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The Intricacy of Policy Making: Assessing Environmental Management in the Lower Athabasca, Alberta, Canada

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Abstract: This thesis explores societal–environment interactions in the context of environmental policy making processes in the Lower Athabasca, Alberta, Canada. Applying insights from the Actor-Network Theory, the thesis systematically analyses the policy making network by identifying and explaining embedded network processes. Particularly the thesis shows how different discursive and practical techniques are used by actors to characterise other entities, and configure the relationship between human development and the natural environment. The thesis demonstrates how the culture–nature dichotomy constructed in environmental management is problematic for environmental policy making processes. Environmental management entails the negotiation and settlement of deep differences regarding cross-cultural understandings of human society’s position within the environment. The dichotomy has a profound impact on power dynamics in the network and even triggers a reversion of the network forming process to the framing of environmental issues. As such the thesis concludes that network formation is not a linear process but that networks have an emergent quality. Elaborating on new ecological thought in ecological anthropology, the thesis further explains that societal–environment interactions do not only occur in the physical environment, but also in policy making processes.

Key words: oil sands, interrelationships, Actor-network Theory, culture–nature dichotomy, Lower Athabasca Regional Plan, contestation

1. Introduction

It is pretty cold for a September morning and as I step out of the bus a light breeze blows against my face. The bus behind drives away and I am left alone in this quiet neighbourhood in Fort McMurray. I look around, turn right and walk alongside the road up the hill to a big white building. Opening the door and entering the lobby I am relieved to find it nicely warmed. The receptionist is typing away and only looks up when I walk up and tell her I have an appointment with Roy, my First Nation participant. After a quick exchange of words, I take a seat and wait. Some minutes pass until Roy comes out to shake my hand. He invites me in his office and we discuss, among other topics, the Lower Athabasca Regional Plan (LARP) policy making process. In a heavy tone he tells me “a lot of what led LARP, led to the policy, is the economy” (Roy 2013). He explains that the Albertan government never considered sharing the land with the First Nations because of economic interests, before concluding that a lot of the policies and legislation created by the government benefits economic development and the “interests of non-Native people” (Roy 2013). Based on four and a half months of ethnographic research in Edmonton and Fort McMurray, Alberta, Canada, this thesis looks at the Lower Athabasca Regional Plan policy making process by examining the role that interrelationships between the oil sands and government, oil corporation, environmental organisation, and Aboriginal representatives had on the contestation of the regional plan.

The Lower Athabasca Regional Plan came into effect on September 1, 2012, after three years of planning and consultations with different stakeholders. The plan, developed to balance economic, social, and environmental land uses in the region, is the first of seven regional plans proposed by the Government of Alberta under the Land-use Framework (Government of Alberta 2008:2). Land use management in the Lower Athabasca is particularly complicated because of the development of the oil sands reserves in the region. The deposits of oil, spread over an area of 140 thousand square kilometres, are exploited at a rapid rate. Importantly the development of this resource entails significant wide reaching environmental and socio-economic impacts including the destruction of the boreal forest, obstruction of Aboriginal traditional land use practices, and substantial employment possibilities for local communities. Because of these impacts oil sands development and environmental management processes are contested.

Recent scholarly research on the policy making process in the Lower Athabasca describes some of these underlying tensions. One line of inquiry focuses on the ways the process benefits economic development. Luig (2011) shows that during consultation procedures the Albertan government's reliance on scientific knowledge excluded traditional experience based knowledge produced by First Nations, and thus favoured the alliances of the state, corporations, and administrative professionals. Carter (2010) believes that these close ties between government and industry 'embodies' the tensions and interests in Alberta, while Hoberg and Phillips (2010) argue that the Government of Alberta and industry adopted 'defensive strategies', selectively allowing certain actors to participate in the policy making processes. These defensive strategies benefited economic development as they allowed government and industry to maintain control over decision making rules. Another line of inquiry reflects on whether the policy making process was democratic. Salomons and Hoberg (2014) suggest that the Government of Alberta limited stakeholder input by restricting participation to those 'directly affected' by environmental issues.

These accounts show that policy making processes in the Lower Athabasca should always be viewed in light of relations between different actors in a political, economic, and social context. In line with this research I examine how relations between social and natural actors in the Lower Athabasca Regional Plan policy making network impacts land use planning endeavours in the region. Applying insights from the Actor-Network Theory, the thesis systematically analyses embedded network processes and demonstrates the emergent quality of networks by stressing how actors discursively and practically define other network entities. Essential to environmental policy making processes are the ways social actors differentiated social from natural entities, establishing a dichotomy between human development and the natural environment. I argue that by reconfiguring their relationship to the Lower Athabasca landscape and the oil sands, social actors try to influence the problematising of environmental issues and therefore direct the policy making process.

The thesis is structured as follows. First I introduce the culture–nature dichotomy debate, the Actor-Network Theory, and present my research methods. Second I use Callon's four stages of network formation to systematically examine network processes and the impact interrelationships have on the contestation of the network and Lower Athabasca Regional Plan. Finally the conclusion makes the case for more research in ecological anthropology on environmental policy making, and the impact network processes have on our understanding of environmental issues.

2. Theoretical Perspective

The multi-stakeholder approach used by the Albertan government to develop the Lower Athabasca Regional Plan follows a trend where environmental politics has become more

democratic, embracing a pluralistic approach (Parkins and Davidson 2008:178). In the context of environmental management I see this transition as a movement towards a co-management of environmental issues, requiring the sharing of power and responsibility between the government and local resource users in decision making processes (Berkes 2009:1692). For anthropologists this movement has opened new avenues of research, challenging researchers to rethink how environmental management is conducted. Environmental politics nowadays, epitomised by the presence of various non-state actors, can no longer be explained by traditional approaches to environmental management which emphasise the role of the state administration. According to such conceptions the state sought to dominate the environment by dividing it into discrete entities for management purposes, separating the environmental consequences of development from the social and economic impacts (Bryant and Wilson 1998:324). Instead it is paramount to see current environmental management endeavours as processes and re-assess the identities of those who manage the environment (Bryant and Wilson 1998:325).

2.1 The culture–nature dichotomy debate

The change in the way scholars see environmental management mirrors a change in ecological anthropology and specifically the way researchers address human beings' relationship with their environment. Similar to traditional approaches to environmental management, ecological anthropologists like Richard Shweder maintained that there was a separation and hierarchical order between society and the natural environment. The contestation of such conceptions by current ecological anthropologists like Kottak and Ingold lead to a 'new ecology', one which criticises the divide by focusing on interactions between natural and social entities (Scoones 1999:486). Specifically Kottak criticises previous ecological anthropologists for perceiving the natural environment as a discrete object of study, separate from society, while Ingold comments on what Shweder calls "intentional worlds" (Kottak 1999:24; Ingold 2011:40). The term intentional worlds stresses that objects in the physical environment were given meaning within systems of mental representations, and that the environments of human beings were therefore culturally constructed (Ingold 2011:40). The possessors of 'human essence' were placed on a "pedestal from which 'nature' could be appropriated conceptually, and even transformed physically, in accordance with their own frameworks of meaning" (Ingold 2006:181).

New ecological thought goes beyond this dichotomy by stressing the interaction between society and the environment (Murdoch 1997:733). For example Tim Ingold's *The Perception of the Environment* provides a compelling investigation into human and environment interactions and tries to provide an alternative mode of understanding, a "dwelling perspective", based on the premise of our engagement with the world, rather than our detachment from it (Ingold 2011:11). For Ingold (1992:51) people do not create their environment according to cultural blueprints, but instead experience the environment as a structured set of affordances, the possibilities for action offered by objects, in the context of current human action. In other words Ingold concerns himself with reversing the order of primacy between society and the natural environment by stressing that humans are immersed from the start in an active, practical, and perceptual engagement with other entities of the "dwelt-in world" (Ingold 2011:42).

In light of this paradigm shift I want to extend the work of new ecologists by arguing that societal–environment interaction does not only occur in the physical environment, but also in environmental policy making processes. I want to show how the culture–nature dichotomy is not something out there, but is constructed for management purposes. The separation between society and the natural environment complicates multi-stakeholder

engagement in environmental policy making processes, characterised by different perceptions on societal–environment relations. Stressing the need to look at human and environment interaction in policy networks necessarily obliges me to view both social and natural objects as actors in these networks, a view expressed by the Actor-Network Theory. Particularly potent is the theory’s principle of generalised symmetry which stipulates that researchers should abandon all *a priori* distinctions between actors, social and natural, and should instead follow these actors as they tie together in these networks.

2.2 The Actor-Network Theory

The Actor-Network Theory argues that the study of environmental issues needs an ecological approach that situates humans within a complex design of heterogeneous relations (Murdoch 2001:118). In order to characterise these heterogeneous relations the Actor-Network Theory uses the concept of networks. Focusing on networks is imperative for my research as it allows me to overcome the prevailing divisions between humans and non-humans by providing a paradigm in which it is in the work between actors that networks are forged and distinctions are made (Eden, Tunstall, and Tapsell 2000:262). Applied to my own research the thesis will show how the oil sands are an active participant in the Lower Athabasca Regional Plan policy making process. While the formation of these sands is a biological process, the sands also contribute to the network and influences social actor’s perceptions of environmental issues. In this way the Lower Athabasca was not only an arena in which policy making processes occurred, but played an active role in the procedure.

Michel Callon’s study on the interaction between scientists, fisherman, and scallops in northern France illustrates how non-human objects participate in networks. By problematising whether or not scallops anchor, his analysis showed how scientists included a whole series of social and natural actors involved in the process of scallop fishing, establishing their identities and the links between them. The fisherman and scientific colleagues were interested in fishing and researching adult scallops respectively, while the scallops also sought and accepted a shelter which enabled them to proliferate and survive (Callon 2007:60). The anchored scallops played an active role as they influenced the interests of the fisherman and scientific colleagues.

In my research I problematise environmental policy making processes in the Lower Athabasca by concentrating on the ways social actors formulate environmental issues, and the importance of the oil sands reserves in the Lower Athabasca. My ethnographic analysis will show, as Murdoch (1997:738) explains, how actor interrelationships contribute to the patterning of the network and how social and natural actor’s properties derive from the network.

2.3 Actor-Network Theory as a Methodology

Having established my framework I want to specify how I will use Actor-Network Theory to treat my ethnographic data. In their critique Whittle and Spicer (2008:615) comment that proponents of Actor-Network Theory continue to create distinctions between social and natural actors. Non-human actors are unable to communicate their properties, and therefore the researcher attributes features to it. The separation between humans and non-humans remains a “product of labour” (Whittle and Spicer 2008:615). Although I acknowledge this criticism, as an anthropologist this is exactly what I aim to reveal. I want to show how my informants create distinctions and define characteristics creating the illusion of essentialist attributes to social and natural actors. I follow Whittle and Spicer’s (2008:611) and Law’s (1992:381) advice that Actor-Network Theory should be used as a framework for the

empirical analysis of the organising process, rather than provide a critical account of the organisation. Importantly I believe that the creation of distinctions is best captured in the discourse and practises of actors and as such my ethnographic data stems from structured and semi-structured interviews, participant observation, and from discourse and content analysis of legislation, policy documents, and news releases.

2.4 Research Methods

My thesis is based on ethnographic fieldwork in Alberta, Canada, conducted from August to December 2013. During this time I spent approximately three and a half months in Edmonton, the capital of Alberta, and one month in Fort McMurray, an urban service area in the Lower Athabasca near to the oil sands development. I also spent one week in the city of Calgary in central Alberta, the oil and gas capital of Canada. I interviewed different participants; concerned outsiders like members of the public, concerned insiders such as oil sands workers and Aboriginals, and technical experts like environmentalists, employees of oil corporations, and government officials. Participants were picked on the basis of their participation in the policy making process and knowledge of the topic. I normally called or emailed participants before meeting them in offices and cafés. In total I conducted 23 recorded semi-structured and structured interviews, as well some unrecorded interviews. With triangulation in mind I also studied local land use planning history, and analysed policy documents and consultation summaries, matching and confronting observations with insights gathered through interviews and participant observation.

Perhaps a limitation, I found it difficult to gain access to consultations and negotiations between the actors involved. This was partly down to my difficulties in building rapport brought about by the challenging circumstances, as illustrated by the numerous court cases occurring in the region. As such I want to stress my research does not claim to give a holistic picture; the views of my informants stand as their own and do not represent the views of, for example, entire communities. Having said my research does provide an intriguing insight into the Lower Athabasca Regional Plan network, and stimulates more debate on the issue.

3. An Ethnography on Environmental Policy Networks

In this chapter I focus on the formation of the Lower Athabasca Regional Plan policy making network and analyse the impact interrelationships between the oil sands and government, oil corporation, environmental organisation, and Aboriginal representatives had on the contestation of the final policy. The analysis is structured using Callon's four stages of network formation; *problematization*, *interessement*, *enrolment*, and *mobilisation*. The framework is used for two analytic purposes. First the systematic analysis of network formation enables me to identify specific embedded network processes. Networks involve complex interactions between actors and Callon's analytical structure allows me to identify and explain specific processes. Second the framework demonstrates the transformative means through which actors are combined and linked into a network (Shiga 2007:42). Although the stages of network formation are presented as detached from one another, the boundaries separating them are fluid. In order to show how societal-environment interrelationships impact environmental policy making processes, the analysis utilises the stages of network formation as follows; first discussions on *problematization* and *interessement* will show how social actors configure their relationship to the natural environment. Second the analysis will show how through processes of *enrolment* and *mobilisation* the configuration of relations is contested.

Acts of problematisation, the framing of environmental issues and the incorporation of actors into a network, have significant impacts on network processes. The discursive and practical means through which social actors formulate environmental issues by differentiating natural from social actors informs the implementation of environmental management. The dichotomy enables social actors to reconfigure their relationship to the Lower Athabasca and oil sands reserves. This process of interestment determines the degree to which actors are involved in the setting, monitoring, and evaluating of environmental pollution limits. In my analysis as the formulation of environmental issues is contested by environmental organisation and Aboriginal actors, negotiations take place in the enrolment stage of network formation. I agree with Luig (2011:77) who claims that the ongoing process of negotiations should be explained by reverting to the way actors contest the framing of environmental issues, and the position of humans within the environment. By showing the interrelatedness of these stages, the analysis adds to Callon's framework. Network formation is not a linear process but involves a degree of unpredictability, as the formation of a network is an open ended process involving situated interactions between actors.

3.1 Problematisation: human development in the Lower Athabasca

Callon (2007:59) explains that problematisation is not only limited to simple formulations of questions, but also entails determining sets of actors and their identities. Actors define problems and in the process of formulating answers, begin to involve other actors eventually forging a network (Murdoch 1997:739). The subchapter below addresses the formation of the Lower Athabasca Regional Plan policy making network by examining the framing of environmental issues and solutions. Following this the analysis chronicles the consultation phase leading up to the approval of the final policy document. The aim is to show that acts of problematisation have a significant impact on the shaping of the network. Problematisation defines the aims of the network and therefore gives direction to the network formation process. In order to understand when and why the policy making process started, it is essential to look at land use planning in Alberta and the Lower Athabasca region.

Land use planning in Alberta

The origin of land use planning in Alberta has a long history and current endeavours have to be understood as embedded in this context. A first significant moment came in 1948 when the growth spurt stimulated by the Leduc oil discovery resulted in petroleum exploration supplanting farming as the main economic driver in Alberta. Premier Manning and the Government of Alberta deemed oil and gas exploration and agricultural practises as competing land uses, and in order to manage economic development the province was divided into two areas. 'Green areas' were public lands managed primarily for forest production, recreation, and environment and wildlife protection, while 'white areas' included settlements and agricultural land (Government of Alberta 2008:6). The segmenting of the province can be best explained by traditional approaches to environmental management. The government administered land use planning and segmented Alberta's landscape into two by regulating land uses in both. The act of establishing these two areas also embody the capacity of law to produce boundaries which make visible the limits of accepted practises in an area (Melhuus 2005:213).

A second significant moment came in 1977 with the approval of the Policy for Resource Management of the Eastern Slopes. The policy identified watershed integrity as the highest priority use in the mountains and foothills that run along the Rocky Mountains. While renewable resource development was allowed, the development of non-renewable

resources like oil and gas was only permitted in areas where it was “compatible” with other land uses (Government of Alberta 2008:6). Recent land use planning endeavours are consistent with these past policies. However while previous environmental policies were the result of government actions, recent land use planning processes reflect what Parkins and Davidson (2008:178) have explained as a gradual shift towards more democratic and multi-stakeholder policy making processes. These shifts are complicated as they incorporate differing viewpoints on environmental issues. As such two opposing facets in early environmental policy making processes in Alberta can be identified; on the one hand processes became more democratic, while on the other the incorporation of a broad spectrum of stakeholders started a process of contestation about the extent to which their views were incorporated in the design of the policies. Indeed Glen – Executive Director of an environmental organisation in Fort McMurray – labelled some of the previous processes aimed at broadening stakeholder participation in environmental policy making processes in Alberta “a sham” (Glen 2013). In this sense environmental policies are not just transmitted and implemented, but translated to particular settings (Stepputat 2012:445).

A third and most recent significant moment came in 2008 with the development of the Land-Use Framework. The strategy came about following public consultations organised from 2006 to 2008 in response to the “unprecedented pressure on Alberta’s landscape” caused by the development of the oil sands and population growth (Government of Alberta 2008: 6). Indeed the Land-Use Framework explains that “Alberta’s prosperity has created opportunities for our economy and people, but it has also created challenges for Alberta’s landscape” (Government of Alberta 2008:1).

The Albertan landscape

The “challenges” addressed in the Land-Use Framework has reference to the changing topography of the landscape, and diversity of land use practises in the province. During my greyhound trip from Edmonton, central Alberta, 300 kilometres south to Calgary, I examined the Albertan prairies. Throughout the centre of Alberta agricultural practises such as the growing of wheat and oats are dominant. The grain fields extend southwards to Lethbridge and eastwards to the neighbour province of Saskatchewan. To the west the plateau collides with the imposing Rocky Mountains, whose linear spine forms a natural and political border between Alberta and British Columbia.

While agriculture is dominant in southern and central Alberta, land use practises in the north are decidedly different. My window seat on the greyhound to Fort McMurray, 450 kilometres north of Edmonton, presented me with glimpses of these changes. The prairies around Edmonton quickly transformed into patches of wood and cattle ranches. Midway through the trip, the bus took a left turn and drove northwards along Highway 63 in the direction of Fort McMurray. Patches of wood became denser up to the point where I found myself engulfed by boreal forest; wild forest, timberland pine, and spruce trees surrounded me for as far as my eyes could see. The busy highway is the only way for automobiles to reach Fort McMurray and as a result the bus shares the two lane road with pick-ups and trucks belonging to forestry and construction companies. Apart from the occasional side track, coniferous trees stood tall and imperious around me. In contrast when driving from Fort McMurray to the oil sands up north, the boreal forest opened up and tailing ponds and production plants replaced woods, thudding and vehicle noises filled the air.

According to the feedback received through the public consultations leading up to the Land-Use Framework, Albertans wanted the Government of Alberta to provide a clear direction in identifying the objectives of the province. In order to “reduce the human footprint on Alberta’s landscape” the framework segments Alberta into seven regions, each with their own regional plan (Government of Alberta 2008:4). Focusing on the different land

uses in Alberta, the Land-Use Framework formulates the problem and asks how human development – in the shape of agriculture, forestry, and oil sands development in the environment – can be managed to let Alberta “sustain (its) growing economy, but balance this with (its) social and environmental goals” (Government of Alberta 2008:2). To this aim the Land-Use Framework establishes three provincial outcomes;

- Healthy economy supported by our land and natural resources;
 - Healthy ecosystems and environment; and
 - People-friendly communities with ample recreation and cultural opportunities
- (Government of Alberta 2008:15).

In the case of environmental management the frameworks use cumulative effects management tools called Environmental Management Frameworks to set environmental limits on pollution. These frameworks are continuously monitored and evaluated in order to improve land-use planning and decision making (Government of Alberta 2008:4). The need to manage human development in the Albertan landscape supposes that industry sector practices are incompatible with ecological processes. In this sense development implies economic growth at the cost of the erosion of environmental resources, and environmental degradation (Croll and Parkin 1992:5). Importantly because Environmental Management Frameworks only set environmental pollution limits, environmental consequences of development are also separated from the socio-economic impacts. Bruce – a Senior Human Environment Specialist at an engineering company involved in the oil sands – explained that while the environmental impacts of oil sands development was regulated, the socio-economic impacts were unchecked (Bruce 2013). In the regional plans socio-economic impacts are addressed in separate outcomes and have separate indicators and management tools. The act of discursively separating economic, environmental, and social outcomes not only establishes social populations and ecosystems as discrete and isolatable units (Kottak 1999:24), but also defines the aims of the network.

Developing the Lower Athabasca Regional Plan

Having discussed how environmental issues and development are formulated, the following is a description of how the government initiated the network and incorporated numerous actors in the policy making process. As required by the Land Stewardship Act the Albertan government set up the Land Use Secretariat, instructing it to develop and implement the regional plans in conjunction with the Government of Alberta. Three legislative documents obligated the Albertan government to also consult with different stakeholders when developing these regional plans. The Alberta Land Stewardship Act Part 1, Division 1, Section 5(a) stipulates that before regional plans are amended, the Stewardship Minister must “ensure that appropriate public consultation (...) has been carried out” (Government of Alberta 2009a:12). The Canadian Constitution section 35 protects the rights of the Aboriginal peoples of Canada while specific to the region, the Canadian Crown also signed a treaty with Treaty 8 First Nations in the Lower Athabasca region guaranteeing rights to traditional land practices. These First Nations include the Athabasca Chipewyan, Chipewyan Prairie, Fort McKay, Fort McMurray #486, and the Mikisew Cree First Nations.

To direct the development of the regional plan, the Regional Advisory Council was setup in December 2008 with the mandate to provide recommendations to the Albertan government on matters concerning future resource development, land conservation objectives, regional air and water thresholds, and human development considerations (Regional Advisory Council 2010:2-3). The council’s members included Aboriginals, environmental, industry, government, and municipal representatives, as well as independent

experts and scientists. Council members were nominated and had to be approved by ‘Cabinet’, composed of the Premier, ministers, and associate ministers. Roy – member of the Athabasca Tribal Council in Fort McMurray – explained that he felt that this made the process selective and “manufactured” (Roy 2013). Although Aboriginal representatives did not have to be approved by Cabinet because of their constitutional rights, Roy, who participated in the Regional Advisory Council, explained that they engaged in the process as individuals and not as representatives of the Aboriginal communities. This was because the council’s work was not seen as proper government consultation.

The Lower Athabasca Regional Plan

The Regional Advisory Council worked until March 2010 and their recommendations were then tested with the public in that same year. The feedback was incorporated into the draft which was again presented to the public from April to June 2011. During these consultation sessions, 780 people in 15 settlements across the province participated. Public consultations were facilitated by a contracted company, Stantec. The meetings were divided into public and stakeholder sessions; the latter during the day and the former during the evening. Participants were asked to sit at tables and in workshops and discuss various aspects of the draft. Suggestions and comments were then put up on a sticky wall so that all participants could see. A Stantec employee would note the comments down electronically and the communications officer would then send this around on a blog. Over time trends were found and consultation summaries produced. Based on the result of consultations the final draft of the regional plan was presented to Albertans in 2012, was approved by Cabinet on August 22, 2012, and became effective several days later on September 1.

Problematisation and interessement

Although the development of the Land-Use Framework and the Lower Athabasca Regional Plan reflect a shift to a multi-stakeholder approach to environmental policy making, the role of the Albertan government in compiling this input cannot be underestimated. Mr Bartesko – a worker at the Land Use Secretariat – made this abundantly clear when explaining that “Government will make the final decision and it’s always been that design. So the government has never given up what we call ‘the pen’” (Bartesko 2013).

This subchapter has demonstrated how acts of problematisation have a significant impact on the shaping of the network. The consultations leading up to the Land-Use Framework authorised the Government of Alberta to take the lead in land use planning. Specific to the Lower Athabasca Regional Plan, the network was initiated by the Government of Alberta through consultations. Administered by the Land-Use Framework, the network was mandated to set economic, environmental, and social outcomes for the region and develop separate frameworks to fulfil these objectives. This approach to management requires the separation of human development and the natural environment. Specifically the setting, evaluating, and monitoring of pollution limits in Environmental Management Frameworks supposes that human development in the Lower Athabasca is incompatible with ecological processes. The act of problematising environmental issues so as to establish a dichotomy between natural and social entities is significant. First the culture–nature dichotomy constructed in Environmental Management Frameworks directs the network and leads how environmental issues are addressed. Second actors who discursively and practically stress this dichotomy are enrolled in the network without much difficulty, while those who do not are often uncertain about their roles within the network. In other words the problematisation of environmental issues and management processes so as to mirror

traditional approaches to environmental management makes the actors that recognise the dichotomy central in the network, marginalising others (Callon 2007:61).

3.2 Interesement: the Lower Athabasca and oil sands reserves

To elaborate on how interrelationships in networks emerge Callon's analysis discusses the ways an entity is able to identify and consolidate another actor's identity by cutting or weakening its links to other network participants (Callon 2007:63). While such acts of interesement are normally exercised by a dominant actor (Callon 2007:63; Murdoch 1997:739), in this subchapter it becomes clear that government, oil corporation, environmental organisation, and Aboriginal representatives are all engaged in this process. This subchapter aims to show how acts of interesement are used to reconfigure the relations between social actors and the natural environment. I argue that the reconfiguration of interrelationships is made possible by the creation of the culture–nature dichotomy. The dualism enables social actors to attribute characteristics to the natural environment, re-establishing links between human development and ecological processes in accordance with their aims and perceptions. I also see acts of interesement further discursively and practically isolate the oil sands from other forms of human development in the Lower Athabasca. The separation detaches raw materials from nature and incorporates them into culture allowing actors to claim ownership over the resource (Ingold 1992:51). The oil sands are valuable and the reconfiguration of the relationship between natural environment, raw material, and social actors is important as it defines network positions and the role of social actors in land use planning. In order to understand how and why the actors attempt to identify and characterise the oil sands, an understanding of the different perceptions on the Lower Athabasca is required. For this purpose I comment on two visions depicting the Lower Athabasca.

Perceptions on the Lower Athabasca region

The regional vision put forward in the Lower Athabasca Regional Plan provides an insight on “people's ideas about their own present and future” and should be seen as a document used to inscribe, rather than describe the future (Westman 2013:111). By inscribing the future, actors intend to use these documents to transform the environment physically in accordance with their own perceptions of what the environment should look like (Ingold 2006:181). The vision sees the Lower Athabasca as;

“(…) a vibrant and dynamic region of Alberta. People, industry and government partner to support development of the region and its oil sands reserves. Economic opportunities abound in forestry, minerals, agriculture, infrastructure development, the service industry and tourism. The region's air, water, land and biodiversity support healthy ecosystems and world class conservation areas. Growing communities are supported by infrastructure and people can enjoy a wide array of recreation and cultural opportunities.”

(Government of Alberta 2012a:22)

A number of characteristics stand out. First economic development is emphasised more than other land uses. Specifically while forestry and agriculture are mentioned along with other “economic opportunities”, the development of the oil sands reserves is discursively separated. Second the culture–nature dichotomy established through acts of problematisation is reinforced by emphasising that the development of the oil sands reserves requires the cooperation between “people”, “industry”, and “government”, setting ecological processes apart. Third commenting on the actors involved in the economic development of the region, the vision discursively configures the relationship between the oil sands development and

other actors. Namely the relationship between the government and industry in developing the resource is explicitly mentioned while the use of “people” to describe other stakeholders makes their role ambiguous. Lastly the process of interestment emphasises the importance of oil sands development and defines the actors involved in production. Specifically a close relationship between the oil sands, government, and oil corporations is formed. Although in Callon’s analysis acts of interestment lead to the acceptance of identities and the bounding of the network (Murdoch 1997:739-740), in my own fieldwork this vision was contested by different actors.

Contesting the Lower Athabasca vision

The introduction to the thesis refers to Roy’s criticisms of the Lower Athabasca Regional Plan for not balancing economic, environmental and social considerations. The vision also polarises public opinion around the issue of the importance of the sands. Examining the consultation summaries, some members of the public reiterated Roy’s sentiments by complaining that there was too much focus on the economy and not enough on social and environmental aspects. Some even commented that the three “environmental media” – water, air, and soil – had value beyond that of resources due to their role in maintaining life. For this reason, they argued, the environment should be protected and take precedence over industrial and resource development (Government of Alberta 2010:5-6). Other members of the public felt that the economy should drive the vision more and that it should be worded more strongly (Government of Alberta 2010:5).

Importantly prior to the finalising of the regional plan the Regional Advisory Council had proposed a different vision;

“The Lower Athabasca Region is an exceptional mosaic of peoples, communities, forests, rivers, wetlands, lakes and grasslands that are cared for and respected. It is a vibrant, dynamic region that is a major driver of the Canadian economy supported by strong, healthy, prosperous and safe communities. Sustainable economic, social and environmental outcomes are balanced through the use of aboriginal, traditional and community knowledge, sound science, innovative thinking, and accommodation of rights and interests of all Albertans.”
(Regional Advisory Council 2010:8).

While the previous vision augments the importance of oil sands development by discursively separating it from other economic land uses, this vision embeds the development of the resource in other forms of human development. Moreover by “attaching” human development “to their ecological roots” as Croll and Parkin (1992:6) explain, the vision presents another configuration of the relationship between the environment, raw material, and social actors. For one government and industry’s role in the development of the region is not explicitly mentioned and the term “people” is replaced by “aboriginal” and “community”. By identifying numerous actors the vision moves away from what Ingold (1992:50) explains as likening the environment to a container “against which life goes on”, but rather stresses that the region is shaped not by one but by many hands. Perhaps significant to remember the vision presented by the Regional Advisory Council reflected the input of the different actors involved, whereas the vision proposed in the final regional plan was altered by the government’s “pen”. Glen, who had worked with the Regional Advisory Council on the recommendations, remarked that he was disappointed with the final version and felt that the Land Use Secretariat had changed some of the recommendations sent by the council. When pushed for a reason, he speculated that some actors had engaged in behind the scenes lobbying (Glen 2013).

The discrepancies between the two visions make clear that a dynamics of power is

triggered through the definition of the oil sands. It becomes evident that the oil sands have a profound influence on perceptions and relations between the social actors. In other words the sands are endowed with agency. Particularly the difference between the inattention paid to the oil sands in one vision, and the emphasising of the same resource in the other is an indication of the importance of the natural actor. It gives an insight how through interestment actors attempt to identify and characterise the oil sands by first separating the sands from the natural environment, and second discussing its importance in the region. Having demonstrated that the final vision was contested, it begs the question how one vision of the region was accepted over the other. Since acts of interestment involve the cutting or weakening of actor's links to the entity to be identified, social actors are engaged in a process of configuring and strengthening their relationship to the oil sands. The framing of this relationship therefore influences whether or not representations are accepted. Before delving deeper into the ways the relationship between the oil sands and social actors are reconfigured, I will first shortly discuss what exactly the oil sands are and what their impact is on the region.

The oil sand reserves

The oil sands deposits are located in three regions; Peace River, Athabasca, and Cold Lake. Of the remaining established reserves, eighty two percent is considered recoverable by in-situ methods while the rest is recoverable by surface mining methods. The latter procedure is mostly used for the Athabasca oil deposits. In this region most of the oil sands are found under boreal forests. In order to get to these resources trees must be cut down and roads must be built for seismic exploration and oil and gas production (Pembina Institute 2008:1). As the most prominent and growing land use activity in the Lower Athabasca region (Regional Advisory Council 2010:1), the oil sands are first and foremost described as a valuable economic resource. Far from an essentialist characterisation, David – a Senior Community Engagement Advisor for an oil corporation – explained that some organisations, especially in the United States, express their opposition to oil sands development by referring to the resource as the 'tar sands' (David 2013). The term gives the oil sands development negative connotations and organisations such as Greenpeace associate development with words such as 'pollute' and 'wasteland'. In late 2013 popular Canadian born artist Neil Young even likened Fort McMurray to Hiroshima, the site of the first atomic bomb drop in August 1945.

The reason the oil sands reserves are debated is because of their wide reaching positive and negative impacts on the Lower Athabasca region. First the oil sands have numerous environmental impacts, from the destruction of the boreal forest for seismic exploration and oil and gas production, to the polluting of rivers. Second these environmental issues impact local communities. For example when asked about the effects oil sands development has on Aboriginal communities Roy deplored that companies dug up the oil sands, separated the oil from the sand, before dumping all the waste back in the land creating health problems such as headaches and pains (Roy 2013; Cryderman 2014). Third the oil sands production has numerous socio-economic impacts. Oil corporations like Syncrude employ individuals from Aboriginal and local communities, presenting the communities with major economic benefits. At the time of the 2010 census the Regional Municipality of Wood Buffalo, where the Athabasca oil sands reserves are located, recorded an employment rate of 80.6 per cent and an unemployment rate of 4.8 per cent. In comparison Alberta's employment rate was 68.1 per cent and the unemployment rate was 6.5 per cent (Government of Alberta 2012b). Driving through Fort McKay, a First Nation settlement, I noticed how the bridge leading into the town and all the roads were being rebuilt. In the settlement there were schools, a modern business centre, and an electronic

billboard welcoming visitors to the settlement. Bruce – a Senior Human Environment Specialist at an engineering company involved in the oil sands – explained that because of the oil sands development the First Nation communities in the Lower Athabasca are one of the richest in Canada (Bruce 2013). While such economic and infrastructure developments benefit local communities, ‘Stan’ – a member of a First Nations in the region – elucidated that First Nation communities were also put into a ‘no choice’ position; they either joined the economic development or miss out on the economic benefits. This “economic assimilation” put traditional values at risk (Stan 2013).

Relationships to the oil sands

The impact on traditional values should not be overlooked as it negatively affects both traditional practices and knowledge production. In my discussion with Roy it became clear that activities such as fishing, hunting, and the gathering of fruit and medicine were all impacted by development and that in many cases these activities could no longer be carried out. Traditional Ecological Knowledge (TEK) is closely tied to activities in the land and there is a danger that the accumulation of this knowledge could be negatively impacted. As traditional land use practices are constitutionally protected, it becomes part of these communities’ claims to land ownership. Roy explained to me that when the elders had signed Treaty 8 with the Canadian Crown, they had agreed to “share the land” and not give it over (Roy 2013). He stressed that First Nations in the area had been there since “time immemorial”. A paragraph in a report produced by a First Nation elaborates this;

“(…) consistent with our Nation’s ancestral oral laws (….) our Nation has a sacred, pre-existing, and sovereign right and responsibility to protect, care for, and manage our air, land, and water so that our children and their children (….) may be able to practice their rights and way of life freely. We the Dené have our own land use rules that ensure mutual respect and survival of all”

(Athabasca Chipewyan First Nation 2012:4).

Although First Nations own their reservation lands, this does not cover all the land used in traditional practices which often falls outside the reservation. Consequently the lands claimed by the government to extract resources for the sake of economic development are often the lands included in the traditional land use practices. The separation between the oil sands reserves and the natural environment complicates First Nations claims to ownership. Particularly while their proximity to the environment, the impact of oil sands development, and their treaty rights are established, juridical instruments deny First Nations ownership of these lands and resources.

The oil sands reserves lie on public lands and are governed by the Public Lands Act. The act reaffirms government’s ownership of the land by emphasising that “(t)he right, title and interest of the Crown as owner of public land is confirmed” (Government of Alberta 2000:11). As owner of the land the government can lease these lands to corporations in order to generate revenue for the province. The government frequently stresses the economic benefits of these projects when justifying oil sands development, establishing not only a particular legal relationship with the oil sands, but also defining its use. From 2011 to 2012 alone the Government of Alberta collected 4.5 billion dollars in royalties from oil sands production, representing 38.7 per cent of non-renewable resource revenue, and 11.4 per cent of total government revenue (Pembina Institute 2013:6). When I asked Brandi and Dianne of an Oil Corporation Association in Fort McMurray about the leasing process they explained to me that it was an open procedure where all bids were placed online but that there were no special considerations for Aboriginals (Brandi and Dianne 2013). In this sense the

government uses practical means such as legislation in processes of interessement to solidify its claim of ownership of the land. Interestingly the resources themselves are further divided into belts underneath the ground allowing different oil corporations to bid on individual resource belts on the same piece of land. This separation between land and resource ownership is key to understanding the way acts of interessement shape interrelationships between actors and influence dynamics of power. It shows the ways government uses its position as legislator to dictate the identification of social and natural actors. It also perfectly demonstrates the “political-economics” of Alberta, as Carter (2010:19) explains, “(p)rimarily marked by the close symmetry of government and industry interests in developing remaining oil reserves”. Acts of interessement strengthen the interrelationship between the oil sands, government and the oil corporation, leaving First Nations out.

Excluded almost altogether environmental organisations are in an even more precarious position concerning land and resource protection claims. As interest groups, their association with the land is often questioned. For example during the Southern Pacific Resource Corporation project hearing the Government of Alberta excluded the Oil Sands Environmental Coalition (OSEC), comprising of the Fort McMurray Environmental Association and the Pembina Institute, because they were not considered to be directly impacted by the oil sands development. Salomons and Hoberg (2014:70) explain that this restrictive definition to participation challenges the ability of stakeholders to engage in environmental management. “Directly affected” laws are typically defined as property rights, making it a requirement for those who want to participate to show that they have direct material concerns with a given project (Salomons and Hoberg 2014:70). So while environmental organisations stress their relationship to the oil sands by emphasising their role as interest groups, their claims to a direct relationship to the oil sands is dismissed through law.

Interessement and enrolment

In order to fully understand current interactions between social and natural actors, it must be underlined that economic development has a history in the region. Ingold (2011:20) emphasises that “(...) environments, since they continually come into being in the process of our lives – since we shape them as they shape us – are themselves fundamentally historical”. Current mass development in the region is making the landscape “urbanised” as Kyle – a member of the Fort McMurray Métis Local 1935 – put it (Kyle 2013). However although current human development is changing the landscape, local populations have been engaged in economic development in the area for quite a while; in fact the Métis came to the Lower Athabasca region because of the possibility for fur trade and because they were employed by the Hudson Bay and the North West Companies. Just across the eastern border with Saskatchewan lies Uranium City, a settlement founded in 1952 to service the mines in the Beaverlodge uranium area. Current discourses are thus embedded in this regional history; economic development has always played a significant role in societal–environment interactions. In this sense current environmental management projects should be seen as human attempts to create environments, not in the sense of “inscribing meaning into things”, but in the sense that the “environment is the embodiment of past activity” (Ingold 1992:50).

Specific to oil sands development this subchapter has shown how actors use interessement techniques to set apart the oil sands reserves from the rest of the land, and finally reconfigure on a discourse level and practically the relationship between network actors. This reconfiguration is effected by the problematisation of environmental issues and specifically by the introduction of the culture–nature dichotomy. Particularly the analysis has shown how government and oil corporations use acts of interessement to create a strong link

between themselves and the oil sands while weakening or cutting off the sand's links to Aboriginal and environmental organisation actors. While the analysis of acts of problematisation and interessement have clearly demonstrated the configuration of interrelationships between social and natural actors, the discussion on the following two stages of network formation show how these relations impact the network, and particularly lead to the contestation of the final regional plan.

3.3 Enrolment: environmental management in the Lower Athabasca

Callon (2007:65) uses the term enrolment to discuss the device through which a set of interrelated roles are defined and attributed to network actors. An important part of this process is the negotiation between the different actors and the persuasive techniques used to encourage actors to accept the roles attributed to them (Murdoch 1997:739). My fieldwork demonstrates that this process is often complicated. Negotiations are intertwined with processes of interessement and problematisation as the designation of roles closely corresponds with the configuration of interrelationships between natural and social actors. Importantly I argue that power is not an object to be attained by any actor but rather emerges as a process through these interactions. Indeed Berkes (2009:1698) explains that through negotiations in the co-management of environmental issues, power sharing becomes the result rather than the starting point of co-management. This subchapter aims to show how acts of enrolment contest the network, and therefore demonstrate how interrelationships forge and impact the network. The analysis looks at three instances where negotiations took place between the government, oil corporation, environmental organisation, and Aboriginal representatives.

First negotiation: government roles in environmental management

The first negotiation is about the degree of control government has over the definition of environmental problems, and the initiation of land use planning. Specifically environmental organisation and Aboriginal representatives question the role of government in setting these environmental limits, and their commitment to allowing stakeholder input in such processes. Government roles in environmental management are clearly defined in legislation. For example the Environmental Protection and Enhancement Act emphasises the need for “government leadership in areas of environmental research, technology, and protection standards” (Government of Alberta 2013a:22). The government uses its important role in land use planning to increase its influence in environmental management. The movement shows how government uses legislation to also dictate stakeholder participation. For example the lead scientist for the Wood Buffalo Environmental Association in Fort McMurray commented that while the association used to have a large degree of independence on choosing their own agenda, recent trends indicate that the government will play a larger role in deciding the plan of action when it came down to measuring and evaluating air quality.

The Environmental Protection and Enhancement Act does provide the needed mechanisms to ensure that stakeholders are consulted regarding the development of Environmental Management Frameworks. However it appears that the amount of consultations is left to the discretion of the government. While Andrew – an analyst for the Pembina Institute in Edmonton – pointed out that there was a “substantial amount of stakeholder engagement” (Andrew 2013), Glen – a member of an environmental organisation in Fort McMurray – stated that in the process leading to the design of the Biodiversity Management Framework there had been no consultations (Glen 2013). Talking

about consultations and stakeholder engagement Jason – an environmental lawyer in Edmonton – noted that the Government of Alberta has always taken a very limited view of public interest groups (Jason 2013). Cases such as the OSEC ruling suggests that actors deemed to have opposing views towards oil sands development were readily excluded.

The movement towards the limiting of stakeholder participation has led actors to be suspicious of government's interests concerning oil sands development and environmental management. Indeed Andrew (2013) explained that there was a "culture of mistrust of the Government of Alberta". I see two principal bases for mistrust of the Albertan government; the first is the difference between government rhetoric on environmental management, and what is done in practise (Timoney and Lee 2001:389). Previous government discourse emphasised environmental integrity, but did not do much to counter environmental issues. Second the close working relationship between the government and the oil corporations explains why environmental organisations question the intent of the Albertan government in environmental management. Indeed during our interview Andrew (2013) alluded to the alarming rate at which projects were accepted when questioning government actions. Oil sands production is expected to increase from 1.31 million barrels per day in 2008 to three million barrels per day in 2018 (Government of Alberta 2014). The development of the resource is economically important for the Albertan government. Indeed royalties are expected to account for 46 per cent in 2014, and 68 per cent by 2016 of government non-renewable resource revenue (Pembina Institute 2013:10). In this sense the first negotiation challenges the close relationship between government, oil corporation, and the oil sands and therefore shapes the enrolment of actors in the network. The negotiation is significant as it shows that the Lower Athabasca Regional Plan policy making network was not consolidated. Murdoch (1997:739) explains that in order for actors to accept the process of enrolment, actors need to accept other actors' representations. However in this case by contesting their enrolment, environmental organisation and Aboriginal representatives became "dissidents" leaving the network formation process open to contestation (Murdoch 1997:740).

Second negotiation: industry and oil sands production

The second negotiation deals with the degree of sovereignty that oil corporations have over the resources, and the informal influence they have in environmental management. Carter (2010) shows how corporations combine government lobbying and political financing, with strategic media and community relations, to increase support for oil sands development. While in Fort McMurray I noticed that oil companies invested heavily in the local community; for example Fort McMurray Public Library and the Sport and Wellness Centre are sponsored by Syncrude, an oil corporation. By stressing their contribution to local communities, these corporations aim to downplay the environmental impacts of oil sands projects and exaggerate the socio-economic benefits. In terms of environmental management, government uses juridical obligations and regulations to administer oil corporation's tasks. For example in environmental monitoring Mr Hui – Chief Executive Officer for the Environmental Monitoring branch of the Environment and Sustainable Resource Development (ESRD) Ministry in Edmonton – explained that oil corporations are required to do compliance monitoring and must measure the pollutants coming out of their stacks (Hui 2013). Moreover Canada and the province of Alberta have environmental assessment processes, and project approval procedures are laid out by the Canadian Environment Assessment Act (Minister of Justice 2012). Proponents are required to submit a project description, which is then assessed in order to determine whether an Environmental Impact Assessment is needed. These assessments give a detailed overview of the expected environmental impacts of the projects. The agency then determines if project hearings are

required, in which case corporations will be requested to answer to directly impacted individual's Statements of Concern.

While practically oil corporations' roles are administered through federal and provincial legislation, environmental organisation and Aboriginal representatives contest the perceived informal roles oil corporations supposedly have in setting environmental limits. Specifically environmental organisation and Aboriginal actors consider that the oil corporations are unfairly favouring economic considerations over social and environmental goals. For instance informants widely believed that oil corporations purposively wanted to set higher upper limits so as not to hinder economic development. Glen explained that corporations were quite happy with the "anarchy on the landscape" that existed before current land use endeavours, "fly(ing) by the seat of their pants" when it came to oil sands development (Glen 2013). The scale and rapid rate of development generates large revenues for corporations. So while oil corporations are obligated to provide clear and detailed data on stack emissions and the environmental impacts of their projects, their role in environmental management is contested and negotiated. Similar to the first negotiation I see the large degree of uncertainty about their role boiling down to the relationship between the oil sands, government, and oil corporations. The result of this negotiations is that the relation between government as the land owner and oil corporations as the resource developer is highlighted, exacerbating the "culture of mistrust" between network actors.

Third negotiation: environmental management and traditional knowledge

The third negotiation is about the extent traditional knowledge can be incorporated in environmental management. As indigenous people are uniquely positioned in their close environmental relationships and have a comprehensive understanding of their environment, there is a view that these communities should be included in environmental projects (Turner, Ignace and Ignace 2000:1276). On paper juridical measures to some extent guarantees Aboriginal participation in land use management in Alberta. Indeed the rights of Aboriginal peoples to fully participate in decisions concerning developments that affect their lands and cultures have been recognised in numerous international agreements (Stevenson 1996:279). Such agreements advocate rights-based approaches to development, making the interests of local populations central in decision making processes. In the Lower Athabasca the Terms of Reference for Developing the Lower Athabasca Regional Plan clearly states that "land use must be managed to include Aboriginal traditional use activities" (Government of Alberta 2009b:11), while the Regional Advisory Council similarly suggests that an integral part of a "comprehensive planning process" is the integration of Aboriginal traditional knowledge (Regional Advisory Council 2010:3). This movement towards the inclusion of Aboriginal traditional knowledge in environmental management shows that the production of TEK is a powerful force; while juridical interestment instruments distance First Nations from the oil sands, their dwelled-in experiences seemingly puts First Nations in an important position when it comes to environmental management.

However while juridical measures guarantee Aboriginal participation, in practise actors use acts of enrolment to problematise the extent to which traditional knowledge can be incorporated in land use management schemes. Environmental management in the Lower Athabasca is a scientific endeavour; the environmental outcomes in the regional plans establishes specific "performance indicators" which set "science based upper limit(s)" to pollution (Hui 2013). These limits are influenced by numerous Canadian and international guidelines. Mr Hui (2013) explained that use of scientific knowledge helped the credibility of environmental management as the knowledge was seen as "neutral value".

The movement to discursively and practically stress the importance of scientific knowledge in environmental management excludes those actors who do not use this

knowledge from engaging in environmental management. Indeed as Luig (2011:81) explains the evidence brought forward by the First Nations appear as ‘traditional knowledge’ and is consequently positioned apart from other types of knowledge. During my fieldwork the inclusion of traditional knowledge was deemed as ‘difficult’ by certain informants, particularly because the First Nations are ‘culturally different’. Words such as biodiversity were perceived to have no equivalent in native languages. Similar to Davidson and MacKendrick’s (2004:50) analysis that current formulations of environmental problems are influenced by business like “ecological modernisation” language, excluding those who do not speak it, Stevenson (2006:169) rightly explains that the language and concepts used in environmental management processes in Alberta frequently undermine Aboriginal values and understandings. Indeed the documentation of TEK for the construction of environmental limits may create an exploitative situation where the knowledge is taken out of context or misinterpreted by developers (Stevenson 1996:279).

The role of Aboriginal communities in environmental management and planning is at the same time practically emphasised in policy, and discursively problematised by those representatives responsible for environmental management in the area. This play of forces becomes evident during this negotiation on the importance of First Nations communities in environmental management. By discursively problematising the role of Aboriginal communities, the interrelationship between the oil sands, government, and oil corporations remains. Never consolidated, Aboriginal communities contest their enrolment in the network by challenging the extent to which traditional knowledge is incorporated in environmental policies. Roy explained that a lot of the traditional knowledge that had been used today, had been used in a non-meaningful way, or token as he calls it; “token information from TEK” (Roy 2013). He put this down to others showing a lack of respect. Recalling when government and industry representatives once came to a First Nation settlement to talk to an elder, he explained that while the elder was talking (a translator was present), that the guests ignored what was said. The anecdote is salient. Berkes (2009:1699) explains that co-management structures are knowledge partnerships and different levels of actors have comparative advantages in mobilising and generating different kinds of knowledge. In order for both types of knowledge to be incorporated there must be correct translation (Berkes 2009:1699). Roy’s anecdote alludes that there lies a problem in the willingness of others to ensure proper translation. The result of the third negotiation is that Aboriginal communities feel that other actors are not interested in “meaningfully” including them in network processes, leading to a contestation of the relationship between oil sands, government, and oil corporations.

Issues with enrolment

In this subchapter I have discussed three negotiations between actors on their roles in environmental management in the Lower Athabasca. The analysis shows how the interrelationship between oil sands, government, and oil corporations is challenged and therefore impacts the network formation process. Since environmental organisation and Aboriginal representatives can never fully accept their specific enrolment into the network, the network remains open to contestation. I see the relationship between oil sands, government, and oil corporations closely linked to the problematisation of environmental issues, and therefore argue that the culture–nature dichotomy lays at the basis of the contestations. Indeed the following subchapter elaborates on the forms of contestation and shows how this challenge often causes the whole process to revert to the framing of environmental issues. Specifically I argue that the culture–nature dichotomy established in

the Land-Use Framework and Environmental Management Frameworks is problematic as it excludes certain actors from engaging in land use planning endeavours.

3.4 Mobilisation: contesting the network and future collaborations

Callon (2007:71) uses the term mobilisation to stress the necessary displacement of actors in the network. Specifically he means “to render entities mobile which were not so beforehand”. In order for the network to emerge successfully the different actors’ representations of others have to be sustained by those who they are meant to represent (Murdoch 1997:739). In his analysis Callon explained that before network formation scallops, fishermen, and scientists were dispersed. However through the devices of problematisation, interesement and enrolment used by the scientists the actors were at first displaced, and then reassembled to form a network according to the designs of the scientists. My ethnography thus far shows that Callon’s model has to be reconsidered in order to include the processes of negotiation during the enrolment stage; formation processes are not linear but are complex and unpredictable. The three examples of negotiation presented in the subchapter above makes clear that representations and the framing of the proposed interrelationships were not accepted resulting in a push against network mobilisation.

Using this as a starting block, this subchapter aims to examine the techniques used by actors to mobilise against the formation of the network and contest the proposed relationship between the oil sands, government, and oil corporations. The subchapter shows how the forms of contestation presented in the analysis thus far challenge the configuration of interrelationships by reverting to the problematisation phase. Seeking to reformulate environmental issues and contest the culture–nature dichotomy established in Albertan land use planning practices, Aboriginal and environmental organisation representatives attempt to re–establish network identities, projects, orientations and interests which allows actors to reshape the network to their expectations and aims (Callon 2007:62).

Contesting Aboriginal consultations

The basis for the majority of Aboriginal contestation was the belief that Aboriginal communities had not been “meaningfully” included in the policy making process. Contemplating what to say next Roy tells me he wants to finish our interview with an analogy about the Lower Athabasca Regional Plan policy making process. He describes a court room setting, where a judge is presiding over two opposing parties who are arguing over an issue. He continues;

“In this whole process with LARP the Government of Alberta (...) they’re the judge. In RAC there were all of these people handpicked to be on this side, and then their lawyers that give them the information are the (...) Alberta Government workers. So whoever is in RAC you’re getting all this information from the Government workers (...). On this side, the opposition, to provide evidence (...) there’s nobody. First Nations should have been there, environmental groups should have been there.”

(Roy 2013).

Before he concludes;

“So in this court room to decide what LARP is going to look like, there should have been pros and cons all together and in the end the judge will decide what LARP is going to look like. (...) But no he never heard the opposition, he just heard everything pro Government.”

(Roy 2013).

The analogy epitomises the discontent precisely. Aboriginal representatives had expected that the policy making process would take into consideration all actor's views. However they claim that the government only considered opinions which were beneficial to them. By explicitly saying that First Nations and environmental groups should have been able to give evidence for the Lower Athabasca Regional Plan, Roy also posits that these groups are in coalition against government and oil corporations.

As the requirement to be meaningfully consulted is tied to First Nations' treaty rights, these communities challenge the government in court. For example in order to reiterate their treaty rights the Mikisew Cree First Nation took Canada to court in 2005, while the Athabasca Chipewyan First Nation filed new litigation against the federal government in early January, 2014. When I asked Kyle about all the Aboriginal court cases against the Federal government, he explained that court cases were the only avenue for Aboriginal members to forward their rights and complaints (Kyle 2013). It follows a trend where, as Stevenson (2006:168) explains, in many parts of Canada Environmental Resource Management (ERM) processes have become the focal point around which Aboriginal-state relations are constructed, and thus serve as the main arena where Aboriginal communities are able to advance their needs, rights, and interests. ERM processes are the ideal arena for the advancement of rights because the basic idea of co-managing environmental issues is that people whose livelihoods are impacted by management decisions should have a say in how those decisions are made (Berkes 2009:1692). Court cases are filed against the Federal government because it is their duty to protect Aboriginal rights. However the provincial government can be held equally accountable as the duty to consult is passed down to them. The Government of Alberta has a Policy on Consultation with First Nations on Land and Resource Management (Government of Alberta 2013b), one which Roy emphasised the First Nations reject as the communities were never meaningfully consulted about the procedure.

By reiterating their treaty rights in court, First Nations highlight their dwelt-in experiences, close relationship to the land and emphasise the importance of traditional knowledge. As such I see challenges against treaty rights infringements as closely tied to contestations against the problematisation of environmental issues. Land use planning problematises human development and ecological processes as incompatible and develops Environmental Management Frameworks to set pollution limits. In this sense land use management endeavours create a culture-nature dichotomy which excludes Aboriginal communities on two bases. First the use of devices of problematisation and interesement to separate human development and the natural environment enables government and oil corporations to claim ownership over land and resources. A close interrelationship is formed. Second the dichotomy does not correspond with Aboriginal communities' perceptions on environmental issues. Here I agree with Luig (2011:79) who uses Escobar's notion of regimes to make a clear difference between Aboriginal communities using organic nature regimes akin to Ingold's dwelling perspective to structure humans' relationship with the environment, and government who uses capitalist nature regimes to manage resources and populations through expert knowledge in order to objectify nature. Stevenson (2006:168) makes a similar distinction between state management systems which derive their legitimacy from the authority of the nation-state and constitutional powers such as the production of legislation, and Aboriginal management which derives its legitimacy at the local level from community based systems of knowledge. Management remains a Eurocentric concept and has, through environmental land use planning processes, been imposed on Aboriginal peoples. The notion that humans are able to manage plants and animals is hard to believe for many Aboriginal peoples (Stevenson 2006:168).

In this sense Aboriginal communities mobilise against the policy making network by

contesting the culture–nature dichotomy established in the Land-Use Framework and Environmental Management Frameworks. By reverting to the problematising of environmental issues, the question becomes how the oil sands development can be managed as to allow ecological processes, and Aboriginal traditional land use practices to continue in the region. This reformulation of the problem reshapes network identities, projects, and aims, making Aboriginal communities central in the network.

Environmental organisations and court hearings

By stressing their role as informants to the public, environmental organisations contest the interpretation that they are not directly impacted by the oil sands development. In order to resituate themselves they highlight their importance in the network. For example Andrew (2013) stressed that Pembina’s scientific approaches to cumulative environmental studies could provide a “sort of environmental view point for government policies”. Environmental management requires the constant monitoring and evaluating of environmental data. However when talking to Mr Hui, it became clear that there are large gaps of data on air and water quality. It is these voids that environmental groups attempt to fill.

As previously stated in the analysis environmental organisations contest the interrelationship between oil sands, government, and oil corporations by questioning the motivations of the actors to set, evaluate, and monitor strict pollution limits. When it comes to the Lower Athabasca Regional Plan, environmental organisation representatives accept that the management of the oil sands is a step in the right direction. Glen (2013) explained that the exploitation of the sands was going to happen no matter what, and that the focus should turn to environmental management. Actors see oil sands development inevitable because of the economic benefits the resource generates. The development of the oil sands is not only economically important for the province of Alberta, but in 2012 the Canadian government also collected 1.5 billion dollars in taxes from oil and gas extraction, and oil sands job accounted for 2.3 per cent of all jobs in Canada in 2010 (Pembina Institute 2013:6). However when it came to the setting, monitoring, and evaluating of environmental triggers Andrew commented that there was uncertainty about government and oil corporation intent, and their roles in environmental management. For example there was doubt about the state of environmental monitoring after industry funding for the Joint Oil Sands Monitoring program would end, while instances such as the OSEC ruling clearly demonstrate that friction does exist between government and environmental organisations.

By questioning the intent of government and oil corporations in setting, evaluating, and monitoring environmental limits, environmental organisations do not challenge the culture–nature dichotomy created through environmental management systems, but instead reinforce the separation by exaggerating the need for scientific knowledge in environmental management. This movement has two impacts on the network; first by stressing their scientific background, environmental organisations attempt to gain more influence in defining pollution levels. Second by reinforcing the division environmental organisations also challenge “directly impacted” requirements as it changes the emphasis from the impact of human development on human populations, to the incompatibility of oil sands development and ecological processes. Network actor relations are reconfigured as to emphasise a close working relationship between oil sands, government, oil corporations, and environmental organisations.

Mobilisation and the network

The two instances of mobilisation demonstrate the problematic nature of environmental policy making processes. Particularly central to both Aboriginal and environmental

organisation contestations is the problematising of environmental issues, albeit for different reasons. Aboriginal and environmental organisation representatives return to the problematisation stage in order to reshape the network so as to make themselves central in network processes. The culture–nature dichotomy formulated in the problematisation of land use conflicts in the Lower Athabasca plays a significant role. While Aboriginal representatives contest the dichotomy by stressing their relationship to the land and emphasising the importance of their dwelt-in experiences, environmental organisations reaffirm the dichotomy by stressing the need for scientific expertise in order to gain more influence in the setting, monitoring, and evaluating of Environmental Management Frameworks. A final note on mobilisation, the degree of dissatisfaction among Aboriginal and environmental organisation representatives suggests that the network was never fully consolidated. I see two possible reasons for continued friction.

First the “culture of mistrust” between government and environmental organisation and Aboriginal actors impacts cooperation. Berkes (2009:1693) stresses that two main aspects to co-management includes power sharing and trust. As Aboriginal and environmental organisation representatives contest the degree to which government has shared power in decision making, trust in government institutions diminishes. In this sense I agree with Stevenson (2006:174) who explains that for example resistance within the Aboriginal communities to environmental management processes, challenging the state’s ability to develop the resources solely on their terms and conditions, often exacerbates existing social divisions and tensions. The “culture of mistrust” is a formidable obstacle in getting environmental organisations and Aboriginal communities to fully engage in environmental management processes. Second the uncertainty surrounding some of the aspects of environmental management, coupled with this mistrust, creates friction. It must be acknowledged that due to the scope of the regional plan, a lot of features and roles are still being negotiated about and as such are not confirmed. However as a result of their lack of perceived inclusion in the process, Aboriginal and environmental organisation representatives contest the fairness of land use planning endeavours claiming that these negotiations are prefabricated, or “manufactured” as Roy put it.

3.5 Lessons on network processes

Returning to the aim of the chapter I have given a thorough insight into embedded network processes, particularly distinguishing steps in network formation processes, examining the framing of environmental issues, and scrutinising the discursive and practical instruments used by actors to shape the network. Importantly this chapter has shown how network processes are complex as actors engage with one another in particular situations establishing the network. The co-management of environmental issues emerges out of extensive deliberations and negotiations and as such co–management cannot be characterised as an ‘end point’ but as a process in which relationships among parties are constantly changing (Berkes 2009: 1694). This condition becomes especially clear by applying Callon’s four stages of network formation. On this note I want to briefly mention some lessons to be learned on network processes.

First by systematically analysing environmental policy making processes in Alberta, the chapter makes clear specific embedded network processes. Particularly insights from the Actor-Network Theory have deconstructed dynamic and complex interrelations between actors and shown how relations between actors are not setup from the start, but emerge out of interactions. Although juridical instruments can effectively characterise network relationships by for example establishing requirements and regulations, the configuration of these relationships were later challenged. The point is salient as it demonstrates how for example it

is not enough to rely on legislation to include actors into policy making processes. Particularly I see a difference between the voluntary and obligatory inclusion of actors in the network. Legislation tends to force actors to behave in a certain manner without necessarily changing the attitudes that lead to negative behaviour (Bessire 2005:428). Without freedom there is neither responsibility nor ethics; in other words obliging the government to include actors into the network helps keep the government accountable for consultation procedures, but does not necessarily address the “culture of mistrust”.

Second the analysis demonstrates the transformative quality of network formation. While for the sake of analysis the four stages of network formation were presented in different subchapters, the chapter as a whole has also shown how these stages influence one another. The establishment of a culture–nature dichotomy in the problematising of environmental issues enabled the reconfiguration of social and natural actor relations through acts of interessement. These relations were then also the main basis for negotiation in the enrolment stage. Rather than consolidating the network, contestations reverted to the problematising of environmental issues, particularly focusing on the framing of societal–environment interactions. The importance of the oil sands in these discussions shows that network processes are not just interactions between social actors, but also include the presence of participating natural entities.

4. Conclusion

This thesis has explored network formation in the context of multi-stakeholder environmental policy making processes. Particularly the analysis has examined embedded network processes including the techniques used by actors to differentiate natural from social entities to reconfigure network interrelationships. As such my thesis demonstrates how societal–environment interrelationships impacted network formation processes and the contestation of the policy. Specifically I focused on the ways government, oil corporation, environmental organisation, and Aboriginal representatives discursively and practically problematised land use conflicts in the Lower Athabasca, and how they characterised the oil sands. Influenced by new ecological thought in ecological anthropology, this research has shown how the distinction between society and the natural environment is not just out there, but is established through devices of problematisation and interessement for management and power purposes. It also adds to new ecological thought by demonstrating that societal–environment interactions do not only occur in the physical environment, but also in policy making processes.

By systematically analysing embedded network processes, this thesis presents a number of key findings. First the ethnographic analysis has shown that network formation processes are never linear, but are complex and unpredictable. Networks have an emergent quality and are formed and shaped according to the interrelationships between the network actors. In this sense networks are embedded in processes occurring between actors and over time. The Lower Athabasca Regional Plan policy making process network emerged in a specific social, political, and economic background, namely oil sands development. With this in mind the analysis is significant as it stresses that network formation processes are always in a state of flux. Government, oil corporation, environmental organisation, and Aboriginal actors all engaged in processes of problematisation, interessement, enrolment, and mobilisation in order characterise others according to their own aims.

Second, and particularly important in the context of post–colonial environmental policy making processes, the analysis has shown that an important part of network formation processes is dependent on how natural actors are discursively and practically differentiated from social actors. Government, oil corporation, environmental organisation, and Aboriginal

representatives characterised the Lower Athabasca and the oil sands reserves, and reconfigured the interrelationships between social and natural actors in order to direct the policy making process. These acts of problematisation and interessement had a significant impact on the network and environmental management in the Lower Athabasca. For example the close relationship between the oil sands and government and oil corporation representatives legitimated oil sands development in the region, and hindered the ability of environmental organisation and Aboriginal representatives to engage in environmental management. Moreover the culture–nature dichotomy stressed in environmental management is problematic as it prevents actors with different beliefs on societal–environment interactions from engaging in such processes. Consequently environmental organisation and Aboriginal representatives contested the network in the enrolment stage of network formation by reformulating the problematising of environmental issues in order to reshape the network according to their own aims.

Having said this, the thesis does have some limitations. First network processes occur over extended periods of time and although my ethnography presents a detailed examination of network formation, in order to truly document changes in interrelationships and perceptions research should be conducted over a longer time frame. Second the body of literature on the Actor Network Theory is extensive and I acknowledge that others interpret Callon’s framework differently for other fields of research. However the use of the Actor Network Theory to study environmental policy making processes does make my research compelling; by applying concepts not normally used in ecological anthropology, this thesis gives a deep insight into the ways social actors engage with the environment in the context of policy making. On this note I enthusiastically encourage more research in ecological anthropology on environmental policy making network processes, and particularly on the way the act of distinguishing natural from social actors influences actors’ perceptions on environmental management. Moreover more research needs to be conducted on the ways policy making networks, as forms of interaction, influence other areas of potential collaboration between actors, for example First Nation and oil corporation collaboration in managing socio-economic impacts.

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Popular Summary

This thesis systematically examines interactions between different actors in the context of multi-stakeholder environmental policy making processes in the Lower Athabasca, Alberta, Canada. Particularly the thesis shows how different discursive and practical techniques are used by actors to characterise others, and configure the relationship between human development and the natural environment. Land use management in the Lower Athabasca is particularly complicated because of the development of the oil sands in the region. The thesis shows that the framing of environmental issues is important as it directs the policy making process. Certain actors, through for example legislation and management frameworks, differentiate between human development and the natural environment, separating the environmental impacts of human development from the social and economic effects. However as multi-stakeholder environmental management processes entail the negotiation between different actors concerning the formulation of environmental issues, the separation becomes contested. Specifically actors reformulate and reconfigure the relationship between human development and the natural environment so to make their interests central in the policy making process. As such the thesis concludes that policy making networks should always be seen in a specific social, economic and environmental context. Particularly the thesis shows that the natural environment is not something out there, discrete from society, but that the dualism is created for management and power purposes.