Chapter 2
Observing Global Flows

Since the 1990s, the tar sands enterprise has evoked a collision of worldviews. At one extreme: proponents of the industry's growth and the development of what they perceive as a valuable energy source that creates investment, jobs, taxes and royalties, with reparable or justifiable costs. At the other: critics alarmed at the socio-ecological disruption associated with the extraction and consumption of 'dirty oil,' all for the sake of enriching vested interests. This chapter introduces the conceptual framework and analytical tools we use in this study to contemplate the nature, implications, and possible outcomes of this collision. Our goal is to understand better how certain courses of action with significant social and environmental consequence are justified or challenged. Such an analysis requires a close look at material realities: namely flows of money, labour, oil and waste. But even more so, it requires analysis of discursive representations and interpretations of those material realities, and the complex global system through which information, ideas, materials and political power flow. Language and imagery embody the power of material consequence, and therefore this study is first and foremost an analysis of discourse: the examination of meaning-making (Bennett et al. 2005). In this book, we are interested in the discursive strategies used by politicians, corporate representatives and their critics in open debates, in carefully crafted political speeches or reports, and in web-based communications, to frame in words and images their behaviours and concerns, to portray imagined new actions, and preferred alternative futures (See Fairclough 2003; Fairclough et al. 2003 [cited in Jacobs 2006] and Jacobs 2006). Using NVivo qualitative data analysis software as well as a archival research methods, we have collected, coded, analyzed and classified over two decades of public documents pertaining to tar sands development, including public hearing transcripts—particularly from the Oil Sands Consultations held in 2006–7; transcripts of sessions of the Alberta Legislative Assembly provided by the publicly-available *Alberta Hansard* database; as well as corporate-sponsored publications and documents; public speeches; impact assessment reports; newspaper articles and editorials; and organization websites.

Metaphor-Making

The primacy of discourse emanates from the simple fact that "one cannot think without metaphors" (Sontag 1991:91). To ascribe power to a phrase or an image, however, would be erroneous. The very concept of power, as the ability to do, implies agency, and only people have agency. Metaphors do not materialize out of thin air, but are socially constructed with intention. This fact empowers the metaphor-makers most of all – those agents who are successful at instilling new symbols, icons, and master frames into discourse, but also the metaphor wielders, who invoke them, often with the use of creative frame alignment practices, for the purpose of eliciting support for a particular point of view. The power to make, or wield, a metaphor with the desired effect, however, is not constructed solely through the act of discursive engagement; the agent must first be positioned so that their efforts are disseminated through social networks. This power is derived from many sources, such as the legitimacy or authority embodied in a speaker's social position (politician; scientist; specialist; layperson), or the socio-historical context of the communication event, such as a speech. Sometimes the words used by a speaker have rhetorical and symbolic resonance with social and cultural values and norms, or rekindle older traditions and sentiments in contemporary debates. Jacobs and Sobieraj (2007:2), in their study of coal field politics and Congressional debates in the United States, argue that "power … is not simply in the discourse, but in the performance of a conflict, in the particular way in which actors mobilize discourses and reconnect the previously unconnected". All who are engaged in environmental politics go to great lengths to persuade, rationalize, or legitimate, by means of several tactics including the selective use of language and imagery, deploying metaphors, symbols and narratives (Fairclough 2003; Richardson et al. 1993; Van Dijk 1997). As social theorists, we are interested in how keywords and phrases, buzzwords and labels, or framing and rationalizations about tar sands development can direct or influence people's attitudes, thoughts and actions. The focus, however, is at a level greater than the word elements themselves. Our focus is on the powerful consequences of the dominance of particular frames and narratives and how these limit or envelop discussion, direct interpretations down certain pathways, erase major differences of fact and opinion, and win consent. Michel Foucault, well known for his analysis of the social construction of criminality, madness, and sexuality, described how analysts should approach the study of discourses (Foucault 1978:100):

> We must not imagine a world of discourse divided between accepted discourses and excluded discourse, or between the dominant discourse and the dominated one; but as a multiplicity of discursive elements that can come into play in various strategies. It is this distribution that we must reconstruct, with the things said and those concealed, the enunciations required and those forbidden,…; with the variants and different effects-according to who is speaking, his (sic) position of power, the institutional context in which he happens to be situated…; and with the shifts and reutilizations of identical formulas for contrary objectives….

In other words, discourse does not exert control by prohibiting who can speak and repressing what can be said – power is exerted by guiding and shaping how social issues are defined and publically discussed and by making key understandings appear

normal or broadly accepted. The social theorist Stuart Hall explains: "a discourse provides a language for talking about … i.e. a way of representing … a particular kind of knowledge about a topic" … "[and] makes it possible to construct a topic in a certain way. It also limits other ways in which a topic can be constructed" (Hall 2002:60). Some discourse analysts direct attention beyond the individual speaker to the power of privileged speech to create the "terms of reference of discussions" in ways that shape and limit complex problem-solving, such as the organization of knowledge in medicine and science, law and engineering, or public policy. Power is "materialized", as Foucault says, into legal frameworks and rights, or professional regulations and language conventions that put power in the hands of experts and members of professional organizations. In his study of the history of the James Bay Cree and the alteration of their traditional lands by hydro-electric dams, Carlson argues that legal and political processes that created a 'watershed of words' that challenged Cree understandings of the land as much as the physical alterations (Carlson 2004). Similarly, Lazuka (2006) and Ferrari (2007) both show how support for the War on Terror initiated by the U.S. state following September 11, 2001 was constructed in discourse, either by emphasizing positive portrayals of authorities (Lazuka 2006), or by adhering to "fear" and "conflict" metaphors (Ferrari 2007; Every and Augoustinos 2007).

The Tools of the Trade

The effectiveness and power of language in political persuasion can be explained by analysing the use of several discursive tools, many of which we uncover in the current analysis. In general, we draw on discourse analysis to examine the ability of critics and proponents to "affect interpretations of reality among audiences" (Benford 1997:410; see also Benford 1993; Snow et al. 1986).

We explore how verbal frames operate as discrete packages, or "schemata of interpretation" (Goffman 1974:21), to impart meaning onto particular events or processes by enclosing or limiting understandings. Framing in our work includes the ways in which politicians and corporate representatives and critics each seek to not only interpret tar sands issues, but also "define causes and solutions to a problem" (Daub 2010:119). Storylines or narratives, on the other hand, are discursive packages that include a plot, set of characters, and a set of devices that move the characters through the plot (Jacobs and Sobieraj 2007; see also Hajer 1995; Mollé 2007). In environmental controversies, Maarten Hajer argues that storylines form "a generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena. The key function of storylines is that they suggest unity in the bewildering variety of separate discursive component parts of a problem" (1995:56).

> The 'naturalness' of narratives, or storylines, seemingly anchored in common sense, makes them very resilient…. Their appeal flows from the legitimacy they can afford policies and development programs by helping rationalize them in terms of both their intended targets and the means to be deployed to achieve those targets. By nature, they simplify and offer a

stable vision and interpretation of reality and are able to rally diverse people around particular storylines. The combined actions of these people in the promotion of a storyline tend to coalesce into loose networks and what Hajer (1995) defined as discourse coalitions: a set of storylines and the actors who promote these storylines and the practices that they highlight. When a set of actors tries to establish hegemony and to pre-empt debate, several coalitions may emerge, united by their respective storylines. (Mollé 2007:7)

In other words, narratives are self-validating, producing evidence rather than the other way around, becoming "central elements in policy making" (Jacobs and Sobieraj 2007:2). Storylines deploy notions like nirvana concepts, boundary codes and icons to act as persuasive "devices that cloak policies with the symbol and trappings of political legitimacy" (Shore and Wright 1997, cited in Mollé 2007). Some narrative techniques can simplify complex events and the characters involved, increasing the legitimacy or "jurisdictional authority" of one side and delegitimizing competitor discourses (Luhmann 1989). Environmentalists become "false heroes" because saving the environment will kill the economy, and politicians become the real heroes as they create ways to preserve nature without threatening economic growth. Such tactics are certainly exercised effectively by Alberta's ruling politicians, who generate a sense of unity of purpose with the Alberta Advantage[1] and narrate themselves into a caretaker role, protecting communities in need of jobs and economic growth from the threat of downturn posed by environmental groups, concerned citizens, and other politicians, who ask for royalty increases, stronger environmental regulation, or a slowdown on project approvals. On the national and international stage, Alberta politicians become local heroes protecting the province and its energy treasure trove from federal politicians and international protocols on climate change.

Finally, another important component of our analysis is attention to implicit meanings or what is assumed, missing or unsaid in a speech or statement. As noted by Norman Fairclough, "what is 'said' in a text always rests upon 'unsaid assumptions,' so part of the analysis of texts is trying to identify what is assumed", including what is taken as given; what is assumed to be happening; and what is desirable or undesirable (2003:11, 57). We examine discourses about the future throughout our work.

Discourse and Environmental States

Often employed by social constructivists, discourse analysis, ironically, is particularly useful for eliciting the fallacy of maintaining the conceptual independence of the social and natural realms. Discursive studies of environmental politics highlight our tremendous social capacity to *interpret* the world according to personalized mental models of reality and to use those mental models to legitimate certain forms of society-environment engagement, with explicit material consequences. As has been described by Greider and Garkovich (1994), we all impose particular meanings

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[1]"Alberta Advantage" was the Provincial slogan from 1994 until 2009. The new provincial slogan is "Freedom to create, spirit to achieve."

onto landscapes based on our experiential relationship with that environment, and also our own predilections toward particular values, such as altruism and utilitarianism. But the very ambiguity of our indicators of environmental well-being also means that, in many cases, the *only* information from which we make "observations" is discursive and this enables multiple constructions to persist. The level of danger posed by a particular toxin, for example, not to mention the very existence of that toxin, is for the vast majority of us surmised by the messages we receive through discourse, as we lack the sensory ability to detect toxins and their effects directly. The indications of the vitality of an ecosystem are equally obscure. Subsequent "claims making" activities by diverse actors attempting to influence the definition of eco-political issues (Hannigan 2006), and what counts as "fact" (Neufeld 2004), result in particular definitions and courses of action that prevail over others.

While he did not focus explicitly on environmental crises, Habermas' (1975) work on legitimacy crisis in contemporary capitalist societies is poignant here and highlights the primacy of discourse. He postulates that late capitalist societies are continuously at risk of crisis, particularly given that states are loathe to mediate many forms of *systemic* crisis (of which environmental and natural resource calamity could be included) because doing so only increases the likelihood for *legitimacy* crisis for the state. If his depiction is accurate, then those state institutions enjoying the highest levels of legitimacy may be those which are most successful at *concealing* those systemic crises through an active discursive strategy, albeit one that must necessarily undergo continuous revision and reinforcement as conditions evolve (Shenhav 2005). Analyses of the appropriateness of state roles toward the environment and resources, and the contexts and means through which common understandings are attained, contested and transformed, are particularly informative (Eckersley 2004).

Because natural resources such as timber and energy play such a fundamental role in economic development, nation-states have historically assumed jurisdiction over their management. Consequently, resource development invariably requires explicit state facilitation; simultaneously, states are liable for subsequent disruptions to air, land, and water systems (Bunker and Ciccantell 2005). Such forms of environmental degradation are associated with human health risks that tend to be inequitably distributed (Mohai and Saha 2006), posing potentially significant breaches of the social contract between citizen and state. There are certainly sound conceptual reasons to contemplate conditions under which states assume substantive responsibility for environmental well-being (cf. Frickel and Davidson 2004). But, because doing so has implications for another key source of state strength and legitimacy, namely business confidence (Block 1977) – the very conundrum described by Habermas, more often than not states have a structural incentive to avoid, rather than address, environmental problems.

Fortunately for state agents facing such a bind, the direct *indications* of environmental degradation are often obscure and are dependent upon scientific interpretation, creating the conditions for what Rothstein (2007) calls the Professional Model of the welfare state, in which state professionals invoke specialized knowledge in ways that appear impartial, privileging expert discourses while marginalizing others (Richardson et al. 1993). These circumstances contribute to an extraordinary degree

of interpretive flexibility, such that interpretations themselves can determine political outcomes (Freudenburg et al. 2008; Finlayson 1994). Simultaneously, even the paradigms we embrace to depict society's relationship with nature, such as "sustainability" and "ecomodernism", are notoriously ambiguous (Hajer 1995). As such, environmental politics is particularly vulnerable to discursive manipulation, even in comparison to other political realms (Hajer and Versteeg 2005), enabling states to maintain legitimacy not by establishing sound environmental policies, but rather by invoking carefully crafted discourse that employs resonant frames, such as ecomodernism, with the potential to generate consensus and divert attention away from measurable indicators of environmental well-being (Davidson and MacKendrick 2004).

Hajer's (1995) work was among the first discursive treatments of environmental politics and remains foundational. He shows how the legitimacy of state environmental action or inaction is premised on the extent to which environmental narratives resonate with, rather than challenge, prevailing political-economic and ideological structures. In the same year, Hannigan (1995, 2006) described how selective mechanisms embedded in discourse help to determine which environmental problems get political attention and which do not. In many cases, those that do get attention are those that have been discursively stripped of their complexity. As stated by Smith and Kern (2007:5), "storylines are powerful devices through which actors make sense of complex issues without recourse to comprehensive and cumbersome explanations". But as a consequence, the complexity of eco-political issues is reduced to simplified answers. For example, "ecological modernisation is rarely considered in its full complexity. Emblems such as 'climate change' or 'clean production' or 'resource efficiency' become more amenable proxies for understanding" (2007:6). One indirect outcome of such simplification is the reinforcement of confidence in our capacity to solve environmental problems.

As we will show in various parts of the book, corporate and state supporters of the Athabasca tar sands have became adept at developing encapsulated storylines that serve to compartmentalize and simplify, concealing complexity and highlighting simplified solutions. Rather than talk of cumulative effects, tipping points, and ecological restoration, we hear about intensity targets, carbon sequestration and stakeholder partnerships. With such technological ready-fixes on hand, the flow of discourse is directed away from contradictions that might warrant deep political and social changes. Smith and Kern (2007: 6) find similar trends in the emergence of one kind of 'Transitions' discourse:

> …the institutionalisation of this (transitions) discourse into policy has heightened rather than closed debate. This reveals the flexibility of the original storyline, and how this permits influence whilst simultaneously making it susceptible to capture. Critics argue the radical edge of the discourse has been blunted: structural goals, they argue, have been eclipsed (once again) by technocratic reforms.

Bill Freudenburg's (2006, 2005) double diversion framework neatly encapsulates much of the output of this collection of research. For Freudenburg, environmental degradation can persist due to a rather masterful "double diversion". This entails, first, diversion of *access* to resources and waste sinks into the hands of a privileged few, combined with, second, the diversion of *attention* in discourse away

from the resulting disproportionalities, allowing for the perpetuation of certain privileged accounts – including in particular the unstated assumptions Fairclough highlights. One such privileged account emphasizes the "non-problematicity" of environmental degradation, as opposed to its problematicity (Freudenburg 2006:19), by framing environmental and ecological impacts as serving the greater good, while deflecting attention away from the disproportionate distribution of the "goods" in question, as well as the "bads" that result. Textual and visual information can channel public understandings, often in ways that are not immediately perceptible, and by means of discursive activities that are exercised in plain view, not behind closed doors, a form of showmanship likened to magicianship (Alario and Freudenburg 2006; Freudenburg and Alario 2007). Certain meanings become taken for granted, assumptions unquestioned, and sometimes these ways of seeing justify or hide privilege. Phrases like "environmental impact is necessary if we want jobs" can obscure the extent to which we do not all necessarily share equally in the economic benefits of environmentally costly industrial development, nor is the level of environmental impact currently associated with industrial development "necessary" to those activities. His concepts of privileged access, privileged accounts, and the diversionary framing that serves to perpetuate them are helpful for analysing how a text works when inserted into a political debate on the tar sands.

It's All in the (Power to) Name

> I want to remind the member that it's called oil sands sweet blend, not tar sands.

> Honourable Guy Boutilier, Minister of Environment,
> Government of Alberta, Legislative Assembly,
> November 20, 2007

The bitumen deposits of northern Alberta have variously been known as tar sands or oil sands since their discovery in the 1800s. The relative accuracy of each descriptive name has been debated over the years, but in the main, "tar sands" has dominated the lay culture or vernacular, and the phrase "oil sands" has been commonly used by geologists and the business and commercial sectors, although it could be said that the geographic space, and the resource itself, "answered to both names" over the last century (Fitzsimmons 1953; Hunter 1955; Pratt 1976).

The issue of naming the resource has taken on new meaning in the last few decades in the verbal jousts between critics, who lean towards tar sands, and industry and its supporters who increasingly promote use of the term oil sands. The pattern is clear in the Alberta Legislature, for example. Figure 2.1 shows the incidence and ratio of each term as recorded in the *Alberta Hansard*, the publicly available transcript of meetings of the Alberta Legislative Assembly. From 2001 onwards, the ratio of the use of the term "oil sands" begins to increase in the official government discourse, an adoption reinforced through overt sanctions as in the opening quote from the Alberta Minister of Environment, who suggests that the issue is closed, and oil sands is the officially sanctioned term. This naming of non-conventional
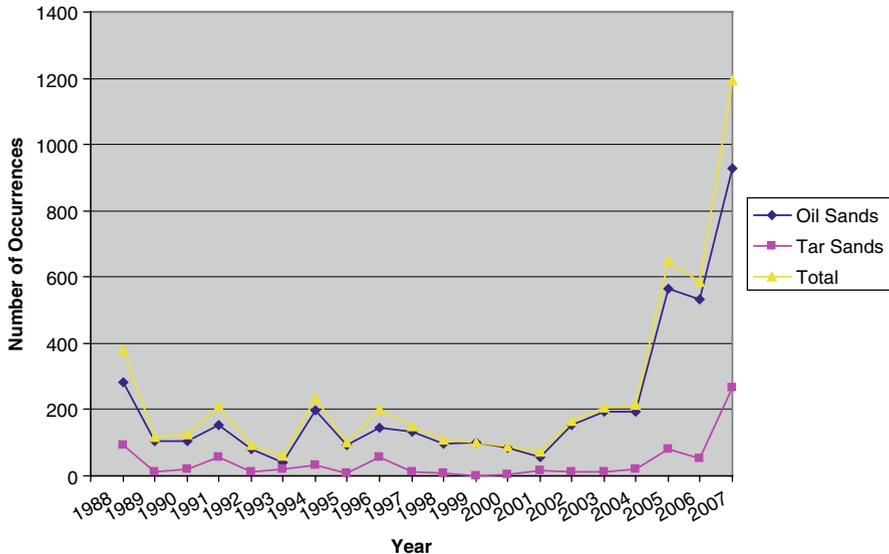
Fig. 2.1 Keyword hits over time in *Alberta Hansard*, 1988–2007. Copyright The Authors

petroleum is exemplary of the way discourses are deployed in a complex political debate. Embedded in naming conventions, symbolic shifts can invoke powerful cultural imagery, while simultaneously concealing the inconvenient and threatening, and transforming the unpalatable or controversial, tar, into the mundane – in this case, sweet blends. The power to (re)name thus embodies the power to reconstruct: to generate a sense of unity of purpose and identity and to maintain consent for processes that might otherwise be called into question. Oil – the symbolic embodiment of the industrial age, of power and modernity – portrays Alberta in a far more positive light, than tar.

This study emphasizes the value of attention to discursive processes in explaining the means by which state institutions defend their legitimacy, despite engagement in decisions and activities that could easily be interpreted as clear breaches of social contracts. Nowhere is this more blatant than in the official adoption of the term "oil sands". Neither of the terms tar nor oil are technically accurate; the resource under northeast Alberta is what geologists refer to as bitumen. The increased use of the phrase oil sands is indicative of the conscious commitment by government to brand the industry in a more positive light in the face of its critics. And yet at the same time, the attention accorded to a name exemplifies the level of effort undertaken to assert control over a potential "runaway" discourse and is suggestive of the potential tenuousness of this state's legitimacy. The discursive fields at the disposal of state actors, which offer resonance or resistance to particular framing devices, can dissipate just as readily as they emerge, particularly with the introduction of new information, new actors, and new frames. Whether the Province of Alberta will continue to be adept at manoeuvring this changing discursive landscape, only time will tell.

Visual Discourse

Visuals work alongside verbal and textual discourses as "acts of conceptual construal" (Castree and Braun 2006:167). Images and photographs shape cultural representations and perceptions and, in turn, construct the ways of seeing nature taken up by publics. They can play a particularly poignant communicative role on the international stage, where language can pose a barrier. Even maps are "not impartial reference objects, but rather instruments of communication, persuasion, and power" (Wood and Fels 1992:250). Archivist and historical geographer Joan Schwartz argues that for the last 150 years the role of photography in particular has been to "picture landscape, invest it with meaning, and articulate (our) relationship to it" (2007:966).

Remote places like the Athabasca tar sands are mediated spaces, seldom visited by outsiders before the early 1900s. Today, although the number of visitors has increased several-fold in the past century, the number of individuals who have ventured up to northeast Alberta remains relatively small, particularly in juxtaposition to the number of people who have expressed views of the Athabasca tar sands enterprise. The tailings ponds and mining sites north of the city are hidden from sight even for visitors to Fort McMurray, although some may glimpse that landscape in a company-managed field trip. The industrial zones just north of Fort McMurray have quite literally become a virtual reality for all but a select few; it has become known to citizens in Canada and elsewhere through visual representations, disseminated via digital communication networks. This remoteness also means that the images presented to global publics are derived from relatively few sources – that small number of individuals who have had access to the industrial sites themselves, and those institutions that control the collection (and dissemination) of aerial and satellite imagery. Early photographs came from an even smaller proportion of individuals, reproduced in newspapers and travellers' diaries. As interest in the resource waxed and waned from 1900 onwards, many images appear episodically in government studies and commercial reports and can be found in various public archives. Since the 1960s, the number of corporate-sponsored images has blossomed, part of the industrial record and less available to the public, or reproduced in media savvy prospectuses, press releases, and government promotions or public cultural exhibits like the Oil Sands Discovery Centre (http://www.oilsandsdiscovery.com/). Most recently, this corporate-sponsored discourse has been met with a growing onslaught of images produced by sources of resistance, all of which have become increasingly available globally through websites (corporate, government and public) which provide new sources of tar sands images. Each communication technology since 1900 has extended the reach of these representations to larger audiences.

Schwartz urges analysts to read such images to unearth their many meanings:

> —not as a photograph reflecting the immanent genius of the photographer or the aesthetic qualities of the image, but as a landscape, as a visual representation of place, as a medium of geographical engagement with unfamiliar terrain. …Its content offers visual facts about the nature of land; however, the meanings invested in and generated by those facts are constructed, negotiated, and contingent—inextricably tied to the technological, historical,

functional, and documentary circumstances and to the social, cultural, political, and economic contexts in which it was created, circulated, and viewed. (2003, pp.109-10)

For Schwartz, nature photographs have contributed "to the construction of an imaginative geography of Canada" and been used over time by various interested parties "not simply to document reality, but to evoke it" (Schwartz 2003: 977). In other words, images have an unrecognized "epistemic quality" which can constrain people's thinking (Hajer and Versteeg 2005) and photographic representations of material nature often exude, as anthropologist Clifford Geertz once wrote of religion, "an aura of factuality … that seem(s) uniquely realistic" (Geertz 1966, cited in Vitalis 2009:IX).

We use a number of visuals throughout the book to illustrate how images of the tar sands express meanings about the resource and construct certain "factual" representations of the biophysical setting, or the practices of tar sands extraction and upgrading. We compare and contrast the contemporary period with other historical conjunctures where state legitimacy, geopolitics of oil security, and tar sands industrial growth have intersected. We specifically select those images that have been used by certain political interests to portray a particular narrative regarding the tar sands, used in print media, web sites, and internet exhibits (Dodge and Perkins 2009). We analyse what Hall (2002) calls "the dominant or preferred readings" of these images and their contribution to meaning-making in tar sands politics, especially the way some images have the power to politicize, and others to *de*politicize certain peoples, places and ecologies. In the next chapter, we concentrate on the photographs taken by the site's first European visitors on government-sanctioned visits, during the century beginning in 1880, offering a pictorial history of the early stages of tar sands exploration and field science and the initial commercial stage in the 1940s, to the first "boom" in the 1970s. Some of the historic photos used are presented in the Oil Sands Discovery Centre exhibits, in Fort McMurray.[2] In later chapters, we introduce contemporary photographs taken by a wider variety of sources, including the aerial photographs, satellite images and clandestine photographs taken by critics to elicit global protest against the scale of mining and pollution occurring in the Fort McMurray region, as well as corporate and state promotional media, developed in part with the specific intention of countering the growing opposition movement. Changes in photographic technology, from early stills, to aerial, digital and satellite photography, can in and of themselves alter our gaze, and we follow those changes in our analysis. But, the relationship between photographic images, ideology, and legitimation, how photographic representations shape collective views of the industrial use of nature, remain central to our reading. One such photograph has become an iconic symbol of Alberta's energy heritage, the spudding of the Leduc Number 1 oil well on 13 February 1947 (Fig. 2.2).

The first large scale oil deposit discovery in Alberta, Leduc No. 1 has come to personify a set values that have been ascribed to the oil industry in Alberta. This photograph has been used repeatedly in the popular media to represent not solely

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[2]On the social construction of museum exhibits see Dirks et al. (1994); Boswell and Evans (1999).

Alberta's entry into the modern oil industry, but also a metaphor for Alberta's prosperity, our identity as "oil" country. Hariman and Luciates (2007) argue that iconic images represent unspoken civic virtues associated with an historic event. In the Leduc No. 1 image, the dominant reading communicates a message. Devoid of people, it nevertheless makes a strong statement about the role of humans in nature and the character of the men (there were few women) whose ingenuity and hard work have harnessed it. It states in no uncertain terms that human industry can control or bend nature to our economic purposes. And that the business risks and physical perils of oil extraction – taken by those who work in and run the oil industry – are worth the economic gamble (Thompson 1998; Friedel 2008).

But does this photograph simply capture an historic moment? In actuality, this apparently spontaneous depiction of the discovery of oil at Leduc was carefully stage-managed over 2 days – the gas flare-off ignited "on command" for full media effect – by Imperial Oil's manager, for the benefit of reporters and government officials (Thompson 1998:150). A contrivance, the image does not simply reflect, but *creates* a link between entrepreneurship and resource exploitation as inter-related virtues. In turn, it establishes a singular, utilitarian vision of nature that becomes unquestioned, reducing social critique and meaningful debate about trade-offs.

In Canada, images of natural resource exploitation – mines, logging trucks, oil rigs, dams, and fishing boats – are routinely depicted as part of the industrial and cultural aesthetic of the nation. Such images offer representations of certain elements of nature (and society) as expendable – especially as governments and corporations unleash new sources of energy and wealth. Most people draw on preferred readings of resource extraction without reflection: "they do so because these cultural structures – by virtue of their institutionalization – are the most widely available, retrievable, and familiar" (Gabara 2006). In northern Alberta's tar sands, nature's offerings became photographic clichés that recur across the visual record – the treasure troves of tar and oil weeping down the riverbanks; prestigious visitors with cupped-hands full of rich black sand; and humans dwarfed by geological deposits and later by mining equipment. Schwartz' socio-historical approach directs our attention to the pre-texts of viewing, that is, the "intellectual baggage which needs to be teased out by thinking not only *about*, but also *with*, the photograph, by using it not simply as a source of facts, but as a mode of inquiry, by bringing context to the photograph, better to understand the context. What, then, did [in our case photographic images] mean to those who read the texts, saw the images, studied the maps, and examined the specimens…?" (Schwartz 2003:114).

Mapping Flows: Words and Images in the Network Society

Changes in communications technology have enabled not only enhanced ability to alter images, and to expand the scale of that imagery, but have also enabled rapid dissemination through a global communications network. These changes represent just one means by which context matters. While the rhetorical tactics embodied in discourse may have withstood the tests of time, the role of discourse in politics today is qualitatively different than was the case when the Athabasca tar sands were first discovered a century ago. To a much greater extent than has ever been the case in history, political engagement today can be premised solely on the basis of discourse, rather than personal experience or nation-state membership. Advances in communications technology have enabled a relinquishment of the reins of communication channels by established state, corporate and media channels, although vested interests most certainly have sustained a dominant position. This global communications network is superimposed upon much older, but nonetheless evolving, networks of capital and resource flows.

As noted by several globalization theorists (e.g. Mann 1993; Urry 2000; Giddens 1999; Bauman 2000), contemporary societies are just plain messy; messier in many cases than the conceptual mainstays of sociology – nation-state, class, etc. – allow. There have been some recent theoretical innovations, however, that offer researchers new resources. Certainly, Manuel Castells' work on the Network Society (2010) – a term originally coined by van Dijk (1991) – is notable. In this work, Castells explores how social structures and processes increasingly become organized around electronically processed information networks, networks which can be described by multiple linkages and the hubs where they intersect. Urry (2000) offers a conceptual

framework, consisting of "scapes" and "flows", which is especially useful for our analysis. According to Urry, scapes – including communication networks – represent the canvas upon which social processes unfold: "the networks of machines, technologies, organizations, texts and actors that constitute various interconnected nodes along which the flows can be relayed…. Once particular scapes have been established, the individuals and especially corporations within each society will normally try to become connected to them through being constituted as nodes within that particular network" (Urry 2000:35). These scapes are not purely ethereal, however, but rather:

> constitute relatively determinate networks or chains of exchange within a space. The world of commodities would have no 'reality' without such moorings or points of insertion, or without their existing as an ensemble … of stores, warehouses, ships, trains and trucks and the routes used …. Upon this basis are superimposed—in ways that transform, supplant or even threaten to destroy it—successive stratified and tangled networks which, though material in form, nevertheless have an existence beyond their materiality: paths, roads, railways, telephone links, and so on. (Lefebvre 1991: 402–3)

Because such scapes constitute a physical and relatively fixed presence, the channels constructed also describe patterns of equity, as they empower some, and pass by others (Graham and Marvin 1996). Even the seemingly ubiquitous networks, such as that of digital information, are constrained by the direction of investments into microwave towers, fibre-optic cables, and the like, which must go somewhere in space, and thus favour some routes over others. This is not to say that the maps describing the global network society are static, but they most certainly do not evolve instantaneously. Consider, for instance, the construction of an oil pipeline, which by virtue of the sheer magnitude of investment required for its construction, "fixes" a channel of a given volume, between a particular producer and a particular consumer (or processor, or distribution point), for several decades (Fig. 2.3). Others are more malleable, such as the shifts in flight patterns – Canadian airlines were relatively quick to respond to patterns of labour supply and demand with direct flights between Newfoundland and Fort McMurray, for example. This map of *intentional* networks – those constructed for desired effects – also has unintended consequences, however, including the obvious, like closing doors to alternative pathways, and the not-so-obvious, like the hollowing out of communities in Newfoundland of much-needed human capital. The scapes defining contemporary society also include *un*intentional pathways for the flows of risk, waste, and so on. These channels are carved by biospheric processes such as water cycles, air sheds, river basins and ocean currents.

The flows in question "consist of peoples, images, information, money and waste, that move within and especially across national borders and which individual societies are often unable or unwilling to control directly or indirectly" (Urry 2000: 36). Each of these flows must necessarily move at different paces, however, paces that are dictated to a great extent by the physical properties of the elements themselves. The flow of energy sources is an elemental factor of our economies. One of the most ubiquitous commodities on the planet, coal, is an extremely heavy solid that can withstand a variety of environmental conditions, but that has a relatively
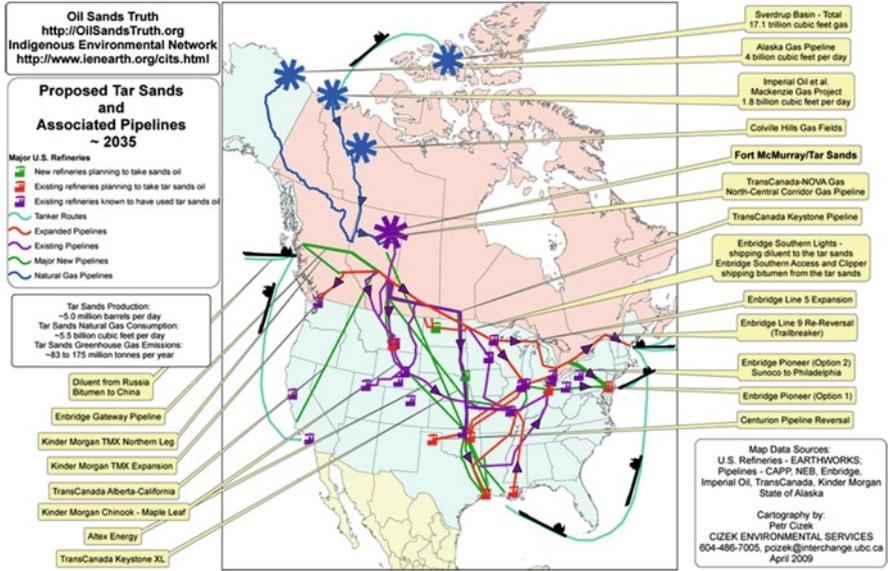
Fig. 2.3 http://oilsandstruth.org/updated-continental-maps-pipelines-2035. Used with permission

low value-to-volume ratio, and thus it makes economic sense to minimize the distance travelled and makes the containers as large as possible for the sake of efficiency. Natural gas, on the other hand, is literally lighter than air, but can only travel by pipeline without the introduction of rather tedious, expensive, and extremely dangerous liquefaction processes and has a nasty tendency to explode. Many renewable forms of power, such as wind and solar, can only be transported directly by power line, along which the strength of that current dissipates, and thus they have an extremely limited geographical market reach. Digital forms of information and money can move virtually instantaneously by comparison. Humans, of course, have their own sets of requirements while in transit.

What is of particular interest in this study are the intersections among flows in space and time, particularly the intersections between environmental and resource flows, and the discourses employed to describe them. Discourse does not exist in a vacuum, after all. History is defined not just by ideas, but rather by their inherent materiality; by the ever-evolving inter-relationships between the material world on the one hand, and on the other, how we talk about that world and our place in it. The evaluation of discursive legitimation in environmental and natural resource politics is relatively new, and yet holds tremendous intellectual merit, given the dynamic intersections between material and non-material, objective and subjective matters that both highlight the fluidity of modernity and ground that modernity in physical space and historical time (Urry 2010; Freudenburg 2006). As noted by Escobar (1996), a materialist analysis *must* encompass a discursive analysis, as our material "reality" cannot be separated from our discursive representations of it. The very

expansion of capital onto nature presupposes a discursive consumption of nature *as* capital (O'Connor 1988, 1998).

The effects on society and individuals of such complexity have been remarked upon by several scholars, the most notable of which are the escalating pace and tandem decline in predictability of social change, or what Archer (1995) calls processes of morphogenesis. We highlight a few more specific effects of particular interest to the current analysis. The first such effect of interest is social equity. The multiple intended and unintended consequences of global flows which favour some and compromise others have engendered the emergence of "resistance identities" (Castells 1997: 356), bound not by geography but by constructed identities defined by their relationship to these flows. In turn, a significant feature of contemporary social movement activity is that information technologies have enabled resistance movements some success (Evans 2000). Indeed, the anti-globalization movement is one of the most compelling trends in global politics today (Buttel and Gould 2004).

We should not wax too optimistic about these trends, however, without critical consideration of some not-so-new but rather enduring forms of inequity. The power imbalance between staples providers and advanced economies that consume them describes an age-old dependency relationship that has deepened as the scarcity of critical resources has expanded the geographical confines of their exploitation by states and corporations. In addition, prospects for the formation of international resistance identities are defined not solely by the geographic map of the communication netscape described above, but also by the individual-level human capital needed to access that network. While the rise of digital media has undoubtedly opened political doors to members of the middle classes, it has provided an additional form of marginalization for the world's poor.

A second effect of interest, called "nominalization" by Fairclough (2003: 11) "contributes to what is … a widespread elision of human agency in and responsibility for process in accounts of the 'new global economy' … nominalizations reduce agency and obscure who is responsible for change". The discourses swirling around the Athabasca tar sands are replete with examples of nominalization, in which decisions appear inevitable and responsibility for actions taken is lost. To take just one example, a repeated trope in tar sands discourse used by corporate and state interests goes something like this: "the global demand for oil is driving the pace and scale of oil sands expansion". To a significant degree, nominalization represents an individual response to a seemingly overwhelming social system. Increasing mobility and fluidity in our "Liquid Modernity" introduce feelings of detachment and uncertainty (Bauman 2000). Humans increasingly must manoeuvre within circumstances "which are not of their own making" (Urry 2000:14), encouraging a sense of personal disempowerment. But nominalization is not *only* personal, it has its expression in organizational behaviour as well. Our very organizational efforts to simplify complex environments, by means of specialization and compartmentalization, for example, narrow an agent's vision of the consequences of her actions. The focus of attention is reduced to that one purchase, that one licence application, rather than the cumulative effects of multiple decisions and transactions.

This book is not primarily a theoretical treatment, and thus this presentation of theory is notably brief, presented namely for the purposes of identifying those of our own theoretical musings that have influenced our empirical analysis. We spend much of our effort characterizing the scapes and flows that define tar sands politics, but our purpose is not merely descriptive. Our goal is to identify certain trends and conditions in this political theatre that may amount to collective tendencies toward differing future pathways. Will we continue along a trajectory of increasing reliance on non-conventional fossil fuels, enduring all the calamities embodied in that pathway, or will the Athabasca tar sands serve as an icon, fostering support for, and development of the means toward, transition to alternative pathways?

References

Alario, M. & Freudenburg, W.R. (2006). High-risk technology, legitimacy and science: the U.S. search for energy policy consensus. *Journal of Risk Research 9*(7):737–53.

Archer, M. (1995). *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge University.

Bauman, Z. (2000). Liquid Modernity. Cambridge: Polity Press.

Benford, R.D. (1993), Frame disputes within the nuclear disarmament movement. *Social Forces 71*(3), 677–701.

Benford, R. (1997). An Insider's Critique of the Social Movement Framing Perspective. *Sociological Inquiry 67*(4),409–430.

Bennett, T., Grossberg, L. & Morris, M. (Eds.). (2005). *New Keywords: A Revised Vocabulary of Culture and Society*. Oxford: Blackwell.

Block, F.L. (1977). The ruling class does not rule. *Socialist Revolution 7*(33), 6–28.

Boswell, D. & Evans, J. (Eds.). (1999). Representing the nation: a reader. *Histories, Heritage and Museums*. London: Routledge.

Bunker, S.G. & Ciccantell, P.S. (2005). *Globalization and the Race for Resources*. Baltimore: Johns Hopkins University.

Buttel, F.H. & Gould, K.A. (2004). Global social movement(s) at the crossroads: some observations on the trajectory of the anti-corporate globalization movement. *Journal of World Systems Research 10*(1), 37–66.

Carlson, H.M. (2004). A watershed of words: litigating and negotiating nature in Eastern James Bay, 1971-75. *The Canadian Historical Review 85*(1), 63–84.

Castells, M. (2010 [1996]). *The Rise of the Network Society*. Oxford: Wiley-Blackwell.

Castells, M. (1997). *The Power of Identity*. Oxford: Blackwell.

Castree, N. & Braun, B. (2006). Constructing rural natures. In Cloke, P., Marsden, T., & Mooney, P. (Eds.). *Handbook of Rural Studies*. London: Sage.

Daub, S. (2010). Negotiating sustainability: climate change framing in the Communications, Energy and Paperworkers Union. *Symbolic Interaction 33*(1),115–140.

Davidson, D.J. & MacKendrick, N.A. (2004). All dressed up and nowhere to go: the discourse of ecological modernization in Alberta, Canada. *Canadian Review of Sociology and Anthropology 41*(1), 47–65.

Dirks, N., Eley, G. & Ortner, S. (Eds.). (1994). *Culture/Power/History: A Reader in Contemporary Social Theory*. Princeton: Princeton University.

Dodge, M. & Perkins, C. (2009). The view from nowhere? spatial politics and cultural significance of satellite photography. *Geoforum 40*(4), 497–501.

Eckersley, R. (2004). *The Green State: Rethinking Democracy and Sovereignty*. Cambridge: MIT.

Escobar, A. (1996). Construction nature: elements for a post structuralist political ecology. *Futures 28*(4), 325–343.

Evans, P. (2000). Fighting marginalization with transnational networks: counter-hegemonic globalization. *Contemporary Sociology 29*(1), 230–241.

Every, D. & Augoustinos, M. (2007). Constructions of racism in the Australian parliamentary debates on asylum seekers. *Discourse and Society 18*(4), 411–36.

Fairclough, N. (2003). *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Fairclough, N., Graham, P., Lemke, J., & Wodak, R. (2003). Introduction. *Critical Discourse Studies 1*(1), 1–7.

Ferrari, F. (2007). Metaphor at work in the analysis of political discourse: investigating a 'preventive war' persuasion strategy. *Discourse and Society 18*(5), 603–25.

Finlayson, A. (1994). *Fishing for Truth: A Sociological Analysis of northern cod stock assessments from 1977 to 1990*. St. John's: Institute of Social and Economic Research, Memorial University.

Fitzsimmons, R. C. (1953). *The Truth About Alberta Tar Sands: Why Were They Kept out of Production?* Edmonton, Alberta. Pamphlet.

Foucault, M. (1978). *The History of Sexuality.* New York: Vintage.

Friedel, T. (2008). (Not so) crude text and images: staging Native in 'big oil' advertising. *Visual Studies 23*(3), 238–254.

Freudenburg, W.R. (2006). Environmental degradation, disproportionality, and the double diversion: reaching out, reaching ahead, and reaching beyond. *Rural Sociology 71*(1), 3–32.

Freudenburg, W.R. (2005). Privileged access, privileged accounts: toward a socially structured theory of resources and discourses. *Social Forces 84*(1), 89–114.

Freudenburg, W.R. & Alario, M. (2007). Weapons of mass distraction: magicianship, misdirection, and the dark side of legitimation. *Sociological Forum 22*(2), 146–173.

Freudenburg, W.R., Gramling, R., & Davidson, D.J. (2008). Scientific Uncertainty Argumentation Methods (SCAMs): science and the politics of doubt. *Sociological Inquiry 78*(1), 2–38.

Frickel, S. & Davidson, D.J. (2004). Building environmental states: legitimacy and rationalization in sustainability governance. *International Sociology 19*(1), 89–110.

Gabara, E. (2006). Recycled photographs: moving still images of Mexico City, 1950-2000. In Schwartz, M.E. & Tierney-Tello, M.B. (Eds.), *Photography and Writing in Latin America: Double Exposures*. Albuquerque: University of New Mexico.

Geertz, C. (1966). Religion as a cultural system. In Banton, M. (Ed.), *Anthropological Approaches to the Study of Religion*. New York: Praeger.

Giddens, A. (1999). *Runaway World: How Globalization is Reshaping Our Lives*. London: Profile.

Goffman, E. (1974). *Frame Analysis*. Cambridge: Harvard University.

Graham, S. & Marvin, S. (1996). *Telecommunications and the City*. London: Routledge.

Greider, T. & Garkovich, L. (1994). Landscapes: the social construction of nature and the environment. *Rural Sociology 59*(1), 1–24.

Habermas, J. (1975). *Legitimation Crisis*. Ypsilanti: Beacon.

Hajer, M.A. & Versteeg, W. (2005). A decade of discourse analysis of environmentalpolitics: achievements, challenges, perspectives. *Journal of Environmental Policy & Planning 7*(3), 175–84.

Hajer, M.A. (1995). *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford: Clarendon.

Hall, S. (2002). The west and the rest: discourse and power. In Shech, S. & Haggis, J. (Eds.), *Development: A Cultural Studies Reader*. Oxford: Blackwell.

Hannigan, J.A. (1995). *Environmental Sociology*. London: Routledge.

Hannigan, J.A. (2006). *Environmental Sociology* (2nd ed.). London: Routledge.

Hariman, R. & Luciates, J.L. (2007). *No Caption Needed: Iconic Photographs, Public Culture, and Liberal Democracy*. Chicago: Chicago University.

Hunter, G. (1955). Athabasca tar sands. A photographic essay. *The Beaver*. Winnipeg: Hudson's Bay Company. (1955), 14–19.

Jacobs, K. (2006). Discourse analysis and its utility for urban policy research. *Urban Policy and Research 24*(1), 39–52.

Jacobs, R. & Sobieraj, S. (2007). Narrative, public policy, and political legitimacy: congressional debates about the nonprofit sector, 1894-1969. *Sociological Theory 25*(1), 1–25.

Lazuka, A. (2006). Communicative intention in George W. Bush's presidential speeches and statements from 11 September 2001 to 11 September 2003. *Discourse and Society 17*(3), 299–330.

Lefebvre, H. (1991). *The Production of Space*. Oxford: Blackwell.

Luhmann, N. (1989). *Legitimation durch Verfahren*. Frankfurt am Main: Suhrkamp.

Mann, M. (1993). *The Sources of Social Power, Vol. 2*. Cambridge: Cambridge University.

Mohai, P. & Saha, R. (2006). Reassessing racial and socioeconomic disparities in environmental justice research. *Demography 43*(2), 383–99.

Mollé, F. (2007). Sacred cows, storylines and nirvana concepts: insights from the water sector. Paper presented at World Water Week, Special Session on Water, Politics and Development. Stockholm, August.

Neufeld, M. (2004). Pitfalls of emancipation and discourses of security: reflections on Canada's 'security with a human face.' *International Relations 18*(1), 109–123.

O'Connor, J. (1998). *Natural Causes: Essays in Ecological Marxism*. New York: Guilford.

O'Connor, J. (1988). The second contradiction of capitalism. *Capitalism, Nature, Socialism* (1):11–38.

Pratt, L. (1976). *The Tar Sands: Syncrude and the Politics of Oil*. Edmonton: Hurtig.

Richardson, M., Sherman, J. & Gismondi, M. (1993). *Winning Back the Words: Confronting Experts in an Environmental Public Hearing*. Toronto: Garamond.

Rothstein, B. (2007). Creating state legitimacy: the five basic models. Annual Meeting of the American Political Science Association, Chicago Aug 28-Sept 2. http://www.law.yale.edu/documents/pdf/intellectual_life/rothstien_creating_state_legitimacy.pdf. Accessed 25 July 2011.

Schwartz, J. (2003). More than 'competent descriptions of an intractably empty landscape': a strategy for critical engagement with historical photographs. *Historical Geography 31*.105–30.

Smith, A. & Kern, F. (2007). The transitions discourse in the ecological modernisation of the Netherlands. SPRU (Science & Technology Policy Research), University of Sussex, UK. Paper for the Earth Systems Governance conference in Amsterdam, 24-26 May. http://www.2007amsterdamconference.org/Downloads/AC2007_SmithKern.pdf. Accessed 25 July 2011.

Snow, D.A., Rochford, E.B. Jr., Worden, S.K., & Benford, R.D. (1986). Frame alignment processes, micromobilization, and movement participation. *American Sociological Review 51*(4): 464–481.

Shenhav, S.R. (2005). Concise narratives: A structural analysis of political discourse. *Discourse Studies 7*(3), 315–35.

Shore, C. & Wright, S. (1997). Policy: a new field of anthropology. In Shore, C. & Wright, S. (Eds.). *Anthropology of Policy: Critical Perspectives on Governance and Power*. London: Routledge.

Sontag, S. (1991). *Aids and its Metaphors*. Harmondsworth: Penguin.

Thompson, J.H. (1998). *Forging the Prairie West: The Illustrated History of Canada*. Toronto: Oxford University.

Urry, J. (2000). *Sociology Beyond Societies: Mobilities for the Twenty-first Century*. London: Routledge.

Urry, J. (2010). Consuming the Planet to Excess. *Theory, Culture & Society 27*(2–3),191–212.

van Dijk, T. (Ed.). (1997). *Discourse as Social Interaction*. London: Sage.

van Dijk, J. (2006 [1991]). *The Network Society: Social Aspects of New Media* (2nd ed.). London: Sage. Orig pub in Dutch: 1991. *De Netwerkmaatschappij: Sociale aspecten van nieuwe media*. Bohn Stafleu en van Loghum, Houten.

Vitalis, R. (2009). *America's Kingdom: Mythmaking on the Saudi Oil Frontier*. London: Verso.

Wood, D., Fels, J. (1992). *The Power of Maps*. New York: Guilford.