge the demand and need for alternative forms of forest management, these are often dependent on the knowledge and specific demands of individual forest owners. Thus, while the limited knowledge of forest owners again puts the forestry organizations in an influential position, it also represents a major challenge for the organizations and their sales and service processes. For example, the 'new' forest owners are less accustomed to interacting with the organizations and do not know the specific jargon (including key concepts) that is critical to the conventional sales process and owner-industry relations. To overcome this challenge, various education activities, materials, and campaigns have been organized 'to increase the (knowledge) level of the forest owners' so that "they can generate business in the future" and "nurture the customer and the relationship" (MFI). As one of the interviewees said:

> It's still the timber sale that's central, but we've developed more, for example, chainsaw courses (…), which helps us generate business in the future. (MFI)

Given that women have been less well socialized into Swedish forestry in the past, one of the interviewees highlighted the opportunities this offers:

> We feel that there are more women who might want to learn about forestry and who are forest owners (…). We think this will result in more deals and build relationships. (MFI)

A central feature of the education activities (subjection) for forest owners is the idea that "their interest is stimulated by knowledge" (FOA) and that the organizations should "invent the future and create a need among (the forest owners) before they even know they have the need" (FOA). Specific knowledge is emphasized as being significant for the creation of demand and the subjection of the customer in terms of a basic understanding or awareness of forest management and operations:

> We don't think they should do these measures themselves, but more to show them how it works and what it looks like, to get at an understanding of how forestry works (MFI).

> What we want with the forest owners is to make them more aware. We want them to have more knowledge about what they own and thereby indirectly understand how, maybe not complicated, but demanding [forestry] is – and that's why they should buy consultation services from us (FMO).

> Things are connected; interest is awakened by more knowledge and that's why our education activities are very much focused on the next generation. It's not about teaching young people to plant, clean, or fell themselves (…), but to be good at ordering services. (FOA)

Basically, "if you don't have the knowledge, then you're not going to use us in the best way. You won't understand our services" (FOA), as one interviewee put it. Through this, forest owners are largely subjected as customers rather than timber suppliers. In an instrumental way, advisory services or guidance not only create business and relationships for the organizations but also reproduce them as the supplier in relation to the forest owner/consumer. In relation to the second step of a nationwide education campaign, one of the interviewees describes this relationship:

> It was more aimed at guidance, since 80% of the commission/contract forest owners, they don't have the time, interest, or energy to read about these things. Not everyone is as hooked on forestry as we are, but they go to the consultation and there we see a need. We tell them what they have to do and they do that (…) More and more, it means us guiding them on what, when, and how things should be done. Both for their own good and for their forest. (FOA)

5.1.2 Defining knowledge and rationalities and their borders

However, in a number of cases, it was evident that the identified lack of knowledge and competence among forest owners mainly referred to a specific form of knowledge: the 'right' kind, in relation to dominant rationales associated with industrial forest management and practices. Although some owners were seen as knowledgeable, as the following interviewee expressed it:

> Also [amongst] those who have knowledge, there are a lot of things to know; they might also have the wrong knowledge. (MFI)

The 'wrong' knowledge often referred to more alternative management measures and practices associated with recreational, aesthetic, or environmental values and motivations. In relation to urbanization, there also seems to be a spatial dimension to knowledge and information, which might be challenging for forestry organizations to control: "Non-residential forest owners who live in large cities, they have a bit of other information (MFI)." The spatial dimension highlights both the conflict between urban and rural areas and the traditional social and normative regulatory setting of residential forest ownership. Many interviewees felt that "lack of knowledge is the threat" and is manifested in arguments about irrationality and emotions in terms of "public opinion" and "non-objective and emotional arguments about environmental issues" (MFI). One interviewee claimed that the forestry sector has "a weakness for facts" and that this has become a drawback at a time when the rational is being challenged by "the emotional". The dominant rationales of the organizations were evident in the distinction they make between the rational and the irrational, primarily seen as emotions. In relation to the definition of good and responsible management, two interviewees expressed it as follows:

> You want to maximise the value of the property, but many don't see it like that but more as a matter of security, (…) but it also means that some have old spruce forest that risks becoming a key biotope (…) so in that way, they're not managing it fully. (MFI)

> The landowners want the forest to be managed well. What 'managed well' means is largely left to the timber purchaser or the organisation they're working with. So if we think biodiversity is very important, then the landowners will also think biodiversity is very important (…) I'm kind of joking, but very few have the detailed knowledge to govern their own choices (LFC).

This underlines the norms and standards that are linked to the articulation of what constitutes (good and responsible) management, the specific subject (the forestry organizations), and the relationships that are dominant within this discourse. However, in relationships with forest owners, the present dominant rationales of the forest organizations, focusing primarily on high production, might also prevent them from moving beyond these rationales. Two of the interviewees referred to this challenge:

> We are relatively production-orientated (…) and we often come in with an assumption about how it should be. But if we did a survey among the private forest owners, we would find a relatively high interest in certification and nature conservation issues. (LFC)

> If the best profitability of private forestry in the future would be to let the forest stand and get emission credits or something instead, then the forest owners' association would have to recommend that, but we can never stand behind that. So it'll never be the absolute profitability of the forest owner that's the focus, but instead the individual sale that we land. But on a strategic level, we're not worried (FOA).

In the subjection of forest owners, their specific construction of knowledge is thereby made central to the organizations' structure, relationships, and strategic planning, as it marks the space of action and structures the subject and object positions of

the relations/discourse. This raises the issue of control within the sales process and the direct influence of the organizations on forest management and the supply of timber. According to the interviewees, in future this type of control and influence has to be more sophisticated, or less direct, as the forest professional "has historically been a person in authority in a forester's loden coat (…) who lays down the law and tells you what to do" (MFI). The same person stated that "this is a bit sensitive" (MFI), as they want to uphold the idea of the forest owner as the decision-maker. In terms of influencing the decision-making, many highlight that forest owners are either deeply or, on the other hand, relatively little involved. As one of the interviewees described it:

> It's two extremes: those living on their properties, who are old and self-working. They usually have fairly clear ideas of their own and we usually have small possibilities to influence them. (…) Then we have a big segment of regular forest owners, maybe second-generation, who still live in (this local area) (…) because they still have their home farm and the forest close, but are not as active, since they have a full-time job in (town) – so with this group I'd say that we have a pretty high influence (MFI).

In summary, the construction of identities and knowledge and their interrelationship in producing each other are made central to the process of subjection. In the forestry organizations in this study, this is mainly done through the production of the consumer identity of forest owners and the demand for (good) forestry knowledge, which places the organizations in the supplier and expert identity/position. By producing the subject and the object of the discourse from the organizations' perspective, the consumer identity – as opposed to the timber supplier identity/position – is associated with specific types of agencies related to buying and consuming information and services. In legitimizing and naturalizing the identities and discourse, the sense of freedom (or the lack of feeling controlled) is also important, as highlighted above, for both negotiating responsibilities and engaging the forest owners in decision-making as an active party, from the perspective of the forestry organizations. How this activity is managed is elaborated upon in more detail in the upcoming sections.

5.2 Technologies of agency

Over the past decade, various digital means of consumption have been developed to structure and communicate information to and on forest owners. These new modes of representation and governing are important, as forest owners:

> are getting further and further away, becoming more and more urban; then the feeling, control, and knowledge of how things actually are (in the forest) are decreasing. We on the other side are trying to meet this with more digital information – that's the plan. (MFI)

Fundamental to this change is the growing challenge of distance, both spatially and socially, of the forestry organizations and the role that various forms of technologies of government must play in attempts to overcome this challenge. The forestry organizations see the empowerment of forest owners as one of the key technologies of agency that drives interest and awareness. As one interviewee stated: 'Ultimately, we know we're profiting from getting them interested' (MFI). The social norms connected

to activity are strong within the forestry discourse and its emphasis on how "the management of properties is something society profits from" (FOA). Conversely, being passive, inactive or little involved, in relation to the discursive construction of activity and agency, is often described in harsh terms, with strong moral undertones of irresponsibility, often based on economic rationales:

> We're trying to convince the forest owners that if you don't manage your forest, you'll lose (money). (…) We aren't going to advocate that you should do nothing; you can do that, but we can also show how it will affect your finances (…) Our incentive is, of course, to get to manage their forest and to get them to use some measures (…), to get them active in some way, since if we're going to make products out of the raw material, then it needs to be there. (LFC)

> The value in their forest will decrease, and nobody wants that. We want them to carry out sustainable forestry – for both the economy and the environment (FOA).

Many of the interviewees were clear that they are willing to manage the forest on behalf of the owners as a service, but that they prefer owners to be actively engaged to some degree. They claim that this leads to better relationships and more sales of different services in the future. One of the interviewees said that their organization "has this basic idea and drive to get the forest owners from passive to active through knowledge, inspiration, and service" (MFI). Another underlined that "knowledge often creates the demand for more knowledge – and then we have to start there" (FOA). The first interviewee further underlined this connection between agency and sale:

> We're not communicating to the forest owners 'Let go of the forest and let us manage it'. We can of course do that for those forest owners who want it, but in general we'd rather inspire them to get knowledge and information about how forestry should be carried out, so that they themselves can figure out what they want with their forest. (…) A better established relationship with the timber purchaser helps place various demands on the property, so they automatically contact their timber purchaser. Then we've reached our goal. They're active and engaged, and they feel like they want to do things all the time (MFI).

The interviewees mentioned a number of services, including advisory services, as critical in finding new ways of engaging and activating forest owners over time. Some services facilitate long-term relationships and commitments, and in this way act as technologies of agency by triggering activity through their modes of representation. One interviewee noted that "certification is also one of those services where we get close to the forest owner" (LFC). Another interviewee explained:

> We have an umbrella certification that certifies the forest owners within both PEFC and FSC. It's a way to keep up the relations over longer periods, since it means that we have a continuous dialogue and update them in accordance with the certification and recurrent audits that we or the external auditor carry out. This kind of service helps us to pin down the relationship. We also offer forest management plans, and this type of service also helps maintain the connection over time. (LFC)

To become certified, forest owners are required to have a forest management plan. However, many non-certified forest owners also have this type of plan, which is

promoted by the forestry organizations. The management plan plays a key role in the organization and structuring of various forest management measures on the property, specifying the present status of the forest property and planned future management measures, such as cleaning, thinning, and felling. In its structure and representations, the forest management plan constitutes a central technology of agency within Swedish forest governance and forestry operations. Three of the interviewees emphasized this relationship between representation and activity, either self-employed or through sanctioning the consumption of services, as a responsible choice within the plans:

> We're always very clear that the forest owner decides what should be done in their forest. We can help you with a plan for how to move forward. Essentially, there's always a forest management plan that's the guiding document (MFI).

> Delivering good quality and doing a good job are key for the next business deal. This is the linchpin. We have a number of services through which we try to tie in [forest owners]. (…) We've devoted a great deal of effort to producing forest management plans, plans for your property, and developed those kinds of services quite far. [We want] to make them feel safe and sound with us, and the plan helps a lot by keeping up with things and keeping good order on your property, so that you know what you have and don't have and what measures are up next (to be carried out). Keeping it updated on developments. (LFC)

> That's one of the first things we do if you're a new forest owner. We say: You need a forest management plan. There you can see how our timber purchasers go through your property and the types of forest, assets, and key biotopes you have and how valuable it is – because you want to know that. What types of measures should you know about in order to make the forest as good as possible? (FOA)

The recent development of digital and personalized tools has improved the capacity and flexibility within these types of technology of agency to adapt to shifting spatial and temporal conditions. The digitalization of forest management plans (making them manageable in, e.g. phone apps) and the introduction of personalized forest websites are two examples of the recent trends that many forestry organizations have implemented. Both of these make "the digital forest management plan accessible, so that (forest owners) can edit and update it themselves" (FOA). These improved technologies of agency also help to control the sales process and thereby facilitate activities and minimize resistance. According to one interviewee:

> We can get everything done in the forest. You and I meet in the forest, we talk about forestry, and I present suggestions for measures and we agree upon them. I draw up everything on the iPad and get a contract that you can sign on the iPad (FOA).

To summarize, to activate and engage forest owners in specific ways that, for instance, match the offerings and rationales of the forestry organization, a variety of tools (forest management plans, personalized apps, websites, etc.) and technologies (smartphones, Internet, etc.) are marketed and facelifted as technologies of agency. With growing distances, both geographical and psychological, tools and processes are largely focused on compensating for the lack of social and physical interactions and regular practices.

5.3 Technologies of performance

Many of the relatively new digital tools introduced in forestry in the past decade act as both technologies of agency and technologies of performance. By representing and communicating the forest through maps and figures, in combination with strong social norms, the technologies of performance contribute to the subjection of forest owners, especially relatively new owners with less experience of forestry and forest ownership. Certification helps in implementing a specific regime of standards with the support of forest management plans and personalized forest websites/apps, by controlling the information and specific representation of the forest. In this way, these modes of consumption and representation enable specific forms of expertise and calculative regimes in forestry and within forest ownership. By structuring information in specific ways, these technologies are a good tool in the dialogue between the timber purchaser and the forest owner, according to many of the interviewees. Two interviewees described this development as follows:

> I feel that we (as an organisation) have become better at seeing where we're making the good deals, what upholds relationships. (…) We can clearly see that these types of activities where we have the forest management plans create better relations, and we're making good deals more often. (…) So if we can establish connections to our suppliers through a forest management plan or certification, then that makes us stronger in the dialogue about felling and cleaning (LFC).

> As part of our forest management plans, there's always a plan of management with a goal that we're trying to sell. You can choose from three standards: maximising yield, uniform yield over time, or higher environmental protection. (MFI)

These technologies of government can therefore be described as an indirect means of regulating agencies, transforming individuals and groups into subjects of a particular regime of standards in "taking the right measures at the right time" – driving a specific rationale "often in economic terms" and concerning responsibility: "If you don't thin now and wait five years, it will cost you twice as much and it might also be too late" (FOA).

The economic rationales of responsibility are shaped by the forestry organizations, and many of the interviewees made a distinction between 'good' and 'bad' economic rationales of forest owners. 'Good' rationales were seen to emphasize continuity and long-term commitments to the organizations and forest management, for instance thinning at the correct time instead of speculating on timber prices going up (MFI).

The requirement for a forest management plan within certification supports the technologies of performance in governing forest owners and in how they become interrelated within the sales process:

> This is the method that we've worked with the whole time: if you're certified, then the standard states that you have to manage your forest based on the forest management plan – and that's a tool that we use. (MFI)

> For the past year and a half, certification has been standard in our purchase process (…) which means that we have certified a lot of forest owners (…). This also drives the process of offering forest management plans as a service, and then the forest

> management plan leads to yearly audits and meetings to go through the upcoming measures. (MFI)

Together with the market demand for certified timber, the type of control and influence associated with the certification standard is why many of the organizations are "trying to sell it as much as possible" (MFI). It provides them with technologies that give them "the chance to influence the decision-making" of forest owners on a recurring basis. The long-term engagement in certification and the plan reveals the expertise and calculative regimes of Swedish forestry. According to one interviewee, they "are doing two- or three-year plans and continuously contacting the forest owners for follow-ups" (FOA).

One of the latest digital developments, the personalized forest website, combines different functions and technologies such as forest management plans, timber sale reports, services sales etc., and presents them in digital form. Making these more accessible (free) emphasizes forest owners' responsibility to control the processes and to actively make choices. Today, almost all forest organizations in Sweden use this technology, although it differs in function, design, and content (e.g. information). One of the interviewees described the benefits of the new technology for the forestry organizations:

> It provides a higher effectivity, a clearer offer, and also saves you money on not having to send out the data report, and you integrate and get an overview of all the forest management plans. (MFI)

However, while many other interviewees underlined the benefits for both the organizations and the forest owners, the same interviewee was critical regarding where the demand for this technology comes from, commenting "it's more the sector that offers this, rather than there being a demand" (MFI).

A number of different tools are thereby facilitated as technologies of performance. Tools such as forest management plans and certifications are used, marketed, and structured in such a way that information and promoted behaviors are aligned. By opening up for expertise and calculative regimes and controlling the information and the decision-making environment, the technologies of performance have the potential to play a large role in the forestry organizations' practice.

6. Discussion and conclusions

This study revealed how the changing characteristics of forest owners have led to changes in how forest owners, or groups of forest owners, are constructed and governed in Swedish forestry (cf. Lidestav and Nordfjell 2005; Nordlund and Westin 2010; Berlin, Lidestav, and Holm 2006; Westin *et al.* 2017). Largely, the study showed that forest owners are both constructed and subjected as consumers (rather than, e.g. timber suppliers) (cf. Mattila and Roos 2014; Berlin, Lidestav, and Holm 2006) through, for instance, increasingly being the target of a marketing of 'needs' for support and services (cf. Knights, Sturdy, and Morgan 1994). These particular constructions of forest ownership and their potential 'needs', for instance in relation to different segments of forest owners (Ficko *et al.* 2019), demonstrate the governing of forest owners through the production of specific subject positions and realities of

Swedish forestry (cf. Knights and Sturdy 1997; Stanley, Marsden, and Milbourne 2005). In practice, this is partly facilitated by empowering/enchanting forest owners, in specific ways, as customers through the provision of knowledge and education relevant to their role as customer (purchasing competence) and timber supplier (production logics). The relationship with forestry organizations is mainly structured and designed based on consumption, while production logics mainly shape the forest owner's relationship with their forest through various technologies of performance (e.g. modes of representation). The first relationship subjects the forest owner as the consumer, and the forestry organization as the supplier, of support and service, which in turn provides specific sets of actions, decisions, and agency. The second relationship, i.e. the conception of the timber supplier, can also be understood as a way for the forestry organizations to construct and manage responsibilities for and of the forest and the forest resource by implementing distance (cf. Löfmarck, Uggla, and Lidskog 2017).

The way in which forest owners are constructed is thus largely related to a conception of an often low-level of specific relevant knowledge, which is seen as requiring support and advice through the influence and control of experts and authorities. Although varying management needs and interests amongst forest owners have been reported (cf. Lindkvist *et al.* 2012; Bjärstig and Sténs 2018), this seems primarily to be dependent on the individual knowledge and requests of forest owners, underlining the dominant position of the timber supply logics and rationales within the forest organizations (cf. Lodin, Brukas, and Wallin 2017; Lidskog and Sjödin 2014; Andersson and Keskitalo 2018). The forest owner, whilst constructed as a consumer, is thus not necessarily an "active, 'enterprising' consumer" (Du Gay 1995, 77), but rather a consumer who needs to be convinced or persuaded through information and interaction. This highlights how forest owners, "through acts of socially sanctioned consumption and responsible choice" (Rose 1999, 166) and with the help of new means of consumption (Ritzer 2001) and technologies of agency and performance (Dean 1999) (such as personalized forest websites, forest management plans, forest courses, and information), are rendered governable within Swedish forestry (cf. Hudgson 2001) and transformed into specific environmental subjects (cf. Agrawal 2005). The new marketing practices can then be viewed as a supplement to conventional disciplinary power in a governance system dependent on social and physical proximity in terms of social regulatory practices (e.g. shared rationales) and performative spaces of voluntary regulations (Appelstrand 2012; Törnqvist 1995).

While the empirical material comprises a variety of organizations, the variations in the conceptions and strategies of forest owner engagements were quite small – a result that further underlines the strong position of sectoral, and timber-oriented, rationales in Swedish forestry (Andersson and Keskitalo 2018; Andersson and Keskitalo 2019; Holmgren 2015; Mårald and Westholm 2016). The small differences that were revealed could often be explained by organizational conditions, involving for instance resources and geography. For example, while the organizations' analyses were largely similar, some smaller organizations moderated their strategies and their application of digital tools/technologies, for instance due to limited resources for implementation or because they operated over a smaller geography (cf. Hansen, Seppala, and Juslin 2002).

This focus on construction or subjection is reflected in the existing technologies and institutions of Swedish forestry. Given the changes in forest ownership, governing at a distance is achieved through approaches such as drawing on the digitalization of technologies of government, as traditional techniques of social and performative

regulation (e.g. through common norms and rationales) are no longer sufficient under the social changes and increasing distance between forest owners and their properties (cf. Rose and Miller 1992). However, technologies largely intended to make forest owners informed and activated, such as forest management plans and forest websites, do this in particular ways that structure actions and reproduce the dominant timber production rationales and logics (cf. Andersson and Keskitalo 2018).

The study has thereby illustrated how a dominant rationale is largely expressed and instituted in multiple technologies (cf. Andersson and Keskitalo 2018), whereby the timber supply has not shifted, despite changes in the characteristics of forest owners. The practices of private/industrial forestry organizations raise issues of power, in terms of capacity exercised in the production of knowledge and entities; that is, subjects and objects, consumers and suppliers (cf. Vainio and Paloniemi 2012; Winkel 2012). In a time of growing private forest ownership in Europe (Lawrence 2020), this study highlights the importance for research to pay attention to the specific social, material, and institutional conditions, relationships, and settings of forest ownership in different contexts to better understand decision-making and the prerequisites for forest and environmental policy implementation (cf. Nichiforel *et al.* 2018). In direct relation to property rights (cf. Nichiforel *et al.* 2018), this also shapes how these are utilized and practiced by different actors. As the need for extension and advisory services to forest owners has increasingly been stressed across Europe (e.g. Lawrence *et al.* 2020), this study highlights the need to critically scrutinize how these services are structured through relationships (cf. Stoettner and Ní Dhubháin 2019), practices, and technologies, and how these shape the negotiation and production of forest-related knowledge in relation to power on multiple levels. Specifically, the results of this study stress the role, function, and power of the forestry organizations and sales processes, which emphasize the crucial mission of a critical organizational perspective within environmental research and policy to better understand the practical, local implementation of policy and how it is shaped by the governmentalities of neoliberalism (cf. Keskitalo and Pettersson 2012).

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