

**University of Alberta**

**WHEN WORLDS COLLIDE?**

**Hearings vs. Media in Making Meaning for Alberta's Oil Sands**

by

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## **DEDICATION**

My research is dedicated to my children, Sara and Tait, who fill my life with joy, wonder, and deep thankfulness. They continually inspire me – in every way – to attempt to make the world a better place.

## **ABSTRACT**

Although resources are central in many organizational theories, we tend to overlook the social processes by which these become defined, infused with value, and made usable by rules. Thus, I ask: How has a once legitimate and unquestioned energy source – the Alberta oil sands – become problematized. Neither the nature of this resource nor the decision processes for development have fundamentally changed over the past 50 years. Yet, the meanings of this previously taken-for-granted resource have become so contested within and between the regulatory development hearings and public media more broadly, such that industry self-regulation and international rulings are being transformed. To unpack the processes by which stakeholders construct and contest these meanings, I draw on an extended case study of Alberta's oil sands. I start by examining macro-level diffusions of meaning in global media, then macro- to micro-level translations between hearings and the surrounding media, and lastly on interactive macro- to micro-level contestations as discursive stakeholders agentially leverage across these arenas. During field emergence, oil (and tar as its descriptive synonym) was the uncontested resource of interest in this discursive field. Our interest in it increased exponentially, along with its value on the world market. This changed in 2008 and onwards, when water (and tar as the newly pejorative variation of 'oil') became a central resource in the discussion. The refocusing was catalyzed by the 1600 duck deaths on Syncrude's tailings ponds and by increasing concerns amongst Aboriginal peoples about contamination of the Athabasca River. This shift in the discussion represents an effort to balance the technical utility of oil with the life affirming essence of water, from a broader constituency of discursive stakeholders. My cross-arena rhetorical analysis illustrates how discursive stakeholders use different rhetorical tools to position and counter-position themselves against their opponents, differently in public media versus hearings, to influence the regulatory outcomes. This demonstrates that, when faced with decades of institutional intransigence, interstices between discursive fields can give challengers leverage points for change.

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## **CHAPTER 1 – GOLDEN GOOSE OR UGLY DUCKLING?**

### **Introduction**

As in so many other policy areas, Alberta's tar sands operate under laws and financial regimes specifically made to encourage their exploitation. They are Alberta's equivalent of the golden goose, and not many people want to do or say anything that questions the economic boom they have created (Simpson, 2006).

A single duck, covered in tarry bitumen, struggles to flee a raven that flies overhead. The duck, drenched in oil, is not able to escape. The raven attacks, and settles in for a feast... there was no attempt to flee or otherwise defend itself... duck deaths have become an important symbol of the oil sands' environmental performance (Vanderklippe, 2010).

This is a story of a once legitimate and unquestioned energy source – the Albertan oil sands - which was characterized as the ‘golden goose’ by Alberta’s policy-makers and economy-takers. And how, in the span of four years, this energy source has become characterized as an ‘ugly duckling’ and the “whipping boy of European and American green groups fighting the ‘Great Climate War’ ” (Sweeney, 2010: 160) within media. Neither the nature of this resource nor the decision processes for development has fundamentally changed over the past 50 years. Yet, the meaning of this taken-for-granted resource has become increasingly contested within and between the regulatory development hearings and public media more broadly.

The meanings that we attach to things are reflected in how we talk about them (Berger & Luckmann, 1966). Hence, the process through which organizational actors co-construct and infuse value in the natural world and its attendant resources is a game of language (Edwards, 1991; Bakker, 2009). Meaning must be ongoingly negotiated as a ‘precarious’ construction by social actors who are co-present and engaged in a recognizable process of interaction (Berger & Luckmann, 1966). These processes of meaning construction take place in arenas of contestation like conferences (Garud, 2008), public inquiries (Brown, 2004; Gephart, 1993), and regulatory commissions (Suddaby & Greenwood, 2005) or the media and internet more broadly (Tsoukas,

1999; Coupland & Brown, 2004). The effectiveness of rhetorical rationales varies by arena (i.e., Sillince, 1999).

As resultant meanings become defined and reified as taken-for-granted, resources become institutionalized into a system of rules, which further enables and constrains their use (Giddens, 1984). Even seemingly useful physical things (such as land, water, oil, or fish) or potentially useful things (such as garbage) do not become organizational resources until they are recognized by and incorporated into social structures (Giddens, 1984). Such resources must be described and defined into abstract categories, vested into prescribed rule systems of property rights, valued and made marketable to become usable by organizations (Espeland, 1998; Eder, 1996; Holm & Nielson, 2007; Lounsbury, Ventresca & Hirsch, 2003). If there is a shift or expansion of the constituency of meaning-makers within such arenas, dominant meanings may be challenged (Berger & Luckmann, 1966) and the rule systems may be transformed (i.e., Hoffman, 1999, 2001).

“Rhetorical theory suggests that as the persuasiveness of discourse increases, the production of taken-for-grantedness increases” (Green, 2004: 655). Recursively, such persuasion also depends upon the speaker being able to create resonance by drawing upon other “commonly held assumptions or ‘taken-for-grantedness’ of his or her audience to produce justifications that support his or her claims” (ibid). Thus, taken-for-grantedness begets taken-for-grantedness. Organizational researchers have examined how speakers leverage broader understandings into localized contexts (outside-in), such as: revisiting the appropriateness of practices within regulatory reviews (Suddaby & Greenwood, 2005; Maguire & Hardy, 2013), promoting organizational efforts to change practices (Green, Babb & Alpaslan, 2011; Zbaracki, 1998), and reinterpreting the meaning of ‘high-tech’ in local industry conferences (Zilber, 2006).

Yet, individuals are not ‘captive audiences’ sequestered within their organizations or industries, but exposed to dissonant societal discussions which may threaten their “knowledge of certain states of affairs as unquestionably plausible” (Schütz, 1962: 326). An example is practitioners challenging of academics’ understanding of ‘culture’ (Barley, Meyer & Gash, 1988). Such dissonance may disrupt taken-for-granted assumptions and redefine the status quo as unacceptable and needing change (Suddaby & Greenwood, 2005).

Processes of meaning-making are also dialogically interactive; the audience may become the speaker, and vice versa. And meanings can flow between more private, local conversations like hearings to public conversations in local and international media (inside-out) –which may result in an interactive dynamic. Thus, mass media – rather than merely reflecting societal understandings of local events – may also leverage society’s values and influence policymaking within localized settings. Rather than being a one-way sender-receiver conduit model of media, it becomes an interactive conversation between nested arenas of discussion, with the media playing a rhetorically significant role in the staging and dramatizing of actors’ messaging (i.e., Vaara, 2013). Indeed, the power of the media is considered so great that when a government seeks to assume control over its citizens, one of its first actions is to seize the presses and the airwaves.

Mass production and distribution of message systems transforms selected private perspectives into broad public perspectives, and brings mass publics into existence... Publication is thus the instrument of community consciousness and of governance among large groups of people too numerous or too dispersed to interact face to face or in any other personally mediated fashion. The truly revolutionary significance of modern mass communication is its broad ‘public making’ ability. That is the ability to form historically new bases for collective thought and action, quickly, continuously, and pervasively across previous boundaries of time, space and culture (van Dijk, 1985: 15).

There is a growing interest in field configuring events as micro-contestations of meaning that enable evolutionary changes in broader fields (Schüssler et al., 2013; Lampel & Meyer, 2008; Munir, 2005). Researchers have also examined the processes of how field-level media reflect public attention and accountability (Hoffman & Ocasio, 2001) act as arenas for theorizing and sensemaking and (de)legitimation for organizations (Barley et al., 1988; Fiss & Hirsch, 2005; Coupland & Brown, 2004; Tsoukas, 1999, Lamin & Zaheer, 2012; Deephouse 1996; Bansal & Clelland, 2004; Pollack & Rindova, 2003; Jonsson, Greve & Fujiwara-Greve, 2009). These researchers imply, but do not explicitly examine, the recursive interaction between these micro contestations of meaning and the broader discursive field within which they are embedded. Garud (2008: 1084) suggests events such as “conferences... are not independent entities, but rather are embedded events within a larger flow of field unfolding activities”. Discussions within events not only configure fields, however, field-level discussions may also configure events.

Researchers have tended to take actor-centered approach to examine the structuring of organizational or institutional fields - who is involved and to what effect (i.e., Schüssler et al.,

2013; Oliver & Montgomery, 2008; Garud, 2008). This is not surprising, given that the field is often defined by who is included – such as suppliers, consumers, regulators, and competitors (DiMaggio & Powell, 1983; Fligstein & McAdam, 2012; Powell, White, Koput & Owen-Smith, 2005). However, an actor-centered approach may not necessarily give the best analytical leverage in understanding the connections between events and the fields within which they are embedded. Do you follow the individuals or the organizations? How do you infer their interests across levels?

Fields are also constituted by actors' mutual recognition that they are sharing a common enterprise or issue (Hoffman, 1999; 2001), which is being 'discussed' by these actors (Snow, 2013). As the field institutionalizes, there is increasing agreement as to the common meaning systems, shared symbolism, and logics that guide activities (Scott, 1994) and define 'success' (Whitley, 1992). Thus, to best capture this, I foreground meaning and study 'discursive fields' (Foucault, 1971) - the 'conversations' within regulatory review hearings and the broader media that are defining the oil sands. My unit of analysis is the vocabulary being used; the words used to infuse oil with meaning and value (Loewenstein et al., 2012). Tracing the evolution of these meaning systems around oil as the common issue gives leverage for us to, first, determine *how* an event is interconnected with and configures its field and, second, by *whom*. Thus, my research asks: *How does the meaning of oil evolve through time? How do meanings within hearings become more or less similar to media discussions within which they are embedded? What becomes 'heard' in a regulatory decision and how?*

In answering my research questions, I hope to understand the processes through which this resource – oil from Albertan oil sands – has become “infused with value beyond the technical requirements at hand” (Selznick, 1957: 17) and how such values can be challenged and replaced, as discursive fields collide. Technical and economic development of the oil sands had continued, seemingly unquestioningly from the 1960s to 2006. Rising environmental concerns with greenhouse gas emissions, surface water contamination, threats to Aboriginal health and wellbeing, and impossibly slow land reclamation became epitomized by the 1600 duck deaths on Syncrude's tailings ponds in 2008. “It's time the Alberta government and the big oil sands players woke up and smelled the coffee. The world is watching. The stakes are high...No, this isn't really

about the ducks. It's about whether Alberta's golden goose is going to get cooked because of rampant stupidity and greed" (Lamphier, 2008). The Alberta oil sands have become infused with surplus meaning and increasingly controversial - reframed from being a source of economic prosperity and technical innovation to being a global symbol of everything wrong with the oil industry.

By examining the processes of meaning-making, my contribution is threefold. First, rather than take natural resources as some objective given, my aim is to understand how these become socially constructed and infused with value. By drawing from broader meanings, the same stakeholders define the same resource differently through time demonstrating how the field changes when the meaning changes. Rather than presume some complexity of institutional logics (state, market, professions, family, etc.) as guiding these discussions and actions, I inductively examine how discursive stakeholders combine meanings and values as they make sense of this resource through time. In doing so, I focus on the discursive field (which may have effects on the institution), rather than an institutional field directly.

Second, I examine the interactivity between events and the discursive fields within which they are embedded. It is recognized that field-configuring events are not equally able to reconfigure the field (i.e., Schüssler et al., 2013). Besides this, what if we reverse the causal arrow: What is the extent to which the field configures the event? By directly examining how individuals leverage their rhetorical tactics across arenas we can better understand the interactivity of these nested conversations. "What is the interaction between creators and audiences... as activists and their opponents try different ways to have their desired impacts... we still have a lot to learn about these processes from rhetorical traditions" (Jasper, 2007: 100). By examining this interactivity, I expand our understanding of the role of media in public policy debates (cf. Vaara, 2013).

Third, as discursive stakeholders infuse oil with value, they also attempt to persuade others that *their* definitions should be *the* definitive definitions. Following Suddaby and Greenwood, I am most interested in how "opposing actors in a context of social change adopt genres of speech and writing that subconsciously reflect and deliberately manipulate the values and ideology of a particular discourse community" (2005: 40). And while it is recognized that this meaning-making

is often assumed as cognitive, but it also has inseparable emotional (Vaara & Monin, 2010; Rogers, 1995) and normative elements (Parsons, 1960; Dowling & Pfeffer, 1975) that are fundamental to institutionalization (per Selznick) but have been largely overlooked by researchers. By examining the evaluative and emotionally-laden words that mark preferences, I explicitly focus on the interactivity of values and emotions in concept formation across arenas. Competing definitions introduced in media are able to be imported into the more private regulatory hearings, from which challengers themselves are excluded. In this manner, challengers are able to ‘enter’ hearings, as a sort of Trojan horse strategy. Indeed, “the underdetermined nature of media discourse allows plenty of room for challengers such as social movements to offer competing constructions of reality and to find support for them” (Gamson et al., 1992: 373).

### **Summary: Structure of my dissertation**

My dissertation is structured as follows. In the next chapter, I outline my theoretical framework. I begin by describing how resources are considered within organizational theory. Then, I describe the co-construction of meaning within discursive fields – focusing on hearings as embedded within broader discussions in media. I conclude by outlining how stakeholders use rhetoric to convince – to highlight what was previously taken-for-granted, establish their credibility to speak, and create logical arguments to shift meaning systems.

In my third chapter, I describe my research context. The oil sands have been considered in economic and technological rationalities; in seemingly objective and neutral terms. Yet even in presenting the various metrics of this resource – how big, how profitable, how much water it uses or greenhouse gases it creates – we can see ethnostatistics at work (Gephart, 2011; 2006; 2004). This suggests that even the technical specifications of the oil sands are infused with surplus value as a means of persuading others of its benefits or impacts, now and in the future. I describe the processes of regulatory review hearings and their potential to be field configuring events. The transcripts of these hearings give us the opportunity to ‘eavesdrop’ on stakeholders’ contestations of the meaning and value of oil through time.

In chapter four, I describe my methodology to answer each of my research questions to understand the dynamic, multi-level processes of meaning-making. To best tailor my approach for each of my questions, I use mixed methods. To answer *How does the meaning of oil evolve through time?*, I follow others in using computer assisted interpretive content analysis, to map stakeholders' 'vocabularies of meaning' (Fiss & Hirsch, 2005; Ferree et al., 2002; Pollack & Rindova, 2003) at the macro discursive field level. Then, to answer *How do meanings within hearings become more similar to media discussions within which they are embedded?*, I gauge the similarities between the vocabularies being used in hearings versus the public media conversations. Lastly, to answer *What becomes 'heard' in a regulatory decision and how?*, I examine stakeholders' direct and purposeful rhetorical strategies for leveraging between hearings and media. After describing my methods and rationale, each of these questions and my associated findings are presented in the next three empirical chapters.

In chapter five, to trace this story, I work forward through 12,533 LexisNexis articles from 1969-2011 to explore how the oil sands are infused with value – the labels attached to this resource and the underlying meanings and values, as used by involved stakeholders. I use network analysis to visualize these evolving vocabularies of meaning, through the development periods. For each cluster of meaning, I then return to the original texts to determine who was 'speaking', how they were discussing oil, and their interests relative to oil sands development. This provides a broad sweep of the evolution of how oil becomes linguistically "infused with value beyond the technical requirements at hand" (Selznick, 1957: 17) and who is espousing these values, over the past 42 years. For the sake of clarity, I provide abridged versions of these evolving vocabularies.

In chapter six, to understand the intersection between hearings and the context within which they are embedded, I compare the vocabularies in five regulatory review hearings and their surrounding media as indirect indicators of the interconnectedness of these nested arenas. I focus on a smaller dictionary of the 150 most frequent words – descriptive and evaluative – across all sources and time periods that are collocated with oil. This more limited 'include' list gives a common basis to understand how the meaning/value of the oil sands is created, through time and space, between a hearing and its surrounding media. I then examine the relative frequencies of the

vocabularies in the hearing transcripts versus media during that month as an indirect measure of the interconnectedness of vocabularies of meaning.

Next, in chapter seven, I work backwards through these hearings to understand how stakeholders leverage these nested arenas to create more persuasive messages and better sway public discussion and regulators' decisions. Working from decisions back through the hearings and the surrounding media, allows me to examine the direct interactivity between these nested discursive fields. For this, I start with the regulatory decisions to determine what issues have become heard in the Board's rationale and approval conditions and the proponent's additional commitments. Then, I work backwards through the hearing transcripts and media for that same month to determine how these issues become discussed across arenas and how. To understand how stakeholders leverage across arenas, I focus on those excerpts from the hearing transcripts and media articles that are explicitly and implicitly inter-referential. I analyze these excerpts using classical and modern theories of rhetoric. I code these excerpts in an iterative manner, considering the speakers, their position towards oil sands development, their rhetorical tactics, and their intended audiences. In an iterative manner, I develop a set of rhetorical strategies used by speakers to establish their credibility to speak, to capture audience attention, and develop a more logically persuasive argument. Last, I consider which stakeholders are more likely to use certain rhetorical strategies in an effort to persuade.

In my final chapter, I return to my research questions: *How does the meaning of oil evolve through time? How do these meanings in hearings become more similar to media discussions within which they are embedded? What becomes 'heard' in a regulatory decision and how?* I conclude by discussing the implications to theory and our empirical in understanding resource development discussions.



## **CHAPTER 2 - THE SOCIAL CONSTRUCTION OF RESOURCES**

### **Introduction**

Resources are conceptualized as the centralizing force in the formation and functioning of an organizational field (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Yet, what constitutes the category of “resources” is rarely defined by scholars. Organizational fields can also become structured around meaning (Hoffman 1999, 2001), yet these symbolic elements have also received little attention. The complexity associated with organizations’ identification and use of resources suggests an intertwining of material resources with symbolic meaning in the structuring of a field (Friedland & Alford, 1991; Friedland, forthcoming). Even natural resources must be infused with meaning and value to become usable by organizations within the field. This process by which actors within a field make sense of, define, and value resources is a game of language - with the winning meanings becoming embedded within regulation and serving to configure the emergent field.

In this chapter, I develop my theoretical framework. I begin broadly by reviewing the conception of resources. I briefly discuss three organizational theories that consider resources most explicitly: population ecology, resource dependence, and resource-based view. In doing so, I outline the contributions and the oversights of these perspectives in their consideration of resources. Next, I turn to institutional theory and social constructionism to describe how resources become constructed within discursive fields. I examine top-down theories of natural resource law as executed within judicial hearings, expressly convened to determine the ‘public interest’ in resource development. I contrast this with bottom-up processes of meaning-making within media discussions. Finally, to examine these co-construction processes in detail, I rely upon rhetorical analyses of stakeholders’ positions within ‘discursive fields’ (Snow, 2013) as arenas of meaning construction (Suddaby & Greenwood, 2005; Kuypers & King 2009; Kuypers, 2005). I outline various rhetorical approaches and then describe how these may be usefully applied to understand how stakeholders draw from broader meaning systems to infuse resources with value, how these

meanings are socially negotiated and legitimated across discursive fields, and how these meanings become institutionalized within regulatory structures as the discursive field coalesces. In developing this theoretical framework, I hope to understand how stakeholders infuse a resource with value, across arenas of meaning-making, as this field coalesces and evolves.

## **Considering resources**

### **Fundamental to organizational theory**

Resources are fundamental to economics and organizational theory, yet tend not to be problematized. Economists consider resources to be a source of sustenance and wealth. “[H]uman welfare depends on maintaining reliable access to natural resources” (Ward, 2006: 1) as a vital input for the production and consumption of organizational actors within an environment (Field, 2008). While resources are often considered as realist objects, the rules for their management are socially constituted (i.e., Carruthers, 1996; Swedberg, 2005) and socially constitutive (Leblibici et al., 1991). “Actors are connected to resources (and thus indirectly to one another) through their control over resources and their interest in resources” (Coleman, 1990: 37). If control and interests do not align, actors can use markets or contracts or some hybrid (Williamson, 1975, 1985, 1998) to exchange with those who control the resources of interest. This naturalized view of resources assumes that they are fixed, known, and storable; systems for the allocation of rights are defined such that the resources become exchangeable; and actors are informed and capable exchange partners.

Three main organizational theories - population ecology, resource dependence, and resource-based views – are also centered on the strategic use of resources. Population ecology focuses on a population of independent organizations engaged in similar activities and similar patterns of resource utilization (Hannan & Freeman, 1977; Aldrich, 1979). Environmental resources are finite and fixed, which leads to population level competition and evolution (Baum & Shipilov, 2006; Hannan & Freeman, 1977). Presumably, if interdependent organizations were able to construct a new environmental resource, this may lead to niche segregation processes within a population community, specialization, and perhaps a new organizational species (Dobrev & Kim, 2006;

Carroll & Swaminathan, 2000; Ruef, Mendel & Scott, 1998). Resource dependence theory states that organizations are open systems, capable of maintenance on the basis of exchange with the environment for resources (raw materials, capital, information, authority, people), which are needed for organizational operations (Pfeffer & Salancik, 1978). An organization must not only be efficient or profitable to survive, it must also effectively manage the control of resources upon which it is dependent (Pfeffer & Salancik, 1978; Pfeffer, 2003; Casciaro & Piskorski, 2005). McKinley & Mone (2003) note that actors may also compete to define the priority resources, rather than just accepting them as an environmental given (per Weick, 1979, 1995). The resource-based view states that organizational resources are those which are valuable, rare, inimitable, and nonsubstitutable to provide sustained competitive advantage for the organization (Barney, 1991, 1996, 2000). Organizational resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, culture, etc., which are controlled by a firm that enable it to conceive of and implement strategies that improve its efficiency and effectiveness (Barney, 1991, 2001).

In sum, economics and these organizational theories consider resources as central to the functioning of an organization in its field, industry, or market, which offers several useful concepts. First, they explicitly define organizational resources as including all physical, social, and economic assets that the organization controls to give it a competitive advantage. Second, these theories consider the competition for and control of resources in the relative positioning of actors within the field. This reinforces the integral role of the differential distribution of resources in the structuring and functioning of an organizational field. Yet little research has actually tested what organizational strategies are used to identify and manage differing resource conditions (Clegg, 2007). Last, these theories suggest that actors are able to dynamically construct and manipulate resources (i.e., Baker & Nelson, 2005; Feldman, 2004). Since resources tend not to be problematized, these theories overlook the social processes by which natural resources become defined, infused with value, and made usable by rules.

Further, these theories have not explored the difficulty in attempting to commodify resources that have a surplus of symbolic meaning. Organizational resources do not simply exist, they must

be capable of becoming such. And definition and exchange becomes problematic for resources so laden with meaning, such that objectification and valuation (Muniesa, 2006) becomes tenuously negotiated, impossibly incommensurate, or even abhorrent. For example, resources tied more directly to persons like cultural artefacts, labour, youth, love, blood and organs (Biernacki, 1995; Zelizer, 1987; van Binsbergen & Geschiere, 2005; Radin, 1996; Healy, 2006) tend to have surplus meaning and value. For such resources, commodification is complex, unpredictable, and possibly multi-directional (van Binsbergen, 2005; Radin, 1996). The plurality of meanings must be understood if such resources are to be managed as commonly held goods.

In comparison to these other theories, institutional theory is able to reflect a more nuanced conceptualization of resources. By explicitly focusing on the field-level, institutional theory is able to capture organizations' technical and the social context; describe the longer term evolution of shared meaning systems; understand the institutional work required for creating, maintaining, and disrupting institutions and fields; and unravel the 'conceptions of control' within the field structure (Scott, 2008; Greenwood et al., 2008). Indeed, a main insight of institutional theory is that organizations are governed by 'rational myths' as "widespread understandings of social reality" (Meyer & Rowan, 1977: 343; following Berger & Luckmann, 1966). Such myths not only account for the rationality of a practice or structure, but infuse it with value beyond the immediate technical requirements (Selznick, 1957). Given this focus, next I outline the consideration of resources within institutional theory.

### **Central in organizational field formation and function**

Similar to the above theories, a fundamental presumption of institutional theory is that an organizational field becomes structured around resources (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). The "parallels between the structuring of organizational fields, and bureaucratization, which, as Weber noted, was also promoted by the centralization of resources" (DiMaggio, 1983: 149). Yet, DiMaggio & Powell's key insight regarding the centrality of resources in field formation has become taken-for-granted. While 'sufficient' resources are required for organizational survival or institutional change (DiMaggio, 1988) these resources are often not explicitly defined. "Despite this centrality [of resources], research is often vague as to

what is meant by ‘resources’ as well as what is done with them” (Hardy & Maguire, 2008: 207) in the structuring of a field, institutional maintenance or change.

It is also presumed that an asymmetrical distribution of resources pushes organizational adaptation within the field. Organizations will adapt to resemble those upon which they depend for resources (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Rowan, 1982) akin to resource dependence arguments (Pfeffer & Salancik, 1978). This is a virtuous circle of convergence. By isomorphically adapting to their field, organizations appear more legitimate and are then able to attract more resources (Tolbert, 1985; Baum & Oliver, 1992). In such a manner, the differential distribution of resources is both a cause and a reinforcing effect of relational power amongst actors within a field (Leblibici et al., 1991).

However, institutional research has typically focused on the isomorphic effects of operating fields, with less attention as to how organizational fields initially emerge and become structured (Suddaby, 2009). Studies of field emergence have focussed on the logics of organizing and legitimate organizational forms (i.e., Scott et al., 2000; Clemens, 1993; Rao, 1998; Reay & Hinings, 2005; Leblibici et al. 1991) and not on the construction of a new centralizing resource. However, “to understand the institutionalization of organizational forms, we must first understand the institutionalization and structuring of organizational fields” (DiMaggio, 1991: 167). Given this focus on the *effects* rather than the *causes* of fields by institutional researchers, it would seem that the isomorphic cart has come before the structuration horse. And with this focus, the fundamental role of resources as a coalescing force in organizational fields has been overlooked.

Organizational fields can also become structured around systems of meaning such as “corporate environmentalism” (Hoffman, 1999, 2001). The centralization of such symbolic resources drives an increase in organizational interaction, an emergence of inter-organizational structures of domination and patterns of coalition, an increasing information load, and a mutual awareness among actors that they are involved in a common enterprise (DiMaggio & Powell, 1983). In turn, there is an increasing agreement as to the common meaning systems, shared symbolism, and institutional logics that guide activities (Scott, 1994) and define ‘successful’ ways of operating within the field (Whitley, 1992). In this, institutional theory takes a macro-

phenomenological perspective: field structuration relies upon actors' continual reinforcement of common meaning systems as authoritative guidelines for social behaviour (Sewell, 1992; Stryker, 1994; DiMaggio & Powell, 1983; following Berger & Luckmann, 1966; Giddens, 1979, 1984). Rules are only effectively rules if they are followed. For the overarching field or institution to continue to exist, its meaning systems must be continually re-enacted.

### **Defined by meaning systems**

If (a) fields form around resources and if (b) fields form around meaning systems, then a reasonable extension is (c) resources are, themselves, constituted by meaning systems. That is, the perceived value and utility of a resource is as much a product of social construction as an industry or a market. As succinctly stated by Crotty:

[O]ur knowledge of the natural world is as socially constructed as our knowledge of the social world... Understanding of trees is not something we come to individually... we are taught about trees. We learn that trees are trees and we learn what trees should mean to us. Trees are given a name for us and, along with the name, all kinds of understandings and associations... a source of livelihood... a lively aesthetic pleasure... a subject of deep reverence... or very little meaning if we come from a slum neighbourhood in which there are no trees... The social world and the natural world are not to be seen, then, as distinct worlds existing side by side. They are one human world (Crotty, 1998: 56-57).

Organizations' identification and strategic use of resources is surprisingly complex, which suggests an intertwining of material resources with symbolic meaning in the structuring of a field (Friedland, forthcoming; Friedland & Alford, 1991; Lounsbury & Ventresca, 2002; Orlikowski, 2007). Indeed, institutional researchers implicitly assume that actors marshal both material and symbolic resources in their construction of an organizational field and associated institutions (Hardy & Maguire, 2008). For example, Beckert (1999: 792) defines resources in passing as being "finance, knowledge or position within social networks". Creed, Scully and Austin (2002) explore actors' use of cultural resources (cultural accounts, narrations, myths and descriptions of what can and cannot be) to provide logics of action in local settings, to legitimate workplace anti-discrimination policies, and to resonate with social identities. In a similar manner, Zilber (2002, 2009) studies the use of narrative resources to revise the identity work and socialization processes

within a rape crises centre. Lawrence and Phillips (2004) analyze the use of discursive resources in the emergence of a new field of whale watching. Greenwood and Suddaby (2006) explore the role of resource asymmetries (technical capabilities, political, and financial resources) during institutional change, between the Big Five accounting firms and their relatively impoverished regulators. Maguire, Hardy & Lawrence (2004) study the use of both material and symbolic resources. They examine the role of actors in bridging positions who are able to access resources held by others - material resources such as funding and finances held by pharmaceutical companies and the more symbolic resources such as credibility, political access, and knowledge held by the community.

However, we have little understanding of the process through which such symbolic resources or even naturally-occurring physical resources become socially constructed. By focusing on the effects of functioning organizational fields, there has not been a critical assessment as to how material resources become infused with symbolic meaning as part of the field dynamics. The construction and use of such symbolic resources is highly emergent, ephemeral and context specific (Feldman, 2004; Gamson, Fireman & Rytina, 1982; Steinberg, 1998). Yet, if we could tie symbolic meaning to the situated use and social understanding of material resources, practices and behaviours - then we can explore the materiality of the symbolic (Edwards, 1991; Leonardi & Barley, 2010).

We could trace processes of institutionalization: How resultant meanings become taken-for-granted, how definitions and valuations becomes embedded into a system of rules, and how such rules further enable/constrain the use of those resources (Giddens, 1984). Such resources must be described, and defined into abstract categories, vested into prescribed rule systems of property rights, valued and made marketable to become usable by organizations (Espeland, 1998; Eder, 1996; Holm, 1995; Holm & Nielson, 2007; Lounsbury, Ventresca & Hirsch, 2003). Even naturally occurring things like water and fish (Espeland, 1998; Holm, 1995; Holm & Nielson, 2007) become organizational 'resources' only when they are symbolically interpreted: "Nonhuman resources have a material existence that is not reducible to rules or schemas, but the activation of material things as resources, the determination of their value and social power, is dependent on the cultural

schemas that inform their social use” (Sewell, 1992: 11). Further, well-resourced actors are able to establish the regulatory frameworks that (re)define resources of value to become reified as authoritative rules for social behaviour (Lukes, 2005; Feldman, 2004; Stryker, 1994; Roy, 1997; Irwin, 2001). Such rules define: What is a resource? How is it infused with value over and above its technical use? Who controls it? How can it be used? How can more resources be created? (see Leblibici et al., 1991).

Thus, I argue that an organizational resource does not simply exist; even a natural resource must become meaningfully defined and infused with symbolic value before it becomes useable. To reiterate:

Nature is never “nature” but an assemblage of relations involving humans and non-humans, defined and performed jointly in state policies, legal rules, political commitments, economic technologies, and ecological theories; in the strolls taken along the coastline, the shellfish collected for dinner, the ways of life of fisherman and the sand walked on by visitors; and in the ideas and emotions that landscapes we may never have seen evoke in the presumed ‘public’ – us (Fourcade, 2009: 46).

In sum, despite institutional theory’s strengths, resources themselves have become taken-for-granted. While resources are considered central, scholars have neglected the role of resources in the field configuration - the infusing of material resources with symbolic meaning that becomes embedded within field structure. Yet how does this construction of resources happen and by whom? Suddaby contends that “an important direction for future research, thus, is to explore more fully the interpretive capacities of organizations and consider the possibility that organizations are much more sophisticated managers of symbolic resources than organizational research admits to” (2009: 17). Given that institutional theory relies upon a macro-phenomenological perspective, I turn next to social constructionism to explore how material resources become symbolically constructed and valued, such that they acquire an objective, natural, and taken-for-granted character that makes them unquestioned and unquestionable (per Zucker, 1977). We could also trace the unravelling processes of de-institutionalization: How do taken-for-granted meanings become problematized, challengeable, and disembedded from a system of rules?



### **The social construction of our natural world**

Our knowledge of everyday reality, including our most basic common-sense understandings, is a function of our interactions with our surrounding world. “[T]he process of becoming man takes place in an interrelationship with an environment. This statement gains significance if one reflects that this environment is both a natural and a human one” (Berger & Luckmann, 1966: 48-79). Our understanding of our environment is derived from and maintained by social interactions with significant others. We assign meaning to each other’s actions such that a joint understanding is created from ‘this is what I am doing’ to ‘this is what we are doing’. Through repetition, these shared understandings become crystalized and begin to carry an external facticity of their own. When these habitualized typifications are transmitted to the next generation, our social reality becomes taken-for-granted as ‘this is what we do around here’ both for our children and for the parents as reflected back to us. Because our children did not share in the creation of the social reality such that they understand the plasticity of meanings, they receive this social reality as an externalized truth - an objectivation of ‘this is how things are done’. With this, “[i]nstitutionalization occurs whenever there is this reciprocal typification of habitualized action” between actors (Berger & Luckmann, 1966: 54) such that it becomes naturalized and taken-for-granted (Giddens, 1979; Zucker, 1977). This situated construction of knowledge only exists within the social system that creates and sustains it.

Language provides the means by which individuals create and maintain their objectivated social realities by attributing meaning and logic. The “most important vehicle of reality maintenance is conversation...the conversational apparatus ongoingly maintains reality [and] ongoingly modifies it” (Berger & Luckmann, 1966: 152-153); thus, the meanings that we attach to things are reflected in how we collectively talk about them (Hewitt & Hall, 1973). Meanings are not merely cognitive, however, but include “feelings, perceptions, emotions, moods, thoughts, ideas, beliefs, values and morals” (Douglas et al., 1980: 2). The ‘well socialized’ individual draws from this socially available stock of meaning as a toolkit (Swidler, 1986) to explain the functioning of her social world to herself and others. Thus, “language objectivates the shared experiences and makes them available to all within the linguistic community, thus becoming both

the basis and the instrument of the collective stock of knowledge”; a “depository of a large aggregate of collective sedimentations” (Berger & Luckmann, 1966: 68-69) that can be diffused across the community and transmitted inter-generationally. This process of meaning-making is consistent with a classical Meyer & Rowan (1977) conception of diffusion – a metaphor of the passive tendency of meaning to spread into an available space, from a more concentrated environment to a less concentrated environment until there is isomorphic equilibrium.

Further, the “edifice of legitimations is built upon language and uses language as its principal instrumentality” (Berger & Luckmann, 1966: 64). When an individual reflects upon her actions relative to the subjectively meaningful world, she creates an understanding of her role within the *ipso facto* integrated institution, such that she sees it as functioning as it is supposed to. And when individuals together reflect on such matters, they legitimate their respective roles such that they can bind their various representations together in a cohesive whole that will make sense to themselves and subsequent generations. The origins of sedimentations can become unimportant, as successive legitimations can attach new meanings to the sedimented experiences.

There may be drift or a ‘decoupling’ between the meanings and legitimations and the underlying practices (Meyer & Rowan, 1977). Given this, legitimation produces new, translated ‘second-order’ meanings that plausibly integrate the meanings attached to ‘first-order’ objectifications. This is consistent with Sahlin-Andersson’s (1996) conception of translation – a metaphor of the active conversion of meaning, from one form or medium into another (Zilber, 2006; Creed, Scully & Austin, 2002). Legitimation of converted meanings has a cognitive validity relative to objectivated meanings (as knowledge of what is) and a normative value of what should be done (as right and wrong). Thus, “‘knowledge’ precedes ‘values’ in the legitimation of institutions” (Berger & Luckmann, 1966: 94), paralleling the assertion of Selznick (1957) that the technical precedes the symbolic and the findings of Greenwood & Hinings (2006) that pragmatic legitimacy precedes normative legitimacy.

Yet, if there is a shift within the constituency of meaning-makers within this linguistic community, consensus can become precarious and challengeable. “Alternation thus involves a reorganization of the conversational apparatus... And in conversation with the new significant

others, subjective reality is transformed. It is maintained by continuous conversation with them, or within the community they represent” (Berger & Luckmann, 1966: 159). With changes to the meaning systems, the associated rule systems may be problematized and even transformed (i.e., Hoffman, 1999, 2001).

By unravelling the linguistic processes by which the natural world becomes taken-for-granted (i.e., Alvesson & Kärreman, 2000), I consider how meanings associated with reality become constructed. Conversely, how do meanings become challengeable, challenged, and changed? This approach aligns with the growing interest in the use of language and meaning in institutional work (i.e., Maguire & Hardy, 2009; Suddaby & Greenwood, 2005; Zilber, 2002, 2006, 2009). Lawrence and Suddaby (2006: 241-242) suggest that a “fruitful approach to studying institutional work through dialogue, therefore, would involve the detailed analysis of a dialogical process over time... [such as] an archival analysis of the dialogues associated with a public issue” that “fortify the present, fill out its contours, add to its dimensions, and/or ratify its value” (Gergen, Gergen & Barrett, 2004: 48). Lawrence and Suddaby (2006) describe these institutional work processes as being ‘advocacy’, ‘definition’, ‘vesting’, and the construction of normative associations - through which actors reconstruct rules, property rights and categorical boundaries. These processes focus on the actors themselves: which actors are legitimately able to act upon institutions, what is their status and identity, what are their rights and interests, and how do they remake the connections between their practices and the moral/cultural foundations for those practices. I propose that these institutional work concepts can be refocused on resources and their definition, investment with value, and normative associations. Perhaps by constructing themselves, actors become enabled to then construct resources.

### **Stakeholders’ contestation of meaning – beyond diffusion and translation**

Thus, beyond metaphors of diffusion (Meyer & Rowan, 1977) or translation (Sahlin-Andersson, 1996), meaning-making may be an active contestation, as conceptualized by Bourdieu’s (1984) arena – a metaphor of the struggle for superiority between rival meaning-

makers in a contested space. By transposing Berger & Luckmann's (1966) individual and group-level processes to field-level arenas of social construction, we can examine the processes by which multiple organizational actors with intersecting interests define and value resources, legitimate their use, institutionalize their interpretations to establish social order, and contest and replace those interpretations. Meaning must be ongoingly negotiated as a 'precarious' construction by social actors who are co-present and engaged in a recognizable arenas of contestation (Berger & Luckmann, 1966) such as field configuring events (Lampel & Meyer, 2008) like conferences that serve to mediate between differing regulatory bodies (Garud, 2008; Garud & Rappa, 1994), public inquiries (Brown, 2004; Gephart, 1993), or regulatory commissions (Suddaby & Greenwood, 2005) or the media and internet more broadly (Tsoukas, 1999; Coupland & Brown, 2004).

For imminently useable resources such as oil and water, stakeholders have already typified, objectivated, and legitimated their meanings to themselves, which become taken-for-granted for them. For example, oil sands companies know the chemical characteristics of bitumen, their operational criteria for mining and refining, viscosity requirements for pipelining, their operating costs, price differentials for Brent Sweet Light Crude versus West Texas Intermediate, etc.<sup>1</sup> Hence, field-level processes of meaning making are not reality-generating sense-making (per Gephart, 1993) but a means of convincing others of the superiority of their interpretation such that theirs becomes *the* dominant institutionalized interpretation (per Suddaby & Greenwood, 2005). "‘Common sense’ is the result of [these] negotiated meaning-making processes, undertaken by competing social groups who are drawing on diverse ideological resources" (Spicer & Sewell, 2010: 932 citing Jørgensen & Phillips, 2002). Analyzing the roles of organizational representatives in these negotiation processes would reveal the ongoing "mediations between the macroscopic universes of meaning objectivated in a society and the ways in which these universes are subjectively real to individuals" (Berger & Luckmann, 1966: 79). And by observing the

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<sup>1</sup> Brent Blend is a light (API gravity of approximately 38, specific gravity of around 0.835) and sweet (approximately 0.4% sulphur) North Sea crude. It is typically refined in Northwest Europe. West Texas Intermediate (WTI) is lighter and sweeter (API gravity of approximately 40, approximately 0.3% sulphur). WTI is the US benchmark crude oil with the spot price reported at Cushing, Oklahoma. Light, sweet crude is more expensive than heavier, sourer crude because it requires less processing and produces a greater percentage of value-added products, such as gasoline, diesel, and aviation fuel.

processes of meaning construction within such arenas - typification of meaning, inter-generational objectivation, modes of legitimation, and sedimentation and institutionalization for the regulation of action – we can unravel the contestations of meaning within the field. What is considered sense, as common to whom? If power is the ability to create knowledge of what is ‘true’ and ‘real’, then connecting broader meaning systems to these micro-contestations would reveal the agency in these processes of meaning construction (following Zilber, 2006; Alvesson & Kärreman, 2000).

### **Usefulness of the ‘discursive field’**

Organizational or institutional fields are often defined by who is included (McAdam & Fligstein, 2012; Powell et al., 2005). “By organizational field, we mean those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products” (DiMaggio & Powell, 1983: 148). In a parallel manner, researchers of field configuring events also tend to take actor-centered approach. For example, Schüssler et al. (2013) study a series of Conference of Parties (COP) meetings of the UN Framework Convention on Climate Change Climate Change. They examine how the staging and enactment of each COP event provided opportunities for differing types of actors, as related to event structures and processes, and outcomes in the climate change policy field. Oliver and Montgomery (2008) use a cognitive network approach to analyze how lawyers in pre-state Israel interacted around questions of the Jewish legal profession and judges, the use of Hebrew in courts, and the establishment of the Israeli bar. Both of these studies use a network approach to map the degree of interaction between actors during the event and the resulting structuration of the field. However, an actor-centered approach may not give the best analytical leverage in understanding the connections between events and the broader fields within which they are embedded. Do we follow individual or collective actors? How do we connect their relative positioning in the broader field to their positioning in the hearing? How do we capture their interests across arenas?

Thus, rather than focus on actors in an organizational field, I focus on their contestations of meaning within a discursive field. Parallel to Bourdieu's (1984) 'arena', Foucault (1969) conceptualized a 'discursive field' – such as the law or the family – as the relationship between language, social institutions, subjectivity and power. The conceptualization of discursive field is also used by culturalists (Snow, 2004; Steinberg, 1999), similar to the concept of a 'thought world' or organizational field (Sévon, 1996) in institutional theory that they "reference broader enveloping contexts in which discussions, decisions, and actions take place" (Snow, 2004). Discursive fields, then, contain a number of competing and contradictory discourses with varying degrees of power to give meaning to and organize social institutions and processes. As the discussion expands, so does the constituency of meaning-makers. Thus, listing those who are 'speaking', gives a census of discursive stakeholders. Depending upon the degree of agreement or disagreement regarding the focal issue, a discursive field can vary from consensus to fierce debate (Snow, 2013). And connecting taken-for-granted meanings at the field- level in media to particular micro-level struggles in hearings, 'brings the people in' and their ability to identify inconsistencies, leverage alternative discourses, and affect change (Hardy & Phillips, 2004).

### **Hearings as a micro discursive field**

Field-configuring events are situated contestations arenas of meaning-making, bounded in space and time, which may result in the creation and/or structuring of a field (McInerney, 2008; Garud, 2008). These are (Lampel & Meyer, 2008: 1027):

- 1) a means for individuals from diverse professional, organizational, and geographical backgrounds to assemble in a single location to represent their own and their organizations' interests,
- 2) limited in duration – from hours to days – which gives a sense of urgency and occasion,
- 3) providing unstructured opportunities for interpersonal interaction,
- 4) including ceremonial and dramaturgical activities,
- 5) occasions for information exchange, collective sense-making, and theorization of both the shared and contested possibilities,
- 6) environments of meaning contestation and selection with the purpose of constructing the organizational field, and
- 7) generating social and reputational resources that can be deployed elsewhere and for other purposes.

While Lampel and Meyer (2008) provide an integrative definition in their introduction to the accompanying special issue, the implicit assumption is that not field configuring events are created equal. Technical conferences differ from professional conferences and from climate conferences in their ability to (re)structure a field. Even the same field-configuring event, repeated through time, will result in very different outcomes depending upon how the event is structured regarding the inclusiveness in their interaction of formal/informal spaces, time constraints, and visibility / profile in the broader public media (Schüssler et al., 2013). Likewise, McInerney (2008) suggests that the outcomes of field-configuring events are dependent upon whether actors are able to align their conventionalizing accounts with the dominant orders of worth in the field; the most persuasive speakers resonate with predominant values. He examines a natural experiment of the relative rhetorical ‘success’ between competing institutional entrepreneurs advocating technology platforms for not-for-profits – one promoting technology = social justice, one promoting technology = efficiency. Perhaps surprisingly, the appeals to efficiency won, within this event, among these participants in the not-for-profit field. Garud (2008: 1084) also recognizes that field configuring events “are not independent entities, but rather are embedded events within a larger flow of field unfolding activities”; their ‘effectiveness’ depends upon their connectivity with the field. While these researchers imply a recursive interaction between the field-configuring events and the broader field within which they are embedded, they do not explicitly examine this.

### **Leveraging between nested fields**

Thus, beyond this, the meanings in one arena could be leveraged across to influence another. This is similar to Holm’s nested-systems perspective, which aims to understand how leveraging across nested arenas illuminates “the processes through which institutions get to be taken for granted and stop from being taken for granted” (1995: 417). Schneiberg and Clemens (2006: 215) likewise note that “actors at the peripheries or interstices of fields borrow, transpose, or recombine models from multiple fields to solve problems or challenge existing arrangements” (also see Leblebici et al., 1991; Schneiberg, 2002; Morrill, forthcoming). As another example, Heimer (1999) examined how parents, medical staff, and state representatives imported family and legal

rationales into neonatal intensive care units to challenge the medical institution. They used these differing rationalities as a 'tool kit' (per Swidler, 1986) to effectively alter the standard operating procedures by redefining: participants' rights, obligations, and ability to be present for decision making; the problematization and prioritization of issues; which solutions are considered plausible; and choice opportunities.

Regulatory review hearings provide an opportunity to examine this interaction and inter-arena leveraging. Hearings mediate between government regulators, market players, and residents as representative of the public interest. Given this, they tend to receive more media coverage than industry or professional conferences. They bring together lawyers, engineers, scientists, various expert witnesses, laypeople, and others who have a vested interest in the outcome – yet very different rationalities. They are ceremonial and dramaturgical while the hearing is convened, yet allow unstructured face-to-face interaction in the hallways before, during, and after. They are limited in duration, but may be adjourned and reconvened for various reasons. Further, hearings are repeated for subsequent development proposals and so provide a window into meaning-making processes through time.

Lastly, the (re)definition of resources in hearings - according to principles of natural resource and environmental law (Knudsen, 2012; Arnold, 2010) - is also more hierarchical and structured than in media, which makes for an interesting and, potentially, conflicting interaction between these arenas. The definitional laws evolve with our changing understanding of natural resources and the environment: from common-law tort and property doctrines, to government reservation of lands and resources, to pollution control and prevention through command-and-control regulation, technology-based standards, and rule-of-law litigation whereby all citizens are subject to the law. New generational features incrementally add or modify existing features, reflecting precedence and path dependency. Law is created and enacted hierarchically: acts passed by a legislative body to define jurisdictional powers and key terms; regulations passed by the executive branch of government; approvals enacted by judicial review boards to define conditions for operating, monitoring, and reporting; and staff defining codes to prescribe methodology, codes of practice for compliance, directives to interpret requirements; policies to further interpret and clarify; and



guidelines to define objectives like air quality. These systems of law dissect ecosystems into discrete resources – such as coal, oil, timber, water, air, wildlife – often to be managed and regulated separately. Yet, some parts of nature are recognized as being so rare and valuable that they deserve special protection as holistic ecosystems. Given regulations' hierarchical and structured nature, they would seem impervious to outside challenges.

However, besides outwardly regulating actions in the broader context, judicial proceedings are also internally responsive to and 'regulated' by their social context. Greene (1990) summarizes several real-world cases and simulated research studies that demonstrate how the media's representation of a case influences jurors' decision making processes. Robbennolt and Studebaker (2003) find that media attention not only affects the jurors and judges as decision-makers, but also litigants and their attorneys as they negotiate settlements, defendants as they assess their legal risks, and policy-makers as they consider the effectiveness of the judicial process. Is the meaning of resources constructed differently in different discursive communities? Thus, we might expect that resources given different meaning in regulatory hearings than in broader media? If this is true, how does it occur? And could there be spill-over effects to other arenas?

Institutional theory assumes that these nested arenas are coupled – hearings are permeated by and responsive to broader social pressures in the wider discursive field (Meyer & Rowan, 1977). Yet, despite this, we could imagine that the meaning of resources is constructed differently in different discursive communities. Given the differences between hearings and the media - in terms of 'admissibility', norms of behaviour, persuasiveness of argumentation, and audience receptivity – we might expect that the social construction of resources would vary across these arenas. This mismatch allows inconsistencies and leverage points, to creep into the system. To quote Leonard Cohen: "cracks are how the light gets in".

### **Media as macro discursive field**

Societal-level discursive fields are often represented by public media (Zilber 2006; Fiss & Hirsch, 2005; Johnston, 2013). Organizational researchers have conceptualized the configurational

role and effect of media in differing ways. Viewed from a fundamental social construction perspective, publication is “the creation and cultivation of knowingly shared ways of selecting and viewing events and aspects of life” (Gerbner, 1985: 15). Vaara (2013) outlines this role in *staging* and *storying* to capture attention *framing* the issue and solutions. *Staging* (Goffman, 1959) is selecting which issues will be publicly debated and played out amongst actors, while others remain ignored (Wodak, 2011). By *storying* content, the media creates content that is attention-grabbing, newsworthy, and entertaining for their audience (Bourdieu, 1998; Fiske, 1994; Boje et al., 2004) such that it is read and carried by others. *Editing* is the revision of actors’ messages to serve their own interests (Vaara & Tienari, 2008; van Leeuwen & Wodak, 1999; Kjaer & Slaatta, 2007). Through editing the messages, actors are *framing* “what is at issue” (Gamson & Modigliani, 1989:3) by diagnosing the problem and theorizing its cause, providing a prognosis and creating consensus around possible solutions, and motivating collective action to address the problem (Snow et al., 1986; Snow & Benford, 1988; Benford & Snow, 2000; Lounsbury, Ventresca & Hirsch, 2003; King & Pearce, 2010; Riaz, Buchanan & Bapuji, 2011). Through these actions, the media may be echoing what their audience wants to hear and reinforcing taken-for-granted beliefs (Bourdieu, 1998) or they might be more actively prioritizing issues and shaping debate (Hoffman & Ocasio, 2001).

Once attention is captured, the media may be an active arena for *theorizing* new practices and identity: ‘What is culture?’ (Barley, Meyer & Gash, 1988), ‘What is globalization?’ (Fiss & Hirsch, 2005), ‘What are acceptable disposal practices for offshore oil platforms?’ (Tsoukas, 1999), and ‘Who is Royal Dutch Shell?’ (Coupland & Brown, 2004). As the meanings of practices and identities become institutionalized, claims become accepted as taken-for-granted and no longer need to be supported by premises and evidence (Green, Li & Nohria, 2009). Thus, the tenor of media discussion changes during the legitimation and institutionalization lifecycle.

Besides these relatively passive or collaborative processes, the media can be more confrontational and disruptive, influencing perceptions of the (un)desirability of certain organizational actions and precipitating deinstitutionalization. This includes: *challenging* vs. *endorsing* banks (Deephouse, 1996), *criticizing* firms’ environmental actions (Bansal & Clelland,

2004); *evaluating* the (un)attractiveness of IPOs (Pollack & Rindova, 2003), or *stigmatizing* an industry by presuming the infectious spread of corporate deviance (Jonsson, Greve & Fujiwara-Greve, 2009). When confronted, organizations respond to such media challenges to their legitimacy by *denying*, *defying*, *decoupling* or *accommodating* (Lamin & Zaheer, 2012).

Besides directly affecting organizations, media may also influence policymaking that restructures the broader field. Mass media may be conceived of as the ‘court of public opinion’ providing the ‘social licence to operate’ within with a broader discursive field. Regulatory hearings are field-configuring events that are guided by institutions, which are embedded within media debates as discursive acts aimed at institutions. The interconnected feedback loops between these nested arenas may be reinforcing or disruptive. Hearing participants are not captive audiences, sequestered within the proceedings. They can draw from broader values to buttress their position against opponents to proposed development. Or they may draw from broader societal debates to challenge others’ “knowledge of certain states of affairs as unquestionably plausible” (Schutz, 1962: 326). Besides this, issue contentiousness in public debates can permeate hearings and challenge previously taken-for-granted industrial practices. By examining the interconnectedness between these nested arenas within the field, we gain leverage to examine endogenous evolutionary change – in how do resources become taken-for-granted and how do they become problematized, contentious, and thus challengeable.

Stakeholder activists also have a repertoire of tactics to change organizations’ practices. These vary from *consensus building* tactics like shareholder engagement to letter writing to more *disruptive* tactics like shareholder motions, lobbying, cultural performances, consumer boycotts, and factory sabotage (i.e., McAdam, 1983; Soule, 2009). Again, this tends to be a listing of tactics – the ‘what’ – as opposed to the mechanisms of influence – the ‘how’ of persuasion. Researchers have examined how issue framing within these tactics changes the actions of organizations. As one example of examining the ‘how’, Briscoe, Gupta & Anner (2013) find that activists’ use of *humanizing tactics* – i.e., victim testimonials – is significantly more likely to result in target and non-target universities terminating their sourcing contracts from anti-sweatshop suppliers. Such testimonials create identification and shrink the distance between the victim as speaker and the

university purchasers as audience (cf. Ferraro & Beunza, 2013; McCammon et al., 2007; McCammon, 2003).

In sum, the persuasive role of the media and stakeholder activists in the media has been conceptualized in various ways. Researchers have inventoried these strategies (i.e., staging, storying, framing, theorizing, challenging, endorsing, criticizing; evaluating, consensus building, disruption, humanizing tactics, etc.). Unpacking the rhetorical tactics embedded within these strategies allows us to comparatively demine how and why such strategies become persuasive.

### **What makes ‘speakers’ more persuasive?**

The means by which actors negotiate their symbolic universes are the focus of interpretive approaches (Burrell & Morgan, 1979) such as semiotics (Tsoukas, 1999; Barley, 1983), narrative and discourse analysis (Czarnawska, 1997; Preuss & Dawson, 2009; Zilber, 2002; 2009; Maguire & Hardy, 2009; Lawrence & Phillips, 2004), conversation analysis (Gephart, 1993; Symon, 2008), and rhetorical analyses (Suddaby & Greenwood, 2005; Green, 2004; Green et al., 2008; Heracleous & Barrett, 2004). Each of these approaches focuses on the use of language in defining social reality and structuring action.

Amongst these linguistic approaches, however, it is rhetorical analysis that focuses on actors’ situated use of persuasive language to connect their realities, create modes of legitimation, and influence others’ institutionalization of meanings. Aristotle stressed three major components to rhetorical settings: the creators of messages, the messages themselves, and the audiences (Booth, 2004). Rhetorical analysis allows a more fine grained analysis of actors’ interests as compared to discourse analysis, which is the sum total of “interrelated sets of texts, and the practices of their production, dissemination, and reception, that brings an object into being” (Phillips & Hardy, 2002: 3). “In this sense, rhetorical analysis can be distinguished from discourse analysis, both by its situational focus on persuasive texts generated specifically in response to social change and by its cognitive assumptions of a direct and dynamic relationship between rhetorical structures of speech or argument and the cognition and action of actors” (Suddaby & Greenwood, 2005: 40).

To analyze rhetorical strategies, then, we must ask ourselves (Conrad & Malphurs, 2008): Who is ‘speaking’? What are their motivations? Who is their target audience? How do they seek to persuade and motivate? When “individuals begin to reflect, they face the problem of binding the various representatives together in a cohesive whole that will make sense” (Berger & Luckmann, 1966: 76) and persuade themselves and others. The more salient and credible an actor’s messaging, the more resonant, convincingly influential, and powerful it becomes. Thus, power is embedded in the language of stakeholders’ meaning statements and their ability to convince, influence, and thus, constitute the social world by realigning field regulation as per their view (Lukes, 2005). Rhetoric answers *how* can an organization best convince and to *what* end? The means by which this inter-subjective negotiation of meaning takes place between organizational actors depends upon the effectiveness of their respective rhetorical rationales (Sillince, 1999) and counter-rhetoric (i.e., Symon, 2008). I am most interested in how “opposing actors in a context of social change adopt genres of speech and writing that subconsciously reflect and deliberately manipulate the values and ideology of a particular discourse community” (following Suddaby & Greenwood, 2005: 40).

Within organizational research, rhetorical analysis has been used to answer the question: ‘How do actors use language to persuade?’ (Hartelius & Browning, 2008). Given the accessibility of persuasion and identification, rhetoric is not an exclusively a tool of the powerful (per Barley & Kunda, 1992) but can also be used by challengers to a dominant order (Hartelius & Browning, 2008). As an exemplar of this, Suddaby and Greenwood (2005) use rhetorical analysis to understand the processes by which proponents and opponents discursively debated multidisciplinary partnerships, which challenged conceptions of professionalism. First, proponents of change legitimated the need for change by uncovering contradictions in models of professionalism by using identifying words and referential texts. Using Aristotelian modes of proof - ethos, pathos, and logos - proponents then forwarded theorizations of change as legitimate alternatives to the status quo. Suddaby and Greenwood were able to capture causality by connecting this discursive struggle to broader regulatory approvals for the new multidisciplinary form. In a similar manner, Green (2004) and colleagues (Green, Babb & Alpasian, 2008) tie

language to outcomes by exploring the rhetorical strategies to institutionalize new practices – that “starts with pathos, moves to logos, and ends with ethos” (Green 2004: 661). Within organizational research, other strategies used to create this rhetorical connection, include the use of enthymemes (Heracleous & Barrett, 2001), metaphors, analogies and other tropes (Etzion & Ferrero, 2010), and casuistry (Hill & Levenhagen, 1995; Calkins, 2001).

Rhetorical approaches hold certain assumptions. First, classical rhetorical approaches are typically monological – focusing on a speaker, with a message, to a homogeneous audience. Current rhetorical approaches are recognizing multi-vocality and multiple audiences as challenges to be managed (Cheney et al., 2004). Second, rhetorical approaches tend to make assumptions about the audience’s interpretations and behaviours that “exaggerate the degree to which speakers’ intentions determine or explain what happens” (Jasper, 2007: 79). Oftentimes, however, ideas not seen as relevant are not debated but simply ignored. And taken-for-granted beliefs need not be discussed at all. By comparing the relative effectiveness of stakeholders’ competing positions to an outcome, we can “compare the role of rhetoric in successful and unsuccessful cases of change so as to understand its relative significance and whether its probabilities of success are enhanced when accompanied by particular other dynamics” (Suddaby & Greenwood, 2005: 62-63). Third, rhetoric focuses on an explicit speech act or debate; a rhetorical approach is best used if the issue forum is discrete and definitive and the audience is known. Yet, many contentious issues are being heard in the court of public opinion, with a cacophony of ‘speakers’ and a morass of an ‘audience’, who may be talking past rather than to each other. By connecting rhetorical strategies across a series of arenas to broader meaning systems, we can connect these discrete debates to the court of public opinion.

These rhetorical strategies align with Berger and Luckmann’s (1966) processes of meaning construction. The speaker is able to be ‘consubstantial’ with his audience if he can invoke their collective meaning systems – their ideas, thoughts, beliefs, values, morals, feelings, perceptions, and emotions – as objectivated within their linguistic community. Persuasiveness is accomplished through the arrangement or organization of the speech, such as the ordering of arguments or the verb tense. It is also accomplished through the expression and style of the speech such as the use

of readily understood terminology, resonant metaphors and analogies, and impressionistic visuals. It may be improved through invention such as the use of enthymemes to build speaker credibility and require listener/reader participation or the use of casuistry by using settled cases. Lastly, persuasiveness can be enhanced through various modes of legitimation such as pathos, logos, and ethos.

What makes these stakeholders more rhetorically persuasive in terms of establishing their credibility to ‘speak’, capturing attention, and creating persuasive arguments? To disaggregate the underlying rhetorical mechanisms as actors leverage across arenas, my object of study is the discursive field; the ‘conversations’ within regulatory review hearings and the broader media that are defining the oil sands. My unit of analysis is the vocabulary being used. Vocabulary is the “structure of conventional word use captured by the combination of word frequencies, word-to-word-relationships, and word-to-example relationships — that together demarcate a system of cultural categories” (Loewenstein et al., 2012: 3).

### **Establishing credibility to speak**

Expertise, i.e., speakers’ credibility and authority, is derived from perceived differences in knowledge. To be ‘an expert’ with the right to speak, speakers must establish the general perception in their audiences that (a) they are making informed claims based on their superior access to specialists’ knowledge (*superiority of knowledge*) and (b) that they are independent and their claims are objective and not driven by particularistic interests (*independence*). Lefsrud and Meyer (2012) argue that processes of constructing expert identities are political strategies that are parallel to the legitimation strategies found in public policy research (Van Leeuwen & Wodak, 1999) or in organization studies (Vaara & Monin, 2010; Vaara, Tienari & Laurila, 2006). These authors distinguish five main discursive strategies that align with rhetorical modes of proof (Suddaby & Greenwood, 2005): authorization, rationalization, and normalization strategies are forms of logos, moral evaluation aligns with ethos, and mythopoiesis aligns with pathos. To undermine the claims put forward by opponents, actors may also use destructive strategies (per Van Leeuwen & Wodak, 1999). Berger and Luckmann (1967) refer to this as annihilation; either

outright denial of opponents' credibility, downplaying and ridiculing their claims, or attempting to assign an inferior status to opponents and their sources of information.

### **Capturing attention**

To capture an audience's attention and question something that was previously taken-for-granted, change agents must demonstrate specific failings or inconsistencies that demonstrate the unacceptability of the status quo. The presence of such inconsistencies, hypocrisies or incompatibilities creates a cognitive dissonance that problematizes that which was previously ignored (Suddaby & Greenwood, 2005: 46). Audiences pay attention to those events that they consider to be non-routine, incongruent with their understandings of cause-effect (cf. contentiousness per King and Pearce, 2010), and for which they are able to attribute accountability/blame (Hoffman and Ocasio, 2001).

Negative emotions such as anger, fear, indignation or "moral shock" (Jasper, 1997) create an affective dissonance. In contemporary society, emotional appeals hold equal weight to evidence in legal and other types of debate (Murphy et al., 2003: 9); emotions "persuade when the facts alone do not." The general public is unlikely to rethink its assumptions about something they routinely take for granted, unless prompted to in a dramatic fashion. Thus, emotional appeals, alone or in combination with other tactics, are particularly effective in capturing and sustaining attention, such as the continued contestation between the public versus industry insiders' attributions of cause-effect and accountability (cf. ongoing theorization per Munir, 2005). As an extension to attacking opponents' credibility, stakeholders may also attempt to divert attention from their opponents' cause. This may be accomplished by reframing the debate to favour their interests over their opponents' (per Lefsrud & Meyer, 2012). Or it may be boycotting the target company or co-opting their events in a particularly dramatic fashion (Goodwin & Jasper, 2009; Goodwin, Jasper, & Polletta, 2009; King & Pearce, 2010).

Positive emotion is also effective in capturing and retaining an audience's attention (Green, Babb & Alpasian, 2008) by invoking confidence and optimism (McAdam, 1982); the desire for dignity (Wood, 2001), generating sympathy and trust with the speaker (ethos) and creating



identification (Nepstad & Smith, 1999; Burke, 1969). When an audience hears the message from a known and trusted source and create identification with the cause, then they will devote more attention to it (Jasper & Poulsen, 1995; Burke, 1969). Identification may be invoked by establishing shared values (resembles ethos in classical rhetoric) or demonstrating alignment of interests. Thus, pathos, ethos, and logos work in tandem.

### **Creating persuasive arguments by connecting with taken-for-granted beliefs and values**

Ideally, how can opponents understand the truths within others' arguments to shape shared realities (Booth, 2004; Perelman & Olbrechts-Tyteca, 1968)? In traditional rhetorical approaches, this persuasion is created when the 'speaker' connects to the 'audience' through the use of invention (i.e., modes of proof), disposition (organization of the speech or text), and style (clarity, ability to make an impression) (Hill, 2009). In this manner, rhetoric is the means of contentiously creating connection between a speaker and an audience. Rather than persuasion, Burke (1968) defines this rhetorical connection as being an 'identification' between the speaker and audience - accomplished by bringing the audience and speaker together through their shared sensations, concepts, images, and attitudes which make them 'consubstantial' (Burke, 1953: 20-23). Again, this echoes of Berger and Luckmann (1966: 130): "we not only live in the same world, we participate in each other's being".

Speakers accomplish this identification also by using use *ethos* – establishing the credibility of the speaker (Cornelissen & Clarke, 2010; Hung & Whittington, 2011; Zimmerman & Zeitz, 2002; Drori, Honig & Sheaffer, 2009) – and *logos* – stating claims with compelling evidence (Tracey et al., 2011; Cornelissen et al., 2012; Hill & Levenhagen, 1995). For example, the emergent category of modern Indian art was defined by transposing the logos and ethos of the Western modernist art movement: the cognitive rationality of aesthetics and originality, narratives defining artists' careers within artistic movements, and the internationalization to worldwide modernist art markets (Khaire & Wadhvani, 2010). In sum, the persuasiveness of an argument is also a function of the credibility of the speaker and the logical argumentation within the message. These operate in concert.

### **Choosing amongst rhetorical strategies**

The same stakeholders can draw on different rhetorical strategies, depending upon what the situation and audience calls for (cf. Heracleous & Barrett, 2001; Suddaby & Greenwood, 2005; Green et al., 2009). Are we defining the need for change? How can we create a shared vision of the future? In this sense, vocabularies of meaning and motive can be considered as tools in the tool kit (Swidler, 1985) to be variously arranged, organized, and delivered to make the ‘speech’ most persuasive with the intended audience.

For contested issues, speakers’ choice of rhetorical strategies may also depend upon their perceptions of opportunity and threat. Besides persuading an audience of the superiority of their prescription, they must also debase challengers. Indeed, Lefsrud and Meyer (2012: 1481) find that despite that the similarity of experts’ claims, “they differ in their legitimation strategies and adversarial framing activities, depending on the *defensiveness*, i.e., the extent to which actors feel threatened and ‘under attack’, and on the intensity of the *identification and mobilization* efforts”. Thus, speakers can rhetorically establish their own position while attacking others.

### **Summary: Rhetorical contestation of natural resources**

In this chapter, I have outlined my theoretical framework: how resources are considered within organizational theory. Then, I describe the co-construction of meaning within nested discursive fields – focusing on development hearings as potentially field configuring events embedded within media discussions as a broader discursive field. I conclude by outlining how rhetoric may be used to establish the speakers’ credibility, capture attention, and create a persuasive argument.

My aim is to answer: *How does meaning of oil evolve through time? What is the interaction of meanings in hearings become more or less similar to the media within which they are embedded? What becomes heard in a regulatory decision and how?* In answering my research questions, I hope to understand the processes through which this resource – oil from Albertan oil sands – has become infused with value and how such values can be challenged and replaced, as discursive

fields of meaning-making intersect. By examining the evaluative and emotionally-laden words that mark preferences, I explicitly focus on the interactivity of values and emotions in concept formation within discursive fields. And by directly examining how individuals leverage their rhetorical tactics across fields we can better understand the interactivity of these nested arenas.

I introduce my research context in my next chapter.

## **CHAPTER 3 – RESEARCH CONTEXT: THE CANADIAN OIL SANDS**

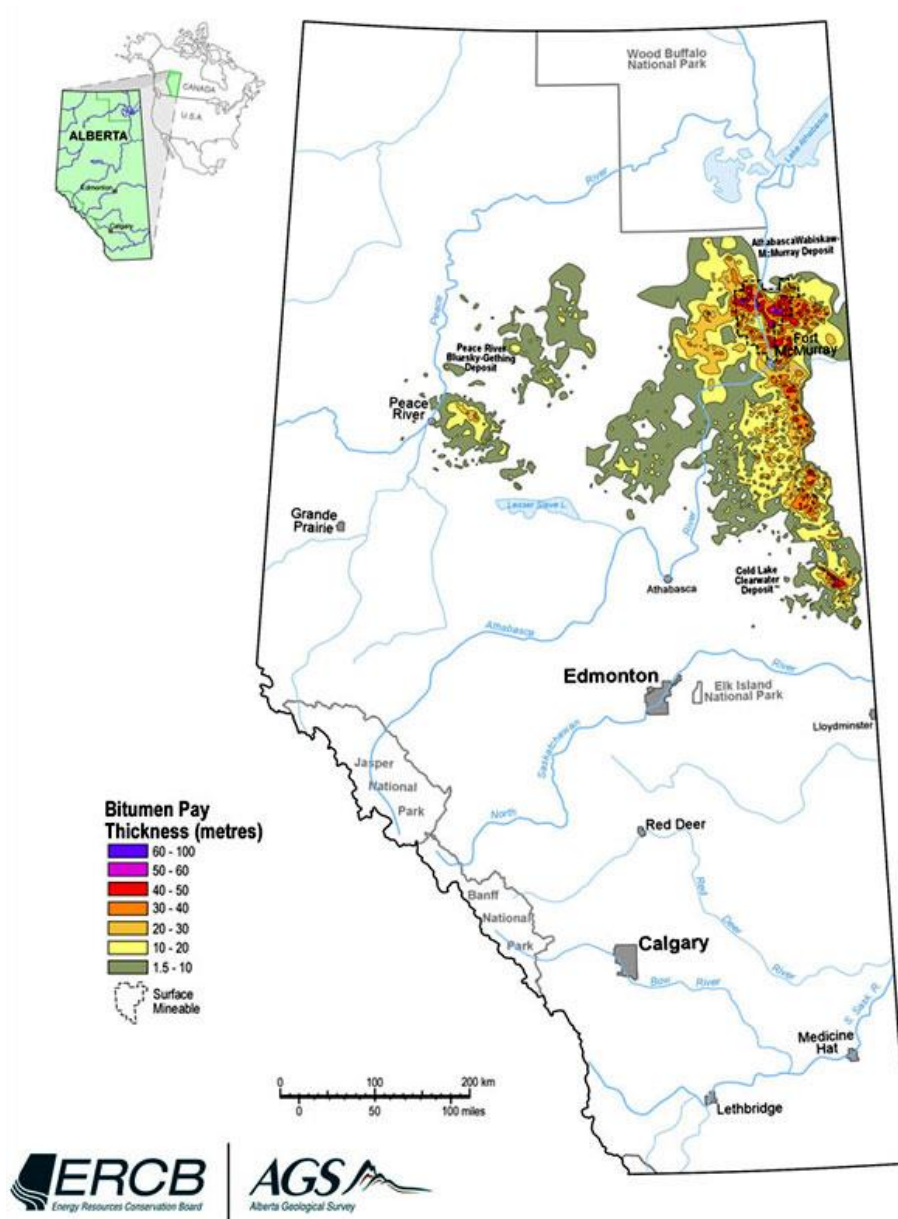
### **Introduction**

The Canadian oil sands is a contemporary contestation of meaning centred around a resource. It is increasingly strategic, yet has extensive environmental effects, which makes it increasing controversial. As such, it provides a useful instrumental case (Stake, 1995) to examine these dialogical and political processes underlying meaning making. In this chapter, I describe the oil sands and my rationale for choosing this particularly controversial context. Then, I outline the regulatory hearings that are convened to host public discussion about the benefits and costs of developing this resource.

### **A contemporary contestation of meaning and value around a resource**

Conventional oil is extracted by drilling oil wells into a petroleum reservoir, allowing the oil to flow due to natural reservoir pressure. Conversely, the oil sands are an *unconventional* source of oil – a mixture of viscous petroleum (technically referred to as ‘bitumen’, or colloquially as ‘tar’ due to its appearance), sand, clay and water. Given their viscosity, the oil sands are strip-mined if they are close to the surface. Or, if they are deeper, the oil is made to flow into wells by an in-situ injection of hot air, solvents, or steam using cyclic steam stimulation (CSS) or steam assisted gravity drainage (SAGD). For mined oil sands, hot water is used to separate bitumen from the sand and clay. Thus, oil sands production typically uses larger amounts of energy and water than conventional oil production. The process tailings (a mixture of water, sand, clay and residual bitumen) are sent to a tailings pond to settle out the sands and clays and to recycle the water. There are three main oil sands deposits within the Athabasca, Peace River, and Cold Lake areas. (See Figure 1).

Figure 1 – Map of Alberta's oil sands



The development of the Alberta oil sands is a high-profile, contemporary example of an organizational field forming around a valuable resource. In Alberta, oil is a publicly owned good which has historical yet ever-evolving statutory definitions across a range of tax, resource, and environmental law. As such, it has highly regulated use and exchange values that can be traced through time. Success of resource development may be defined in many ways such as meeting

stakeholders' goals, process efficiency/productivity, outcomes, shareholder value, and measures of economic and technical productivity/efficiency (Scott, 1977).

Yet, even such taken-for-granted, acceptably objective technical performance 'facts' may become contested and problematized by challengers to the institutional order. Within the oil sands development hearings and broader media debate, actors wield statistics to demonstrate economic, technical, and environmental value - as a field-level sensegiving of the 'public interest' calculation. Initially, the discussion was centered on technical and economic issues associated with oil (production rates of synthetic crude, recovery rates for bitumen in place, profitability rates as a function of \$/barrel oil produced). Discussion has shifted to water and associated health and environmental effects (recycle rates for process water, withdrawal rates from the Athabasca River, exposure rates for receptors of contaminants, reclamation rates for disturbed lands). The public interest is often considered a weighing of the present versus the future, thus, these numbers often have a time component. Next, I discuss the presentation of the oil sands as a 'strategic resource' versus an environmental blight, which results in increasing controversy around its development.

### **An increasingly strategic resource**

First, the oil sands are becoming an increasingly strategic energy source. The Alberta oil sands are the third largest proven reserves, after Saudi Arabia and Venezuela (see Figure 2). The petroleum industry is the largest single private sector investor in Canada (~\$35B in 2009) (CAPP, 2009) and it is projected that the petroleum industry will contribute \$1.7 trillion to Canada's GDP and create over 456,000 jobs over the next 25 years (Canadian Energy Research Institute, 2009). Given the relative political stability of Canada as a source of oil to the U.S., the Alberta oil sands are undergoing expansion in capital investment and production (See Figure 3 and 4). This resource is integral to the economy of Alberta and Canada, contributing between 20-45% of the total provincial revenue as illustrated by Figure 5. Yet, there are concerns whether Alberta is 'getting its fair share' relative to other governments worldwide (see Figure 6). Industry counters that the oil sands are an expensive resource to produce relative to reserves worldwide (see Figure

7) and, thus, deserve preferential development policies. These competing claims from supporters (Alberta Government, Cambridge Energy Research Associates) and opposing media (Economist, Alberta Venture) demonstrate that even techno-economic ‘facts’ are contestable.

Figure 2 - Relative size of worldwide oil and gas reserves

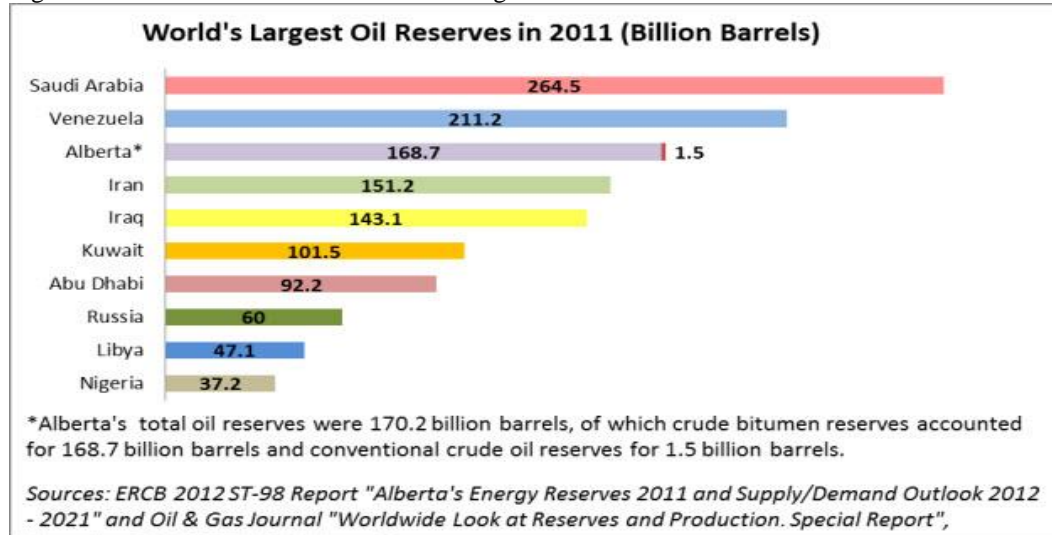


Figure 3 - Oil and Gas Investments in Alberta

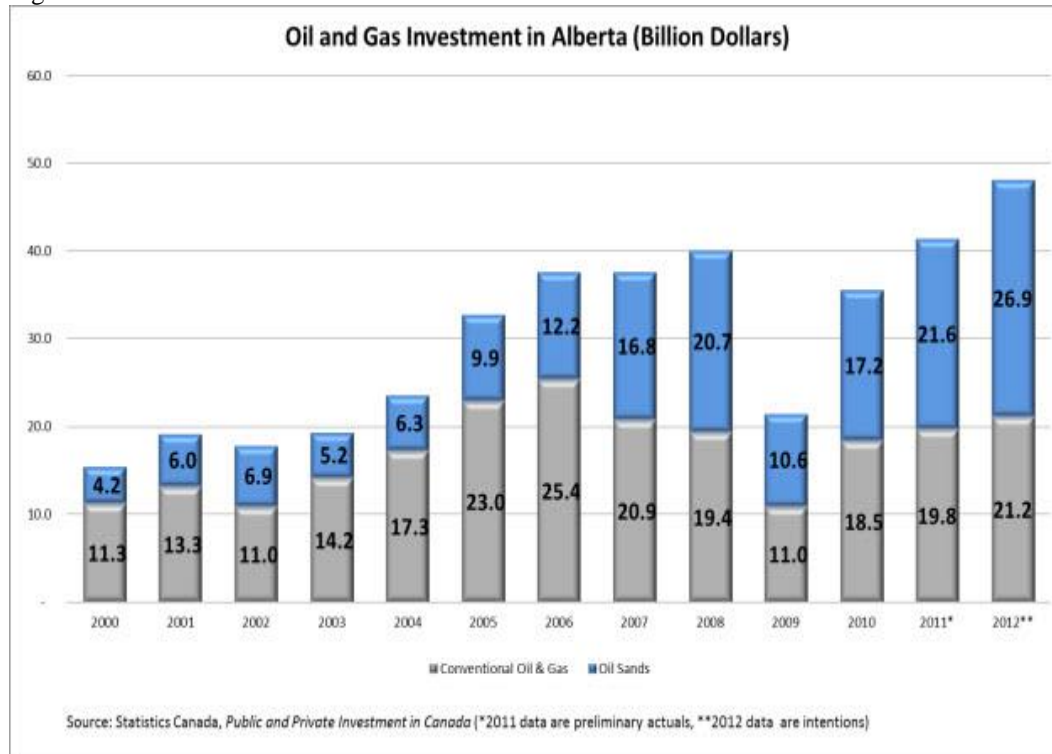


Figure 4 - Barrels of oil produced per day

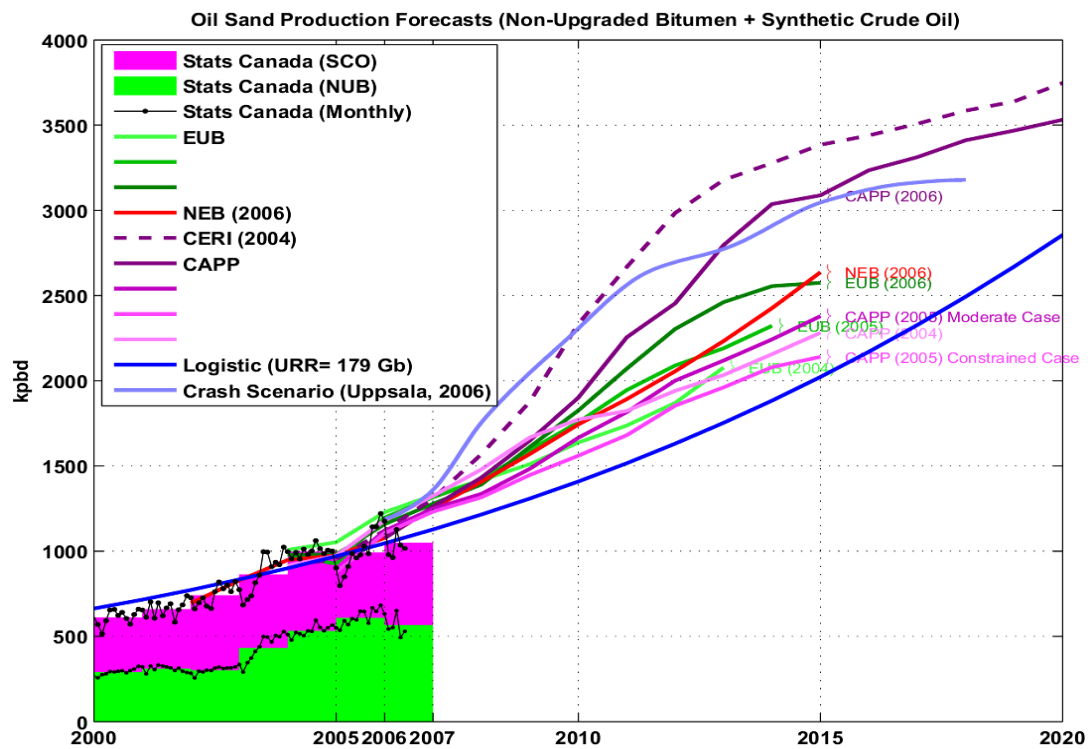


Figure 5 - Revenue to the Province, as percentage of total

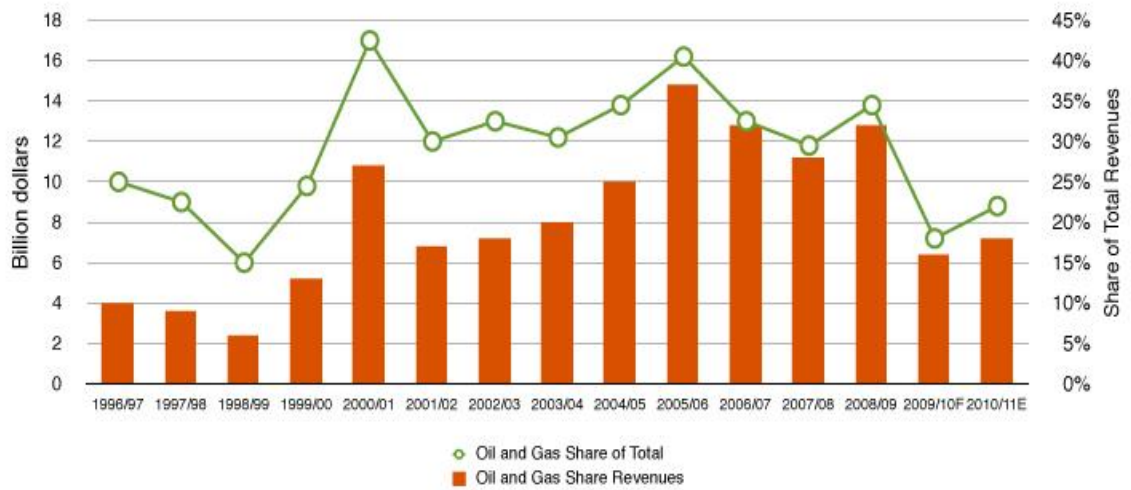




Figure 6 - Government share of resource revenue

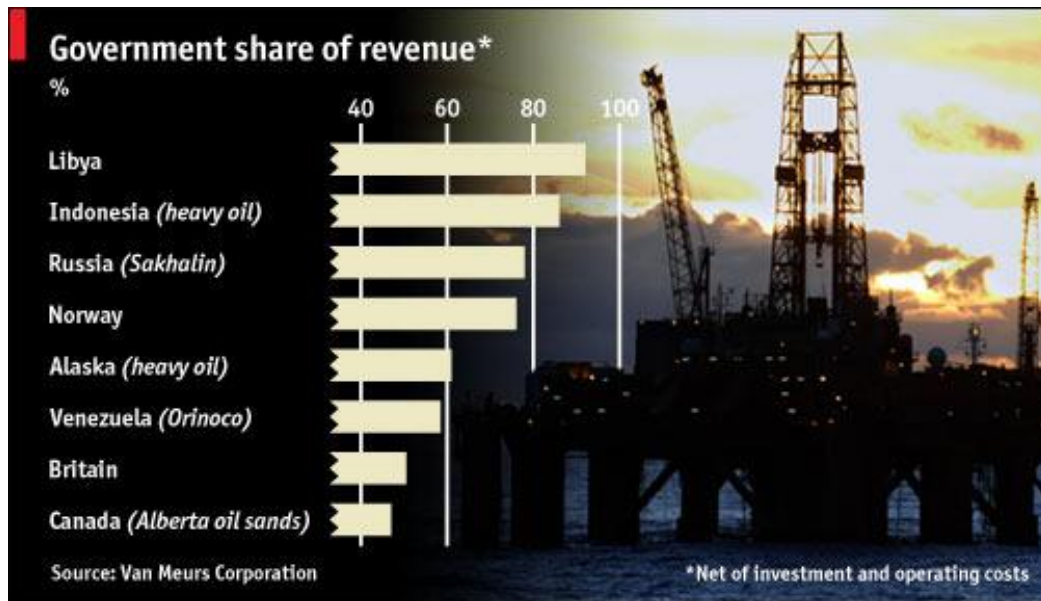
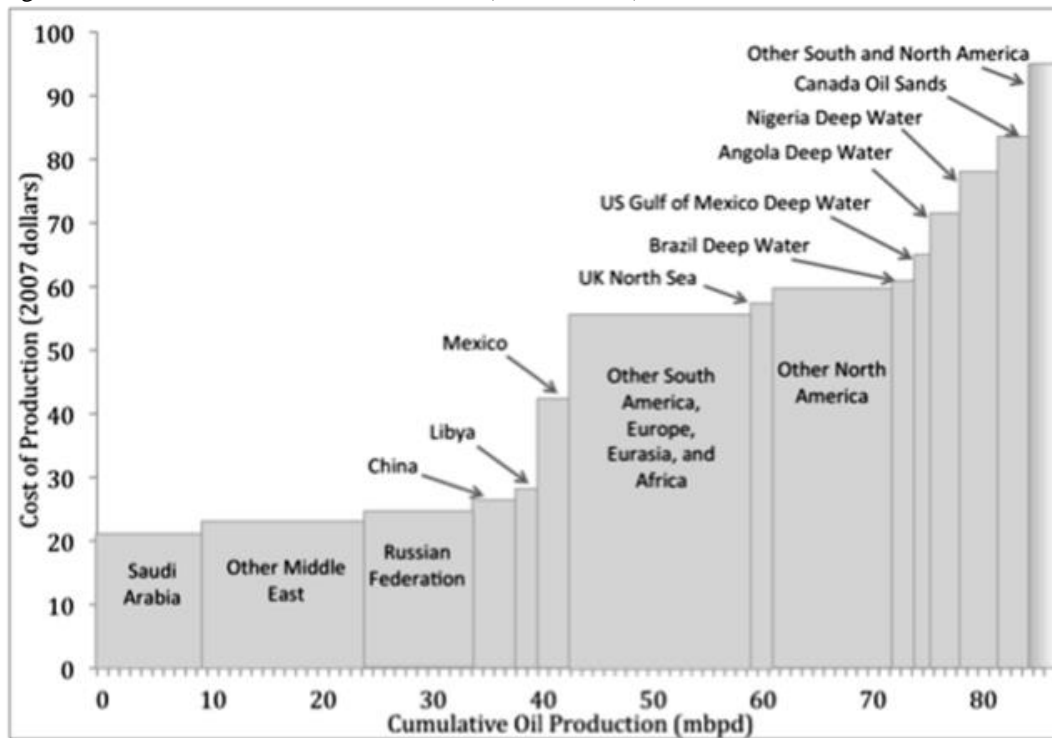


Figure 7 - Cost of Production in 2007 dollars (CERA, 2008)



### **Extensive environmental impacts**

Second, the oil sands are very large. Much of northern Alberta is underlain with oil sands, in three main deposits: Peace River, Athabasca, and Cold Lake (see Figure 8). This results in extensive environmental impacts. The deposits are approximately the size of the United Kingdom. As a result, the strip mining sites and tailings ponds are now 50 km<sup>2</sup>, larger than the size of Vancouver (see Figure 9). Syncrude's Southwest Sand Storage Facility is the second largest dam in the world, outsized only by China's Three Gorges dam.

The resulting tailings ponds are taking decades to reclaim and are a hazard to migratory birds. In April 2008, 1600 ducks landed on Syncrude's tailings ponds and died. Syncrude was charged and subsequently found guilty under provincial and federal laws in 2010. There are also concerns about the oil sands polluting the Athabasca River and its tributaries with Polycyclic Aromatic Hydrocarbons (PAHs) and heavy metals (Kelly et al., 2009). Scientists and aboriginal peoples downstream are blaming deformed fish in the Athabasca River and higher cancer rates to oil sands pollution.

**Albertha's Leased Oil Sands Area**

- Oil Sands Area
- Surface Mineable Area
- Oil Sands Agreement
- Non-Crown Minerals Ownership
- Industrial Heartland
- Indian Reserve
- Métis Settlement
- National Park
- Military Base
- Municipality
- Hydrography
- Major Highway

**NOTE:** Within the Oil Sands Area boundaries, lands may not be available for development due to various restrictions. Parks and Protected Areas, Military Reserves, and Department of Energy Mineral activities. For Surface Mineable Area calculations, a township is deemed to contain exactly 9,316 hectares. Area and percentage calculations are rounded figures. Oil Sands Agreements are shown to the nearest quarter section, and therefore may appear to include lands not owned by the Alberta Crown or other minerals Reserved from Separation.

**SOURCE INFORMATION:**  
Agreement: Alberta Energy January 17, 2013  
Original Mineable Area: http://www.energy.alberta.ca/OilSands/PDF.asp  
Indian Reserves: Natural Resources Canada  
Industrial Heartland: Alberta Industrial Heartland Association  
Iron Crown Minerals: Alberta Energy  
Oil Sands & Surface Mineable Areas: Energy Resources Conservation Board  
Base Data provided by Spatial Data Warehouse Ltd.

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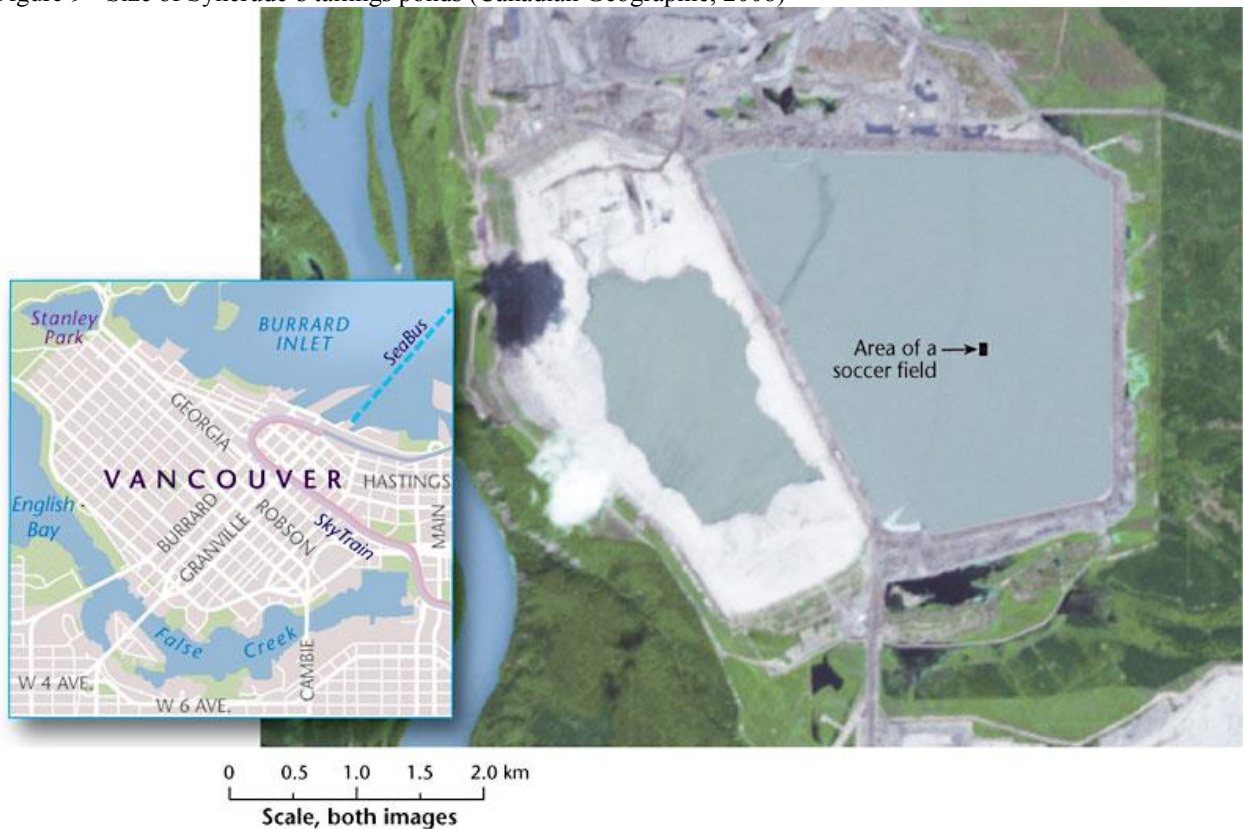
Date: January 2013  
Author: GDS Graphics Ltd.  
*Alberta*

Terranovus Map Series Project / TMS North American Datum 1883 (NAD83)

The map displays several key oil sands areas in Alberta, each outlined in purple:  
- **PEACE RIVER OIL SANDS AREA:** 2.9 million Ha (29,000 km<sup>2</sup>) Or 21% of Total Oil Sands Area. 44% Area Under Lease.  
- **DISTURBED MINEABLE AREA:** 71,500 Ha (715 km<sup>2</sup>) Or 0.5% of the Total Oil Sands Area.  
- **SURFACE MINEABLE AREA:** 475,000 Ha (4,750 km<sup>2</sup>) 51.5 Townships Or 3% of Total Oil Sands Area. 99% Surface Mineable Area Under Lease.  
- **ATHABASCA OIL SANDS AREA:** 9.3 million Ha (93,000 km<sup>2</sup>) Or 66% of Total Oil Sands Area. 76% Area Under Lease.  
- **COLD LAKE OIL SANDS AREA:** 1.8 million Ha (18,000 km<sup>2</sup>) Or 13% of Total Oil Sands Area. 51% Area Under Lease.  
- **TOTAL OIL SANDS AREA:** 14 million Ha (140,000 km<sup>2</sup>). 9.3 million Ha (93,000 km<sup>2</sup>) Or 66% Area Under Lease.

Geographical labels include Wood Buffalo National Park, Fort McMurray, Peace River, Lesser Slave Lake, Athabasca River, Cold Lake, St. Albert, Edmonton, and Muskeg National Park. Major highways like Hwy 1, Hwy 2, Hwy 63, Hwy 64, and Hwy 80 are also indicated.

Figure 9 - Size of Syncrude's tailings ponds (Canadian Geographic, 2008)



### **Development has become increasingly controversial**

Third, because of the contestation between economic and environmental interests, the development of the oil sands has become increasingly controversial. Concerns have increased about cumulative environmental effects, habitat destruction, water use and contamination. Extraction and processing of the oil sands is extraordinarily water intensive: it takes between one and four barrels of water to produce one barrel of oil. In 2012 alone, oil sands operators used 170 million m<sup>3</sup> of water for production (see Figure 10), which will continue to grow as production expands (Griffiths et al., 2006). Oil sands companies counter with evidence that their operations have become much more efficient through time (see Figure 11) and use less water than other sources of energy on a gigajoule basis (see Figure 12).

Figure 10 - Oil Sands Operators' Water Use History  
(Available online at: <http://environment.alberta.ca/apps/OSIPDL/Dataset/Details/56#>)

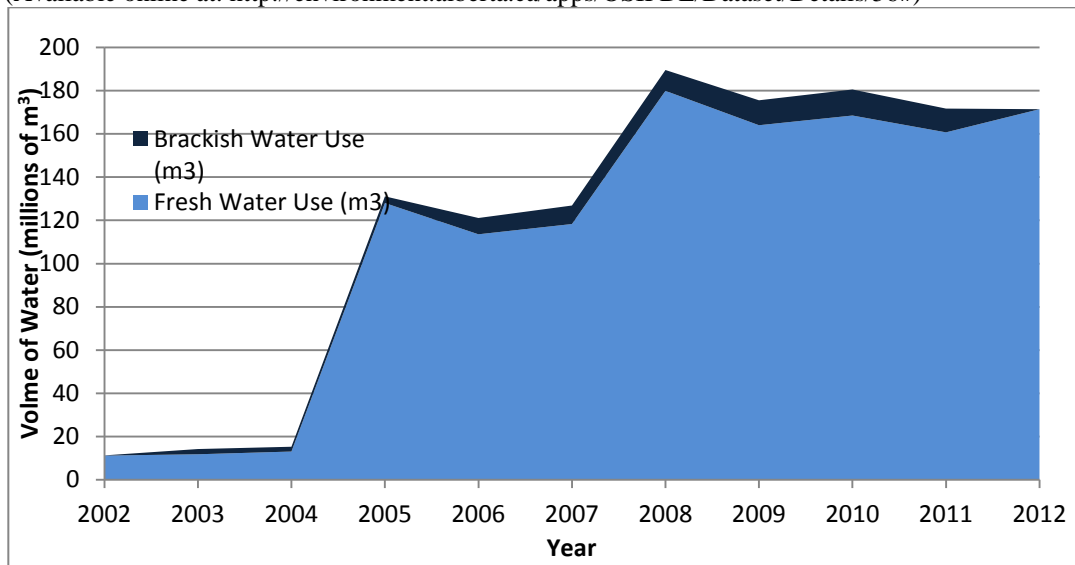


Figure 11 - Esso Imperial Oil's fresh water usage at their Cold Lake In-Situ Operations per barrel oil produced (Esso Imperial Oil, 2011)

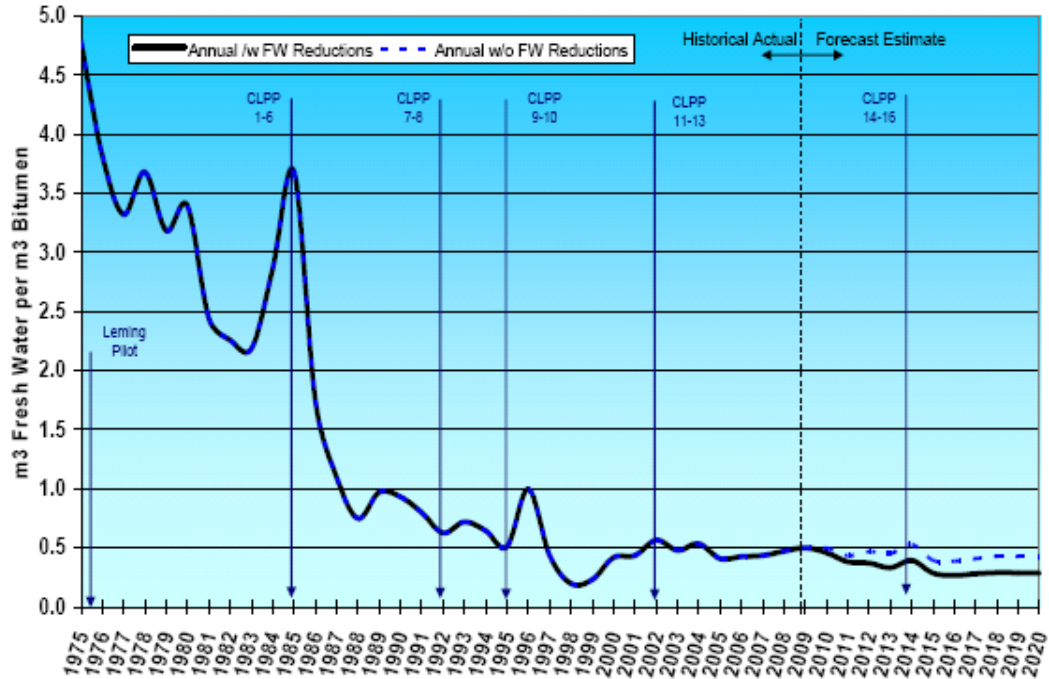
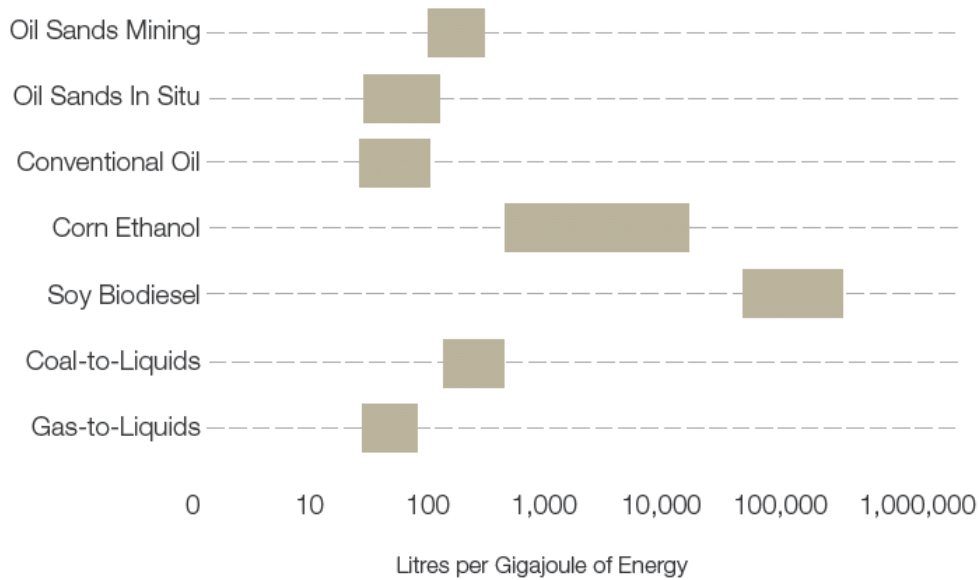


Figure 12 - Life-cycle water use for various energy sources



Source: Cambridge Energy Research Associates, U.S. Department of Energy

The oil industry in Alberta (especially the oil sands) is the largest point source of greenhouse gases (GHG) in Canada, contributing over 38% of emissions (see Figure 13) and is expected to increase (see Figure 14). As a country, Canada's GHG emissions have increased 26.6% from 1990 to 2004, rather than decreased by 6% as required by the Kyoto Protocol. With >15% higher greenhouse gas emissions than conventional oil, the oil sands have been categorized as particularly "dirty oil" (Nikiforuk, 2008) and have become the "whipping boy of European and American green groups fighting the 'Great Climate War'" (Sweeney, 2010: 160). Rather than looking exclusively at emissions from production, industry counters with 'wells to wheels' statistics comparing the emissions for the full-lifecycle of production, refining, pipelining, and end-use consumption (see Figure 15), which casts Canadian oil sands in a more favourable light in comparison to other countries (see Figure 16).



Figure 13 - Total GHG emissions by industrial sector (Alberta Government, 2012)

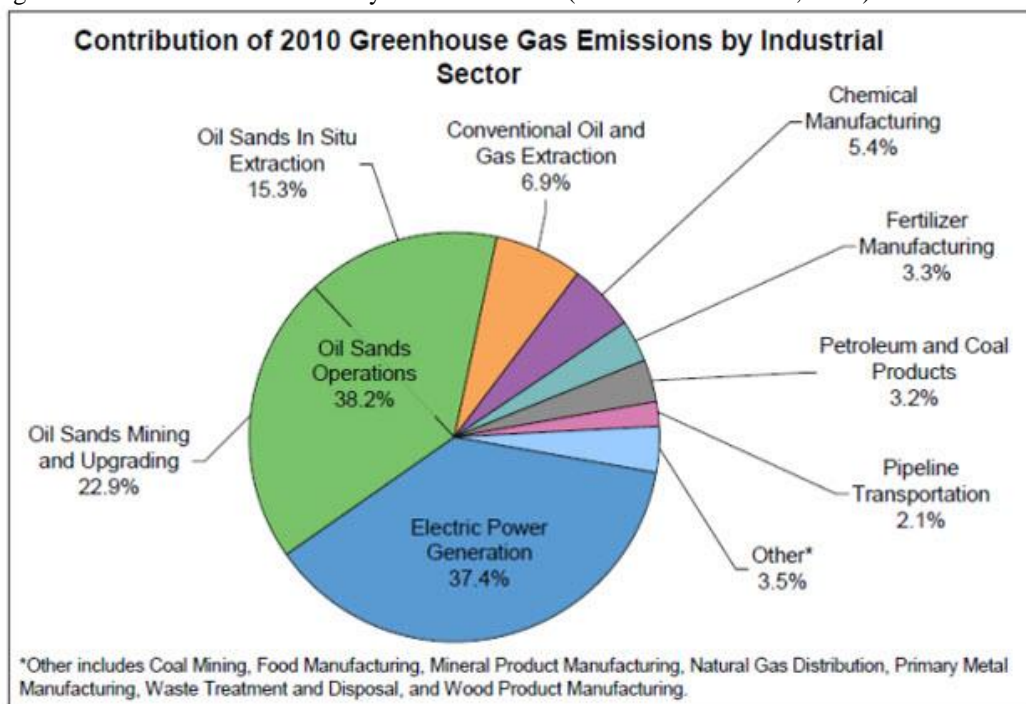


Figure 14 - Total GHG emissions from petroleum sectors 1990-2020

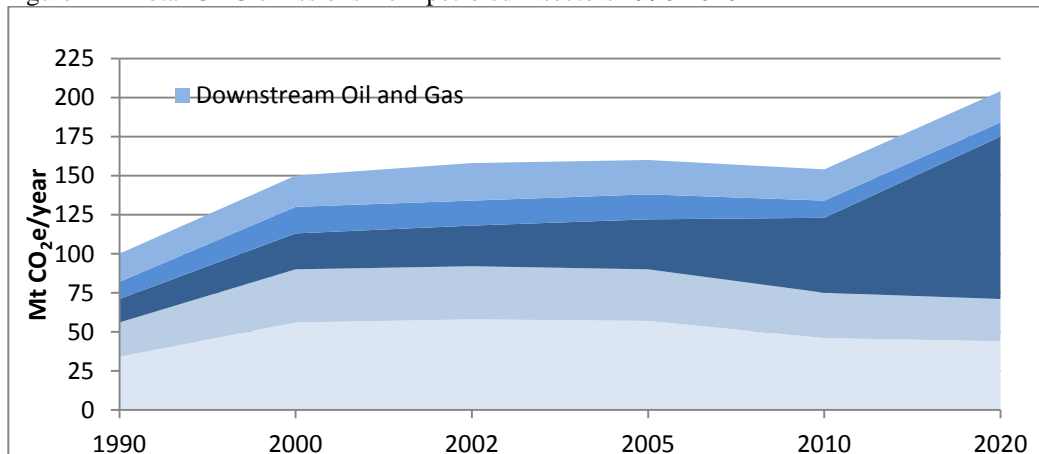


Figure 15 - Defining the oil production and consumption lifecycle (IHS-CERA, 2012)

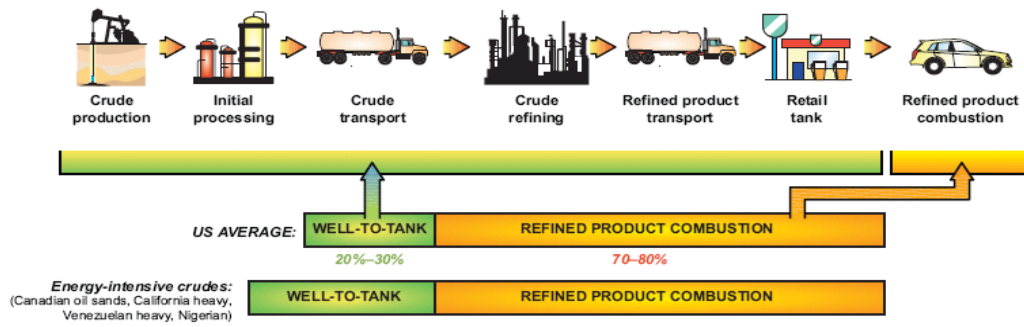
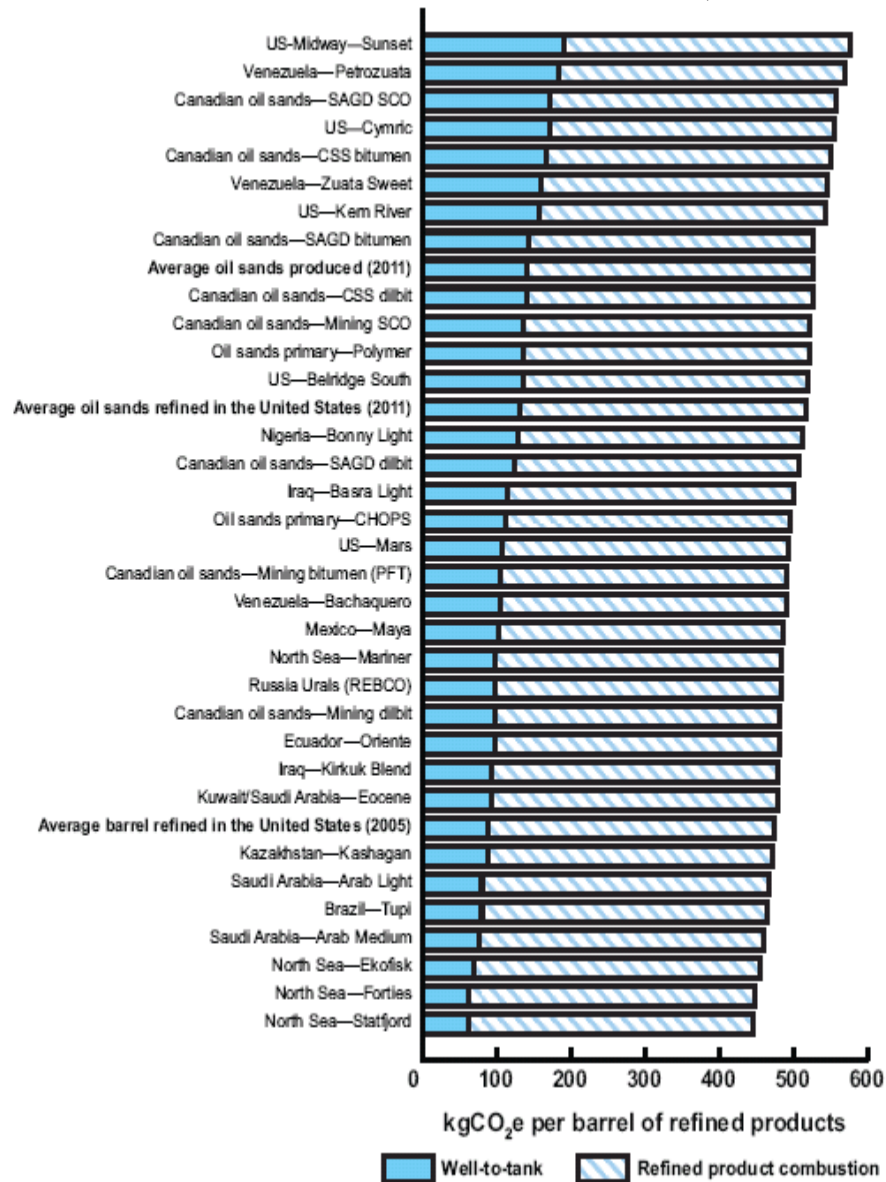


Figure 16 - Wells to wheels GHG emissions for oil sands and other crudes (IHS-CERA, 2012)





In sum, even the volumes of water used and the greenhouse gases produced are being contested. Rather than presenting these in absolute terms, 'performance' is considered in relative terms. In choosing the basis of comparison for water (tailings ponds versus the size of Vancouver, water per barrel oil over time, water used per gigajoule energy produced) and for greenhouse gases (by sector, by year, by country, by lifecycle by energy source), the oil sands look more or less environmentally friendly. Thus, even in describing this resource, there are rhetorical ethnostatistics at work (Gephart, 2006, 2009; Davidson et al., 2006). This also demonstrates that the Alberta Government sees itself as a player in this sense-giving game, even while acting as arbiter of the public interest by hosting regulatory hearings and enforcing environmental legislation.

### **Regulatory hearings as arenas of meaning construction**

Field-level arenas of debate, such as Energy Resource Conservation Board (ERCB)<sup>2</sup> hearings, allow us to examine the processes by which multiple organizational actors with intersecting interests define and value resources. Eighty percent of the province's mineral rights - such as oil, natural gas, coal, and the oil sands - are owned by the people of Alberta through their government. The ERCB is authorized by the government to protect the public's interest relating to the discovery, development, and delivery of these resources. Its stated mission is to ensure that the discovery, development, and delivery of Alberta's energy resources take place in a manner that is fair, responsible, and in the public interest.

Through public hearings, the ERCB hears from those affected by development and adjudicates conflicts regarding development between companies and landowners. A hearing allows for an open, public testing of technical, environmental, social, and economic evidence from those involved. The process purports that all relevant arguments for and against the energy project

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<sup>2</sup> Prior to 1971, the ERCB was called the Alberta Oil and Gas Conservation Board then the Petroleum and Natural Gas Conservation Board. In 1995, the Alberta Public Utilities Board and the Alberta Energy Resources Conservation Board were combined to form the Alberta Energy and Utilities Board (EUB). The combined board was split again on January 1, 2008 into the ERCB and the Alberta Utilities Commission (AUC). This split was in response to charges that the EUB had been 'spying' on citizens who oppose the construction of transmission lines.

are heard. Hearings are held when the ERCB receives an objection from a person who may be directly and adversely affected by a proposed project. If there are no objections or if disputes are settled through an Appropriate Dispute Resolution (ADR) process, there is no need for a hearing. The Board will also dismiss objections if it decides that the person does not appear to be directly or adversely affected. Describe who is eligible for intervener status? How has this changed through time?

The ERCB mails a 'Notice of Hearing' to inform people and organizations affected by an application about the hearing. The notice may also be published in daily and/or weekly newspapers and are available on the ERCB website. It provides interested parties with the: date, time, and location of the hearing; application number and nature of the application; a contact for the company that filed the application; ERCB information; the due date for filing objections or interventions; and a statement that all material relating to the proceeding is subject to Alberta's Freedom of Information and Protection of Privacy legislation. Additionally, companies proposing large projects usually hold an open house to explain their proposed project, answer citizens' questions, and address the community's concerns.

An ERCB hearing follows an established, formal process with all associated texts (submissions, hearing transcripts, and final regulatory decisions) publicly available:

- *Opening Remarks:* The panel chair explains the purpose of the hearing and introduces the members of the panel and all ERCB staff in the room. Then participants in the hearing register an appearance, coming forward and introducing themselves.
- *Preliminary Matters:* Procedural and legal matters are presented, such as adjournment requests or the scheduling of a specific witness at a particular time.
- *Applicant (Application):* The applicant presents its case and may question its own witnesses. Then interveners, ERCB staff, and the Board panel may cross-examine those witnesses. Once cross-examinations are complete, the applicant may question the witnesses again to clarify any issues that arose.

- *Interveners*: Interveners next present their cases in the same order they registered. After the intervener gives direct evidence, the lawyer for the applicant may cross-examine, followed by the other interveners who wish to cross-examine. ERCB staff and panel members may then cross-examine the intervener. Following cross-examination, the intervener is entitled to clarify any matters that arose.
- *Rebuttal Evidence by Applicant*: Once the above process is complete with all the interveners and their witnesses, the applicant may submit additional evidence to address new points raised by interveners' evidence.
- *Final Argument or Summation*: Each participant may provide an explanation of what he or she believes are the important aspects of the issues involved and what decisions they feel the panel should make. The applicant may respond to interveners' arguments.
- *Closing of Hearing*: The panel chair announces the hearing is completed and that the decision of the panel and the reasons for it will be given at a later date.

Since the beginning of industrial development of the oil sands, there have been 89 ERCB hearings. Of these, there have been hearings for eight new integrated energy projects with a mine/in-situ operation and an upgrading refinery (see Table 1). Besides these, there have been other high profile discursive fields within which the meaning of oil is negotiated, resulting in regulatory changes for the oil sands. Most notable is the 2007 Provincial Royalty Review Panel which reviewed the province's energy royalty and tax regime. These integrated projects have the greatest environmental and socio-economic impacts and have generated the greatest debate across the widest range of stakeholders.

Table 1 – Oil sands hearings for comprehensive mine-upgrader developments

<b>Date</b>	<b>Description of development</b>
1962	Suncor (Great Canadian Oil Sands) Millenium mine. Decision 64-03. No hearing.
1969	Syncrude Mildred Lake and Aurora Mine. Decision 68C and 69C
1979	Esso Imperial Oil Ltd. In-situ Cold Lake. Decision 79E
1999	Shell Muskeg River mine. Decision d99-02.
2002	Petro-Canada (previously TruNorth Energy) Fort Hills Mine
2003	CNRL Horizon Mine. Decision 2003-12.
2004	Shell Jackpine Mine. Decision 2004-09
2007	Royalty Review Hearing
2007-2010	Total Joselyn Lake Mine and Strathcona Upgrader. Decision 2010-30

### **Summary: A discursive field forming around a contested resource**

In sum, the Alberta oil sands is a high-profile, contemporary example of a discursive field forming around a valuable resource. This resource is a strategic energy source with enormous environmental impacts, which has caused it to become increasingly controversial. This offers an instrumental case study (Stake, 1995) to examine how a resource becomes infused with value (both positive and negative) beyond the technical requirements of the task at hand. Those who support the development of the oil sands rhetorically use statistics and figures to make persuasive claims about the profitability, strategic importance, and market realities of this resource. Likewise, opponents to development construct their own statistics to contest others' claims and reframe the social meaning of oil. I examine stakeholders' use of statistics in Chapter 7 as one rhetorical strategy, as a means of providing evidence to create a more compelling argument.

In the next chapter, I outline my methods for tracing how the oil sands are infused with value.

## CHAPTER 4 – METHODS FOR EXAMINING DIFFUSION, INTER-ARENA TRANSLATION AND CONTESTATION OF MEANING

### Introduction

The aim of my research is to understand the processes by which a resource becomes infused with value. To examine this for the Alberta oil sands, my theoretical question is operationalized as three subsidiary research questions: *How does the meaning of oil evolve through time? How do meanings within hearings become more or less similar to media discussions within which they are embedded? What becomes 'heard' in a regulatory decision and how?* My first question focuses on the macro-level changes in meaning at the societal-level discursive field, in texts that represent these broad discussions. The second examines the importation of meanings from the macro-level discussions to texts representing more situated micro-level discussions of 'what is this oil?' The last explores the interactivity between these nested discussions; ongoing contestations of meaning between the macro- and micro-levels.

These questions and the methods for answering them are based upon three assumptions of change within a field. The first assumes a classical Meyer & Rowan (1977) conception of diffusion – the transfer of structures and practices through boundary spanning relational networks. Diffusion is often thought of a homogeneous spread through time and space (Ansari, Fiss & Zajac, 2010). This is metaphorically akin to the scientific definition of diffusion - the passive tendency of molecules to spread into an available space, from a more concentrated environment to a less concentrated environment, until there is isomorphic equilibrium. The second assumes Sahlin-Andersson's (1996) conception of translation – a metaphor of the more active conversion of meaning, from one medium into another. The third assumes Bourdieu's (1984) conception of an arena – a metaphor of the struggle for superiority between rival meaning-makers in a contested space. My intent is to explore these alternative explanations of field-level variation and change, following Schneiberg and Clemens (2006: 210): "Greater precision in the measurement of cultural or cognitive elements of institutional models combined with sustained attention to variation in the

coherence of fields provide a foundation for moving beyond the analysis of institutional *effects* to an examination of processes of institutional transformation”.

Given these differing assumptions of change, I rely on mixed methods to answer these research questions. This is following calls by recent scholars to combine qualitative and quantitative methods for examining cross-level inter-linkages (e.g., Mohr, 1998; Schneiberg & Clemens, 2006; Owen-Smith & Powell, 2008). I outline my method and rationale for answering each question, in the remainder of this chapter.

### **How does the meaning of oil evolve through time?**

To answer my first research question, I take a broad overview of how oil is infused with value and meaning, from 1969-2011 in societal-level media. “[L]anguage objectivates the shared experiences and makes them available to all within the linguistic community, thus becoming both the basis and the instrument of the collective stock of knowledge”; a “depository of a large aggregate of collective sedimentations” (Berger & Luckmann, 1966: 68-69) that can be diffused across the community and transmitted inter-generationally. Media is acting as this depository of meaning.

These macro meaning systems provide a ‘tool kit’ (Swidler, 1986) of vocabularies and rhetoric, from which social actors draw. A first step, then, in understanding the processes of (de)institutionalization is to represent this tool kit. For this, I started with a full text search of media articles (following Zilber, 2006; Baum & Powell, 1995) for ‘Alberta’ and ‘oil/tar’ and ‘sands’, which gave me 12,533 articles (after correcting for duplicates) over this 42-year time span. Since LexisNexis is the largest online media database, this is an accessible and consistent way of capturing the evolving discussion through time.

Next, I used computer assisted interpretive content analysis of these media articles to identify stakeholders’ vocabularies that they associate with oil. Content analysis of media articles has been used by others to examine the temporal evolution in conceptions of globalization (Fiss & Hirsch, 2005), democracy (Ferree, Gamson, Gerhards, & Rucht, 2002), and initial public offerings (Pollack & Rindova, 2003) across a large corpus of text. While content analysis does not reflect

nuances in meaning, including disambiguation, it is a pragmatic method to explore the evolution of vocabularies of meaning and motive (Mills, 1940). I use a qualitative structural approach (following Höllerer et al., 2013; Jones et al., 2011) to explore the frequencies and combinations of word-to-word relationships that structure the vocabulary of meanings (Loewenstein et al., 2012) as organizations and individuals make sense of “What is this oil? How may we use it?” I considered using dictionaries developed by others - Harvard IV, Diction, LIWC - as the basis to create institutionally aligned meaning systems for my ‘include’ list. However, these dictionaries became quite large (100s of words) and did not give tight enough granularity in the meaning structures.

To avoid imposing prior theoretical frameworks on the data, I use grounded theory analytic techniques to allow the dominant conversational categories to emerge from the data (Glaser & Strauss, 1967; Suddaby, 2006). Based on my reading of these LexisNexis articles and a frequency analysis of words used, I inductively created paired contrasts – groups of synonyms and their antonyms (dirty/clean, man/nature, past/future, etc.) - that are most frequently used to give meaning and value to the oil sands (cf. Humphreys, 2010; Jones et al., 2011). Given that the most frequent words occurred tens of thousands of times, words that occurred less than one hundred times were excluded. Table 2 presents the dictionaries for these oppositional pairs. In doing so, I assess rather than assume coherence; as “the analysis of coherence and heterogeneity – will be critical for explaining institutional reproduction and change” (Schneiberg & Clemens, 2006: 196).

Word roots are used to capture lexical variations (cf. Fiss & Hirsch, 2005; Humphreys, 2010) using Porter’s stemming algorithm (i.e., *ecolog\** will capture ecology, ecological, ecologically...) (van Rijsbergen, Robertson & Porter, 1980). These dictionaries give resilience in understanding the evolution of meaning, as words associated with these oppositions change. For example, ‘pure’ was a more frequent synonym for ‘clean’, while ‘green’ has become recently predominant. Since the changing meanings are of interest, calculating measures of reliability for such as Krippendorff’s  $\alpha$  for these dictionaries would be meaningless. To map the changes in meaning structures (Mohr, 1998), the frequencies of these binary dictionaries are compared over time (following Weber et al., 2008) using MaxQDA 10 software.

Table 2 – Dictionaries for oppositional pairs

<b>Contrasting pairs</b>	<b>Most frequent words</b>
Man	man, people, social, human, society, folk
Nature	environment, natural, wild, nature, ecolog, species
Development	develop, industr, improv
Restoration	renew, refine, reduc, recover, recycl, restor, recla
Global	world, nation, global, international, far, foreign
Local	near, region, home, local, mcmurray, resident, neighbo(u)r, grassroot
Economic/ Wealth Generating	invest, econom, pay, revenue, fund, sale, earn, profit, income, incent
Uneconomic/ Debt Generating	debt, deficit, uneconomic, poor, poverty
Efficient/Productive	produc, efficien, effectiv, deriv, demonstra
Inefficient/Unproductive	delay, decreas, deplet, disadvantage, inefficien
Clean	green, pur, clean, clear, fresh
Dirty	emi, dirt, spill, waste, contamin, degrad
Future	futur, propos, forward, hope, prospect, pursu, horizon, wish, dream
Past	histor, past, previous, prior
Life	Life, heal, safe, surviv, sustain, live, alive, medici
Death	Impact, disast, danger, dead, kill, destruc, harm, pain, destroy, death, devastat, injur, slaughter, endanger, sick, cancer, murder
Difficult	Hard, effort, difficult
Easy	Easi, easy
Oftentimes, Present time	Often, now, today
Never	never
Desirable	Like, good, great, strong, better, best, quality, super, love, desir
Undesirable	Bad, weak, worse, worst, hate
Important	Large, big, importan, huge, massive, strategic, mega, grand, fundamental, vital
Unimportant	Small, little
Right	Right, fact, true, disclos, frankly, honest
Wrong	Wrong, deni, mistake, disclaim, fiction, mislead
Known	Real, know, certain, sure, proven
Unknown	Estimat, potential, possible, uncertain, scenario, unknown
Necessary	Need, require, must, necessary, essential, necessit
Unnecessary	Unnecessary
Fair	Fair, democrat, equity, justice
Unfair	Unfair
Voluntary	Secur, free, respect, voluntary
Involuntary	Forc, threat, conflict, terror, violen
Ethical	Should, value, ethic, principle, modest, moral, pruden, virtue
Unethical	vice, shouldn't, corrupt
Old	old
New	new

My next step is to understand how these meanings and values are being used in combination to create new vocabularies. Following Best (2012), to document the how words are used in combination, across tens of thousands pages of text, I a ‘word-windowing’ program - WORDij (Danowski 2009a, 2009b) – which slides a window through the text. As the window focuses on each word in my ‘include list’, it counts the number of times that word-pairs appear together



within the window. I set the window-size to three words on either side of the target word (Danowski 2009a, 2009b) to capture proximal/sentence-level meaning making. By examining the co-occurrence of words, rather than merely counting the frequency of single words in a document and assigning these to nominal categories (as done by General Inquirer, Diction, or LIWC), WORDij captures word-to-word relationships to depict vocabularies of meaning. Using my binary dictionaries of meaning (Table 2) as an ‘include’ list, I use WORDij to count the number of times that word pairs co-occur as a measure of the strength of association.

This yielded a simple word frequency file, listing the number of occurrences of each word, and a word co-occurrences file, which lists the total number of co-occurrences for each pair. To illustrate these vocabularies, I use this occurrence distribution of word pairs as input into network analyses tools to visualize the vocabulary clusters (Jones et al., 2011; Kaufer & Carley, 1993; McLean, 1998) associated with oil. For this, I chose to use network software Gephi over other similar programs because of its capacity in handling large networks, statistical analysis, and data visualization capabilities. All network analysis techniques are based on the measure of proximity – similar to social network analysis of the relative nearness of a pair of individuals to each other in communication. Then, I do hierarchical disaggregation analysis using the Louvain method (Blondel et al., 2008) to determine which word pairs are significantly more likely to appear together than would be expected. These networks and clusters give a visualization of the evolving vocabularies of meanings associated with oil, through these development periods, in the broader discussion of LexisNexis articles. For each meaning cluster, I then returned to the original texts to determine who was ‘speaking’, how they were discussing oil, and their interests relative to oil sands development. This formed the basis for my expanded timeline, which gives a broad sweep of the evolution of how oil becomes linguistically infused with value and by whom, over the past 42 years. Lastly, I use other basic network measures to compare, in relative terms, how these networks of meaning vary through time. Betweenness centrality is a measure of how important a word is in brokering within the vocabulary network; it is equal to the number of shortest paths from all other word pairs that must pass through that word (Freeman, 1977; Brandes, 2001). Density is a measure of the degree of interconnectedness of the vocabulary; a proportion of direct

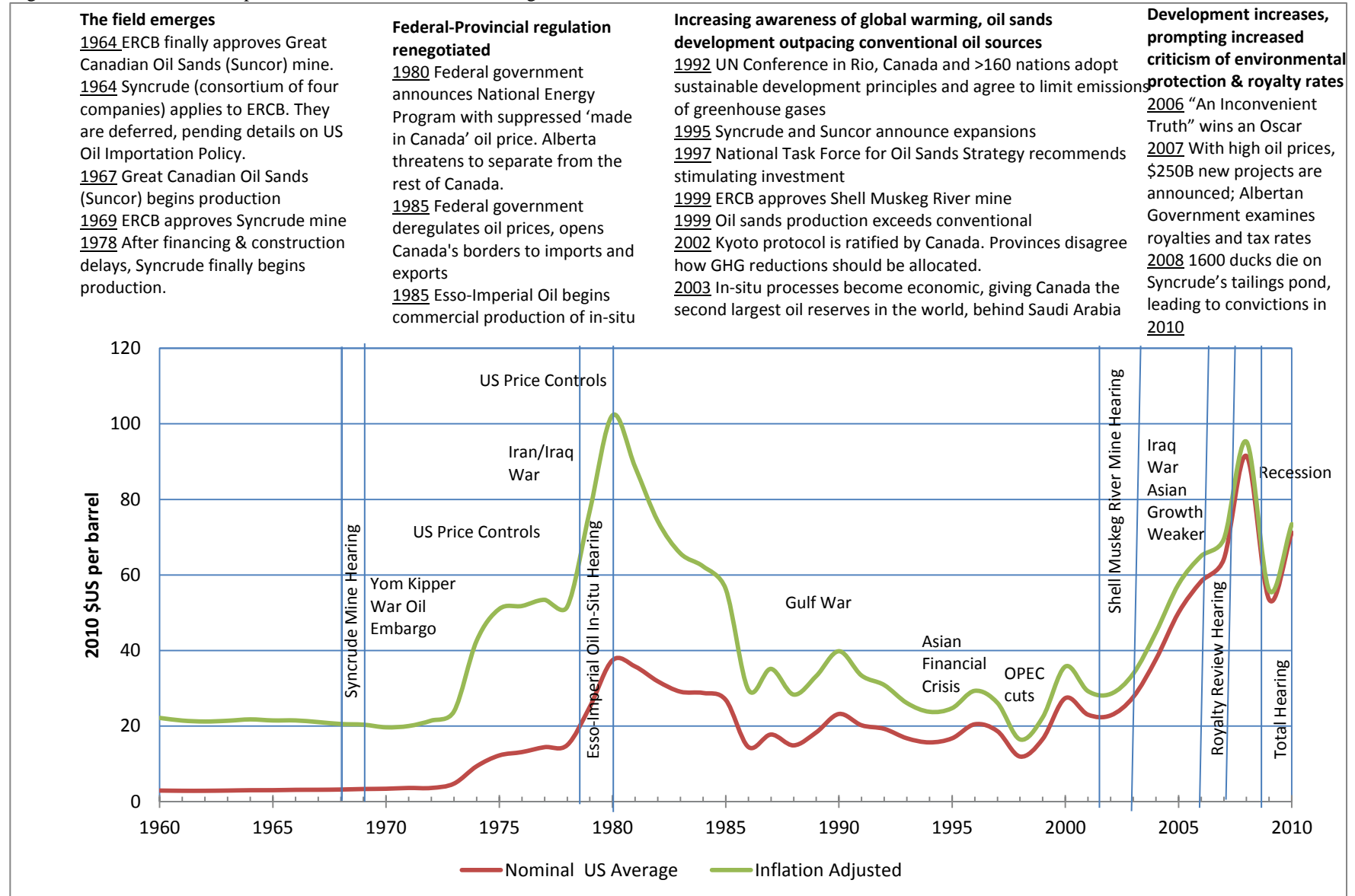
ties between words relative to the total number possible (Opsahl, Agneessens & Skvoretz, 2010). In this pragmatic manner, I trace how the vocabularies around oil and water evolve over time, within the broader discursive field. These findings are presented and discussed in Chapter 5.

**How do meanings within hearings become more or less similar to media discussions within which they are embedded?**

Researchers contend that the problematization / theorization vs. taken-for-grantedness of issues in arenas of debate is reflected in the relative attention that we give to those issues (following Zilber, 2006; Schneiberg & Clemens, 2006; Green et al. 2009; Navis & Glynn, 2010). We need to ‘talk’ more if we are making meaning for ourselves and others; less if we all know what we mean. As an extension of this, to create momentum for translating meaning-making between arenas, especially of the symbolic (c.f. Creed, Scully & Austin, 2002; Sahlin-Andersson, 1996; Czarniawska & Joerges, 1996; Zilber, 2006), we might expect that if greater attention reflects greater problematization and theorization efforts, this might also create greater impetus for meanings to be translated across into other arenas of discussion. The temporal similarity between meanings in a macro-level to its nested micro-level would indicate that, indeed, these meanings are being transported between arenas (Zilber, 2006).

To examine this interconnectedness, I focus on five hearings that occur during each of the oil sands’ development time periods at inflection points in the oil price, as windows into the debates over development for that time (see Figure 17). These are: (1) 1968-1969 Syncrude Mildred Lake, (2) 1979-1980 Imperial Oil Cold Lake, (3) 2003-2004 Shell Muskeg River, (4) 2007 Royalty Review Hearing, and (5) 2009-2010 Total Hearing. All the ERCB hearings were convened to adjudicate specific oil sands development proposals while the Royalty Review hearing addressed energy development questions more generally. Thus, the Royalty Review hearing may seem incomparable to these other hearings. However, my introductory analysis suggested that there was an inflection in meaning around 2006-2007, yet there were no ERCB hearings during this time period. Thus, examining the Royalty Review hearing is a pragmatic opportunity for me to access this macro->micro processes of meaning-making.

Figure 17 – Oil sands development timeline and selected hearings



For each hearing, I collected the proponents' applications, interveners' submissions, hearing transcripts (keeping each hearing convening and reconvening separate), and regulatory decisions. To capture the media, I searched for all articles that mentioned 'Alberta' and 'oil sands' or 'tar sands' from three months before the hearing announcement until three months after the regulatory decision from two provincial, two national Canadian, two national US, and two national UK newspapers. These documents are obtained by searching Factiva and Canadian Newsstand for two provincial newspapers (*Edmonton Journal*, *Calgary Herald*), two national newspapers (*Globe and Mail*, *Montreal Gazette*), and four international newspapers (*Wall Street Journal*, *New York Times*, *Financial Times of London*, *U.K. Guardian*). These Albertan and Canadian newspapers are chosen as they have double the readership and were founded 70-200 years before their nearest competitor. *Wall Street Journal* and the *New York Times* are the 1<sup>st</sup> and 3<sup>rd</sup> most read newspapers in the U.S., with the *New York Times* considered more left leaning. The *Financial Times* and the *U.K. Guardian* are the 1<sup>st</sup> and 3<sup>rd</sup> most read newspapers in the U.K., with the *Guardian* being more left-leaning. Further, the *New York Times* has the largest online readership of any English-language newspaper in the world, followed by *The Guardian*. Given this, international newspapers broadly reflect international perspectives. These data sources are inventoried in Table 3

Table 3 – Data inventory

<b>Data type</b>	<b>Quantity</b>	<b>Original data source</b>	<b>Original (intended) data audience</b>
Application materials and submissions	251 16,591 pages	Energy Resource Conservation Board Library, online for Royalty Review hearing	Energy Resource Conservation Board, interveners: Define support or opposition to development and support with evidence
Hearing transcripts	18 12,309 pages	Energy Resource Conservation Board Library, online for Royalty Review hearing, court reporters	Public and industry: to provide a public record of the hearing proceedings
Board decisions, joint panel decisions, cost awards, press releases	12 1,244 pages	Energy Resource Conservation Board Library, online for Royalty Review hearing	Public and industry: Formal record and rationale of regulatory decision to the public
Provincial newspaper	1,356 articles	Calgary Herald and Edmonton Journal –	Alberta public and business audiences

articles		microfilm and online databases	
Canadian national newspaper articles	2,064 articles	Globe & Mail and Gazette – microfilm and online databases	Canadian public and business audiences
US national newspaper articles	148 articles	New York Times and Wall Street Journal –online databases	US and international public and business audiences
UK national newspaper articles	228 articles	UK Guardian and Financial Times of London –online databases	UK and international public and business audiences

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The application materials, transcripts and decisions were obtained from the Energy Resources Conservation Board (ERCB) library in Calgary. Most of these were scanned from original typewritten and mimeographed documents. The quality was too poor for text recognition. So, these documents were converted to Word files and proofread and converted back to txt and text-readable pdf. All documents are kept in .pdf, .doc, and .txt form, depending upon the input requirements of the analysis software (WORDij only handles .txt files, MaxQDA and NVivo prefer .doc and .pdf files). The transcripts from the two most recent ERCB hearings – Shell and Total – were purchased from the court reporters. All the Royalty Review hearing materials were available online. Most of the newspaper articles were available from electronic databases. However, the *Edmonton Journal*, *Calgary Herald*, and *Montreal Gazette* were only available on microfilm with paper indices, prior to 1995. The quality of these microfilmed articles was also too poor for text recognition. So, these documents were also sent offshore to be converted to wrd and txt files.

All data files, now in electronic form, were organized by hearing, by publication source, and by month of publication. In order to ascertain the duration of time for each case, I had to determine the number of articles and document entries during the period studied and what time interval would provide a) a sufficient amount of text to be processed using the analysis described later and b) sufficient variability from case to case. From an initial review of the data, it appeared that a one month duration would meet my analytic objectives.

Collectively the hearing submissions, transcripts, and decisions and the surrounding media provide a comprehensive account of the language used to contest the relative meanings and values of oil as it relates to the final regulatory decision. The involved stakeholder groups include government agencies and regulatory bodies, industry associations, professions, and increasingly the public, Aboriginals, and environmental non-governmental organizations. These stakeholder groups each express their meanings and values in the texts that they submit to hearings, in their hearing testimony, and the broader media through interviews and opinion pieces. From these data sources, I determine how stakeholders construct the meaning and value of oil – from the genesis of oil sands development, to the creation of increasingly ordered and complex field-level governance systems, through to the present-day contestation of values by a greater number of stakeholders and a re-evaluation of governance. As such, these data provide an opportunity to explore the co-construction of meaning and the effectiveness of rhetoric as it happened at the time.

The use of archival records offers several advantages over other means of data collection, such as direct observation, experiments, questionnaires or interviews. First, they can provide data that would not otherwise be available because organizations dissolve or individuals will not cooperate (Knoke & Kuklinski, 1982: 31). Second, archival data span an extended period. Third, self-reports in surveys or interviews pose the difficulty of poor recall on the part of the respondent. Fourth, the relations in which actors say they were involved may not reflect those in which they actually are involved (Bernard & Killworth, 1977, 1978). Fifth, gathering data from archival records is unobtrusive as the researcher does not influence a subject's response. A disadvantage of using archival records, however, is that the data are limited to those gathered for other purposes. Nevertheless, the shortcomings of other methodologies outweigh this potential problem.

In relying on such texts, I make several assumptions (following Gephart, 1993; Mohr & Neely, 2009): that the author of each text was an sanctioned representative of the organization and an informed participant in the organizational field, that they spoke in a manner that reflected a common understanding of their broadly shared logics, that these texts reflect the organizations' interpretations of resources, and that speech was highly ritualized and carefully crafted as a strategically rhetorical act to persuade others to adopt their interpretations.

I collated the media by month and matched these against the hearing timelines. And as a measure of attention, I also counted the number of media articles on the oil sands by month. Then, to gauge the similarity in the vocabularies used in each hearing transcript versus the broader media, I focused on the most frequently used words. For greater granularity in the vocabulary and topics, I selected the 150 most frequent words— descriptive and evaluative – across all sources and time periods that are collocated with oil (see Table 4). This more limited ‘include’ list gives a common basis to understand how the meaning/value of the oil sands is created, through time and space, between a hearing and its surrounding media. This list is also small enough to be more easily interpretable. I then compared the relative frequencies of issues/topics in the hearing transcripts versus media during that month. Lastly, to visualize these vocabularies, I used network techniques to examine how these words are inter-related in networks of meaning, as I did for answering my first research question.

Table 4 – The 150 Most Frequent Descriptive and Evaluative Words for Oil

agricultur	environment	know	pipeline	responsib
airalberta	estimat	lake	policy	revenue
already	evidence	land	possib	right
america	explor	large	potential	risk
application	exposure	lease	price	river
assessment	fact	life	probab	royalt
athabasca	fair	like	process	sand
benefit	far	limit	produc	should
big	field	little	profit	small
bitumen	fuel	local	project	social
board	fund	loss	propos	species
canad	futur	man	protect	sure
capital	gas	markets	public	synthetic
carbon	global	mcmurray	pur	tailings
certain	good	mine	quality	tar
clear	govern	mitigat	rate	tax
climate	great	muskeg	real	title
conserv	green	must	reason	today
construct	habitat	nation	reclam	town
consult	heal	natur	recover	toxic
contamina	hearing	near	reduc	tru
costs	here	necessar	refin	upgrader
countr	hope	need	region	value
court	human	new	regulat	vegetation
crude	impact	now	release	want
develop	import	oil	requir	waste
econom	income	past	reserve	water
effect	industr	pay	resident	wild
emi	interest	people	resource	worl
energy	invest	petroleum	respect	

In sum, by gauging the similarity of the vocabularies being used in hearing transcripts versus media, I attempt to examine the translation of vocabularies, between societal-level media and the hearings embedded within these. These findings are presented and discussed in Chapter 6.

### **What becomes ‘heard’ in a regulatory decision and how?**

As Luntz (2007) observes, “it’s not what you say that counts, it’s what people hear”. So, to answer my last research question, I determine stakeholders’ relative persuasiveness in hearings as arenas of debate (cf. Suddaby & Greenwood, 2005; Rao, 1998) by comparing their rhetorical strategies versus the resulting regulatory decisions to through time. I started with the regulatory decisions to determine what issues became ‘heard’ in the Board’s rationale, approval conditions, and the proponent’s additional commitments. Then, I worked backwards through the hearing transcripts and media for that month to determine how these issues become discussed across discursive fields, by whom, and how, by focussing on those conversational exchanges that are explicitly and implicitly inter-referential (hearing excerpts that mention the media, media excerpts that mention the hearing). These exchanges might be 1-2 sentences or 1-2 pages, depending upon length of the conversational interaction. By using a more nuanced explication of individuals’ inter-arena rhetorical tactics, I directly examine how hearings and the broader public media become interconnected. For the sake of comparability, I used the ERCB hearings only (Syncrude, IOL, Shell, and Total) and set the Royalty Review hearing aside.

I analyzed these excerpts using classical and modern theories of rhetoric. From Aristotle (1984), I use the modes of proof (appeals to credibility, logic, and emotion). For example, textual credibility arises from phrases that demonstrate the speaker’s knowledge of the issue or that establish common ground with viewers (i.e., shared values). Emotional appeals arise from effective word choice and figurative language (metaphors). The logic of the message arises from the claims, both formal (analogical reasoning) and informal (enthymemes). Other rhetorical concepts included figuration in the text (e.g., metaphor, irony, metonymy, parallelism, antithesis) (Crawley & Hawhee, 2008). I also used Burke’s (1969) concepts of framing and identification. Framing defines the issue domain (environmental, economic, morality/ethics, political/human



rights). Identification creates resonance between speaker and audience by 1) establishing shared values (resembles ethos in classical rhetoric) or 2) demonstrating an alignment of interests. Identification may also create dissonance relative to out-groups by 3) showing how the speaker and audience has shared status in a privileged group versus “them”, the out-group others, 4) creating a dichotomy between “them” (the enemy) and “us” (allies), and 5) inviting the audience to take common action against the enemy. Sample codings are given in Table 5. I find that individuals often combine multiple tactics (see Table 6).

Table 5 – Coding Scheme for rhetorical tactics used in interrelationships between hearing transcripts and media

<b>Coding</b>	<b>Verbatim Examples</b>
Modes of argument: Ethos - establishing expertise of witness as authority on the oil sands, by referring to his other publications	<u>K. SPRAGINS - Papers Published Relating to Tar, Sands</u> "Mining at Athabasca" - Journal of Petroleum Technology, Oct, 1967. "The Canadian Challenge" - The Canadian Mining and Metallurgy Bulletin, December 1966. "Athabasca's Place in the Future" - Journal of Canadian Petroleum Technology, winter of 1963.
Modes of argument – Logos - other publications as supporting Syncrude's claims regarding limitations to foreign oil supply, during cross-examination	Q MR. LAYCRAFT [Counsel for Syncrude]: Are you aware that since 1953 no rights with respect to petroleum have been granted to foreigners by Venezuela? A MR. BALLEM [representative, IPAC (Independent Petroleum Association of Canada)]: That is close to correct. I am not enough of an expert to admit that exactly, but I had heard that sort of comment made. Q The Oil and Gas Journal at various times has shown the number of drilling rigs active in Venezuela as between twelve and eighteen. Do you have any information to either confirm or deny that figure? A No, I don't.
Modes of argument – Pathos - invoking negative emotions, worry, being threatened, uncertain	MR. GROOT [local resident opposing Total upgrader]: And it's just another thing, again, in my life, and it's just becoming too much, you know? I do worry about the -- what this is happening -- the stress to our lives, to the air that we breathe, to the natural beauty of the North Saskatchewan River valley, the flora, the fauna, to the rest of the environment, never mind, you know, global warming issues or climate change issues... and a lot of these things I allude to in my evidence that I've submitted.
Method of argument - Arguing from analogy – Total operations will be like those at Suncor with inevitable accidents	MS. BROWN[local resident opposing Total upgrader]: In March of this year there was an incident, the Suncor plant near Sherwood Park, and I just refer to that because I believe that it is an incident that could have easily have happened here. There was a lot of -- a black cloud. There were emissions into the air. Suncor called it a "process upset". Those are words that we are very familiar with. Wherever you have industrial facilities, there are going to be accidents. Even a responsible company will have accidents; and there will be process upsets, and there will be releases into the air.
(Re)framing of argument - economic/ market considerations as insufficient, environmental risks have become paramount	"UK pension funds have had the potential financial consequences of corporate environmental and social issues demonstrated to them," said Duncan Oxley, director of campaigns at FairPensions. "Pension funds need now take action to ensure future risks, such as those presented by climate change or tar sands investments, are properly managed."
Identification establishing shared values, demonstrating alignment of interests, and inviting common action	MR. GROOT [local resident opposing Total upgrader]: So, anyways, throughout these hearings which I've been involved in, and, Mr. Chairman, you've been involved in, I think, all of them as well, I've questioned often, you know, the things like indecisions made, there's talk about questions of need, questions of public interest, or statements of public interest, and -- but they've never really been talked about in a deeper sense.
Tropes - metaphor – describing the tar sands as a 'dirty secret', 'scandal' and governments 'in bed' with oil companies	Lush's website and other environmentalists call the tar sands "a dirty secret" involving "intrigue, big business, and a lot of scandal. Our governments have crawled into bed with big oil companies, and it's creating a mess for the people of Canada, and the world."

Table 6 – Verbatim excerpts, sample coding of tactics, and the aggregated strategies

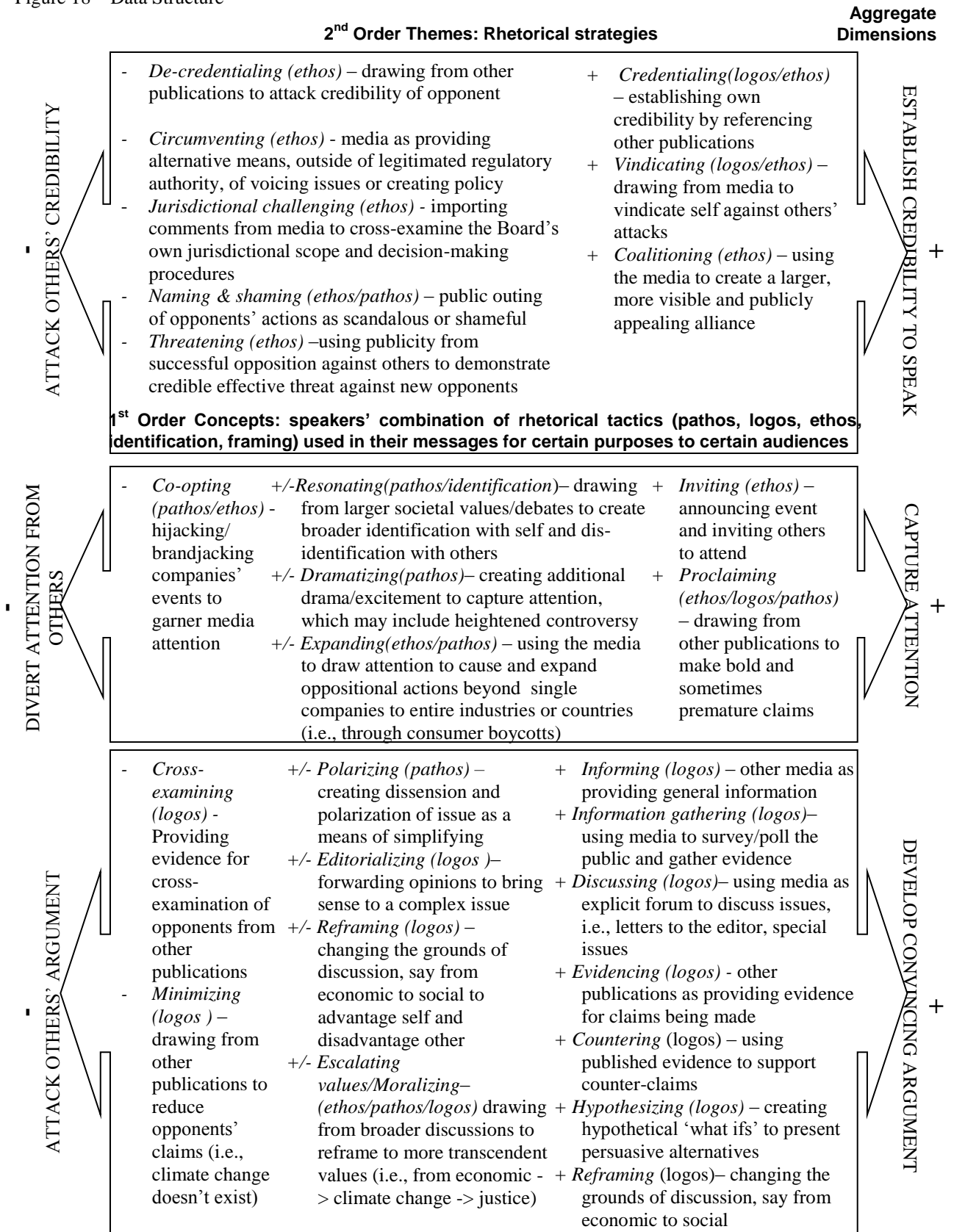
Verbatim excerpts	Coding of tactics	Rhetorical strategies
Q Mr. Bentein, could you give me an idea of what your average distribution is of your paper at the time when those polls were taken? A Yes, it was about 5,000. Q And the questions were actually printed in the paper? A Yes, they were- Q And it would be a matter of clipping out the questions and sending in the responses? A Yes. Q I notice in your submission you indicated that you are planning on filing the responses. Is that still your intention? A Yes, if the Board would like those. MR. MINK: I would, Mr. Chairman, because I was interested in the actual phrasing of the questions. THE CHAIRMAN: Yes, we would appreciate receiving those, Mr. Bentein. A Sure. Q MR. MINK: You mentioned that in your survey that “insincerity of government and big oil companies”. Could you elaborate on that, what exactly are people saying to or expressing that you are interpreting that there is this insincerity? A In actual so many words, in those exact words, a good many people used those exact words to express their concerns. There were people who paraphrased that, that statement by in essence saying that there were several statements to the effect of, well what good will it do, I am filling out this opinion poll but what good will it do to fill it out because the plant is going to go ahead anyway. So I think there is a distrust of government and a feeling that the whole review process is not going to accomplish anything. I think that has changed, but again this is a personal opinion. I think that will have changed in light of the questioning of the Board members and of the, of the questioning of the environmentalists last week.	+Ethos: establishing credibility to speak on behalf of a larger constituency +Logos: providing evidence of procedures followed  +/- Logos: providing these survey responses as evidence to the Board, for their cross-examination  - Logos/Ethos: attacking the credibility of the Board itself  - Pathos: invoking negative emotions, cynicism, distrust +Logos: drawing from Board’s past actions in the hearing, which demonstrate that they may consider environmental concerns afterall +Pathos: hopefulness	<i>Information gathering</i> – using the media to survey/poll the public and gather evidence  <i>Circumventing</i> – newspapers as providing alternative means, outside of legitimated regulatory authority, of voicing issues or creating policy <i>De-credentialling</i> – drawing from other publications to attack credibility of Board itself <i>Jurisdictional challenging</i> – importing comments from media to cross-examine the Board’s own jurisdictional scope and decision-making procedures

Stakeholders use a spectrum of inter-arena rhetorical strategies, based upon very sophisticated tactical combinations. So, I cycled between emergent data, themes, concepts, and dimensions and the relevant literature to determine if there are precedents or if I am discovering new concepts (following Gioia et al., 2013). Many terms and categories emerged early in this 1<sup>st</sup> order analysis in terms of the rhetorical tactics they employ. I find that stakeholders use sophisticated

combinations of positive and negative tactics to leverage across arenas, with differing targets and purposes, to appeal to various audiences. A workable set of themes and concepts was developed after coding the first and last hearings.

Then, I looked for similarities and differences among the many categories (similar to Strauss and Corbin's notion of axial coding), to determine if there is some deeper structure or 2<sup>nd</sup> order level of theoretical abstraction in the over-arching rhetorical strategies they employ. During this 2<sup>nd</sup> order analysis, I asked if these emerging themes help explain speakers' attempts to persuade within and across conversations – as nascent concepts that lack theoretical referents or as existing concepts that are particularly relevant to this domain. I was especially interested in how they are able to establish their credibility to speak (or attack others), capture attention (or divert attention from others), and create persuasive arguments (or undermine persuasiveness of others). Then, I coded the middle hearings to determine if I had 'theoretical saturation' (per Glaser and Strauss, 1967) and if it was possible to distill the emergent 2<sup>nd</sup> order themes on these aggregate dimensions – to positive invocations to establish their own position and superiority of their prescriptions or negative invocations/attacks to their rivals' positions and prescriptions. My resulting data structure is depicted in Figure 18.

Figure 18 – Data Structure



To analyze whether proponents and opponents draw on the same or different rhetorical strategies, I completed cross-tabulations of the strategies they use versus their position towards development. This gave me the relative frequencies that proponents and opponents use these differing strategies through time. I then returned to the coded sections to better understand the ways in which they used these strategies and the apparent influence on the resulting regulatory decision. In this manner, I make direct linkages between stakeholders' rhetorical strategies and the regulatory decision, rather than rely on indirect measures of similarity. These findings are presented and discussed in Chapter 7 for each hearing.

### **Summary: Using mixed methods to examine dynamic and multi-level contestations**

It is my intent to understand the evolving processes of meaning making for a centralizing resource – oil (and water by association) for Alberta's oil sands – over a 42 year span. I use mixed methods to examine the dynamic inter-connectedness of multi-level contestations of meaning (Schneiberg & Clemens, 2006).

I begin with my broadest research question: *How does the meaning of oil evolve through time?* To answer this, I follow other scholars in using computer assisted interpretive content analysis, to map stakeholders' 'vocabularies of meaning' (Fiss & Hirsch, 2005; Ferree et al., 2002; Pollack & Rindova, 2003). This is consistent with macro-level discourse analysis; the sum of "inter-related sets of texts, and the practices of their production, dissemination, and reception, that brings an object into being" (Phillips & Hardy, 2002: 3 following Parker 1992). By following the historical production, distribution, content, use and effects of such macro-level texts through time, discourse approaches are able to capture the functional use of communication, the interpretation and construction of meaning at the organizational or field level (Heracleous & Barrett, 2001).

From this macro discursive field level, I then zoom into meaning making within more micro-level contestations. My second research question is: *How do meanings within hearings become more similar to media discussions within which they are embedded?* For this, I use indirect gauges of similarity and difference, between the vocabularies being used in hearing conversations

versus the public media conversations within which they are embedded. This approach is consistent with institutional theory's conception of a (relatively) passive diffusion of meaning; over time the field becomes responsive to social pressures and voices rather than local technical demands, in the same way that organizations become responsive to broader, global pressures over time (Meyer & Rowan, 1977).

My analysis then focuses on the relative 'success' of stakeholders to influence the regulatory decisions, within these relatively private and insular hearings. My third research question is: *What becomes 'heard' in a regulatory decision and how?* Rather than relying only on the similarity of vocabularies of meaning, I examine stakeholders' direct and purposeful rhetorical strategies for leveraging across these arenas. This approach is consistent with an institutional work perspective, which highlights the effort and skill used by interested actors involved in creating, maintaining, or disrupting institutions (Lawrence & Suddaby, 2006). Rather than being merely a passive process of diffusion, meaning-making "throughout a field involves substantial institutional work on the part of organizational actors who must persuade others in their organizations of the merits of the innovation" (Lawrence & Suddaby, 2006: XXX).

Each of these research questions and my associated findings are presented in the next three empirical chapters. In my next chapter, I examine the labels that are attached to this resource and the underlying vocabularies of meaning and value, as used by stakeholders named in the media, from 1969-2011. This allows me to broadly survey the evolution of meaning of oil, while providing a historical overview of this resource.

## CHAPTER 5 – HOW DOES THE MEANING OF OIL EVOLVE THROUGH TIME?

### Introduction

By surveying the evolving conceptions of the oil sands, in this chapter, I answer: *How does the meaning of oil evolve through time?* To contextualize the discussion, I begin by outlining the drivers of media attention. Then, I discuss the labels attached to this resource. By examining the evolution of the underlying vocabularies of meaning around oil (and water by association) using meaning networks - from the genesis of commercial oil sands development in 1969, through increasing controversy, to 2011 – I glean three main findings. First, at field emergence, the central resource was oil. Through time, water became as central. Second, the focus was initially on technical meanings. Through time, this switched to symbolic meanings and social, environmental, and political values. Third, initially there was more coherence among local stakeholders. Through time, discussion became more global and fractured.

In the remainder of this chapter, I discuss these shifts in meaning in more detail. I use representative quotes from these LexisNexis articles, to highlight key points, naming speakers where possible. This provides an archival account of the descriptive and increasing evaluative vocabularies around the oil sands. It also provides the backdrop for my next two chapters to examine the construction of meaning within regulatory hearings, as related to these broader media discussions.

### Contextualizing the discussion: Exponential increase in attention to oil sands development

The LexisNexis search demonstrates that media attention has grown exponentially with an average yearly growth of 53% (see Figure 19 and 20). As the price of oil rises, so does media coverage. The annual number of articles is significantly correlated with the average nominal price of oil for that same year ( $R^2=0.83$ ).



Figure 19 – Number of LexisNexis articles on the Alberta oil/tar sands from 1969-2011

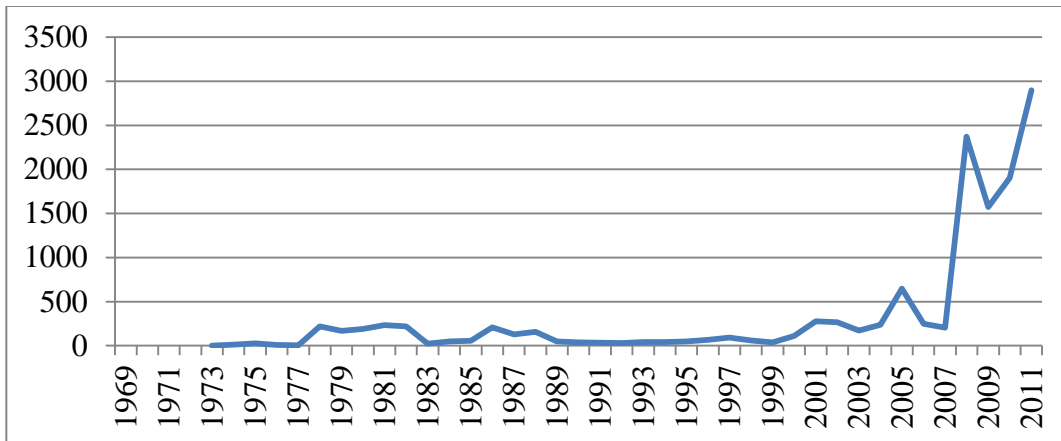
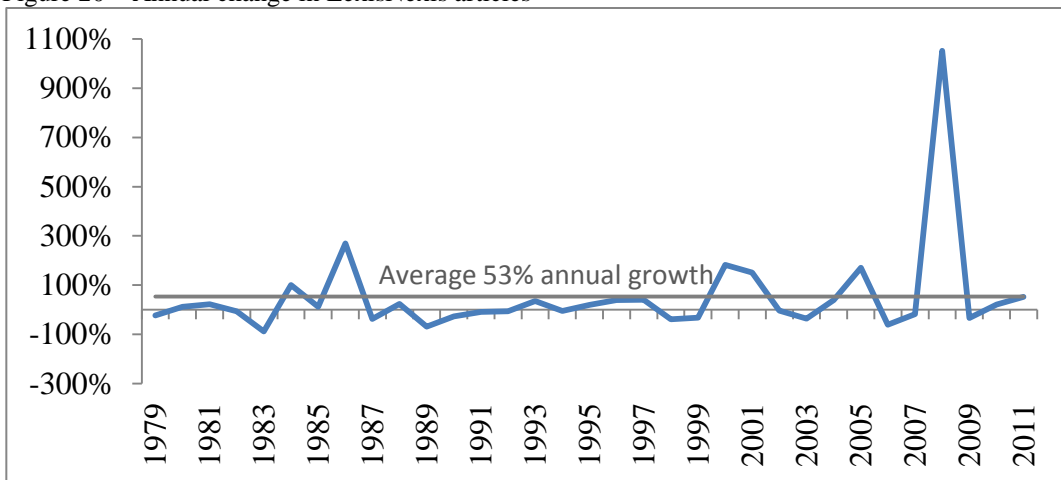


Figure 20 – Annual change in LexisNexis articles



Media coverage also appears to be event driven – focusing on project announcements, research reports, and criticism to development. The number of oil sands projects and upgraders (producing, not producing and proposed) doubled from 94 in 2008 to 179 in 2012. Media coverage of projects generally reflected smaller stories about specific projects being resumed, new oil sands investments (i.e., PetroChina), firms either increasing or decreasing their oil sands investments, costs pressures, and new extraction technologies. In 2010 alone, reports and studies were released Alberta Energy Research Institute, Cambridge Energy Research Associates (CERA), the Conference Board of Canada, the Council on Foreign Relations, Global Forest Watch, Greenpeace, Pembina Institute, Saskatchewan Environmental Society, the World Wildlife Fund, and the KAIROS delegation of church leaders (Gibbons, 2010).

Criticisms have been led by prominent political actors, such as Al Gore's hyperbolic statement that the oil sands "threaten our survival as a species", and Hollywood actors like Robert Redford, Mark Ruffalo, and Daryl Hannah and musicians like Neil Young have also publicly criticized the oil sands. Likewise, public criticism has increased with documentaries and other filmed focused on the oil sands. These include *Tar Nation* (produced by the Polaris Institute) in 2003, a *60 Minutes* documentary *Crude Impact* and Al Gore's *An Inconvenient Truth* in 2006; *H<sub>2</sub>Oil*, British documentary *Dirty Oil*, *Petropolis* from the cinematographer of *Manufactured Landscapes*, and the Academy Award winning *Avatar* in 2009. When *Avatar* was released, environmentalists pointed out similarities between the strip-mining on the planet Pandora and the oil sands in Alberta. The film's art director even stated that he had based some of his designs on oil sands operations. In March 2010, the Corporate Ethics Institute and 54 other ENGOs ran an advertisement in *Variety* magazine, prior to Academy Awards. This ad, entitled *Canada's avaTarsands*, was a callout to Director James Cameron and others in Hollywood "to "stop tar sands development that lock us into tar sands oil instead of transitioning to clean energy future". Gibbons (2010) found a total of 36 stories that linked *Avatar* and the oil sands, of which 31 were critical of the oil sands.

Environmental activists have also increasingly used protests to publicly criticize the oil sands, which have garnered greater and more sustained media coverage. These include:

- Greenpeace protests at oil sands sites in northern Alberta.
- ENGOs and residents' protests of regulatory hearings for new pipelines to transport bitumen.<sup>3</sup>
- Protests directed at financial institutions with oil sands investments (i.e., Royal Bank of Canada, Royal Bank of Scotland).
- General protests encouraging non-Canadian firms to divest oil sands holdings.<sup>4</sup>
- Protests and shareholder motions at annual meetings (RBC, StatOil, Total) to demand that these firms divest oil sands holdings.<sup>5</sup>

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<sup>3</sup> Opposition to the Encana's proposed Keystone XL Pipeline to take oil sands oil to Louisiana refineries has been led by Nebraska First! Opposition to the TransCanada pipelines Northern Gateway pipeline through northern BC to supply tankers from Kitimat has been led by Dogwood Initiative, Forest Ethics, Living Oceans Society, West Coast Environmental Law, and 'Save the Fraser Gathering of Nations' representing 61 First Nations.

<sup>4</sup> In April 2010, London Rising Tide/London Tar Sands Network protested for two weeks against BP. This 'Fortnight of Shame' preceded BP's Deepwater Horizon spill in the Gulf of Mexico, and were entirely directed against their investments in the oil sands.

<sup>5</sup> In April and May of 2010, environmentalists including FairPensions, a company espousing "responsible investment," tabled motions at the annual general meetings of BP and Shell

- Protests at international events, such as UN COP15 Climate Change Conference in Copenhagen<sup>6</sup> and the 2010 Winter Olympics in Vancouver, whose organizers were accused of “greenwashing” the event.
- Protests directed at foreign governments.<sup>7</sup>

Besides these protests, ENGOs have led to consumer boycotts against Alberta tourism<sup>8</sup> and consumer goods companies for using oil produced by the oil sands.<sup>9</sup> In the media, more was said about the environmental impact of the oil sands than about what is being done to lessen that impact. And Greenpeace’s claim that the oil sands have three times the carbon emissions as conventional crude was repeated more often than the expert estimation of emissions being 5-15% higher. These criticisms, protests, and boycotts have been more widely covered in all forms of media than the corresponding responses from the oil industry, the Alberta government, and the federal government combined (Gibbons, 2010).

There has also been increased international regulatory attention. Proposed federal and state legislation in the US and EU has been aimed at restricting the usage of fuels with higher GHG emissions. US Federal legislation includes the Waxman-Markley Clean Energy and Security Act of 2009, with clauses to specifically exclude the purchase by Federal Agencies of fuel derived from the oil sands. The bill was approved by the House of Representatives on June 26, 2009 by a vote of 219-212, but was defeated in the Senate. The California Air Resources Board (CARB) is awaiting a decision on Low Carbon Fuel Standard adopted in 2009 and enforceable January 1, 2012 that would discourage use of oil sands oil. A judge decided that the standard unconstitutionally discriminated against out of state fuel sources and regulated commercial

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demanding a full account of the risks involved in oil sands development. Although defeated, these motions were successful in attracting media attention.

<sup>6</sup> During the entire UN IPCC Copenhagen conference in 2009, there were protests targeting the oil sands throughout Copenhagen, at the Canadian embassy in London, and at the Canadian Parliament to ensure that the oil sands stayed in the news.

<sup>7</sup> In the summer of 2009, Greenpeace lobbied the Norwegian government withdraw state-owned Statoil from the oil sands. This garnered enough publicity and sympathy that Statoil’s activities in the oil sands became an issue in the fall 2009 Norwegian election.

<sup>8</sup> In June 2010, environmental groups sponsored billboard campaigns in Seattle, Minneapolis, Portland and Denver, dissuading tourism to Alberta. The billboards stated “Alberta: the other oil disaster” to compare Alberta’s oil sands to the ongoing BP Deepwater Horizon spill.

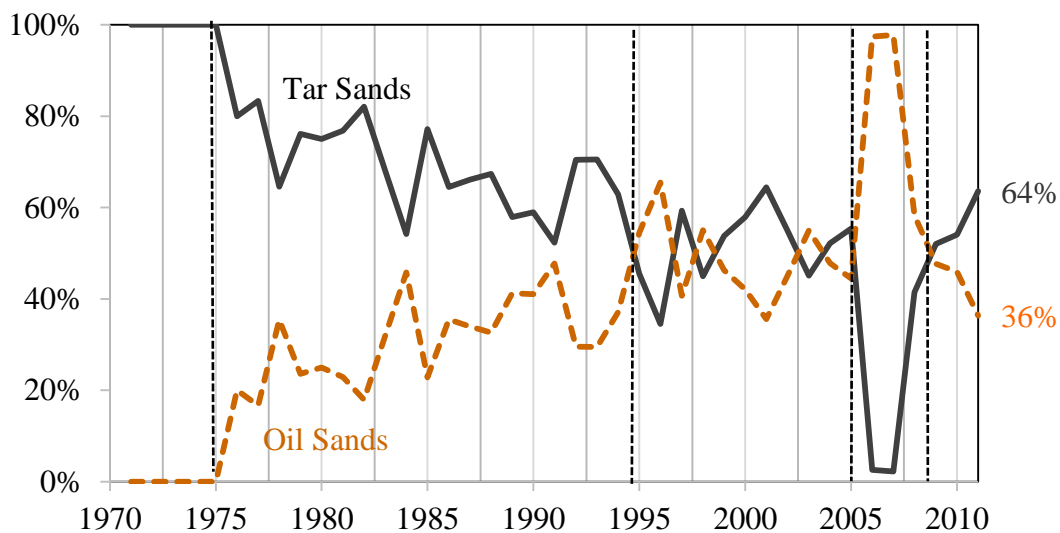
<sup>9</sup> ForestEthics lead a consumer boycott against ‘Toxic Tarsands Bananas’ from Dole and Chiquita Bananas to pressure them to stop using oil from the oil sands in their tankers and trucks.

activities outside California. CARB has appealed. The EU is also targeting the oil sands industry with its EU Fuel Quality Directive which labels fuel imports from the oil sands as ‘dirty’.

### What is this resource? Constructing labels

Different labels have been used to describe this resource through time; the most frequent being ‘tar sands’ and ‘oil sands’. Such labels also define our evolving understanding of ‘What is this resource?’ and ‘How may we use it?’ Figure 21 illustrates the relative frequency of these terms through time. Within these media articles, this resource was described exclusively as tar sands until 1975. In that year, Syncrude received concessions and tax breaks, garnering attention from governments and the public. Governments and the public were beginning to recognize that this was a resource with economic value. From 1995 to 2005, there was an increased back and forth of labelling. ‘Tar sands’ was being used interchangeably with ‘oil sands’ and ‘heavy oils’ to describe this resource is to outside investors, governments, and other interested parties. In 2005, with the Iraqi War, Asian growth, and weaker US dollar, the price of oil began its ascent. As this is considered an increasingly strategic and valuable energy source, this resource was described almost exclusively as ‘oil sands’.

Figure 21 – Relative frequency of the terms ‘oil sands’ versus ‘tar sands’ from 1970-2011 within LexisNexis articles



In 2008, as oil prices were increasing to the peak price of \$147/barrel, 1600 ducks landed on Syncrude's tailings ponds and died. The duck deaths were videotaped, posted online, and went viral. Higher media attention overall, during this highly visual and emotional event resulted in a frenzy of criticism. These images provided the perfect visual metaphor for the suffocation of nature and defilement of water that the opponents to development needed to capture broader attention. This resource again became 'tar sands' now appended as 'toxic tar sands' or as 'dirty oil'; a newly pejorative rather than merely descriptive label. To understand these meanings and values underlying these labels, next I explore the evolution of the vocabularies of meaning through time, visualized as networks of meaning. For illustrative simplicity, I have abridged these networks to word pairings that appear 20 times or more.

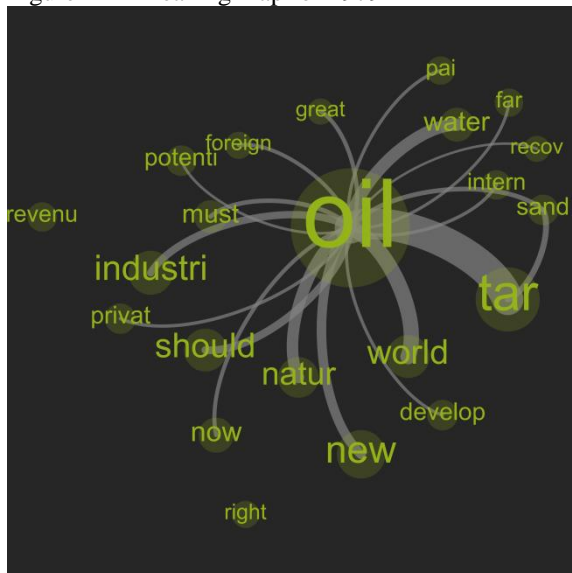
**At field emergence, the central resource was oil. Through time, water became equally central**

The oil sands were first mentioned in 1719 by Waupisoo, a Cree native assisting fur traders, who brought samples of oil sands to the Hudson's Bay post at Fort Churchill. For centuries, the development of this resource proved to be technically difficult, expensive, and politically challenging. Commercial development of the oil sands did not begin until the 1960, with Sun Oil's announcement of their \$110M Great Canadian Oil Sands project. This initial proposal was rejected by the Alberta Oil and Conservation Board on the grounds of economic inviability. In 1962, Alberta Oil and Conservation Board (later renamed Energy Resources Conservation Board - ERCB) approved the Great Canadian Oil Sands project. Design for the plant began, two years later construction started up with large-scale operations beginning in 1967. Meanwhile, Syncrude Canada (a consortium of four companies) is incorporated as a company and applied to the ERCB to develop Mildred Lake mine and upgrading. They are deferred, pending details on US Oil Importation Policy. The ERCB finally approved the Syncrude mine in 1969.

Besides the beginning of economic development, government involvement and environmental regulations also evolved during this period. The Federal Clean Air Act was promulgated in 1971. The Province created the Department of the Environment and passed Clean Air Act and Clean Water Act in 1972. The 1973 Arab oil embargo sets off first global energy crisis, prompting

governments to reconsider their petroleum development policies. So, when Syncrude's partner, Atlantic Richfield, withdrew support for the project in 1975, the remaining partners (Imperial Oil, Cities Services, and Gulf Oil) were able to convince provincial and federal governments to give concessions and tax breaks. Until 1975, this resource was described exclusively as 'tar sands', at which point it was beginning to be described as 'oil sands' – an increasingly valuable resource (see Figure 21). Iran-Iraq conflicts and the Iranian revolution resulted in the loss of 2.0-2.5 million barrels per day of oil production between November 1978 and June 1979. At one point, production almost halted. This loss of production from the combined effects of the Iranian revolution and the Iraq-Iran War caused crude oil prices to more than double, which prompted the Federal government to threaten a National Energy Program in 1979. For that year (see Figure 22), the predominant meanings were that the oil sands focused on development (vs. restoration), global (vs. local) interest, economic (vs. uneconomic) and efficient (vs. inefficient) in its operations, and future (vs. past) oriented. **Oil-tar-world** (in light green, Figure 22). The central portion of this figure illustrates a monovocal description of the industry, centered on oil. When abridged to word-word connections appearing more than twenty times, the side-conversations disappear.

Figure 22 – Meaning map for 1979



In 1980, the Federal government announced the National Energy Program with a suppressed 'made in Canada' oil price in the October budget. The program included new taxes on oil and gas,

limiting foreign ownership by restricting permits for production to companies with at least 50% Canadian ownership, establishing grants and subsidies under a “Petroleum Incentives Program, requirements for all producers to purchase Canadian goods and services, a special tax for Ottawa to buy out foreign-owned firms, reserving a 25% Crown interest on current and future leases, and incentive grants to drill in remote areas. Also in 1980, the Constitution Act gave each province the exclusive right to make laws in relation to the development, conservation and management of natural gas in the province. Alberta threatened to separate from the rest of Canada. Finally, in 1985, the Federal government deregulated oil prices and opened Canada's borders to imports and exports by rescinding the NEP. Meanwhile in 1983, the ERCB granted approval to Exxon/Imperial Oil's Cold Lake in situ project. Commercial production began in 1985. By 1989, oil sands production at Cold Lake exceeded 22,260 cubic metres (140,000 barrels) per day. During this time period, environmental concerns were also beginning to emerge. In 1992, at the UN Conference in Rio, Canada and >160 nations adopt sustainable development principles and agree to limit emissions of greenhouse gases.

In 1995, the Oil Sands Task Force publicly announced its activities. It was designed by corporate leaders to encourage investment in the oil sands by getting the two levels of government to make significant changes to their policies, including to the tax and royalty regimes to promote oil sands development. That same year, both Syncrude and Suncor announced plans for expansions to their base operations. In 1997, the National Task Force for Oil Sands Strategy made further recommendations to stimulate investment. This led to amendments to the Federal *Mines and Mineral Act* and the Provincial *Oil Sands Royalty Regulations*. In 1999, the Energy Utilities Board (EUB, renamed from ERCB) granted approval to Shell Canada for its Muskeg River Mine oil sands development. By 1999, oil sands and heavy oil production exceeded that from conventional wells.

The meaning network in 1999 is not very dense or closed; when we abridge it to connections occurring more than 20 times, all that is remaining is **oil-tar** (in purple); a narrowly descriptive conversation of the industry (see Figure 23). Three distinct topics of conversations collapse. The focus has remained on local (vs. previously global) effects and on restoration/recycling (vs.

development), while man (vs. nature) has risen in predominance while economic (vs. uneconomic) has sunk.

Figure 23 – Meaning map for 1999



In 2000, major expansions were completed at Joffre and Fort Saskatchewan, Alberta, two of the world's largest ethylene-based petrochemical plants. Muskeg River Mine and Upgrader started producing oil in 2002. Muskeg River is part of the Athabasca Oil Sands Project, a joint venture among Shell Canada (60%), Chevron Canada Limited (20%) and Marathon Oil Sands L.P. (20%). That same year, unconventional reserves became recognized by the US Securities Exchange Commission (SEC). In-situ processes were demonstrated as being economically feasible to access reserves, moving this resource from being 'probable' to 'proven' reserves. This placed Canada as holding the second largest proven oil reserves in the world, behind Saudi Arabia. Given this, the international bellwether *Oil and Gas Journal* started listing the oil sands in its annual world inventory of reserves. In 2004, the EUB issued approvals for both Shell Canada's Jackpine mine and Canadian Natural Resources Ltd's Horizon project. The oil sands were now producing one million barrels of oil per day. In 2005, three days after Hurricane Katrina damaged the US's largest energy hub in Louisiana, gasoline prices surged to well above \$3 a gallon.

Meanwhile, on the anti-development side, the Kyoto Protocol was ratified by Canada in 2002, without specifying the mechanisms by which these targets would be achieved. Industries and provinces disagreed as to how GHG reductions should be allocated. During this time, ENGOS were becoming increasingly vocal and active, describing the oil sands as a 'giga-project', a source of 'dirty fuel' and 'dirty gasoline'.



In 2005, oil production was becoming a world-level discussion, with increasing demand from China and India pushing world prices to \$60/barrel. Supply remained flat, especially with Hurricane Katrina devastating Gulf rigs. These combined effects were drawing new attention and investment in the oil sands. 'Tar sands' was used interchangeably with 'oil sands' as market analysts and business reporters explain this resource to US and other foreign audiences, just like they explain that the Canadian dollar is the 'loonie'. The oil sands were becoming a newly economic resource, requiring explaining to business communities and the public more broadly. This became a labeling dispute, as Albertan companies were continually trying to rename this resources 'oil sands' rather than 'tar sands'.

The industry and governments were also facing increased criticism of their environmental practices and regulation, even as the price of oil was hitting record prices of \$147/barrel. In April, 1600 migrating ducks landed on Syncrude's tailings pond and died. Syncrude was charged with several provincial and Federal offenses. They refused to plead guilty, which resulted in an investigation and trial that lasted two years. The governments of Alberta and Canada released *Canada's Fossil Energy Future: The Way Forward on Carbon Capture and Storage*, which provided advice on how governments and industry could work together to facilitate and support the development of carbon capture and storage opportunities in Canada. On July 8, Premier Ed Stelmach announced a \$2 billion fund to advance carbon capture and storage (CCS) projects in Alberta to reduce emissions by up to five million tonnes annually, by 2015. The Albertan government promulgated regulations that capped GHG emissions from Large Final Emitters, with overages 'fined' at \$15/tonne CO<sub>2</sub>e. Effectively this created a market for CO<sub>2</sub>.

Andrew Nikiforuk's critical book, *Tar Sands: Dirty Oil and the Future of a Continent*, was published in 2008. The labelling war was in full force. The Government of Alberta then published *Alberta's Oil Sands: Opportunity. Balance.* This included a definition of:

Tar sands vs. oil sands: The use of the word tar to describe bitumen deposits is inaccurate. Tar is a man-made substance produced by the destructive distillation of organic material. Bitumen may look like tar, but it is naturally occurring. Oil sands is the correct term for the bitumen deposits of northern Alberta.

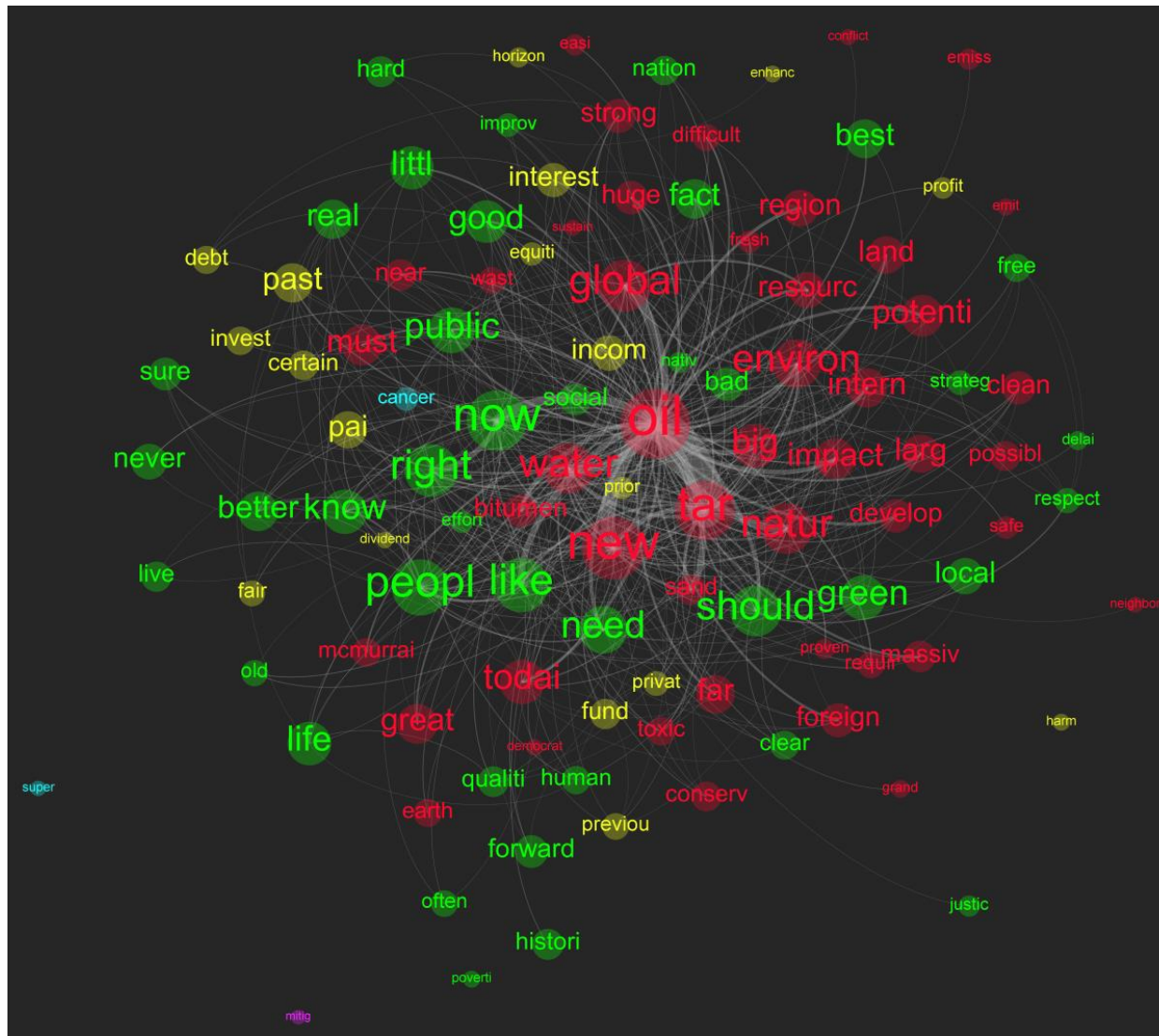
In August, the British Advertising Standards Authority (ASA) ruled that Shell had misled the public in an advertisement when it claimed that a \$10 billion oil sands project in Alberta, Canada was a "sustainable energy source". This labeling war had become international.

The 2008 meaning map (see Figure 24) still illustrates the focus is on economic (vs. uneconomic) effects, global (vs. local) interests, and future and present (vs. past) and development (vs. restoration). The meaning cluster of **Oil-water-new-tar** (in red, Figure 24) represents discussions that years of underinvestment had left drilling and oil field construction underprepared for the current boom in demand. So, crude producers scoured the globe to find and develop increasingly remote, unconventional, environmentally impactful, and costly oil reserves. Material costs, labour shortages, and delays were also rising, such that supply was unable to rise to meet increasing demand.

This figure also shows that discussion was no longer dominated by one main discussion. In 2008 and onwards, water (and tar as the newly pejorative variation of 'oil') has become a central resources in the discussion. This refocusing of the discussion was catalyzed by the 1600 duck deaths on Syncrude's tailings ponds, followed by 500 more shortly thereafter, causing the oil sands to become emblematic of everything wrong with the oil industry. This focused international attention on the increasing concerns amongst Aboriginal peoples about contamination of the Athabasca River, which represents an effort to balance the technical utility of oil with the life affirming essence of water.

Members of the Athabasca Chipewyan First Nation and the Mikisew Cree First Nation and environmental and social justice advocates traveled to Calgary today [June 16, 2008] to the Oil and Gas Investment Symposium.... 'Investors need to know that our land, our lakes and our people are being poisoned by tar sands development so they can decide, with full disclosure, if they still want to put their money in a human rights and environmental nightmare,' said Lionel Lepine, a member of the Athabasca Chipewyan First Nation. The environmental groups and First Nations will be challenging investors to drink water taken directly from Fort Chipewyan.

Figure 24 – Meaning map for 2008



The year 2009 began with the Green Group – CEOs, presidents, executive directors of largest ENGOs in Canada and US – meeting at Arlie Centre, a retreat one hour from Washington. At this meeting, Canadian ENGOs convinced US ENGOs to turn their focus against Canada’s booming oil sands. Meanwhile, after a yearlong investigation, Syncrude was formally charged for the duck deaths under Provincial and Federal laws. ENGOs were becoming more critical and vocal of the oil sands. As President Obama planned a visit to Canada, environmentalists told him to discuss how Canada is turning a blind eye to tar sands problems and preventing the development of America’s new energy future: “President Obama, you’ll never guess who’s standing between us and our new energy economy”. *National Geographic* published 16 pages of critical images and text of the oil sands mining operation and tailings ponds under the title “Scraping Bottom”. This cover feature, along with the duck deaths in 2008, portrayed the oil sands as a visual blight and environmental disaster. US House and Senate each passed clean energy bills. The *American Clean Energy and Security Act*, also known as the *Waxman-Markey Bill*, enjoyed broadly based support from the environmental lobby and the oil industry, including companies with stakes in developing ‘green’ energy and in the oil sands like BP, ConocoPhillips, and Shell. The Senate’s bill, the *American Clean Energy Leadership Act* (S.R. 1462) amended the *Energy Independence and Security Act* (2007) that banned federal purchases of alternative or synthetic energy sources that have higher greenhouse gas emissions than those of conventional fuels. A section that originally targeted the Defense Department’s plans to buy coal-to-liquid fuels was expanded to also ban oil sands. Meanwhile, indigenous rights campaigners were becoming much more critical and international in their efforts, visiting the UK to raise awareness of human rights and health violations.

In 2010, Boston based Green Century Funds and UK based FairPensions initiated a series of shareholder resolutions at the annual meetings of BP, ExxonMobil, ConocoPhillips and Shell, asking companies to increase disclosure of the environmental and social risks associated with their oil sands projects. In March, the Corporate Ethics Institute with 54 other US and international ENGOs ran a *Variety* magazine advertisement entitled *avaTarsands*, prior to Academy Awards as a callout to James Cameron “stop tar sands development that lock us into tar

sands oil instead of transitioning to clean energy future”. James Cameron visited the oil sands in September and gave a measured response. “It will be a curse if it's not managed properly. It can also be a great gift to Canada and to Alberta... This thing is big... The world is looking at what you in Alberta do and the decisions that are made here are really going to shape the energy policy of the future”.

In April, BP shareholders defeated a motion calling for review of oil sands operations but Tony Hayward, BP's CEO, publicly pledged to not use open pit mining in oil sands operations. Later that month, an explosion at BP's Deepwater Horizon killed 11 men and injured 17 more working on the platform. The well flowed unabated for three months, after it released 4.9 million barrels (780,000 m<sup>3</sup>) of crude oil into the Gulf of Mexico. It was the largest accidental marine oil spill in the history of the petroleum industry.

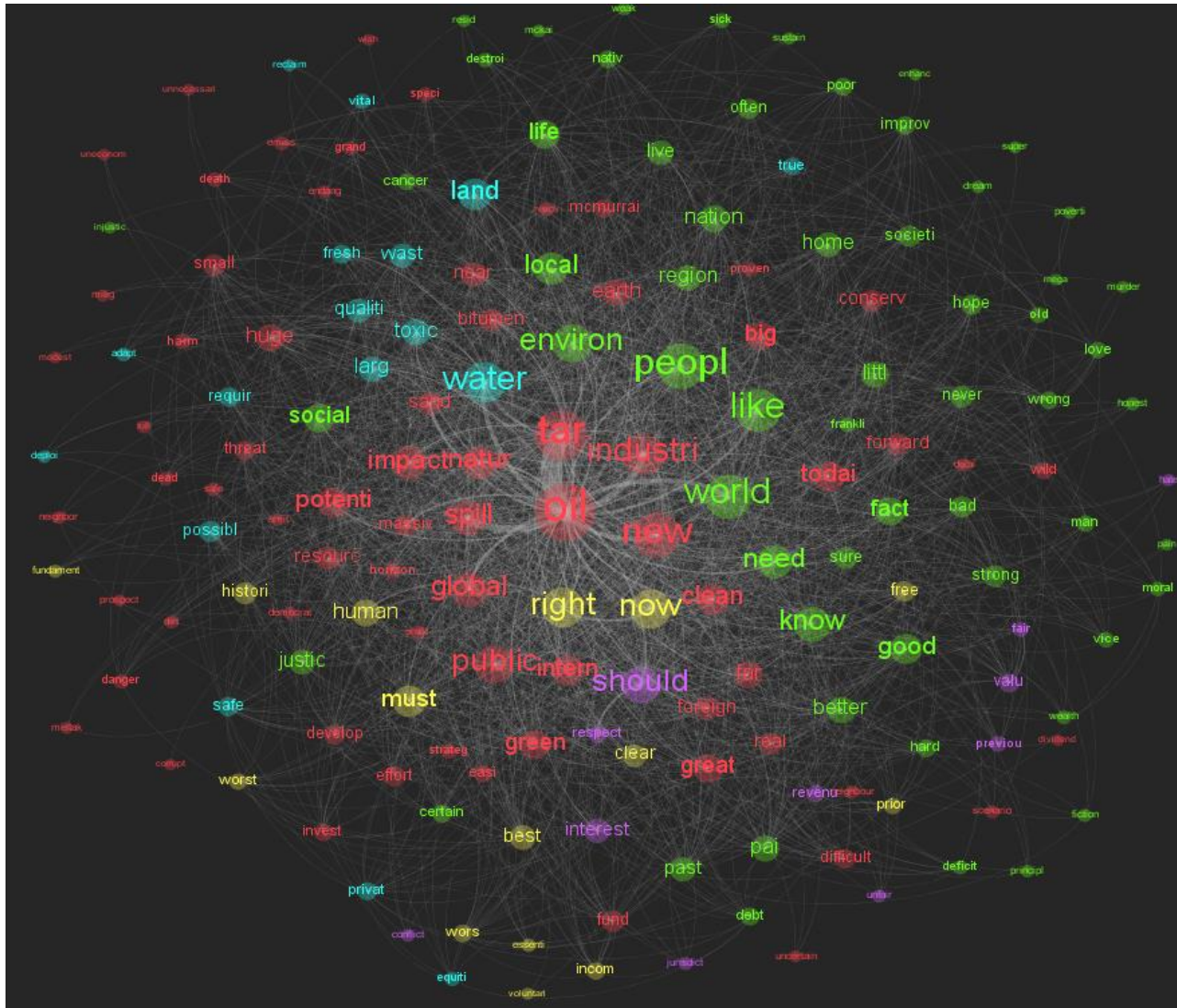
International criticism was mounting. A May 10, 2010 Editorial in *The Guardian* classified the oil sands as more dangerous than the BP oil spill “Canada's tar sands: a dangerous solution to offshore oil/Alberta is the 'safe' option for US oil needs – but its tar sands are far more environmentally damaging than Deep Horizon”. James Hansen of the Goddard Institute for Space stated that “oil sands should be left in the ground”. In June 2010, Syncrude was found guilty on two charges: a provincial charge of failing to prevent a toxic substance from harming wildlife and a federal charge of depositing a substance harmful to migratory birds. Syncrude was ordered to pay \$3 million in penalties for the deaths of 1600 ducks. Meanwhile, Suncor announced regulatory approval of a newly accelerated tailings management plan. In August, Dr. David Schindler et al. published findings on oil sands' contributions to toxin levels in the Athabasca River in the *Proceedings of the National Academy of Science of the United States of America*. The *Calgary Herald* challenged Dr. Schindler's scientific conclusions while the *Edmonton Journal* refers to him as the ‘canary in the coalmine’. The National Wildlife Foundation stated that TransCanada over-inflated job estimates for construction of the proposed Keystone XL pipeline, to take advantage of economically depressed US. In October, the EU contemplated the listing of the oil sands in their directive on fuel quality. They chose to delay their decision based on the lack of scientific data. A report submitted to the Federal Minister of Environment on the oil sands

identified significant deficiencies in reporting consistency and processes. The year 2010 ended with the Wilderness Committee awarding Canada the 'Fossil of the Year' award for its failure to reduce GHG and other emissions.

In response to mounting criticism, the Oil Sands Leadership Initiative (OSLI) was created as "a collaborative network between ConocoPhillips Canada, Nexen Inc., Statoil Canada, Suncor Energy Inc. and Total E&P Canada" [that has] "come together to serve one common goal: improving the oil sands industry's reputation by demonstrating and communicating environmental, social and economic performance and technological advancements." Self-proclaimed free-speech advocate, Ezra Levant, published his book *Ethical Oil* in September, stating that the oil sands have favourable human rights and environmental practices, as compared to conflict oil countries. This served to enrage critics.

In 2010, the meaning network is focused now on nature (vs. man), global (and local) interests, and the clean vs. dirty debate. **Oil-tar-industri-new-spill** (in red, Figure 25). Earlier in April, the Nebraska State Department published a draft report giving the proposed Keystone XL pipeline a favorable environmental score, just days before the Gulf Oil spill hit. Other oil-related disasters followed, including Enbridge's broken pipeline that spilled hundreds of thousands of gallons of oil into the Kalamazoo River in Michigan. The discussion of oil sands development was now being linked to leaking pipelines and BP's Gulf oil spill. This armed pipeline opponents in the US and Canada - especially Enbridge's proposed Northern Gateway pipeline and operating Vancouver port pipeline - with safety arguments and costs of damage. Pipelines, safety, and environment became central to the discussions of the oil sands.

Figure 25 – meaning map for 2010



This led to broader mistrust of petroleum companies: “big oil companies do not always tell the truth”. Likewise, pipeline companies have become mistrusted.

Tankers already using Vancouver as the tar sands shipping port! Protect the Salish Sea and BC coast from an oil spill! Cost of a spill: Based on other recent spills, we estimate the financial damage from a large spill in this region would be \$10-50 billion, devastating our fishing, tourism, harbour, conventions, seaside businesses, and our region's green reputation.

Financiers were also being questioned. In response to the Rainforest Action Network's protests at its AGM, the Royal Bank of Canada set new environmental and social standards for financing high-impact sectors including Canada's tar sands. “With RBC's new policy, the banking giant has made a promise to take responsibility for its financing in the tar sands and to uphold the rights of First Nations. RBC is raising the bar for the financial sector and signaling to oil and gas corporations that it is time to take environmental and human rights seriously,” said Brant Olson, campaign director for the Rainforest Action Network.

**Water-toxic-land** (in blue, Figure 25). The oil sands were increasingly described as ‘toxic tar sands’ with ‘toxic tailings ponds’. “These vast tailings ponds are so toxic that the tar companies employ people to scoop dead birds off the surface.” Tar sands production was being blamed for speeding up climate change, destroying land, forests and water, and harming Indigenous peoples. This toxicity is also being carried by pipelines. “This toxic [Keystone XL] pipeline would put American drinking water, air, and farmland at great risk,” said Sierra Club Dirty Fuels Campaign Director.

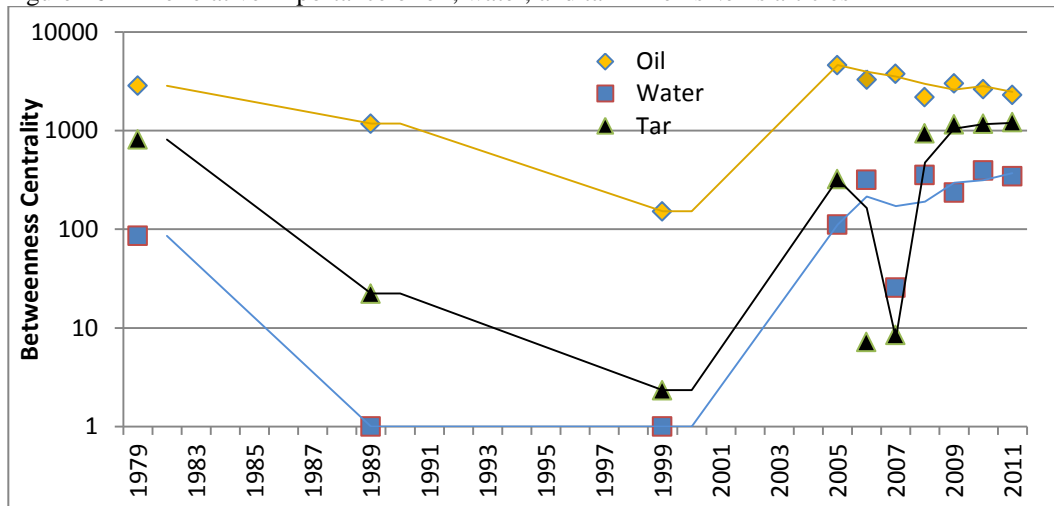
In 2011, international ENGOs further increased their campaigns against the oil sands and Keystone XL and Northern Gateway pipelines. Yet, the Alberta Government postponed its environmental standard policy group meetings. And when Prime Minister Harper was re-elected in May with a majority government, he pledged that there would be no major changes in federal management of the oil sands. The third draft of the Alberta Government's Lower Athabasca Regional Plan (LARP) was approved and posted in August and received sharp criticism from ENGOs. The governments of Canada and Alberta have been waging a taxpayer-funded campaign against the European Union's science-based proposal to label tar sands oil as a “high-carbon fuel.” And both governments have only recently admitted that the tar sands are having a negative impact on the Athabasca River, rather than insisting that contamination found was “naturally occurring.”



In December, the Canadian Federal Government withdrew from the Kyoto Protocol to avoid \$14B in penalties for noncompliance.

In sum, during field emergence, oil (and tar as its descriptive synonym) was the uncontested resource of interest in this discursive field. Figure 26 illustrates the relative centrality of oil, water, and tar within media discussions of the oil sands from 1979 to 2011. As oil increased in economic value, proponents of development successfully detached ‘tar’ from the conversations, and oil remained central while tar diminished. The label ‘tar sands’ was reintroduced in 1999 as a means of describing this resource to outside investors, then dropped off again. Meanwhile, water joined the oil-tar discussion in 1999 as a means of describing the refining process, then cleaved off into its own discussion in 2009 onwards, now paired with ‘toxic-land’. Water has become as frequent and fateful as oil.

Figure 26 – The relative importance of oil, water, and tar in LexisNexis articles



**At field emergence, the focus was on technical meanings. Through time, this switched to symbolic meanings and social, environmental, and political values.**

This second finding reaffirms the first. In 1979, the predominant meanings for the oil sands focussed on technical definitions: development (rather than restoration), global economic (versus local uneconomic) interests, efficiency (rather than inefficiency) in operations, and future (versus past) focus. The main challenges were the technical requirements of the task at hand – how to

separate oil from sand, easily and cheaply. “Syncrude Canada Ltd. expects to have the second production train at its Fort McMurray, Alta., tar sands plant back in operation by mid-April [1979]. The plant has been operating only one unit because of technical problems in the second [unit] and extreme cold weather, which has delayed repairs.” These remained the predominant meanings through 1980 to mid-2000s.

From 2008 onwards, proponents’ economic and efficiency claims diminished and were attacked by opponents. “The tar sands have become Canada’s ever expanding black hole and by the end of this conference we’re hoping investors see that the same hole will sink their money,” said Leah Henderson of ForestEthics. The vocabulary switched focus to nature from man, to death from life. “Migratory bird deaths at a Syncrude tailings pond in April delivered another public-relations blow to tar-sands companies.” Meanings became focussed on global, new, now, future and ethical and the normative ‘clean vs. dirty’ debate exploded.

Figure 27 illustrates the relative frequency of these dictionaries of meaning and value for the entire 42 years (1969-2011) and Figure 28 focuses on 2004-2011. From this, we can see that there was a shift in meanings from pre-2008 versus 2009 and afterwards. The discussion switched to nature from man, to death from life. Economic and efficiency claims diminished. Meanwhile discussions regarding global, new, now, future and ethical became even more dominant. And the ‘clean vs. dirty’ debate exploded in 2008 onwards.

Three of these paired dictionaries are technically based meanings - development/recycling, economic/uneconomic, and efficient/inefficient. While three of these are more social/political values - life/death, clean/dirty, nature/man. In examining the relative predominance of these meanings and values through time (see Figure 29), we can see the shift from technical to political/social meanings.

Figure 27 – Frequencies of vocabularies of meaning through time in 12,533 LexisNexis articles, 1969-2011

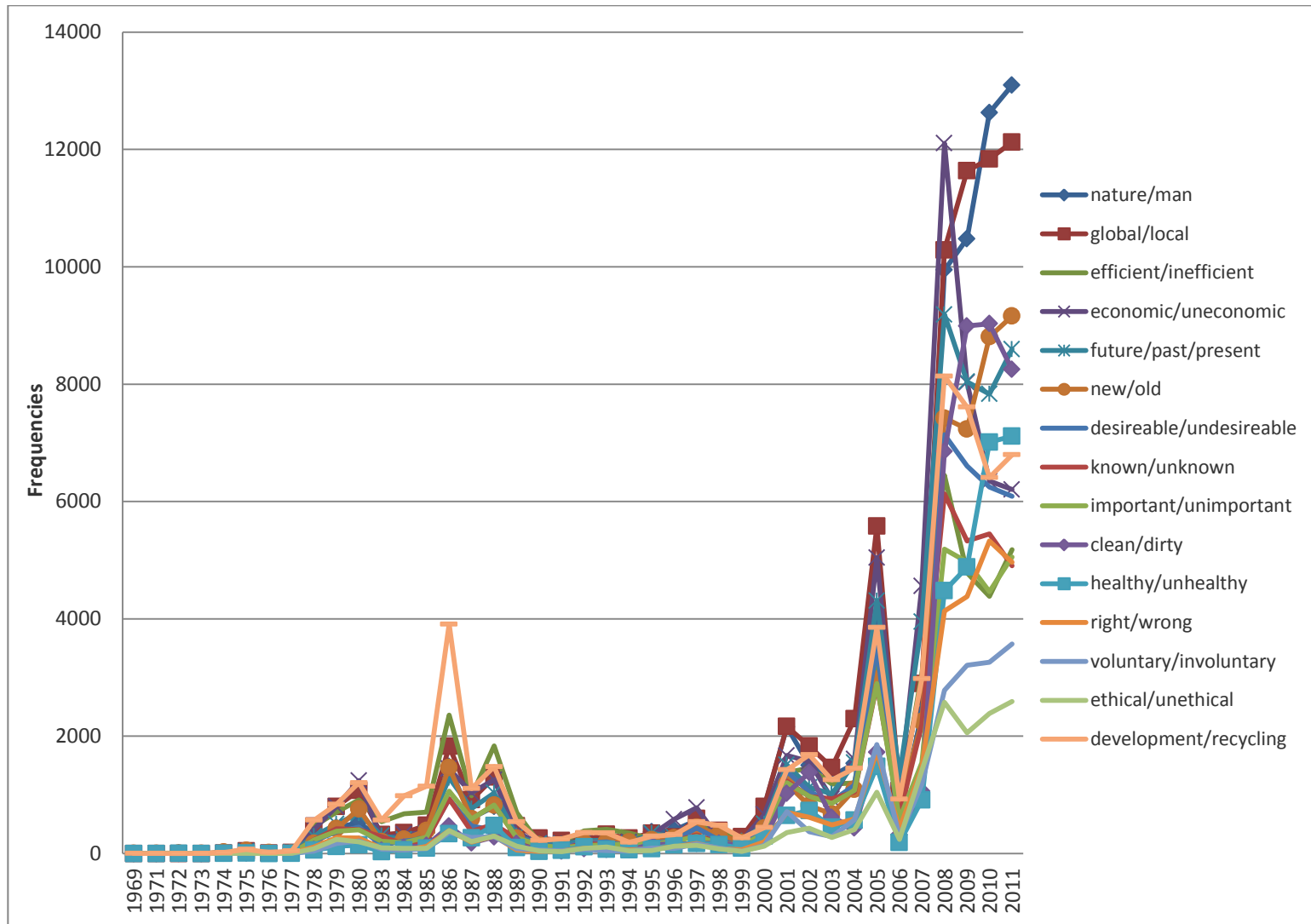


Figure 28 – Frequencies of vocabularies of meaning through time in 12,533 LexisNexis articles, 2004-2011

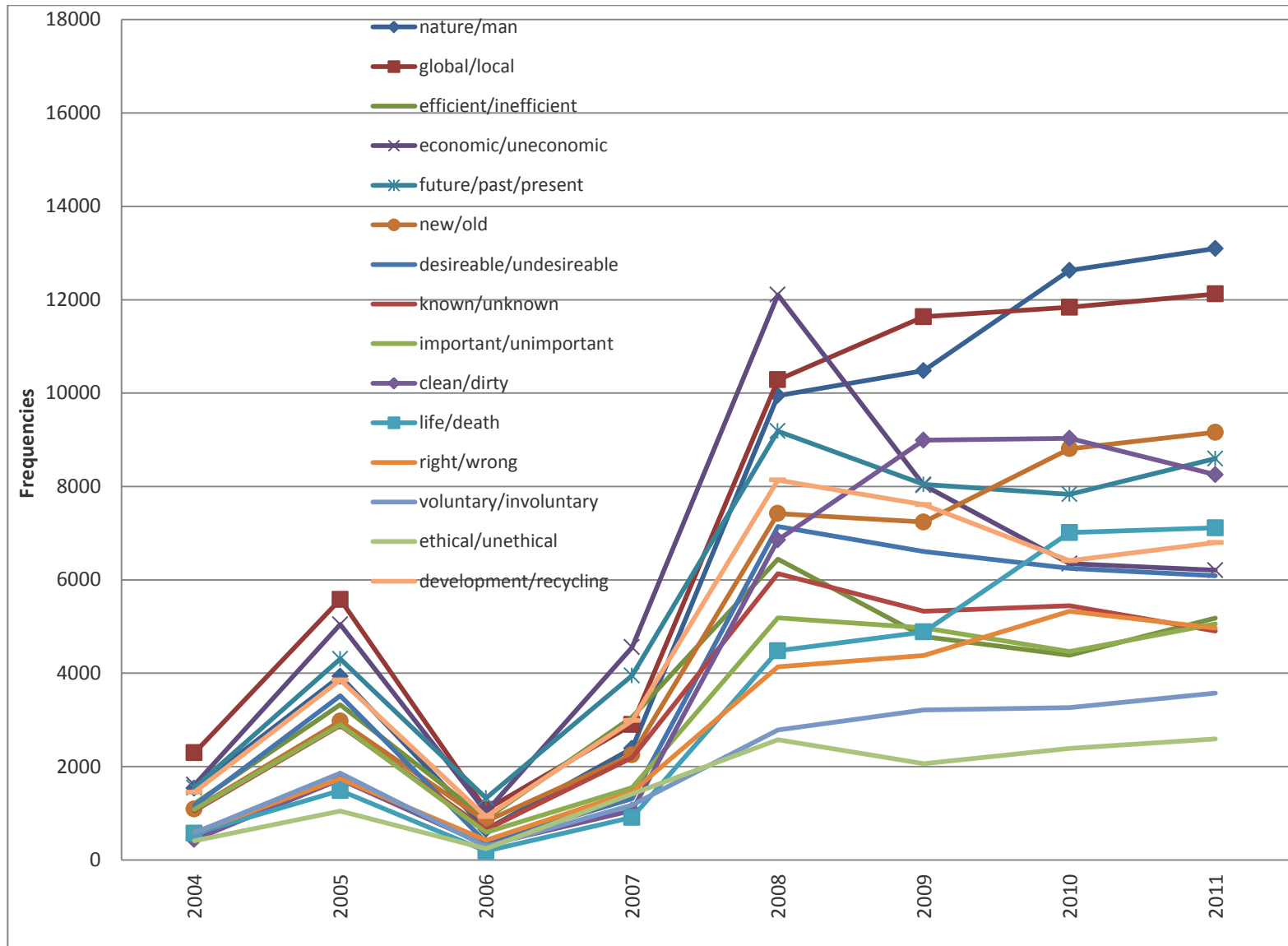
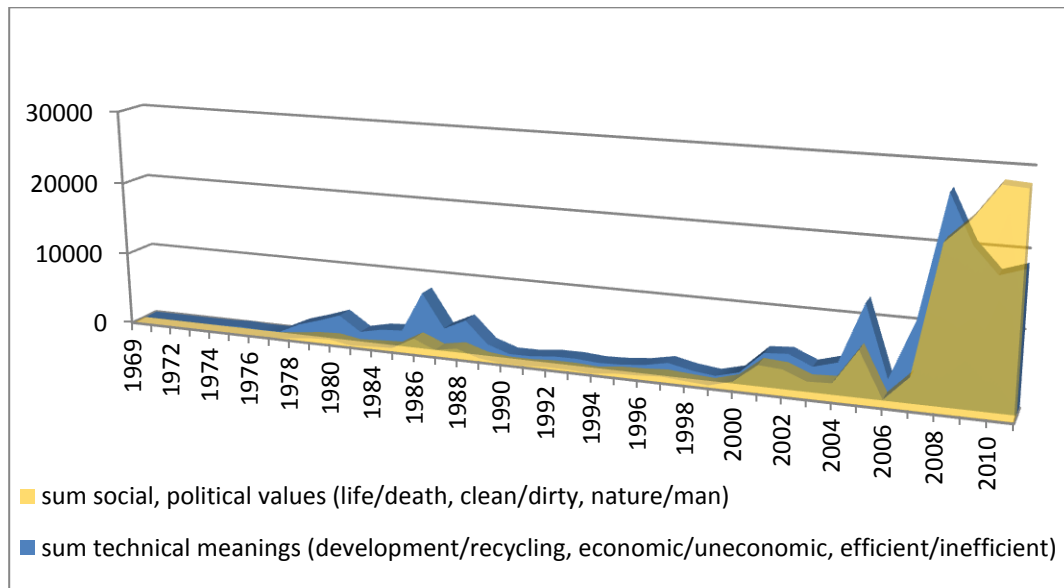


Figure 29 – Relative predominance of technical meanings versus social/political values 1969-2011



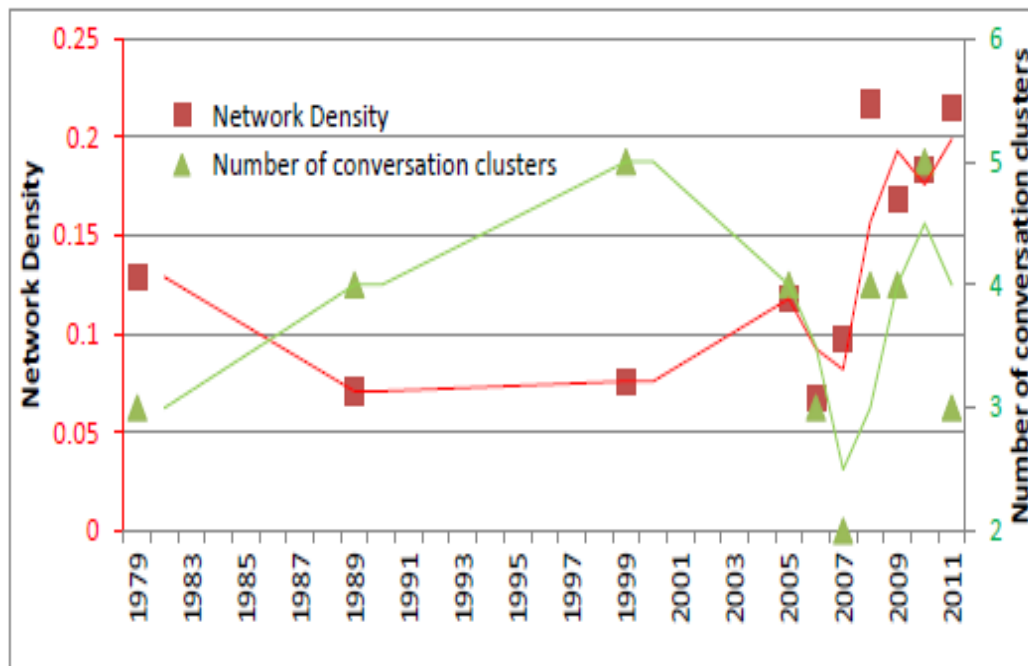
These symbolic values were being carried internationally. “A seemingly unstoppable momentum is gathering in the United States to not buy dirty tar-sands oil. If Mr. Obama becomes president, he would likely shut the borders to it.” Rare for US politics, this opposition to the oilsands was bipartisan. Sen. John McCain, Republican presidential nominee, “called last year to expand California’s low carbon fuel standard, which measures the amount of greenhouse gases needed to produce fuel and punishes use of ‘dirty’ heavy crude oil in favor of conventional light crude or alternative fuels.” This demonstrates that this resource is being defined, in Selznickian terms, “beyond the technical requirements of the task at hand”, with international regulatory consequences.

**At field emergence, there was more coherence among local stakeholders. Through time, discussion became more global and fractured.**

Building on my previous findings, in the beginning, there appeared to be greater agreement as to the common meaning systems and logics that guided activities and defined successful ways of operating in the field. Alberta industry and government alike recognized the challenges as being technical and economic. Conversations around the oil sands were mono-vocal and centered on

descriptively technical/economic meanings, as demonstrated by the meaning networks. As an example, in April 1979, “D.W. Menzel, Shell senior vice-president, said Alsands [like Shell] also wants the Alberta government to agree to a revenue-sharing arrangement rather than a flat royalty arrangement.” In June 1979, “Alberta Premier Peter Lougheed is expected to announce the signing of various agreements, including one between the United States and Canada, on oil sands research.” This field-level consensus continued until 2007. Conversation was relatively dense (see red trendline, Figure 30), as discursive stakeholders were talking amongst themselves and making sense of this resource. And there is relative agreement among these discursive stakeholders as illustrated by the lower number of different conversation clusters (green trendline, Figure 30). Interestingly, the density of discussion and the number of conversations appear to decouple from 1987 to 2007. Attention appears to be dispersed and fragmenting. And in 2007, there appears to be a turning point.

Figure 30 – Degree of interconnectedness of discussions (density) and conversation clusters



In 2008, as oil prices were reaching their zenith (\$147/barrel) and media attention was peaking (1100% increase over 2007), the deaths of 1600 migrating ducks on Syncrude’s tailings pond were videotaped, posted online, and went viral. Snuff porn of dying ducks, smothered by tar, became

the new global symbol for the oil sands. This expanded the density of discussion amongst a greater constituency of meaning-makers in the discursive field – from local to global – and fractured the consensus into dissension (exploding from 2 to 5 conversation clusters).

In sum, these symbolic values also transformed regulations globally. The British Advertising Standards Agency ruled that Shell had misled the public when it claimed in its advertising that a \$10 billion oil sands project was a ‘sustainable energy source’. US House and Senate passed clean energy bills - the *American Clean Energy and Security Act* (also known as the *Waxman-Markey Bill*) and the *American Clean Energy Leadership Act* (S.R. 1462) - and amended the *Energy Independence and Security Act* (2007), which banned federal purchases of energy that have higher greenhouse gas emissions than those of conventional fuels. The EU’s proposed Fuel Quality Directive, which specifically targets the oil sands, remains under consideration (Cattaneo, 2013). This third finding reflects Meyer and Rowan’s (1977) observation that over time the field becomes responsive to social pressures and voices rather than local technical demands.

### **Summary: The evolution of the meaning of ‘oil’ through time**

In this chapter, I answer: *How does the meaning of oil evolve through time?* I discuss the drivers of media attention – expanded industrial development given the rising price of oil, environmental activism and protests, and international regulation specifically targeting the importation of oil from the oil sands. To understand these changing vocabularies around the oil sands, I examine the relative predominance and combination of words used in public conversations in media articles. These vocabulary frequencies and networks are an intuitively descriptive method of illustrating the changes in meaning. I find that within macro-level media discussions of the oil sands, the meaning shifts from oil to water, from technical meanings to social/political values, and from local agreement to global disagreement.

Next, I examine the interrelationship between meanings and values of oil in media versus hearings.



## **CHAPTER 6 – HOW DO MEANINGS WITHIN HEARINGS BECOME MORE OR LESS SIMILAR TO MEDIA DISCUSSIONS?**

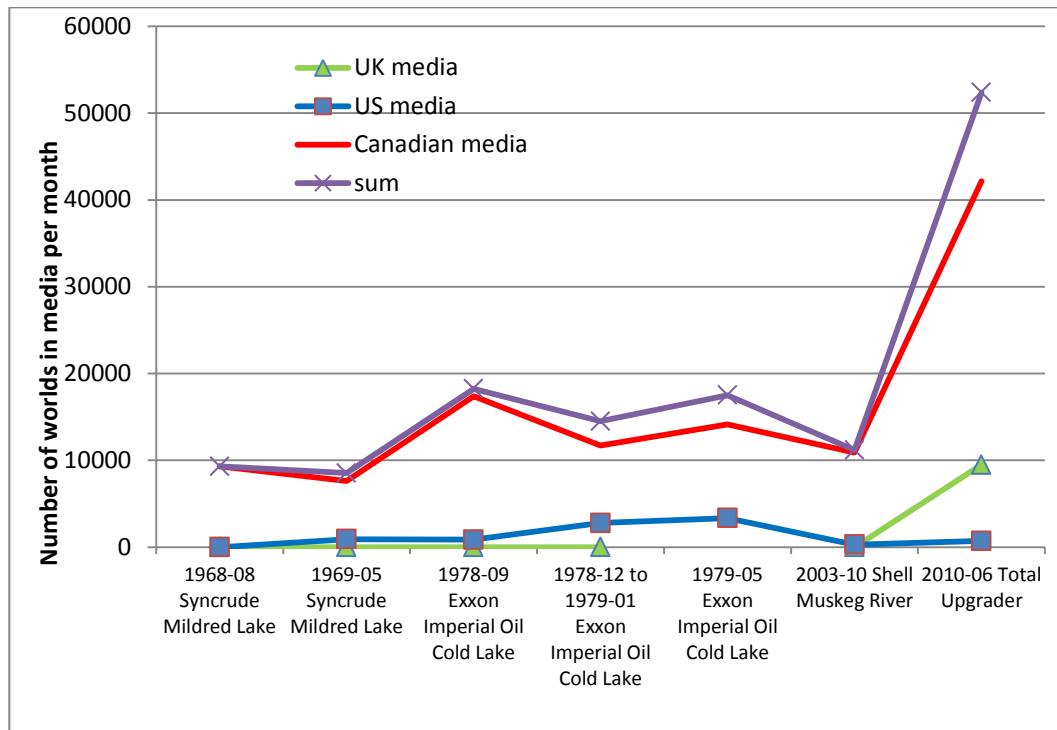
### **Introduction**

In this chapter, to understand the processes by which a resource becomes infused with value, I examine the importation of meanings from societal-level media discussions into hearings as more local-level discussions. My purpose is to answer my second question: *How do meanings within hearings become more or less similar to media discussions?*

### **Higher media attention does not appear to promote more interconnection of the hearings with these media discussions**

We might expect greater interconnection between these nested arenas, if there is greater attention being paid in the media to the oil sands as a whole. Stakeholders would be more likely to translate these societal-level discussions into the proceedings and vice-versa. To examine this, I collated the related media by month and matched these against the oil sands development timelines (using the total number of words per month as a gross measure of attention) for each hearing. This indicates that that Alberta oil/tar sands have been discussed in Canadian national media consistently, from 1968 to 2011. Media attention increases exponentially from 10,000 words/month in 1968-1969 for Syncrude, 20,000 words/month in 1978-1979 for Imperial Oil, to over 60,000 words/month for Total in 2010. Attention in US national newspapers had been intermittent until 2007. And attention in UK national newspapers was practically absent until 2006, but it has been constant and increasing since, even eclipsing US coverage in some months. While there is some direct coverage of oil sands development and these hearings, much of the media coverage refers to the oil sands indirectly – as a source of energy along with other sources, as a focus of investment along with other investment, as impetus for new or expanded pipelines, as a comparison to other large-scale industrial developments, as a ‘spill’ analogous to the BP Deepwater Horizon spill, or as an example of energy development gone wrong.

Figure 31 – Combined media attention for each hearing



Moving beyond gross measures of media attention, next I examine the relative frequencies of issues/topics in the hearing transcripts versus media during that month, assuming that the frequencies of topics are a function of their prioritization / problematization versus taken-for-grantedness (following Green et al. 2009; Zilber, 2006; Navis & Glynn, 2010). The top 10 words in the hearing transcripts versus the media in that same month are given for Syncrude (Table 7) and Total (Table 8). From these lists of top 10 most frequent words, there seem to be distinctly different foci of the more private hearings that the public media discussions. I also use network techniques (similar to my last chapter) to visually compare their similarity or difference. These meaning networks also look distinctly different across arenas (see Figure 32 for Syncrude and Figure 33 for Total).

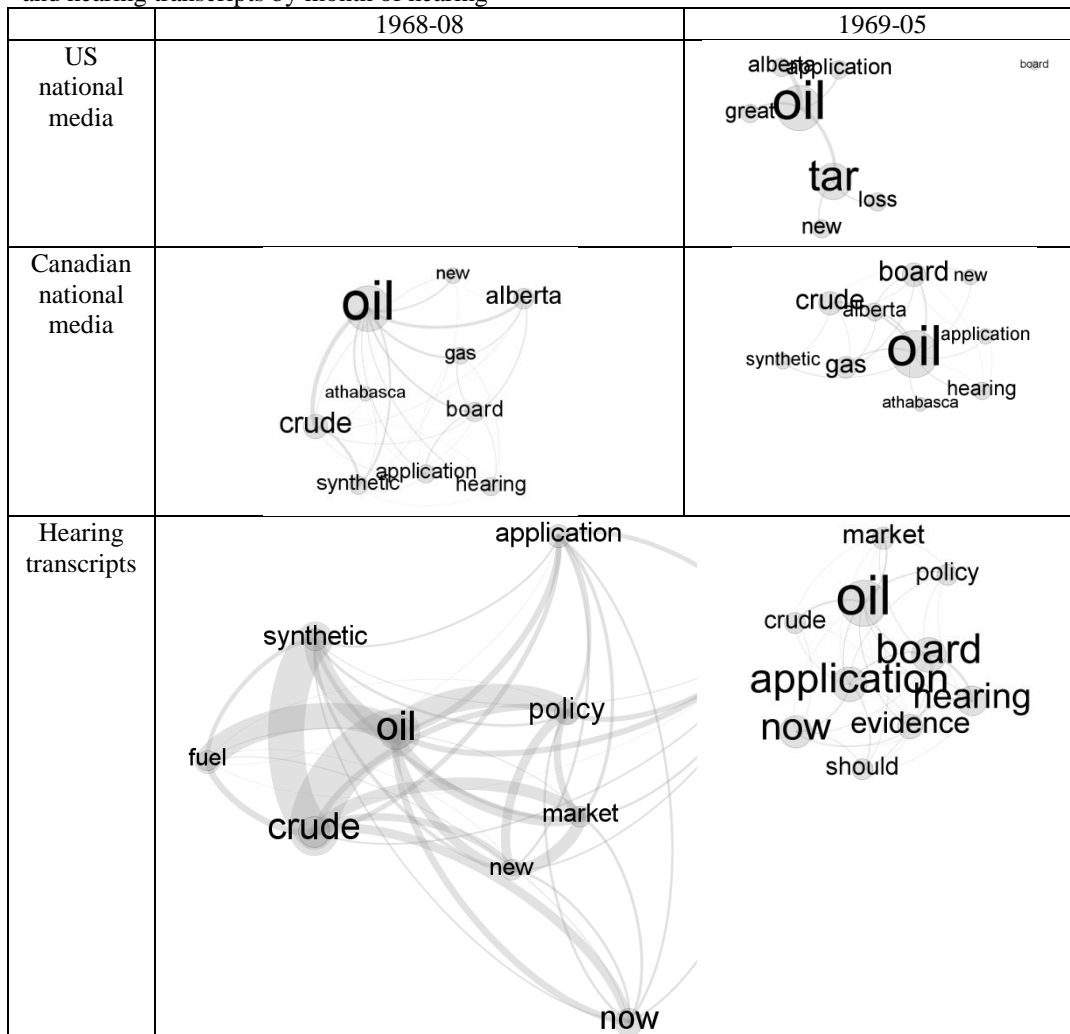
In the Syncrude hearings, the discussion centred on whether synthetic oil from the oil sands would be going to ‘new within reach’ or ‘beyond reach’ markets, as required (yet not defined) by the Alberta government’s Oil Sands Development Policy, so as not threaten conventional oil producers. The definition and redefinition of these markets was so controversial amongst the

players that it took two hearings, timed a year apart, to resolve these issues. Within the hearings, the meaning maps are more developed and dense. Meanwhile, the relatively low media coverage merely described the oil sands development and does not reflect these contestations of meaning. Many of the most frequent words that appear in the hearing are absent in the media. The ‘public’ hearing of Syncrude’s proposed development appears, instead, to be a rather private conversation amongst industry insiders.

Table 7 – Syncrude Mildred Lake Hearing - Top 10 words in Canadian, US, UK national media, and hearing transcripts by month of hearing

	1968-08 Syncrude			1969-05 Syncrude		
	US media	CDN media	Transcripts	US media	CDN media	Transcripts
1	-	oil	oil	oil	oil	oil
2	-	crude	crude	tar	crude	now
3	-	board	polic	alberta	board	board
4	-	alberta	now	new	alberta	application
5	-	synthetic	synthetic	great	synthetic	hearing
6	-	application	application	board	application	evidence
7	-	new	market	application	new	crude
8	-	gas	board	loss	gas	should
9	-	athabasca	new	-	athabasca	policy
10	-	hearing	fuel	-	hearing	market

Figure 32 – Syncrude Mildred Lake Hearing - Top 10 words in Canadian, US, UK national media, and hearing transcripts by month of hearing



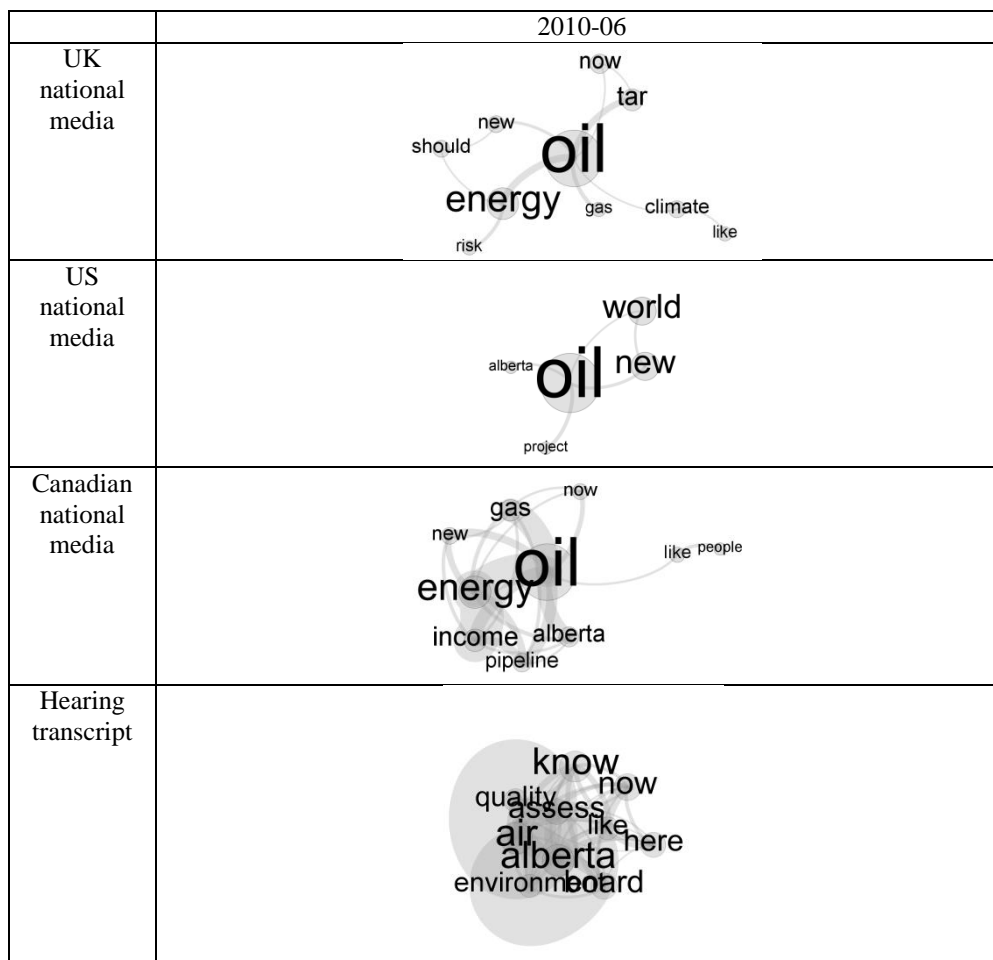
During Total's hearing for their upgrader refinery in June 2010, nearby residents' concerns regarding air/environmental quality and the resulting the health and safety impacts dominated the hearing. 'Air' was the most frequent word - while oil, gas, and energy were all absent from the top 10 list. Meanwhile, Canadian national media was focussed on energy income and the effects of pipelines. US national media was relatively silent on the oil sands in June (one NYT and one WSJ article mentioned the Alberta oil sands). Instead, these newspapers focus on the BP Deepwater Horizon spill and other pipeline spills later in 2010. In June, these spills are not yet being connected to the oil sands. Rather than 'air' generally, UK media is embroiled in a specific

criticism about ‘tar sands’ as a source of climate change and risk to the environment. Again, these conversations appear disconnected.

Table 8 – Total Upgrader Hearing - Top 10 words in Canadian, US, UK national media, and hearing transcripts by month of hearing

	2010-06 Total			
	UK media	US media	CDN media	Upgrader Transcripts
1	oil	oil	oil	air
2	energy	new	energy	alberta
3	now	alberta	income	know
4	tar	project	gas	assessment
5	new	world	now	board
6	should	-	alberta	now
7	climate	-	new	here
8	like	-	pipeline	like
9	gas	-	like	environment
10	risk	-	people	quality

Figure 33 – Total Upgrader Hearing - Top 10 words in Canadian, US, UK national media, and hearing transcripts by month of hearing



In sum, despite this exponential increase in attention (as shown in Figure 31), the hearings seem to be stubbornly decoupled from these broader media discussions. Across all the hearings, the only overlaps in the most frequent words being used are the descriptive ‘oil’, ‘crude’, and ‘Alberta’ and the descriptive-evaluative ‘new’, ‘now’, ‘lake’, ‘people’, and ‘like’. The overlap in vocabularies does not appear to vary with the amount of media attention. Why do these arenas appear decoupled?

### **Summary: Why the apparent decoupling?**

Much of the media coverage only refers to the oil sands indirectly - as a comparison to other energy sources, large-scale industrial developments, investment opportunities, motivations for pipelines, or spills. Hoffman & Ocasio (2001) found that industry only attended to events receiving high media coverage - if they were held accountable for those events or they were concerned about the industry's image. So, the first explanation for this apparent decoupling may be that industry players do not consider media discussions to be relevant to their companies, a threat to their image, and/or affecting the outcome of their hearings.

A second explanation might be that, while hearings are officially 'public', there are many structural barriers that make it difficult for media to engage. The geographic location of hearings (oftentimes Ft. McMurray) makes them difficult and expensive to attend. Their duration is often longer than a newspaper, especially with limited resources, can afford dedicating a reporter. The esoteric procedures and language makes the proceedings tedious to follow. Lastly, while transcripts of the hearings are available, making in-person attendance unnecessary, these must be purchased from the court reporters and cost thousands of dollars. Given these barriers to entry, public hearings may be actually quite private affairs.

The third explanation might be that my choice of methods was poor. While both hearings and news media are, effectively, arenas of discussion, these genres vary quite significantly in terms of their purpose (to adjudicate vs. inform, entertain), standards of admissibility (relevant to development decisions vs. newsworthiness), format (quasi-judicial proceedings vs. topical events, editorials, comics, etc.), length (10s pages vs. 10,000s pages), and audience (Board vs. public), among other dimensions. Given these differences, it might be that using word frequencies - even an inductively developed, normalized dictionary - as a relative measure of the prioritization of issue problematization / theoritization is too indirect and blunt an instrument to determine the degree of interaction between these arenas.

This apparent decoupling leaves me unable to answer whether there is translation occurring between hearings and the broader media discussions. Nor can I determine whether hearings or media are more important in processes of meaning-making: Are hearings configuring or being

configured by the broader discursive field? This seems to be a chapter of null findings. As an alternative approach, thus, I directly examine stakeholders' rhetorical strategies for leveraging across these arenas.



## **CHAPTER 7 – WHAT BECOMES ‘HEARD’ IN A REGULATORY DECISION AND HOW?**

### **Introduction**

To examine how resources are infused with value, in my final empirical chapter, I examine meaning-making a more direct and fine-grained manner. Beyond stakeholders’ vocabularies, I analyze their rhetorical tactics for directly connecting and leveraging across these arenas. Through this detailed rhetorical analysis, I answer my third research question: *What becomes heard in a regulatory decision and how?*

To answer this, I begin by examining the relative prevalence of stakeholders’ rhetorical strategies in each arena – hearing transcripts and Canadian, US, and UK media. Then, I examine each hearing in detail to determine who uses these strategies and when, as related to the resulting regulatory decision.

### **Who uses these strategies and when?**

In the following subsections, I focus on each hearing and key issue in the decisions. To illustrate which rhetorical strategies stakeholder use to persuade the Board’s decision, coded excerpts are given.

To presage my findings, as incumbents, the supporters of development are only more likely to develop their argument by *informing* the discussion with general information, *hypothesizing* ‘what ifs’ to present a compelling future, capturing attention by *proclaiming* a big promises, and *vindicating* their credibility against attacks. Opponents use many more inter-arena leveraging strategies and are much more rhetorically sophisticated in their combinations. They often parsimoniously attack credibility, capture attention, and undermine incumbents’ argument in a few short sentences.

### **Syncrude hearing decision and stakeholders’ strategies**

In May 1962, Cities Service Athabasca consortium (Atlantic Richfield Company, Cities Service Athabasca, Imperial Oil Limited, Royalite Oil Company – later renamed Syncrude) made

its first application to the Alberta Oil and Gas Conservation Board to build a 100,000 barrel per day plant. The application was heard and deferred, with re-application set for 1968. Later in October 1962, the Alberta Government established the *Government Policy Statement with respect to Oil Sands Development*. The intent of this policy was to serve the best interests of the province by protecting Alberta conventional oil producers (which generated >40% of total provincial revenues) “to so regulate oil sands production that it will supplement but not displace conventional oil” and to “ensure that the orderly development of the oil sands will proceed as rapidly as their production can be integrated into the overall economy of the Province”. The policy stated that oil sands production be restricted to 5% of the total demand for Alberta oil - approximately equal to that of GCOS production, such that the conventional oil industry would benefit disproportionately from any growth in demand. In 1967, GCOS, now part of Suncor energy Ltd., began operating. In February 1968, the Alberta Government revised their 1962 Oil Sands Development Policy and replaced the 5% cap with the condition that oil sands production may only be sold to markets that are ‘new within reach’, ‘other within reach’ and/or ‘beyond reach’ so as not compete with conventional oil. All interveners were oil companies: Chevron, Banff Oil, Dome Petroleum, Fina, Great Plains Petroleum, and Independent Petroleum Association of Canada (IPAC). The main point of contention was the definition of ‘new within reach market’. The Board’s approval hinged upon these associated technical disputes – argued to and fro by engineers and economists. What types of oil products would be produced, where these could it be transported via pipeline into US markets, which refineries/markets would handle these synthetic crude products, and what was the magnitude of the US’s supply/demand deficiencies – so as not to displace conventional oil.

The Independent Petroleum Producers of Canada and its member companies (all conventional oil producers) were supremely influential in defining these markets as a function of the US Oil Importation Program, which governed America’s political dependencies and limited Canadian imports to 16% of total demand. Syncrude’s application was denied in December 1968, pending additional information on the US: their growing demand, the potential for increased supply from Prudhoe Bay Alaska, and the possibility of lifting importation restrictions. The

Syncrude hearing was re-opened in May 1969. On the basis of forecasted increases in US demand, the Board believed that the US oil import restrictions would likely be lifted by 1977.

Figure 34 provides a summary of actors' position towards development and which strategies they use, for the Syncrude hearings. Overall, these frequencies may seem inconsequential. However, the opponents' inter-arena leveraging (*cross-examining* and *evidencing*) was effective counter to others' *informing*, *editorializing*, and *dramatizing*, such that approval was delayed one year. These technical questions were never definitively answered. In the May 1969 hearing, Syncrude argued that they had - in all practicality and pragmatism - attempted to meet the Board's requirements (after 6 years of deferrals!) to bring certainty to the North American oil importation/exportation. However, with the uncertainty associated with the Alaskan Prudhoe Bay find, these questions were never answered. Syncrude argued on the "equality of opportunity" for the oil sands to have its share in the growing US market. In the end, this argument appears to have swayed the Board's approval in September 1969. See Table 10 for summary excerpts of stakeholders' strategies.

Figure 34– Syncrude's 1968-1969 hearings with stakeholders' rhetorical strategies

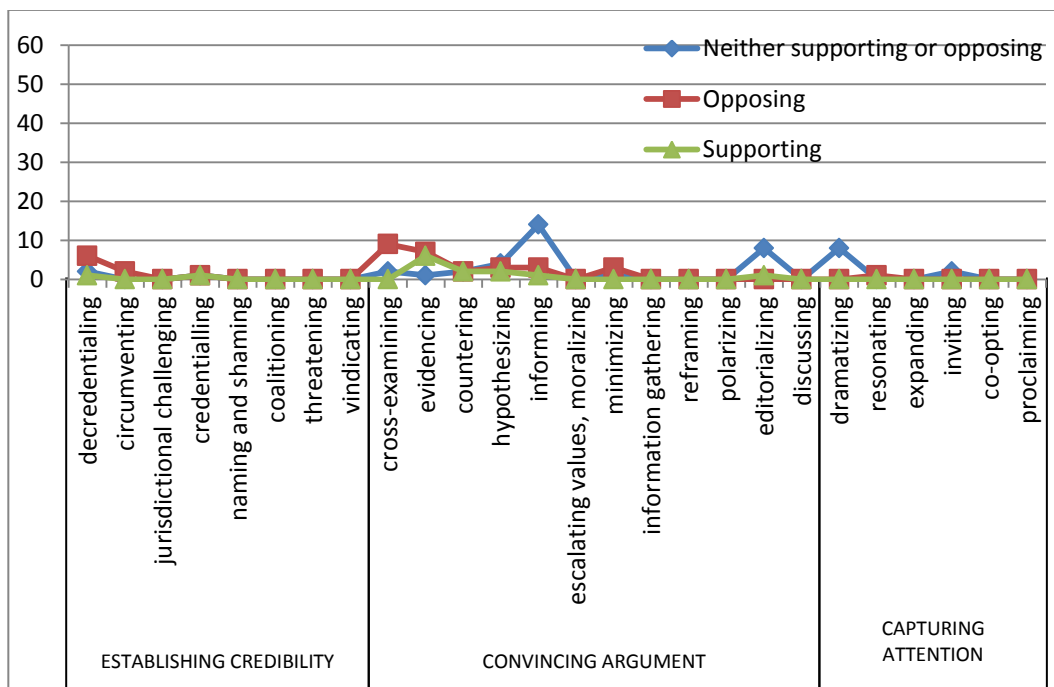


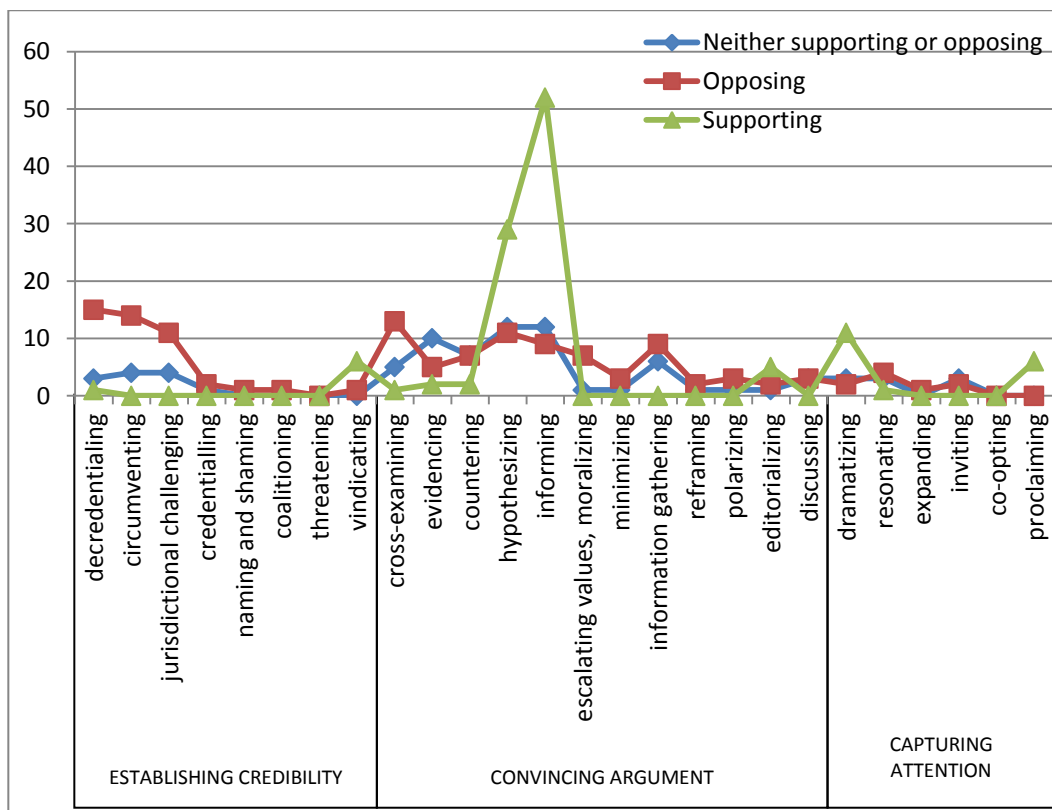
Table 10 – Syncrude - Connecting decision and conditions of approval through to transcripts

<b>1968 Syncrude Decision</b>	<b>Who addresses these concepts? How? Excerpt from hearing transcript and media</b>	<b>Rhetorical strategies used</b>
Defining new within reach & beyond reach markets	<p>Q Well, now, Mr. Maier (of Imperial Oil), would you be aware and agree with me that there are several companies today who would like to move more Canadian conventional crude into their U.S. supply systems because of its logistics as well as because of its price advantage but, in fact, are restrained from so doing by U.S.-Canadian Government requests which you read about in the newspapers?</p> <p>A Yes, I guess it is — (cross-examination of Mr. Maier, Imperial Oil, hearing transcript)</p>	<p>Speaker: Mr. MacFarlane, Counsel for Mobil Oil (opposing) Audience: Oil and Gas Conservation Board and hearing stakeholders</p> <p><i>Informing</i> – newspapers as providing general information about Canada's export policies</p>
	<p>Montreal Gazette - RON GRANT Syncrude Canada Ltd. — a consortium composed of Atlantic Richfield, Imperial Oil, Cities Service Athabasca and Royalite Oil — is applying for a permit to produce 80,000 bpd. Under the revised tar sands policy, the Alberta government has set a limit of 130,000 bpd on the volume of tar sands production which may be authorized during the next five years. If the Syncrude application is approved, Oil-week magazine says it will effectively shut the door to Shell Canada for a third tar sands operation and will pave the way for expansion of the present Great Canadian Oil Sands plant. Synthetic oils are not included in North America's proved reserves but synthetics from oil sands, oil shales and coal will become vital supplies in the future, Carl O. Nickle, publisher of the Daily Oil Bulletin, says.</p>	<p>Speaker: Montreal Gazette writer (neither). Audience: Canadian public and businesses generally <i>Informing</i> – newspapers as providing general information about oil importation policies, north American markets <i>Hypothesizing</i> – presenting hypothetical 'what ifs' to consider future states</p> <p><i>Editorializing</i> – forwarding opinions to bring sense to a complex issue</p>
Following May hearing, Board approved Syncrude's application in September 1969..	<p>We have, of course, adduced no further evidence on Alaska. I think the reasons for this reticence are obvious. This position is completely consistent with that taken in the submissions to the Lieutenant-Governor-in-Council. We presume that this point was mentioned as one of the five points on which evidence could be called to give effect to the Board's statement that they would include it to give all parties an opportunity to present evidence and views regarding future Alaska development. No evidence has been forthcoming either from any source with work being done in Alaska. We have been referred only to published newspaper reports, and we have submitted that even if this so-called "High Alaska" case stated in the Board's Report 68-C proves conservative then so long as the probabilities still favour deficiency in the United States supply in the pertinent years in excess of 3.5 million barrels we have met the Board's criteria. (May 1969) transcript</p>	<p>Speaker: Mr. Laycraft, Counsel for Syncrude (supporting) Audience: Oil and Gas Conservation Board and hearing stakeholders</p> <p><i>Decredentiaing</i>: drawing from other publications to attack credibility of opponent</p>

## Esso Imperial Oil hearing decision and stakeholders' strategies

During the 1979-1980 Esso Imperial Oil's Cold Lake, many more rhetorical strategies are being used. Imperial Oil (owned by Exxon) applied to the ERCB to develop an in-situ operation to produce 25,400 barrels per day of oil. During the 1978 hearings, the primary concern was the use of surface water for cyclic steam stimulation (CSS). Imperial Oil proposed to use water from Cold Lake, which straddles the Alberta-Saskatchewan border. However, given the jurisdictional complications and the unknown impacts to the lake and river system, the authority of the ERCB was questioned by Saskatchewan and Canadian governments in the broader media and then in the hearing. This cross-examination of the Board and its credibility caused the hearing to be shut down and reconvened over three months later. Figure 35 summarizes stakeholders' rhetorical strategies and Table 11 gives sample excerpts.

Figure 35 – IOL hearings with stakeholders' rhetorical strategies



During the 1979 Imperial Oil Cold Lake hearing, Mr. Bentein was the editor of the local paper *Grand Centre-Cold Lake Sun*, the local MLA, the province's Minister of Environment, and acting

as an intervener – representing these multiple roles simultaneously. He saw himself as a conduit for and representative of public opinion on IOL’s proposed development and a critic of the ERCB’s hearing process. Mr. Bentein even used his newspaper to survey public opinion, host debate on the proposed development, and question the regulatory process. This afforded him some unique rhetorical opportunities, which expands our understanding of the media’s role. Beyond staging, framing, and dramatizing; effectively, the media can be used as a source of information gathering, circumventing the regulatory processes, challenging the credibility of the Board to represent the public interest, and even undermining their regulatory authority. The following excerpt demonstrates these rhetorical strategies, as Mr. Bentein is being cross-examined by Mr. Mink, counsel for the ERCB.

Table 11 – IOL - Connecting decision and conditions of approval through to transcripts

1978-1979	Who addresses these concepts? How? Excerpt from hearing transcript and media	Rhetorical strategies used
Fairness in process and jurisdictional authority of the Board itself, environmental impacts	Globe & Mail Full text: Ottawa wants to regulate heavy oil plant, officials inform Alberta energy commission Thursday, December 14, 1978 Grand Centre AB -- GRAND CENTRE, Alta. (CP) - Federal officials told the Alberta energy board yesterday that federal departments should have a major role in regulating the \$4.7-billion oil-sands project planned for Cold Lake. Appearing at board hearings on the project, officials of the Indian Affairs Department said the project will have a substantial impact on Cold Lake Indian reserves and on nearby Saskatchewan. Dave Nicholson, director-general of Indian affairs, said the federal Environment Department should participate in developing the terms and conditions under which the massive project will proceed. The Environment Department and Indian Affairs should participate in a program to monitor the environmental effects of the project, he said. He also recommended long-term studies of the impact on the area of possible additional oil sands plants, adding "in view of the trans -boundary implications, the lead role in such studies should be given to Environment Canada." The Indian Affairs Department also urged the provincial board not to authorize the project until impact on federal land "is fully identified and assessed" and the project owners, Esso Resources Canada Ltd. promised to compensate Indian reserves for any harmful effects of the project.	Speaker: Dave Nicholson, Director-General of Indian Affairs (opposing) Audience: Canadian public and business generally  <i>Circumventing</i> – newspapers as providing alternative means, outside of legitimated regulatory authority, of voicing issues or creating policy <i>Jurisdictional challenging</i> – importing comments from media to cross-examine the Board’s own jurisdictional scope and decision-making procedures
	Q Mr. Bentein, could you give me an idea of what your average distribution is of your paper at the time	Speaker: Mr. Mink, ERCB Counsel (neither) cross-

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when those polls were taken?

A Yes, it was about 5,000.

Q And the questions were actually printed in the paper?

A Yes, they were-

Q And it would be a matter of clipping out the questions and sending in the responses?

A Yes.

Q I notice in your submission you indicated that you are planning on filing the responses. Is that still your intention?

A Yes, if the Board would like those.

MR. MINK: I would, Mr. Chairman, because I was interested in the actual phrasing of the questions.

THE CHAIRMAN: Yes, we would appreciate receiving those, Mr. Bentein.

A Sure.

Q MR. MINK: You mentioned that in your survey that "insincerity of government and big oil companies". Could you elaborate on that, what exactly are people saying to or expressing that you are interpreting that there is this insincerity?

A In actual so many words, in those exact words, a good many people used those exact words to express their concerns. There were people who paraphrased that, that statement by in essence saying that there were several statements to the effect of, well what good will it do, I am filling out this opinion poll but what good will it do to fill it out because the plant is going to go ahead anyway. So I think there is a distrust of government and a feeling that the whole review process is not going to accomplish anything. I think that has changed, but again this is a personal opinion. I think that will have changed in light of the questioning of the Board members and of the, of the questioning of the environmentalists last week.

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examining Mr. Bentein

Audience: ERCB and hearing stakeholders  
*Information gathering* – using the media to survey/poll the public and gather evidence

*Circumventing* – newspapers as providing alternative means, outside of legitimated regulatory authority, of voicing issues or creating policy  
*De-credentialling* – drawing from other publications to attack credibility of Board itself  
*Jurisdictional challenging* – importing comments from media to cross-examine the Board's own jurisdictional scope and decision-making procedures

In their final decision, the ERCB required that Imperial Oil withdraw water from an Albertan River - 110 km away at an additional cost of \$80 million. Despite their apparent influence, most interestingly, the voice of the Federal Department of Indian and Northern Affairs is absent in the ERCB's final decision. Their recommendations are instead ascribed to others. The Department is only mentioned with regards to the provision of aboriginal training programs, which they did not discuss in the hearing transcript. Thus, the Federal Department of Indian and Northern Affairs' influence seems more covert than overt.

### **Shell hearing decision and stakeholders' strategies**

In 2003, Shell Canada Limited applied for an oil sands mine, bitumen extraction plant, cogeneration plant, and water pipeline in the Athabasca area, designed to produce 31,800 m<sup>3</sup>/day of bitumen. The project required an environmental assessment under the Canadian Environmental Assessment Act (CEAA). So, Canada and the EUB entered into an agreement to establish a joint environmental assessment panel (the Panel) for the project. Under the agreement, the Panel was charged with fulfilling the review requirements of both CEAA and the Energy Resources Conservation Act (ERCA). The Panel held public hearing in Fort McMurray in October, 2003.

Participants who provided evidence at the hearing included Shell, other oil sands developers, First Nations, local aboriginal groups, local residents, nongovernment environmental groups, a local medical staff association, and representatives from provincial and federal regulatory agencies. While participants raised a number of issues for the Panel's consideration, most of the issues centred on anticipated environmental and socioeconomic impacts of the project. Shell had consulted with many Métis and First Nations before the hearing and had already addressed their concerns. Thus the hearing is short, consensual, and decoupled from media. In its approval, the Panel set out conditions relating to mining operations, resource conservation, and tailings management. In addition, the Panel also made recommendations to the Federal and Provincial governments that would aid in the mitigation of the anticipated environmental effects of the project and would address the need for follow-up measures. Figure 36 gives the frequencies of rhetorical strategies and Table 12 presents excerpts.



Figure 36 - Shell hearings with stakeholders' rhetorical strategies

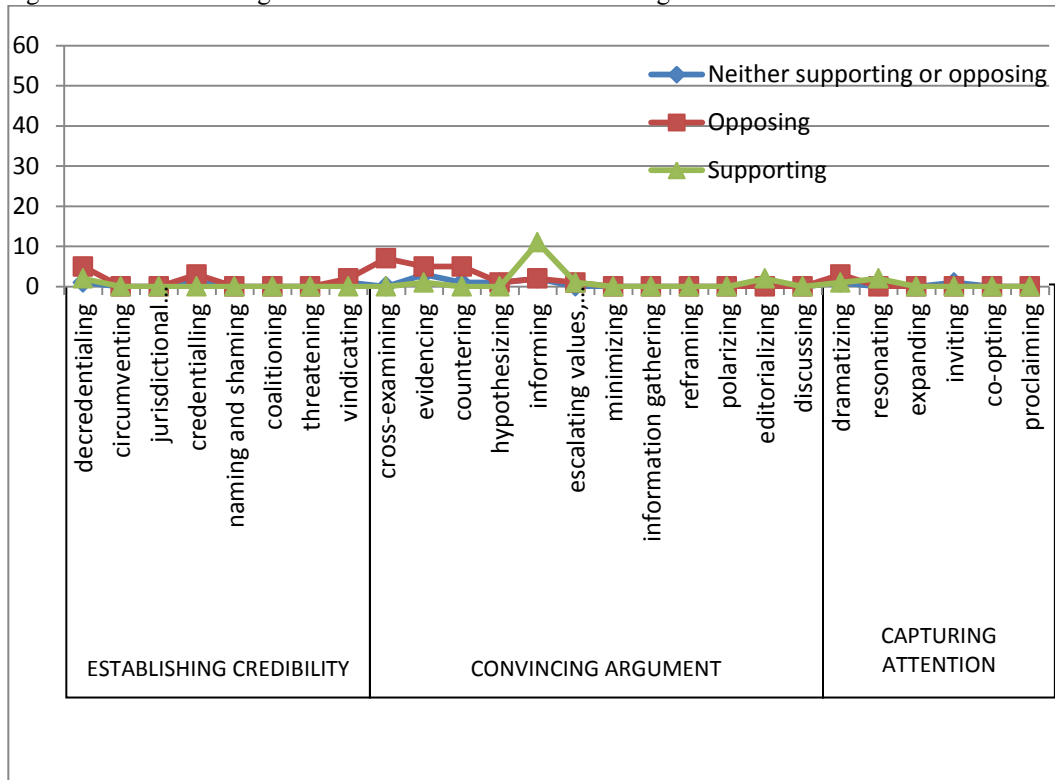


Table 12 – Shell- Connecting decision and conditions of approval through to transcripts

2003-2004	Who addresses these concepts? How? Excerpt from hearing transcript and media	Rhetorical strategies used
Assessment and management of environmental impacts, respecting traditional Aboriginal knowledge	The agreements are unique to each community, but a number of examples of commitments that have been made include: involvement in reclamation and closure planning and in monitoring programs for surface water, groundwater, and wildlife by community members; conducting a health exposure study within a year of the Jackpine Mine start-up at Fort McKay; funding a diesel particulate filter project through the Clean Air Strategic Alliance and, if successful, to explore the feasibility of using the filters on buses in the Fort McMurray area; further, collection of Traditional Ecological Knowledge for use in developing wildlife corridors and reclamation plans, and the development of a paper on how to integrate TEK into projects and project EIAs; and lastly, verifying Shell's Page 66 Mr. Chairman, I would now like to speak to Traditional Ecological Knowledge. Shell has been working with First Nations, Metis, and other Aboriginal groups on how to integrate Traditional Ecological Knowledge into the Jackpine Mine EIA and into the regional environmental management systems. We began consulting with the First Nation trappers, who will be directly affected. Our Environmental Partnerships and Commitment	Speaker: Ms. Smith, Manager of Environment for Shell, giving Shell's opening statement (supporting). Audience: ERCB and hearing stakeholders <i>Evidencing</i> : other publications as providing evidence for claims being made

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Agreements focus on the environmental issues that are important to the communities. The objectives of the agreements are generally: to maximize the co-operation and communication amongst the parties and provide a forum for issue discussion and resolution; to enhance community involvement in the design and implementation of monitoring programs and in reclamation planning; and to utilize, to the extent possible, the regional committees to investigate environmental issues, conduct monitoring and develop management systems.

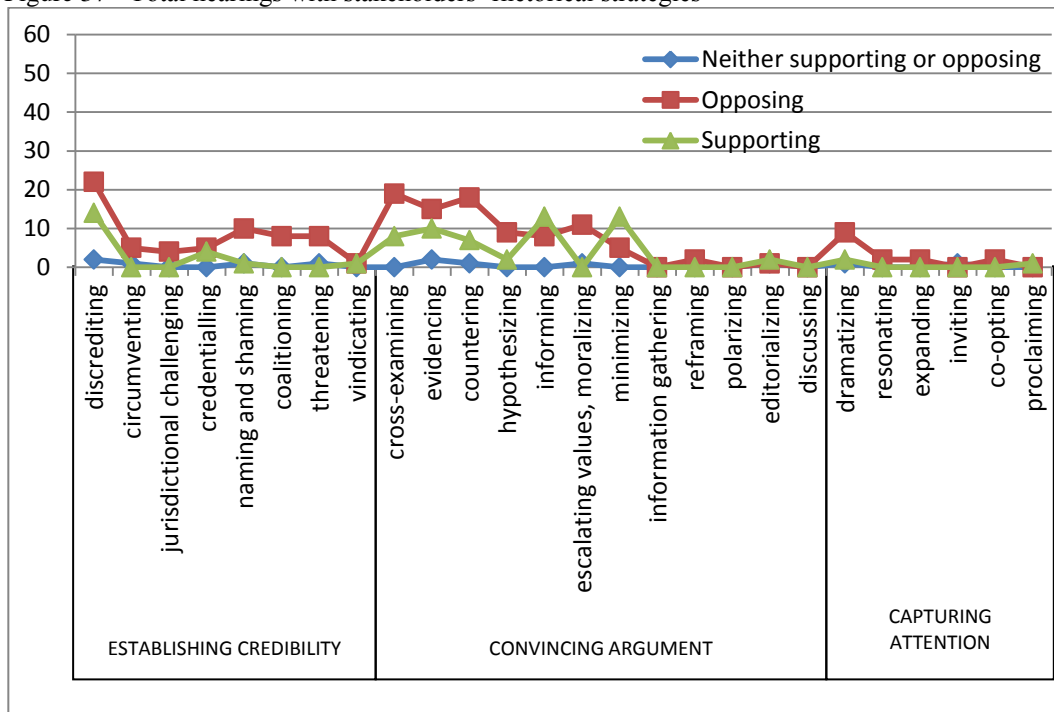
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### **Total hearing decision and stakeholders' strategies**

The hearing for Total's application to build an upgrading refinery near Ft. Saskatchewan was originally scheduled for February 24, rescheduled to Mar 31, and then rescheduled to June 2010 given ongoing debate. Interveners included: Citizens for Responsible Development (CFRD) whose members lived 2-20 km from the site opposed; Harvey and Elaine Visscher who live 3.3 km northwest opposed; The Alexander First Nation (the AFN) stated that Canada and Alberta had failed to adequately consult with the AFN; Aux Sable Canada Ltd., North West Upgrading Inc., and Shell Canada Energy took no position; the Town of Gibbons, the Town of Redwater, the Town of Bon Accord, the City of Fort Saskatchewan, the City of Edmonton, Strathcona County, Sturgeon County, and the Alberta Industrial Heartland Association supported the application.

Given the high number of refineries being built in the Ft. Saskatchewan area, residents were concerned about the cumulative effects of the emissions on their health. Previously, the ERCB only considered each project in isolation, rather than the cumulative effects within a region. Given these concerns, in addition to the ERCB's conditions, Total voluntarily made additional commitments in design and operation to address the communities' concerns regarding air quality, surface and ground water quality, land restoration, health and safety, and stakeholder engagement. Figure 37 presents frequencies.

Figure 37 - Total hearings with stakeholders' rhetorical strategies



Similarly, the ERCB did not have jurisdiction to require controls on greenhouse gas emissions. ENGOs raised GHG emissions and climate change within the hearing and Total's counsel aggressively cross-examined their testimony. Meanwhile, climate change had become a major source of criticism in the UK and Europe, where environmentalists were staging protests and attending shareholder meetings of major oil companies. In the end, Total committed to 18 initiatives to reduce GHG emissions monitoring over the ERCB and Alberta Environment's requirements. Table 13 provides excerpts of these stakeholders' rhetorical strategies.

Table 13 – Total- Connecting decision and conditions of approval through to transcripts

2010	Who addresses these concepts? How? Excerpt from hearing transcript and media	Rhetorical strategies used
Cumulative effects from exposure to air, land, and water contamination	MR. WILSON: Good morning, Mr. Chairman, members of the panel. I read the Edmonton Journal online last night. I understand that Mr. Darin Barter is the official spokesperson for you, Mr. Chairman, and this panel, and he's quoted as saying in the newspaper yesterday -- or which appeared this morning that, (AS READ) 'Cumulative impacts are not in the scope of this hearing.' And I was unaware that this panel had made such a ruling, and I would like some	Speaker: Counsel for local residents Audience: Energy Resource Conservation Board and hearing stakeholders <i>Jurisdictional challenging:</i> importing comments from media to cross-examine the Board's own jurisdictional scope and

	<p>clarification.</p> <p>THE CHAIR: I don't know if that's an accurate quote. I mean, we're faced with these kinds of things all the time. Cumulative effects is [sic] an issue that we're going to canvass.</p> <p>MR. WILSON: So this statement by Mr. Barter to the media is inaccurate?</p> <p>THE CHAIR: Well, we don't know if the quote is accurate or not.</p> <p>MR. WILSON: Okay. Well --</p> <p>THE CHAIR: I'm telling you that cumulative effects is on the table.</p> <p>MR. WILSON: So it is within the scope of this hearing?</p> <p>THE CHAIR: Yes.</p>	<p>decision-making procedures</p>
Climate change	<p>Mr. HOUSTON (Vice-President Midstream, Total): Total is an acknowledged leader in the area of sustainability and social responsibility. We were recognized as the top company worldwide in the oil and gas sector in 2009 by the DOW Jones Sustainability Index. This annual review is based on a thorough analysis of corporate, economic, environmental, and social performance. It weighs performance for corporate governance, risk management, climate change mitigation, supply chain standards, and labour practices. This is an important achievement for Total globally and a reference point for our interaction with government, regulators, and local stakeholders (Opening statements, hearing).</p> <p>A DR. SCHMIDT: 2.6 percent was the contribution, Mr. Chairman, of glacier flow to the North Saskatchewan River at Edmonton. The decline in their trendline of flow from 1975 to 2008 that I mentioned was actually 2 percent.</p> <p>Q 2 percent. So, then, the first line of the HCL report that I read: "The 18 percent per hundred years based on data from 1912 to 2008," do you disagree or agree with that statement?</p> <p>A Mr. Chairman, I agree with that statement. But I would like to point out that the second part of that question, the 1975 to 2008, is where the error is. And that really points out a fundamental problem in Mr. Clissold's analysis. You see, Mr. Clissold states that he used the period 1975 to 2008; but if you look at his figure, he actually used the period 1972 to 2008. If you look at the numbers from 1972 to 2008, indeed, it is a 17 percent decline, which really begs the question how robust is a method when you can take 34 years of data, from 1975 to 2008, get an answer that says a 2 percent decline, then you add three more years of data preceding that period, and all of a sudden the number changes to 17 percent. It's -- it's not a method that, you know, is generally accepted. And</p>	<p>Speaker: Total Audience: Energy Resource Conservation Board and hearing stakeholders</p> <p><i>Proclaiming</i> – proactively declaring commitment to sustainability and social responsibility</p> <p>Speaker: Expert witness for Total Audience: Energy Resource Conservation Board and hearing stakeholders</p> <p><i>Decredentialing</i> – drawing from other publications to attack analysis of opponent</p> <p><i>Countering</i> - extrapolating from published evidence to support counter-claims</p> <p><i>Minimizing</i> – drawing from other publications to</p>

<p>what I will do is actually reference a paper that was discussed in the -- in the Wilson submission by Stewart Rude. I believe it's referenced as Rude 2005. It may actually be referenced to 2004, but it is from 2005. It's a paper entitled: 20th Century Decline in Stream Flows From the Hydrographic Apex of North America. And one of the things that Dr. Rude discusses here is just this thing, this extrapolation from trendlines. And the statement quoting from the paper says:(AS READ) However, this extrapolation of the historic stream flow pattern into the future must be regarded cautiously since the historic hydrologic data record is limited and there is an incomplete understanding of many atmospheric, oceanic, and landscape processes that collectively underlie stream flow. Now, to move on from there, Dr. Rude also discusses the Pacific decadal oscillation, which is a climate phenomena that we really only identified and started to understand in the last ten or so years, okay. The PDO, Pacific decadal oscillation, is something like the El Nino, La Nina effect that most of us are probably a little more familiar with. But what it differentiates it primarily from -- or one of the primary differences is it has quite a bit longer cycle. The PDO tends to have a -- two modes, 30 years on/30 years off nominally. There's a variability there. And what we see in the climate records, and in the stream flow records, from flow coming off the Canadian Rockies is that there's a distinct effect that appears to be linked to the Pacific decadal oscillation. Now what we see in the hydrograph 1912 to 2008 from the North Saskatchewan River is something that really corresponds to the Pacific decadal oscillation effect.</p>	<p>reduce others claims (i.e., effect of climate change is nominal)</p>
<p>Q Okay. Thank you.</p>	<p><i>Minimizing</i> –drawing from other publications to claim that any observed changes are natural cycles of the earth</p>
<p>The four-day Climate Camp will target Royal Bank of Scotland, whose headquarters are on the edge of Edinburgh, because of its links to the oil industry and in particular tar sands. RBS is also sponsoring the fringe festival. Tracy Chalmers, a Climate Camp activist, said: "The Camp for Climate Action is coming to Edinburgh because that's where the RBS headquarters are. RBS has poured billions of pounds of public money into fossil fuel projects around the world that trash the climate and totally disregard human rights. This is a climate crime that needs to be stopped, like we stopped Heathrow and like we stopped Kingsnorth." (UK Guardian, June 1, 2010)</p>	<p>Speaker: environmental activists Audience: RBS, UK shareholders and public <i>Naming &amp; Shaming</i> – publicly highlighting bank's associations with 'climate criminals' <i>Escalating values/</i> <i>Moralizing</i>– reframing to more transcendent values, from economic -&gt; climate -&gt; human rights</p>
<p>Lush's website describes the oil sands - environmentalists call them tar sands - as "a dirty secret" involving "intrigue, big business, and a lot of scandal. Our governments have crawled into bed with big oil companies, and it's creating a mess for the people of Canada, and the world." The industry</p>	<p>Speaker: Consumer goods companies, shareholders, environmental activists Audience: UK shareholders and public <i>Naming &amp; Shaming</i> –</p>

<p>has faced a growing campaign over its impact on water supplies and wildlife and the scale of greenhouse gas emissions in what is an energy-intensive extraction process.</p> <p>Campaign tactics have ranged from partnerships between retailers and environmental activists, to shareholder resolutions against oil sands operators. Royal Dutch Shell and BP this year faced resolutions at their annual meetings which called for greater disclosure of their oil sands activities. US retailers Whole Foods Markets and Bed Bath &amp; Beyond said in February that they would boycott fuel produced from the oil sands. (Financial Times, June 10, 2010)</p>	<p>public outing of oil companies and governments scandalous affair</p> <p><i>Reframing</i> - from economic to environmental/social</p> <p><i>Coalitioning</i> – using the media to create a more visible, larger, and more publicly appealing opposition alliance</p> <p><i>Expanding</i> – expanding actions like consumer boycotts to entire industries, instead of single companies</p>
<p>"UK pension funds have had the potential financial consequences of corporate environmental and social issues demonstrated to them," said Duncan Oxley, director of campaigns at FairPensions. "Pension funds need now take action to ensure future risks, such as those presented by climate change or tar sands investments, are properly managed." (UK Guardian, June 21, 2010).</p> <p><b>After shareholder resolutions towards Shell in February 2010 and BP in May 2010, Total faced shareholder resolutions at their May 2011 AGM - entitled 'Total Destruction' - challenging Total's involvement in the tar sands</b></p>	<p>Speaker: FairPensions</p> <p>Audience: UK Shareholders and other Pension funds</p> <p><i>Reframing</i>: economic/market considerations as insufficient, environmental risks posed by climate change have become paramount;</p> <p><i>reframing</i> from economic to environmental/social</p> <p><i>Threatening</i> – environmental activists using publicity from shaming others to demonstrate credible challenge and effectiveness of actions</p>

### Stakeholders' positioning and rhetorical strategies

The proponents of development appear to take their incumbent position for granted. They use half as many inter-arena rhetorical strategies and rely almost exclusively on positive strategies of logical argumentation (see Figure 38). Their only negative strategy is *minimizing* the claims of their opponents. As incumbents, oil companies predominantly take the position that they are educating others, by using the media as a means of *informing* others of industry and policy developments, *evidencing* claims being made with additional statistics and facts, *hypothesizing* an attractive future, and *dramatizing* the opportunities for economic development.

The need for skilled workers at a proposed oil sands plant near Cold Lake, Alta., will be so great that many are expected to be drawn from other provinces, a management study says. The \$4.7-billion plant, a project of Calgary-based Esso Resources Canada Ltd., will provide 10,000 jobs at the peak of construction in 1984. During the next 25 years it is expected to keep 6,540 persons employed in Alberta.

When challenged, oil companies are quick in *minimizing* the claims of their challengers and undermining the position from which they speak by *decredentialling* others' experts.

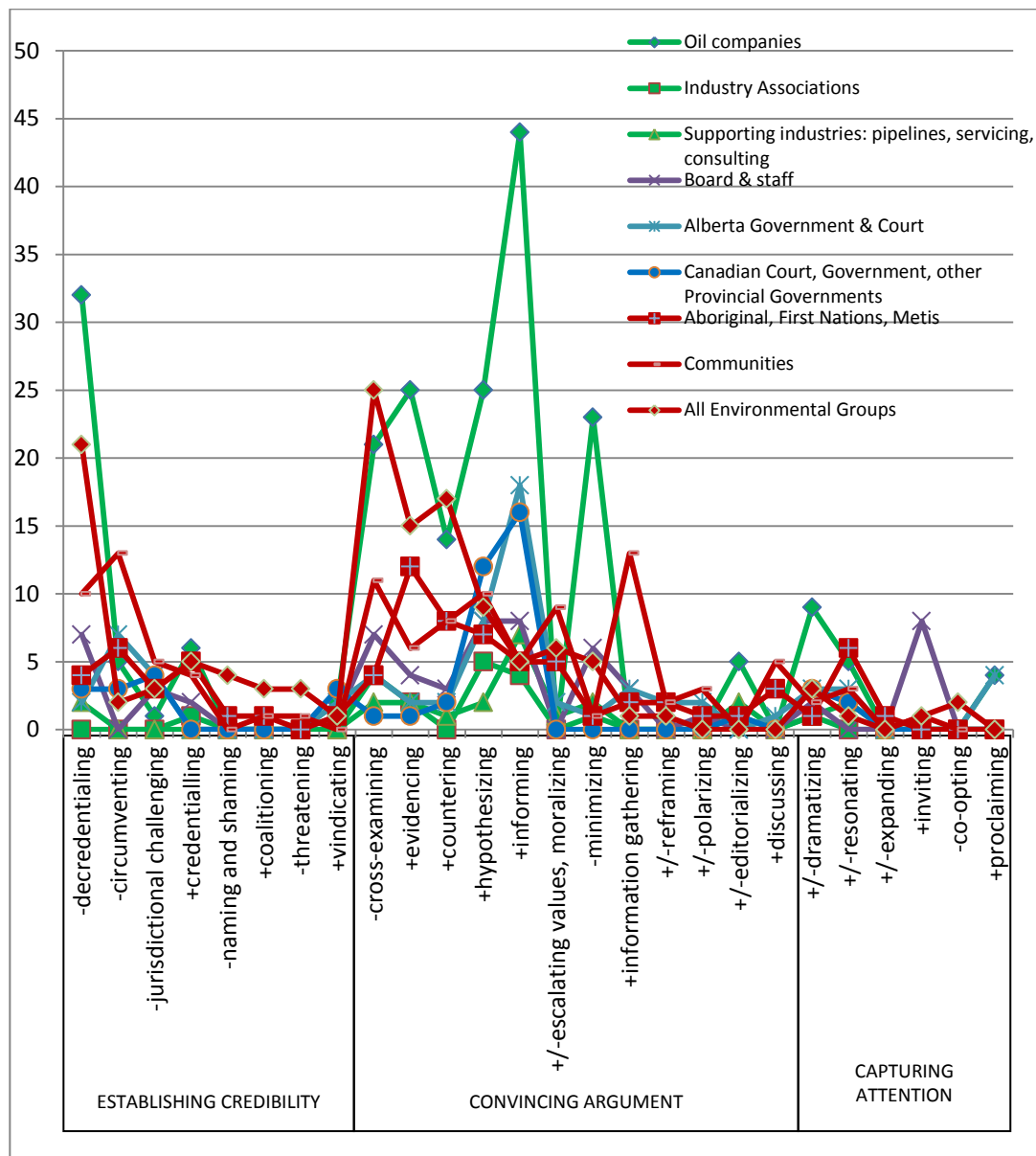
Q: Sir, I reviewed your c.v. It's 28 pages. Very impressive, sir, very extensive. I think that there are probably 350 papers, publications, symposia that are listed in that c.v.; is that fair?

A: I never counted them, but it may be right.

Q: Okay. And despite its length, I don't see any reference to emergency, emergency response, or risk assessment in any papers or any presentations or any symposia that are listed in all of those references.

Compared to the rhetoric of oil companies, other supporters of development – industry associations and supporting industries – are comparatively quiet. The Board, as neither supporting nor opposing, is only more likely to be *informing* using media and *inviting* participants to hearings.

Figure 38 - Stakeholders' rhetorical strategies by position for all hearings combined



Meanwhile challengers are more likely to use all other inter-arena leveraging strategies, especially negative attacks on project proponents and their supporters (financiers, related industries like pipelines) and more neutral parties (government regulators, consumers), and are much more rhetorically sophisticated in their combinations. In contrast, challengers to development – Aboriginal, Métis and First Nations, affected communities, and ENGOs - are mutually reinforcing and very rhetorically active. They use twice as many rhetorical strategies than proponents of development, especially attacking opponents' credibility, diverting attention with dramatic gestures, and undermining their argumentation and countering with alternatives. They are adept at



undermining oil companies' credibility by *decredenti*alling their experts, while concurrently critiquing their logic by *cross-examining*, *evidencing* and *hypothesizing* 'what ifs', especially using environmental and ecological/human health framings:

But Total did attempt to bolster its weak health evidence by doing something that I found quite stunning for a large corporation; they read in a portion of a hand-crafted transcript of comments made by Dr. Predy, the Alberta Chief Medical Officer of Health. They transcribed, or they attempted to [for] a CBC radio interview. How weak is the health impact evidence that they have when they have to resort to reading into the record a partial transcript of Dr. Predy's comments on CBC radio?

Perhaps surprisingly, challengers do not use more strategies to simply capture attention, but use more concerted efforts. For example, challengers often capture attention by using pathos: *resonating* with broader societal values and creating identification, while simultaneously creating a persuasive argument by *escalating values/moralizing* and *circumventing* the authority of the regulatory process:

Our Heavenly Father, your supplicants, we the Métis people, ask you to give us wisdom, we ask you to put the right words in our mouths that we may bring about your will, not so much our will but your will. We ask this all in your Holy name, oh Heavenly Father. Please support us in everything we are trying to do for the betterment of our people. We thank you in advance, I know you have never turned us down yet and I know that you will support us at this time for we ask all this in your Holy name. Amen. Thank you.

The data show that the same stakeholders also draw on different issue framings depending upon who they are trying to persuade, how, and why. Figure 39 illustrates how stakeholders use combinations of rhetorical strategies with issue framings. Oil companies are 'one trick' ponies; they are *informing*, *hypothesizing*, and *editorializing* based almost exclusively on economic/market arguments. Meanwhile, challengers use a cavalry of rhetorical strategies, drawing from environmental, ecological/human health, and political/social framings to support a range of strategies attacking oil companies and governments alike – *decredenti*alling, *circumventing* the process, *naming and shaming*, *coalitioning* with other opponent groups, *countering* with counter-claims, and using *dramatizing* metaphors (Syncrude being treated as a misbehaving child) for extra effect:

Syncrude, the largest operator of oil sands projects in Canada, was ordered to pay \$2.92 million on Friday for causing the deaths of 1,603 ducks... Syncrude's penalty is higher than prescribed under federal and provincial law... Some environmental groups, however, found the penalty insufficient. Mike Hudema, a climate and energy campaigner with Greenpeace, said the fine was "no more than a slap on the wrist" considering the size of Syncrude, which

produces about 110 million barrels of oil a year. He acknowledged, however, that Syncrude had now been forced to improve its bird deterrence and monitoring. In a statement, the Sierra Club of Canada said that the two governments should also have ordered an end to the use of ponds to hold waste from the oil sands.

Figure 39 – Issue Framing of Rhetorical Strategies

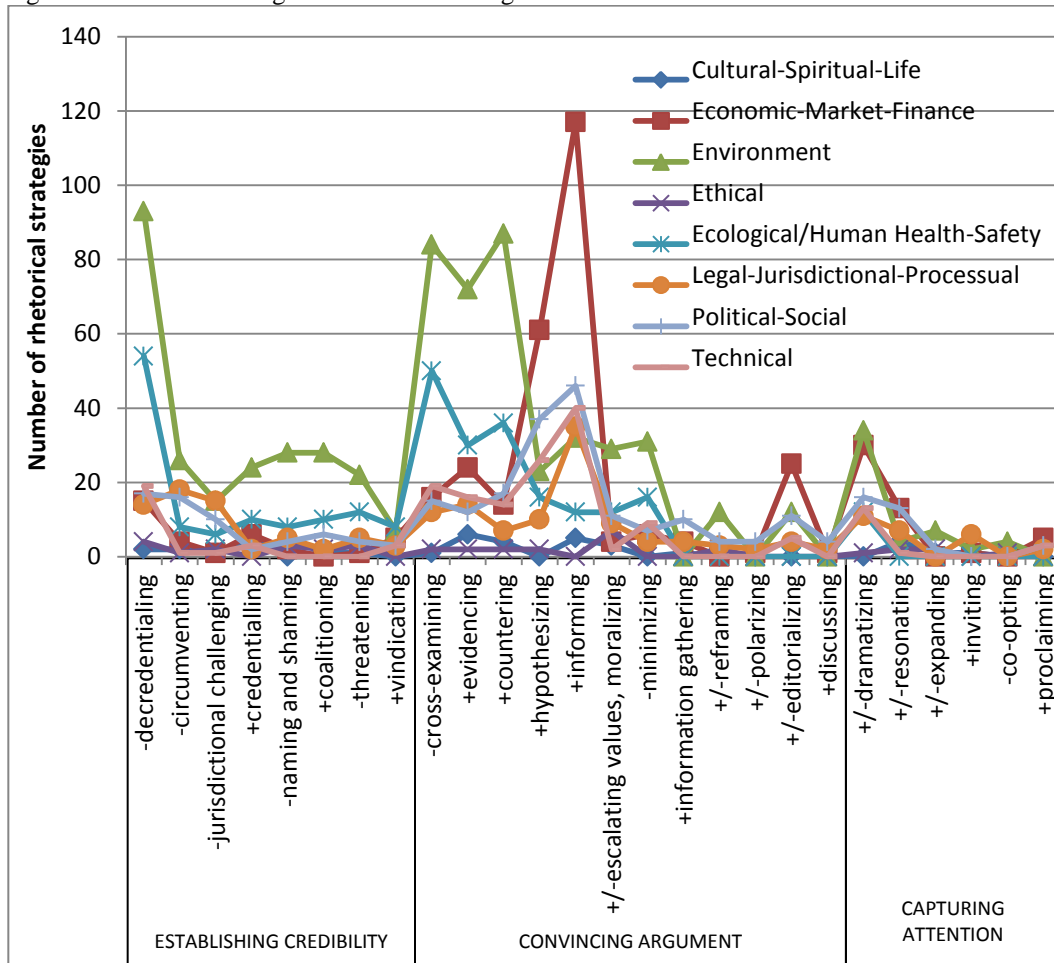


Figure 40 shows how issue stakeholders' inter-arena framing is parallel to and resonant with the evolution of meaning in the broader discursive field. Incumbent oil companies' economic arguments dominated in 1968-1969, then dwindled 100-fold. Economic vocabularies have also dwindled in the broader vocabularies. In the meantime, challenger ENGOs, communities, and Aboriginal peoples brought environmental issues to the fore in 2003 to be joined by human/ecological health in 2010. When compared to the vocabularies of meaning (see Figure 41), challengers appear to better draw from these vocabularies and resonate with public discussion

(man/nature, global/local, clean/dirty, new/old, future/past/present, life/death), to better leverage within these more recent hearings.

Figure 40- Stakeholders' inter-arena framing

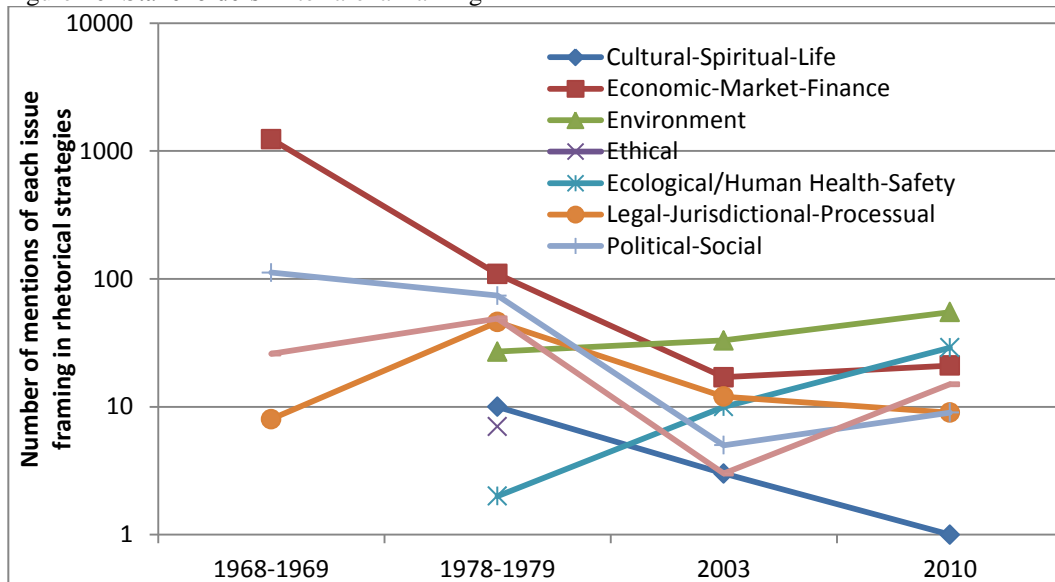
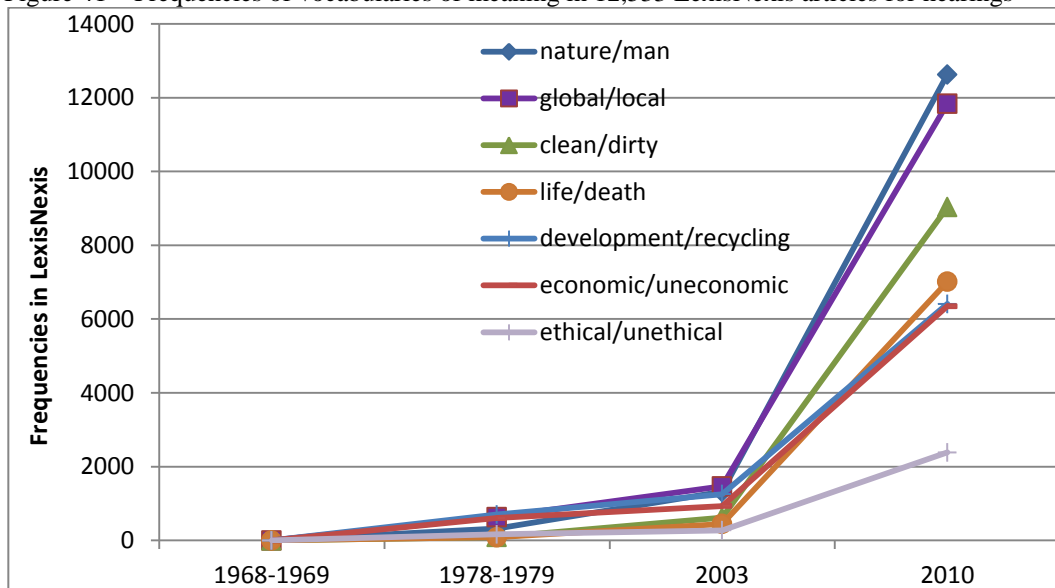


Figure 41 – Frequencies of vocabularies of meaning in 12,533 LexisNexis articles for hearings



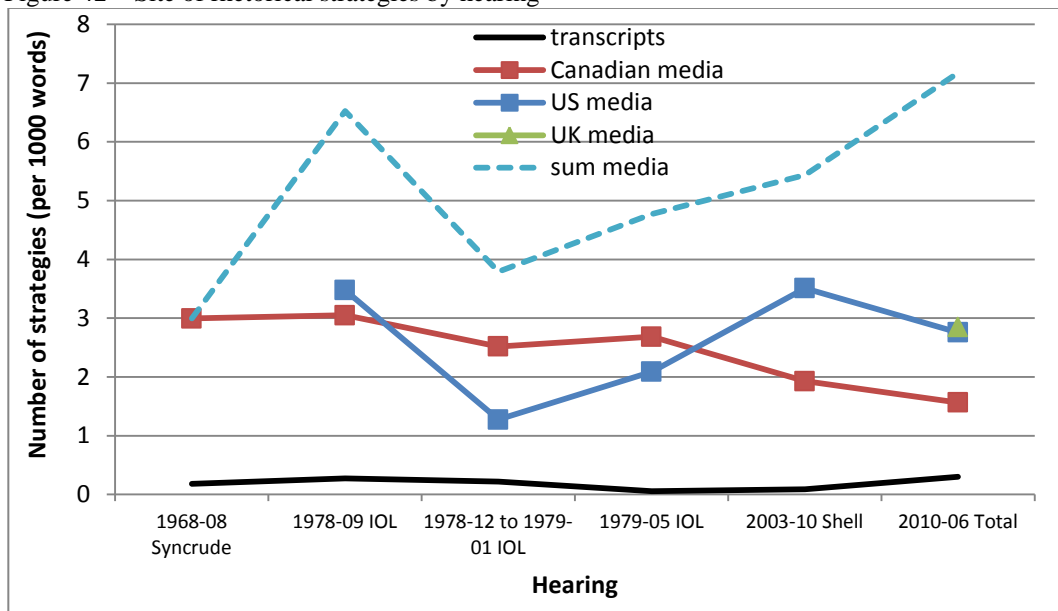
Beyond traditional conceptions of the media as neutrally staging and framing, challengers are more sophisticated and agentic in using media to leverage across these discursive fields. Figure 42 illustrates the relative frequency of rhetorical strategies by source, for each hearing. Opponents are much more likely to use the media as a means of capturing attention by problematizing our taken-for-granted use of oil and water, challenging the credibility of the incumbents, arguing for change,

and theorizing alternatives. This is done using humour and symbolism. For example, in the 1978 Imperial Oil Cold Lake hearing, a political cartoon is brought forth as evidence:

There was a cartoon recently in one of the newspapers, which had the Federal Minister of Energy prostrated before the Prime Minister, and he said “I have good news and bad news, sir”. And the Prime Minister said “What is the good news?” He said “The energy companies are turning to the sun for energy.” And the bad news?” “Well, the bad news, he said, is that they are building a pipeline to the sun.”... In fact, Japan and Britain have both invested 5 million dollars each, committed to research, and they say that the investment could payoff in decades, because wellheads may run dry, but waves will never cease to roll.

For 1978 Imperial Oil and 2010 Total hearings; there were more than 20X more cross-arena rhetorical strategies employed in the media than in the hearings. And opponents to development use twice as many rhetorical strategies than incumbent supporters. These data demonstrate that challengers are using the broader discursive field as an attempt to configure the hearings, rather than the converse.

Figure 42 – Site of rhetorical strategies by hearing



### **Summary: The contestation of meaning**

To examine how resources are infused with value, in this final empirical chapter, I focus on answering my third research question on inter-arena contestations of meaning: *What becomes heard in a regulatory decision and how?* Starting with the decisions to determine what issues have become heard, I work backwards through the hearing transcripts and media for that same month to determine how these issues become discussed across discursive fields and how. I analyze these inter-referential excerpts using classical and modern theories of rhetoric to understand how speakers establish their own credibility, attention-worthiness, and persuasiveness. Besides using positive strategies focussing on themselves, stakeholders use negative strategies to attack their opponents – discrediting, diverting attention, or undermining their arguments. This analysis offers three findings.

#### **Contestations of meaning are ‘work’**

Meaning-making has been conceived of as a process of diffusion – a passive spread of meaning (per Meyer & Rowan, 1977). It has also been depicted as a process of translation – stakeholders’ conversion of meaning from one medium to another (per Sahlin-Andersson, 1996; Zilber 2006). Beyond this, I find that the creation and mobilization of the meaning and value of ‘oil’ is sophisticated, purposeful and effortful ‘work’ (Lawrence & Suddaby, 2006; Phillips & Lawrence, 2012). Indeed, “firms now operate in contexts populated by actors working to manipulate a wide range of the environment’s social-symbolic dimensions with direct implications for how firms produce economic value” (Phillips & Lawrence, 2012: 226).

These data illustrate how stakeholders use different rhetorical tools to position and counter-position their meanings against their opponents, differently in public media versus hearings, to influence the regulatory outcomes. These contestations of meaning are trial and error (cf. McAdam, 1983). Challengers appear to pick up one tool from the ‘tool kit’ (Swidler, 1986), try it, then pick up another, and try that too – to chip away at the edifice of incumbents’ taken-for-grantedness. One example is the ERCB’s understanding of its own jurisdiction - to consider each projects’ effects in isolation versus the cumulative effects of many industrial projects. This point

was raised by opponents in 1978, concerning H<sub>2</sub>S emissions; using logical argumentation and technical extrapolations. This challenge was based on Imperial Oil's own data: "your pollution control you have mentioned a figure I believe of nine pounds per designated surface area over an annual basis that will be deposited by sulphur but the major concern that we have here is the accumulative factor of one or more plants down the line". This argument proved ineffectual, as the ERCB did not require additional controls on Imperial Oil's H<sub>2</sub>S emissions. In 2003, Shell sidestepped this jurisdictional issue by establishing a standalone Cumulative Environmental Management Association. It was only in 2010, when local residents used the media to publicly confront the ERCB with its own hypocrisy, as a means of *jurisdictional challenging*, did the Board agree to consider cumulative effects:

MR. WILSON: Good morning.. I read the Edmonton Journal online last night... (AS READ) 'Cumulative impacts are not in the scope of this hearing.' And I was unaware that this panel had made such a ruling, and I would like some clarification.

THE CHAIR: I don't know if that's an accurate quote. I mean, we're faced with these kinds of things all the time. Cumulative effects is [sic] an issue that we're going to canvass.

MR. WILSON: So this statement by Mr. Barter to the media is inaccurate?

THE CHAIR: Well, we don't know if the quote is accurate or not.

MR. WILSON: Okay. Well --

THE CHAIR: I'm telling you that cumulative effects is on the table.

MR. WILSON: So it is within the scope of this hearing?

THE CHAIR: Yes.

This example demonstrates that, when faced with decades of institutional intransigence, interstices between discursive fields can reveal hypocrisies and give challengers leverage points for change (cf. Leblebici et al., 1991; Heimer 1999; Schneiberg, 2002).

### **Media provides entrée to hearings**

Besides directly leveraging hypocrisies, the media also provide entrée for challengers' criticisms into hearings. As mentioned in the last chapter, the tests of admissibility vary for the more private regulatory review hearings versus more public media. The ERCB limits involvement in hearings to those it considers as directly affected by the proposed development. In comparison, the media are more inclusive; giving voice to peripheral and marginalized actors and allowing them to be 'heard' in broader discussions. With this, challengers are strategically using the media to leverage themselves into the hearings. An example is the ERCB's exclusion of the people of Saskatchewan, which borders Cold Lake, from the original Imperial Oil Cold Lake hearing in

1978. The lack of *inviting* triggered concern from Saskatchewan citizens, which they used in *evidencing* their exclusion and *countering* that they be included:

As was stated earlier, the advertising was placed in the three major daily newspapers of this province, but unfortunately other Canadians are involved with the downstream air benefit, downstream water benefit and other associated problems of this project, and I am speaking of the people of Saskatchewan. I recently contacted the Saskatchewan Wildlife Federation, and there has been absolutely no notice of a hearing in their province, that they were aware of, participate in these hearings, and it is my indication from that organization that there are at least four other organizations from Saskatchewan who would have been here today to represent the people of Saskatchewan, who are also Canadians, and they also have a vital interest in what happens along their border.

When local residents were likewise excluded, Mr. Bentein surveyed Cold Lake and the surrounding communities in his newspaper as a means of *information gathering*, *circumventing* the ERCB's exclusionary tactics, and effectively making residents' criticism and *jurisdictional challenging* admissible in the hearing. These examples illustrate challengers' innovative means of leveraging the media to create entrée for themselves and their criticisms into the hearings.

#### **Inter-arena leveraging influences regulatory decision processes**

Related to the previous points, critics of development are able to leverage attention in public media into the more private hearings and influence the regulatory decision. Global warming was formally acknowledged by Canada's 2002 ratification of the Kyoto Protocol. In 2003, Shell sidestepped this issue with voluntary GHG reductions. "Mr. Chairman, Shell Canada shares the widespread concern that greenhouse gases are leading to changes in the global climate. In this regard, we support the commitment made by the Royal Dutch/Shell Group to cut emissions from greenhouse gases from its global operations by the amount that will meet or exceed the Kyoto emissions reduction targets out to the year 2010." By contrast, in 2010, Total appeared hypocritical. In his opening remarks, Total's Vice-President was *proclaiming* that their performance has been "recognized as the top company worldwide...for risk management, climate change mitigation..." At the same time, Total's expert witness was *decredentalising* ENGOs climate change experts, *minimizing* their evidence, and *countering* with their own claims that reduced streamflow was due to natural cycles of the earth, such as the "Pacific Decadal Oscillation", rather than being a result of anthropogenic climate change.

While ENGOs were being counter-attacked in the hearings on technical grounds, they were very successful in the broader media in using symbolic and emotional messaging, to leverage broader debates about climate change. Various ENGOs joined efforts in *naming and shaming* oil companies and governments as having a scandalous affair “our governments have crawled into bed with oil companies”, *expanding* actions like consumer boycotts to target mothers who might unknowingly be feeding their babies ‘toxic tarsands bananas’, *threatening* companies with shareholder resolutions at their annual meetings, *coalitioning* with U2 to stage benefit concerts to protest the oilsands, and *dramatizing* the suffocating effect of oil by drenching themselves in ‘oil orgies’ at protests. This international criticism became so fierce that, in the end, Total voluntarily placed additional conditions on themselves to regulate GHG emissions above the ERCB requirements, despite their technical argumentation.



## CHAPTER 8 – DISCUSSION AND CONCLUSIONS

While central in many organizational theories, resources tend not to be problematized. Even while recognizing that resources themselves are constituted by meaning systems, institutional theorists also tend to overlook the social processes by which natural resources become defined, infused with value, and made usable by rules. As a result, we lack theoretically informed empirical studies that directly examine the centripetal role of resources in field emergence, contestation, and restructuring.

Thus, my dissertation began with a conundrum: How has a once legitimate and unquestioned energy source – the oil sands as the ‘golden goose’ of Alberta - become characterized as an ‘ugly duckling’ within a span of four years. Neither the nature of this resource nor the decision processes for development have fundamentally changed over the past 50 years. Yet, the meanings of this previously taken-for-granted resource have become so contested within and between the regulatory development hearings and public media more broadly, such that industry self-regulation and international rulings are being transformed.

To unpack the processes by which stakeholders construct and contest these meanings, I draw on an extended case study of Alberta’s oil sands. I start by examining macro-level diffusions of meaning (per Meyer & Rowan, 1977) in global media, then macro- to micro-level translations (per Zilber, 2006) between hearings and the surrounding media, and lastly on interactive macro- to micro-level contestations (per Suddaby & Greenwood, 2005) as discursive stakeholders agentially leverage across these arenas. I find that while resources are central to field formation, this is not a static accomplishment.

Meaning making is rather precarious. And even the resource of interest may be dethroned by another, more valuable resource. During field emergence, oil (and tar as its descriptive synonym) was the uncontested resource of interest in this discursive field. Our interest in it increased exponentially, along with its value on the world market. This changed in 2008 and onwards, when water (and tar as the newly pejorative variation of ‘oil’) became a central resource in the discussion. The refocusing was catalyzed by the 1600 duck deaths on Syncrude’s tailings ponds

and by increasing concerns amongst Aboriginal peoples about contamination of the Athabasca River. This shift in the discussion represents an effort to balance the technical utility of oil with the life affirming essence of water. How is this replacement accomplished? A shift from technical meanings to symbolic values acted as the catalyst for this dethronement. Who accomplishes this? This shift in focus and meaning is linked to a shift in the constituency of discursive stakeholders. A greater diversity of stakeholders within an expanded and internationalized discursive field, effectively problematized oil and infused it with additional meanings – both positive *and* negative. With this, oil sands oil lost its exteriority and objectivity (Zucker, 1977; Berger & Luckmann, 1967) and, so, monitoring and enforcement became likewise problematized and transformed (cf. Hoffman, 1999; 2001).

### **A precarious game of language: from material to symbolic to material**

The meanings that we attach to things are reflected in how we talk about them (Berger & Luckmann, 1966). Thus, organizational actors infuse meaning and value in natural resources through language (Edwards, 1991; Bakker, 2009). As resultant meanings become defined and reified as taken-for-granted, resources becomes institutionalized into a system of rules, which further enables and constrains their use (Giddens, 1984) and infuses them with value beyond technical requirements. Institutional theory suggests that taken-for-grantedness begets taken-for-grantedness. Yet, there may be a mismatch between those who take a resource for granted versus a broader constituency that may not. Taken-for-granted for one, does not equate to taken-for-granted for all. Institutionalization does not equal immunization.

Rules themselves can be challenged and changed, ignored and overturned with increasing social pressures (per Meyer & Rowan, 1977), which are able to draw from a broader vocabulary of symbolic values. To examine this, I connect these symbolic meaning to the situated use and social understanding of material resources, practices and behaviours - to explore the materiality of the symbolic and symbolic of the material (Edwards, 1991; Leonardi & Barley, 2010). From my examination of the diffusion of meanings across the macro-discursive field, there appears to be greater agreement as to the common meaning systems that defined oil, its regulation, and use at

emergence. Both the Albertan industry and government alike recognized the challenges as being technical and economic. This field-level consensus continued until 2007. As oil prices and media attention were peaking in 2008, 1600 migrating ducks on died on Syncrude's tailings ponds. This provided a new visual metaphor of the oil sands as suffocating nature and defiling water, which expanded and densified discussion amongst a greater constituency of meaning-makers in the discursive field – from local to global - and fractured the consensus into dissension. This expanded constituency of meaning makers attached newly pejorative meanings and negative values to oil sands oil, attacking and supplanting proponents' efficiency and economic claims. The vocabulary switched focus to nature from man, to death from life. Meanings became focused on global, new, now, future, and ethical - and the normative 'clean vs. dirty' debate exploded. We can see the shift from technical to political/social meanings.

These symbolic values are being carried internationally. And, as a result, they also transformed global regulations: creation of the *American Clean Energy and Security Act* (also known as the *Waxman-Markey Bill*), *American Clean Energy Leadership Act* (S.R. 1462), and amendments of the *Energy Independence and Security Act* (2007); a ruling of the British Advertising Standards Agency that calling the oil sands a 'sustainable energy source' was misleading advertising; and the EU's proposed Fuel Quality Directive that specifically targets the oil sands. This demonstrates that this resource is being defined, in Selznickian terms, "beyond the technical requirements of the task at hand", with international regulatory consequences. Indeed, oil sands oil has become so laden with meaning and value, such that its objectification and valuation has becomes tenuously negotiated and even abhorrent. Given the regulatory rejections of this commodity, its commodification is increasingly becoming complex, unpredictable, and possibly multi-directional – like cultural artefacts, love, children, and organs (Zelizer, 1987; Radin, 1996; van Binsbergen, 2005).

### **From deafening silence to uproar**

“Discursive fields, like the kindred concepts of multi-organizational fields and identity fields, are constitutive of the genre of concepts in the social sciences that can be thought of as ‘embedding’ concepts in that they reference broader enveloping contexts in which discussions, decisions, and actions take place” (Snow, 2013: 367). Given that each discursive field is centered on an issue of concern, fields may remain isolated from one another, sometimes be nested or sometimes colliding. Within one field, an issue may be seen as irrelevant and simply ignored. Or that issue may be so taken-for-granted that it need not be discussed. Conversely, in an adjacent field, the same issue may be seen as hypocritical, become problematized, and trigger uproarious contestation and theorizing.

When the media singles out some issue as unjust or immoral, it has the ability to create a discursive field and “to form historically new bases for collective thought and action, quickly, continuously, and pervasively across previous boundaries of time, space and culture” (van Dijk, 1985: 15). Given this, media attention to an issue may expand public debate to wholly subsume a previously isolated discursive field (such as regulatory review hearings), shifting the constituency of meaning-makers and reorganizing of the ‘conversational apparatus’ (Berger & Luckmann, 1966: 159). If incumbents fail to effectively engage in conversation with the new significant others, the meaning systems and associated rules might be transformed without them, beyond their purview.

The different language being used in hearings versus media suggests that there had been limited interaction between these discursive fields. These ‘public’ hearings had managed to remain relatively private, due to structural barriers that prevented broader media attention and public engagement. Oil sands development had remained under the radar. Much of the media coverage only refers to the oil sands indirectly - as a comparison to other energy sources, large-scale industrial developments, investment opportunities, motivations for pipelines, or spills. Given only indirect references, industry players do not appear to consider media discussions as being relevant, threatening, or in any way affecting the outcome of their hearings (cf. Hoffman & Ocasio, 2001).

Yet, if challengers are able to leverage across nested arenas - as interstitial actors - it gives them a “mechanism through which institutions get to be taken for granted and stop from being taken for granted” (Holm, 1995: 417). My cross-arena rhetorical analysis illustrates this. Discursive stakeholders use different rhetorical tools to position and counter-position themselves against their opponents, differently in public media versus hearings, to influence the regulatory outcomes. This example demonstrates that, when faced with decades of institutional intransigence, interstices between discursive fields can reveal hypocrisies and give challengers leverage points for change (cf. Leblebici et al., 1991; Heimer 1999; Schneiberg, 2002).

Given the media’s ability to ‘make publics’ and spawn a discursive field, we can expand our understanding of its role. Beyond a one-way sender-receiver conduit model of staging, storying, framing, editing, and dramatizing messages (i.e., Vaara, 2013), the media itself plays a rhetorically significant role in hosting discussion and interacting in discussion elsewhere – in other nested or adjacent discursive fields. Through this, actors are able to establish their credibility to speak, capture attention, and develop a more convincing argument – while attacking their opponents’. My research illustrates how the ERCB limits involvement in hearings to those it considers as directly affected by the proposed development. Despite this, those who have been excluded are able to leverage themselves and their criticisms into hearings, and the hearings into the media. Stakeholders use a suite of inter-arena rhetorical strategies to establish their credibility to speak, draw attention to their cause, and develop convincing arguments while attacking others’ credibility, attention-worthiness, and argumentation.

Additionally, I unpack how such inter-arena leveraging becomes more persuasive. Besides the cognitive-logical (logos) argumentation and normative (ethos) credibility, emotional appeals (pathos) are fundamental to many rhetorical strategies, giving them force and momentum in travelling. Briscoe et al. (2013) find that arguing against sweat-shop labour on exclusively economic terms, reaches deaf ears. Conversely, they found that allowing these labourers to give testimonials of their suffering, in their own words, directly to university students and buyers – creates an undeniably compelling message of passion, credibility, and logic. These labourers share their experiences, such that speakers and audience live in the same world and participate in

each other's being (Berger and Luckmann, 1966: 130). These 'humanizing accounts' effectively persuade universities to changing their buying practices. Indeed, I find that successful challengers are particularly adept at using moral sentiment to refocus negative attention on their opponents through *naming and shaming* companies' actions as particularly scandalous, *co-opting* their events through brandjacking and hijacking, *expanding* consumer boycotts beyond single companies to industries to countries, and *escalating values/moralizing* to reframe oil sands development to more transcendent values. This moral sentiment appears to act like 'hot cognition' (Gamson, 1992) to motivate reasoning, and redirect positive attention to attractive things and negative attention to repulsive things (Redlawsk, 2002) at a field-level rather than an individual-level.

One extension of my research would be to use the ethnostatistics and sensemaking approach (Gephart, 2011, 2006, 2004; Davidson et al. 2004) to Alberta's oil sands by examining how 'the public interest' becomes calculated, represented, and made persuasive from the 1960s to present day. Within the oil sands development hearings and broader media debate, statistics are being constructed and used to demonstrate economic, technical, and environmental value - as a field-level sensemaking of the 'public interest' risk/benefit calculation. The public interest is increasingly considered as a weighing of the present versus the future. Thus, these numbers often have a time component. This research would contribute to organizational literature by examining rhetorical ethnostatistics – how statistics are used in professionally produced texts and documents to make persuasive claims about organizational realities, contest others' claims, and give social meanings (Gephart, 2006). In doing so, it will also add to our understanding of the weighing of broader social values in large scale development. Whose voice is heard in such discussions of 'public interest', whose is not, and why?

### **To be able to define the resource, stakeholders must first define themselves**

Stakeholders' power – i.e., their ability to create knowledge of what is 'true' and 'real' – is a function of their ability to establish their position within a hierarchy of credibility, based upon demonstrating their superiority of knowledge and objectivity (Lefsrud & Meyer, 2012). Lawrence and Suddaby (2006) describe these institutional work processes as being 'advocacy', 'definition',

‘vesting’, and the construction of normative associations - through which actors reconstruct rules, property rights and categorical boundaries. These processes focus on the actors themselves: which actors are legitimately able to act upon institutions, what is their status and identity, what are their rights and interests, and how do they remake the connections between their practices and the moral/cultural foundations for those practices. I propose that these institutional work concepts can be refocused on resources and their definition, investment with value, and normative associations. By constructing themselves, actors become enabled to then construct resources.

Stakeholders use a variety of inter-arena rhetorical strategies as a means of establishing their own credibility, attacking their opponents’, and recovering from previous attacks. These strategies include drawing on other publications as a means *credentialing* themselves and *coalitioning* to create a larger and more appealing alliance; attacking opponents’ credentials by drawing on publications for the purposes of *decredentialing* them, publicly critiquing others’ ethics through *naming and shaming*, and *threatening* opposition by publicizing previous successes; and bringing forth evidence for *vindicating* themselves from past attacks. We might expect that the Board - as adjudicator, monitor, and enforcer of energy regulation - would be above the fray. Yet, they are also drawn into this contestation of credibility. Stakeholders use the media as a means of *circumventing* the Board’s regulatory procedures and *jurisdictionally challenging* their very authority to preside over the process. These ongoing acts of insubordination suggest that this oil may never have become unquestioningly taken-for-granted by all.

It is commonly believed that “[or]dinarily insurgents must bypass routine decision-making channels and seek, through use of non-institutionalized tactics, to force their opponents to deal with them outside the established arenas within which the latter derive so much of their power” (McAdam, 1983: 735). In this case, however, challengers leverage outside arenas to force incumbents to deal with them inside the institutionalized process. In sum, rhetoric is not merely a tool of the powerful, but gives voice to the relatively powerless and allows them to reposition themselves from the periphery to the core.

## Creating resonance

Rhetoric is the means of contentiously creating resonance between a speaker and an audience; a mutual identification, accomplished through their shared sensations, concepts, images, and attitudes which make them ‘consubstantial’ and able to participate in each other’s being (Burke, 1953; Berger & Luckmann, 1966). Resonance invokes a metaphor of vibration and waves. When the resonant frequency is aligned with the natural frequency of the system, even small forces can produce large amplitude oscillations. Thus, if a speaker is able to be truly resonant and consubstantial with her audience, then her whisper would be heard.

The oil sands had been a story of technical innovation and economic abundance – the golden goose of Alberta. At field emergence, oil was defined almost exclusively in technical and economic terms by discursive stakeholders. ‘Knowledge’ precedes ‘values’ in the legitimation process (Berger & Luckmann, 1966; Greenwood & Hinings, 2006). Incumbents appeared to take this resource for granted and remained overconfident that their economic and technical prescriptions were the only prescriptions that mattered. Their monological view blinded them to larger shifts in meaning within the discursive field. Oil companies had continued to rely on exclusively economic and technical argumentation, to their detriment, long after the public discussion has shifted to more transcendent values.

As the discursive field expanded, the diversity of this constituency of meaning makers also exploded. With this, the vocabulary around oil (and water by association) became more symbolic and evaluative in tone and increasingly about the preservation of *all* life, ecological and human health, and nature and man. This parallels the findings of others (Zilber, 2006; Strang & Meyer, 1993) that diffusion is related to theorizing; as a practice or structure spreads, it gains more and more meanings. And over time, the field became more responsive to social pressures and voices rather than local technical demands (per Meyer and Rowan, 1977) - evolving from material definitions to symbolic values with material consequences. Stakeholders, who reflected these evolving vocabularies of meaning and value, were best able to create a more resonant message. Challengers to the institutional order have been especially attuned to this. Their messages, even if whispered, became heard. Challengers have framed their rhetorical strategies in environmental,



ecological/human health, and political/social terms, parallel to and resonant with the escalation of values in the broader discursive field. And they use a panoply of sophisticated strategies that combine pathos, ethos, and logos - to concurrently establish their own credibility while attacking others, capturing attention to their cause while drawing it away from others, and creating compelling arguments while denigrating others. Again, this is a material – symbolic - material transformation.

This case illustrates that arguments and counter-arguments are escalated on a moral hierarchy - from technical, to environmental, to human rights, to a preservation of all life debate. As an extension of this, it would be useful to examine how such shifts affect the relative persuasiveness of actors' texts and transposition of effects from a specific core-stigma (per Hudson, 2008) to a generalized de-legitimation.

Is the oil sands, as Alberta's equivalent of the golden goose, about to get cooked?

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