

2018

Communicative Barriers to Climate Change Adaptation: Exploring Ideology in the Calgary Herald

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COMMUNICATIVE BARRIERS TO CLIMATE CHANGE ADAPTATION:
EXPLORING IDEOLOGY IN THE CALGARY HERALD

by

John Gould

A Major Research Paper
Submitted to the Faculty of Graduate Studies
through the Department of Communication, Media and Film
in Partial Fulfillment of the Requirements for
the Degree of Master of Arts at the
University of Windsor

Windsor, Ontario, Canada

2018

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EXPLORING IDEOLOGY IN THE CALGARY HERALD

by

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July 17, 2018

AUTHOR'S DECLARATION OF ORIGINALITY

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ABSTRACT

This major research paper explores how climate change is discussed in the *Calgary Herald* and what some of the potential implications might be for such discourse. I argue that communication about climate change must be altered in order to generate widespread public understanding. First, I argue that climate change must be regarded as an issue of social justice if it is to gain any traction as a social movement. Next, I review the current state of governmental and environmental action within Alberta. Then efforts are directed towards explaining the importance of communication, and in particular, how certain texts can be ideologically constrained. A content analysis and a critical discourse analysis are conducted on a sample of articles from the *Calgary Herald* that include the term climate change. Finally, suggestions are made to help readers improve communications on the subject, reduce their carbon footprint, and support sustainability.

ACKNOWLEDGEMENTS

I give my gratitude to my advisor, Dr. Karen Engle and my departmental reader, Dr. Susan Bryant for their guidance, supervision, and invaluable help throughout this project. I would like to acknowledge the entire faculty in the Department of Communication, Media & Film at the University of Windsor and particularly Richard Lewis, Garth Rennie, and John Cappucci for helping me realize my full potential.

I also give thanks to my parents and my partner for their unwavering support and motivation. Without them, the completion of this work would not have been possible. I would like to give thanks to my fellow students in the program; it has been great to know all of you. Thank you for all of the fun and encouragement through it all. I could not have asked for a better group of peers to share the seminar room with.

Finally, I give thanks to all of those who have made efforts in pursuit of social justice. Your commitment inspires us all.

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CHAPTER I: CONTEXT, HISTORY, AND SIGNIFICANCE

(i) Social and Environmental Justice

Climate change presents a problem that is beyond the capability of the physical sciences alone to address. The conditions that brought us climate change, as well as the conditions surrounding future options for dealing with it, are embedded in socioeconomic structures and value systems, embracing material advancement and fossil fuels – structures which are highly resistant to change (Trumbo & Shanahan, 2000, p.200). Action must be taken in order to protect the environment and ensure the survival and wellbeing of people all over the world (Carey, 2012). I argue that the first step in approaching this prodigious task is to reconsider the way climate change is communicated. Therefore, my research analyzes existing climate change communication in a major Canadian newspaper and asks what implications such coverage might have for climate change discourse in everyday life?

Within this context, this introduction explains how climate change is an issue of social justice. Next, it operationalizes several key terms, discusses why this research is conducted out of necessity, and focuses on the state of environmental affairs in the province of Alberta (the centre of Canada's energy economy). By examining several important concepts and events regarding the environmental movement, readers are provided with a contextual frame of reference that is essential to understanding the document as a whole. Also included is a content analysis, a critical discourse analysis, and a detailed discussion surrounding the barriers preventing climate change adaptation. The research concludes by proposing easily adoptable ways to generate effective communication on the issue of climate change.

Climate change is defined as “a large-scale change in the climate system that takes place over a few decades or less, persists (or is anticipated to persist) for at least a few decades, and causes substantial disruptions in human and natural systems” (Clark et. al, 2008). At the heart of climate change is the notion that human activity is altering the natural composition of the planet’s atmosphere to a degree sufficient to affect the processes that have shaped the global climate for millennia (Trumbo, 1996, p.273). Evidence supporting this fact is overwhelming. In fact, ninety-seven percent of climate scientists agree that climate change is happening as a result of human actions (Shiffman, 2014). Despite the almost universal consensus, a significant amount of controversy occurs over issues such as: who is responsible for climate change, what is its speed, and what types of changes will the earth undergo as a result? At present, it is clear that the planet cannot possibly sustain current levels of consumption indefinitely; something has to change in order to offset this doomsday trajectory for if everyone on the planet were to match the current patterns of consumption in North America, it is estimated that the earth could sustain only one-half billion people (Hawkins, 2010).

This is the reason why climate change is an issue of social justice. Social justice is defined as “promoting a just society by challenging injustice and valuing diversity” and exists when “people share a common humanity and therefore have a right to equitable treatment, support for their human rights, and a fair allocation of community resources” (Caravelis & Robinson, 2016, p.8). Climate justice as it relates to social justice is a topic of pressing interest within both academia and beyond. It is more than an ethical consideration as future generations will be increasingly reliant on functional ecosystems for basic and rudimentary survival and will be greatly influenced by the choices and

behaviours that we as a global community adopt today. The goal of climate justice is not only to lessen some of the worst attacks on human rights and environmental standards but to also encourage thinking about a transformative movement across the country that will improve the lives of Canadians and kick-start a transition away from fossil fuels. The voices of concerned citizens documented in *Challenging Legitimacy at the Precipice of Energy Calamity* (Davidson & Gismondi, 2011) offer a much more urgent and compelling account of the affairs in Alberta as they relate to the environment and energy production:

We speak as citizens of Calgary and of Alberta, but also as citizens of Canada and of the Earth, which is after all, our only home.... Ultimately, the issue that we face in considering the future of the oil sands in Athabasca is not economic or political, or even social. It is a moral and ethical question that strikes right at the heart of who we are. (p.139)

At the time of writing, we find ourselves in the midst of two historical and unprecedented moments in time where we are the first generation to really feel the effects of anthropogenic climate change and the last to enact meaningful and transformative change before global temperatures grow near to 2°C above pre-industrial levels. To remind readers, temperatures have risen approximately 0.8°C degrees since the industrial revolution (University Corporation for Atmospheric Research, 2017). Should we fail to take climate change adaptation seriously, the planet's average temperature will continue to rise and we will witness dramatically rising sea levels, losses in biological diversity, changes in food production, and increases in the occurrence and severity of natural disasters, all on a magnitude never before witnessed. These instances listed are not just a

threat to humanity's collective quality of life, but represent the changes to come if we are not willing to begin the fight for climate justice (Davidson & Gismondi 2011, p.169). The enormity and difficulty of this shift in societal thinking is not lost upon the writer; it is clear that it will take massive amounts of political will, corporate co-operation, and a global agreement that adopts the mantra "we are all in this together." Yet adaptation cannot occur if vast numbers of people ideologically deny the existence of climate change (Wood, 2017).

According to Carvalho, (2007, p.225) ideology is defined as a system of values, norms, and political preferences, linked to a program of action vis-à-vis a given social and political order. Ideology is also founded on the basis of value judgments, ideas about how things should be and the preferred forms of governance of the world. This is the theoretical definition of ideology that is utilized herein when examining the representation of climate change in the *Calgary Herald*. The dissemination of information on ways to combat climate change in Alberta continues to be a problematic and highly politicized issue. Erik Kojola offers his readers some explanation as to why climate change is disregarded in the province when the oil economy crashed in 2015. He writes, "reliance on ideology to maintain legitimacy may also be heightened during moments of crisis and political cycles" (2015, p.2). It has become easier for people in the province to deny climate change and reject the policies that encourage adaptation rather than accept the realities associated with the issue. Doing so would mean delegitimizing readers' industry, lifestyle, and high paying jobs that have been at the core of the province's idea of success since its founding.

In light of this, the power and significance of successful communication cannot be overstated during the processes of adaptation and change. The barriers to creating effective communication about climate change have not been well researched by social scientists. The majority of the research on climate change communication is obsolete and concentrates on the American, British, and Australian contexts. The research conducted in this paper serves as a contribution to the growing critical conversation around environmental coverage in the Canadian media landscape with a special emphasis on Alberta. With a handful of notable exceptions (Davidson & Gismondi 2011, Kojola 2015, Gunster & Saurette 2014, DiFrancesco & Young 2011), scholarship surrounding the barriers to climate change adaptation in Canada has been limited thus far. This is especially the case for the city of Calgary, which is widely regarded as the financial capital of the fossil fuel industry in Canada. It is a place which exerts undue influence on provincial and federal energy policies. As well, the news media in Calgary “are seen as important conduits and actors in influencing public awareness and opinion on climate change” (Gunster & Saurette, 2014, p.334). Moreover, the province is responsible for over a third of Canada’s greenhouse gas emissions and is the highest polluter in the country (Varcoe, 2015). Finally, there has been minimal research conducted on the environmental movement in Alberta since the New Democrats came into power and the price of oil collapsed. These two unprecedented events transpired in 2015 and have sparked an increase in media coverage surrounding fossil fuels and climate change. With that being the case, the research carried out in the rest of the MRP is novel, original, and necessary.

Numerous science-based studies (Chaudhary & Bawa, 2011; Orsekes, 2018) have already focused on the science behind climate change. We understand the statistics and we know that climate change is a real phenomenon (Merilä & Hendry, 2014). However, we do not know how to communicate about the topic in the best way possible. There is a common assumption that policy is made on the basis of facts and figures, but throughout this paper I argue that the ways in which ideology becomes instilled through news discourse is of extreme importance, and perhaps even more so than data and numbers. New research on the subject of oil in Alberta must include questions such as: is there a long-term future in this industry? What are some of the costs associated with extraction? Who benefits? Who suffers? I present a case study on the *Calgary Herald*, as the newspaper plays an important role in communicating environmental issues to laypeople. In this case study, I examine the type of environmental news coverage in Calgary along with the pro-industry ideology, conservative political slant, and several other contextual factors related to the wider sociopolitical context in which they are both produced and consumed.

The *Calgary Herald* is one of the top ten dailies in the country (Newspapers Canada, 2011). It is also closely linked with the oil sands and aggressively champions the resource as a key driver of national prosperity and economic growth (Gunster and Saurette, 2014, p.335). The province of Alberta holds the third largest amount of proven resources in the world (Hasse & Raufflet, 2012, p.382). Estimated at a number between 1.75 and 2.5 trillion barrels of oil (Chastko, 2004), Alberta has enough oil to supply all of Canada's petroleum needs for the next 475 years without using a single drop from another source. If all of Alberta's oil deposits were to be burnt, the atmospheric

concentration of CO₂ would go from the arctic-melting level of 400 parts per million to 540 parts per million (D'Arcy et al., 2014). It goes without saying that the stakes are high within this province and there will have to be a wholesale shift in Alberta's ideology for climate and social justice to be realized.

(ii) The Province of Alberta

Albertans are in the infancy of the potentially massive economic, environmental, and social repercussions of climate change. The province just felt its hottest year on record (Carrington, 2016) and is heading into unknown territory. Furthermore, Alberta is just recovering from one of the worst economic bust cycles that it has ever witnessed. The price of oil had fallen nearly three quarters in value from its approximate \$100 per barrel in January of 2014 to just \$29 per barrel in January of 2016 (Oil Price Charts, 2017). This crash has had a dramatic impact on thousands of families who rely on income from the fossil fuel industry to put food on their tables. Provincial unemployment sat at 9.3% in May of 2017, the highest of any major Canadian city – and the highest rate in 22 years (Government of Alberta, 2017). According to the Canadian Association of Petroleum Producers (CAPP), Canada has lost more than 40,000 jobs in the oil and gas industry since the beginning of my data set (January 2015) (Arsenault, 2017). A loss of jobs coupled with economic insecurity can negatively affect the level of public concern about climate change (Papoulis, et al., 2015). Research from Nisbet & Myers (2007) demonstrates that citizens will not express as much concern about climate change if they are unable to feed their families and make the payments on their houses. This is why I am interested in studying exactly how environmental coverage is positioned in the media during this time of economic peril.

The highly politicized debate that positions the economy versus the environment continues and has even seeped into naming conventions. For the purpose of my research, I use the term ‘oil sands’ because of its popularity instead of the metaphorical ‘tar sands’, which refers to the gooey hydrocarbon called ‘bitumen’ that is extracted from the ground. Both frames have been used since the resource’s discovery in the 1800’s but interestingly, the choice behind using either tar sands or oil sands carries an implicit bias (Fitzsimmons 1953; Hunter 1955; Pratt 1976). Critics frequently use the term tar sands, whereas industry and governments lean more towards the oil sands. This is a result of the nuances associated with the phrase tar as being something that is dirty or less valuable than oil. More importantly, the abandonment of the term tar sands comes from an insistent and well-funded strategy to naturalize oil extraction and frame it in a positive light. With the adoption of the ‘oil sands’ into the everyday vernacular, the tar sands’ controversial and threatening characteristics become more and more hidden. Davidson & Gismondi’s (2011) work found that 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. (p.42)

Alberta’s oil sands have fuelled the Canadian economy since their discovery and are one of the largest industrial projects in human history – covering an area larger than the state of Florida (Government of Alberta, 2009). After Venezuela and Saudi Arabia, Alberta holds the largest amount of proven oil resources in the world (Hasse & Raufflet,

2012, p.382). This area, (~140,000km²) is positioned in the heart of Canada's boreal forest and has already undergone an abundance of deforestation. This area also serves as a "significant storehouse for the world's freshwater supplies, and carbon, contained in its trees, soil, and peat" (Schneider & Dyer 2006). The Athabasca River also flows through this ecozone, which, at 1,538km is "Alberta's longest river and one of the few free-flowing undammed rivers left in North America" (Woynillowicz et. al., 2006). As stated by industry critics, "the cumulative effects of deforestation, habitat fragmentation, and species loss caused by exploration, open pit mines, urban development, forestry, and road clearing in the region are not being adequately managed or even considered" (Best & Hoberg, 2008).

I wish to make it clear that this research is not intended to be an emotionally charged vilification of the Alberta oil sands. Discourse on the subject has already been rife with conflict, resentment, and denial from both sides of the political spectrum. To avoid this, my research is meant to study the facts in Alberta and educate readers on what can be done to improve communication and lessen environmental degradation so as to further Canada's transition to a successful renewable energy economy. I will be the first to admit that each and every one of us use products from petroleum derived materials and like it or not, we currently live in a world that is heavily dependent on petroleum hydrocarbon-based products (King, 2017). They are the building blocks for our food, which is harvested by heavy equipment that is shipped around the world by air, water and rail. They are the basis of all plastics, electronics, and drugs we take when we are ill (ibid). There is not one person in Canada who is not reliant to some degree on Alberta's energy sector. Canada has a broad range of climate patterns. Towns like Fort Vermillion

have reached a bone chilling -61 C in the winter and in the south of Alberta, temperatures often climb to a scorching +40 C during the summer. There is simply no comfortable way to survive without creating emissions through heating and cooling our homes.

I would like to end by discussing an event that is essential to understanding both environmental justice and the oil industry in Alberta. In 2016 Alberta had cut nearly fifteen million dollars from its wildfire management program right before Fort McMurray was devastated by a record-breaking wildfire. The Fort McMurray fires are the worst natural disaster to happen in Canada to date, surpassing the record-breaking flood of 2013 that cost southern Alberta over five billion dollars in damages (Mertz, 2016). According to Mike Flannigan, a professor of wildland fires at the University of Alberta, the areas that are affected by wildfires in Canada have doubled in the last couple of decades (Flannigan, 2016). Human activity is to blame for igniting the fire, but “climate change helped propel the flames into a storm that made its own lightning and has left behind an estimated \$10 billion in damage – 250,000 hectares in size (965 square miles)” (Nikiforuk, 2016). As people release more emissions into the atmosphere, the frequency and severity of extreme weather events will intensify and diminish the surrounding boreal forest’s resistance to fire, disease, and insects (ibid).

The fires in Fort McMurray did what no politician has yet contemplated: they temporarily shut down a million barrels of oil sands production during the disaster and cancelled seventeen major projects due to worker shortages and safety concerns (Nikiforuk, 2016; Haavardsrud & Bakx, 2016). What would the province be like if these were to be continued? Former Premier of Alberta Peter Lougheed had publicly argued that the oil sands are advancing at a rate that is neither socially, nor economically

beneficial for the province. When oil prices drop below the cost of extraction, so too do the jobs related to the industry. For oil to be profitable it needs to be valued at over \$80 per barrel; and it currently sits at approximately \$65 (Financial Post, 2014). Completely terminating the oil sands would be catastrophic to the province. More practically, the province can implement a slow transition towards renewable and alternative energy to help adapt to climate change. Creating a low carbon future requires construction and engineering know-how, access to financial capital, and the ambition of policy makers who know that the province can, and must, change to be prosperous – characteristics that Alberta (and Calgary) have in abundance (Sudmant & Gouldson, 2018). With its highly educated population, the province has the capacity to deliver a policy that not only drives solutions but also leverages these solutions and provides international leadership and expertise.

(iii) The Government of Alberta

This section summarizes the strategies and tactics Alberta's government has adopted with regards to climate change. This relates to my media study because changes must also take place on a policy and governmental level. Ockwell et. al (2009), explain that the public looks towards governments to assume some responsibility for responding to climate change in various ways. As the regulatory body in charge of the oil sands, the government of Alberta plays a large part in the creation and implementation of environmental policies (Gunster & Saurette, 2014, p.340; Best & Hoberg, 2008) Without a doubt, the province is adjusting to the rise of the NDP for the first time in its over 40 years of Progressive Conservative leadership. Premier Rachel Notley is left with the

difficult task of protecting the environment on the one hand, and protecting the jobs of her electorate on the other. Debra Davidson and Mike Gismondi's research titled *Challenging Legitimacy at the Precipice of Energy Calamity* explores how communication surrounding the oil sands (ranging from media coverage to political proceedings) normalizes capitalist exploitation of the resource, and more importantly, "legitimizes the Alberta government as a petro-state (Karl, 1997) with an obligation to facilitate, coordinate, and subsidize exploitation" (Gunster & Saurette, 2014, p.334).

Long ruling parties in Alberta have developed close alliances with the oil industry and have been known to engage in the promotion of the oil sands (Davidson & Gismondi, 2011, p.84) In point of fact, a senior oil industry executive had been "appointed to oversee the oil sands' sustainable development program under the previous Conservative government" (Beeler, 2016). All the while the provincial government "continued to use their substantial state power to manipulate royalties, taxes, land concessions, labor laws, environmental policy and regulations to facilitate the interests of capital, all with limited oversight from citizens" (Davidson & Gismondi, 2011, p.221). The circulation of industry elites to and from politics or state bureaucracy is unmistakable; as is their authority and control over climate policies because the majority of the government's revenue in Alberta derives from oil and gas money (ibid). For this reason, conservative governments are likely to downplay the existence of climate change and undermine the potential impacts of a changing climate (Armitage, 2005). The conservative ideology in Alberta emphasizes "individual rights and absolute rights of private property and free enterprise without government intervention" (ibid). The conservative government's goal has been to unleash the power of the free market.

CHAPTER II: OVERCOMING BARRIERS IN CLIMATE CHANGE COMMUNICATION

(i) Contextual Information

In this chapter, I argue that creating effective climate engagement must occur through successful communication practices. To do so, this research analyzes existing communication with a discourse analysis. First, I must clarify what is understood by the term ‘discourse.’ The word discourse has an array of meanings but for the purpose of this research, I draw upon Hajer & Versteeg’s use of the word discourse, which is defined as “ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices” (2005, p.175). Hajer & Versteeg’s approach takes a critical stance towards analyzing ‘truth’ in a text. The fact that climate change receives attention in *The Herald* cannot be deduced from a scientific analysis of its urgency, but only from the ways texts can potentially influence the wider ‘everyday’ discourse, effectively altering the way people make sense of the phenomenon (Beck, 1995, p. 47).

Next, for successful communication to take place, communicators must first overcome an array of barriers that obstruct people’s cognitive, affective, and behavioural connection with climate change (Selin, 2010, p.158). Barriers, defined by Moser and Ekstrom, are obstacles that can be “overcome with concerted effort, creative management, change of thinking, prioritization, and related shifts in resources, land uses, institutions, etc.” (2010, p.220). Barriers in communication range from the use of agenda setting tactics, the change in media landscapes, the sheer enormity of the issue at hand, as well as the influence of balanced coverage, corruption, and ideology. These “malleable” obstacles are explained at length and followed by suggestions from existing literature on how they can be lessened or removed altogether with the use of political will, social

support, resources, and effort (Adger, 2009, p.335). This topic is of great significance because over the past thirty years, Albertans have been exposed to climate change coverage, outreach, and engagement strategies yet the state of public concern remains “shaky” (Moser, 2010). Throughout this chapter, several critical inquiries are raised regarding the effectiveness of the communication to date, the challenges that can be overcome, and finally, what opportunities exist for more effective approaches with regard to climate change communication.

First and foremost, the *Calgary Herald* is entrusted with the task of selecting which stories and frames about climate change are published (Antilla, 2005). This practice is commonly known as agenda setting or the media’s priming powers. Boykoff & Rajan’s (2007) work on media representation describes the considerable influence that agenda setting has on the public’s understanding of climate change because most people neither experience nor research environmental issues first hand. As a result, readers are dependent on *The Herald* to act as both the researcher and presenter of climate change facts because most people learn about climate change from the media (Zucker, 1978; Corrigan-Brown, 2016). Effectively, the *Calgary Herald* sets the public agenda by deciding what gets printed on their pages and what the readers can do without (McCombs & Shaw 1972). Critics may question the impact or relevance of a study on climate change coverage in *The Herald* at a time when readership is declining and newspapers are no longer the dominant agenda setters. However, newspapers still have the ability to greatly influence the agendas of local television and national newscasts (Golan, 2006), effectively shaping the views of a majority of Calgarians even if they do not read *The Herald*.

(ii) Ideology and Denial

The *Calgary Herald* is an important site in which to explore the ways that discourses are produced at the ideological level of meaning, and in turn, is responsible for shaping Calgarians' understanding of climate change (Kojola, 2015, p.6). Media discourse and ideology are mutually constitutive where texts result from ideological standpoints, and such texts (re)produce and/or challenge a certain ideology (Carvalho, 2007, p.60). Further inquiry uncovers why ideology makes climate change difficult to communicate, where ideologies stem from, and why nearly half of Albertans (Smith, 2013) deny the scientific facts demonstrating the truth behind anthropogenic climate change. Like any contentious or highly politicized issue, i.e. abortion, stem cell research, evolution etc., a reader's response to climate change is shaped by his or her ideology (Leiserowitz, 2006). Gunster & Saurette (2014, p.335) refer to the *Calgary Herald* as the Canadian paper that is most closely related to the oil sands and aggressively defends the resource as a key driver of economic growth. Ideologies embedded in *The Herald* can also contribute to "establishing, maintaining, and changing social relations of power, domination, and exploitation (Fairclough et al., 2003, p.9).

Analyzing the *Calgary Herald* is vital to understanding how pro-oil ideologies—the values, norms and political preferences, endorsing Alberta's oil sands—are experienced as common-sense accounts of the world (Gunster & Saurette, 2014, p.337). Pro-oil ideologies are disadvantageous for pro-environmental movements like Greenpeace, 350.org, and the Calgary Climate Action Network that are participating in a discursive struggle within the bounds of a newspaper that promotes and protects the industry against which it is campaigning. McChesney (1999) states that the media is an important arena for political debate and when climate change is barely covered by the

corporate media or misrepresented to fit the confines of elite debate, then readers of *The Herald* are dispossessed of the tools needed to be active participants in a democracy (ibid). Not only that, those trying to attain positive environmental coverage will have a difficult time because the legitimacy of climate action (or inaction) is “premised on the extent to which environmental narratives resonate with, rather than challenge, prevailing political-economic and ideological structures” (Davidson & Gismondi, 2011, p.26).

When people raise questions about the oil sand’s negative impact on the environment they are also inadvertently calling into question Alberta’s long history of innovation and progress. This is very unsettling for oil-proponents whose cultural knowledge is entrenched within the province’s historic system of values that “support laissez-faire economics, frontier landscapes, masculine individualism, and a strong populist ascription to political independence” (Davidson & Gismondi, 2011, p.192). The majority of readers have already approached these discourses donning their own “cultural lenses” (Moser, 2010, p.166) that have been socially cultivated, legitimized, and reinforced by the *Calgary Herald* over time.

Antonio Gramsci’s (1971) work on hegemony and language can be applied to *The Herald*’s potentiality to present an ideology that eventually becomes engrained through common sense and everyday practices. Following Gramsci, Albertans are not simply duped by false consciousness and ideology; rather, the paper’s portrayal of common sense becomes culturally meaningful when people’s fears are shaped by the realities of losing their jobs (Ives, 2004). As a result, certain readers’ opinions can be swayed to side with the ideology of those who obfuscate the contradictions of capitalism, naturalize its exploitation, and constrain the articulation of alternatives to oil (Carroll & Ratner, 1996;

Gramsci, 1971). Former premier of Alberta Ed Stelmach's statement at the Canadian Energy Research conference is verification of this argument: "To halt growth would be to deny our ability to meet growth's challenges with Alberta's leadership, innovation and entrepreneurial spirit" (Stelmach, 2007). Gramsci's claims are poignant here and highlight how through the use of ideology, ruling classes are able to naturalize and create consent for dominant systems (Birchfield 1999, p.34). This leaves readers at the helm of power structures that have the capability to disseminate ideologies that are deeply embedded in the institutions and culture of our societies (Castells 2009, p.304-5).

The fossil fuel industry has too much to lose (trillions of dollars in stranded assets) if the Alberta government decides to prioritize climate change adaptation. As a method of survival, oil companies (much like the tobacco companies before them) have been passionately fighting to legitimize their industry and have long tried to influence media coverage to affect the public's perceptions. Only now are we becoming more aware of the highly organized and well-funded group of climate skeptics that have gained discursive traction in the media (Antilla, 2010, p.242; Gelbspan, 1998) and as a result, are able to manipulate coverage to "reframe climate science and related policy issues with greater uncertainty, which in turn, breeds greater public confusion" (Boykoff & Rajan, 2007, p.209). William Freudenburg's (2005) work on the intense justification of ideologies that serve the interests of particular groups is particularly informative. He writes about the 'privileged accounts' of the wealthy, industry, and technical experts who are given precedence in the media and reinforce dominant ideologies. Gunster and Saurette (2014, p.354) also highlight the conflict of interest that occurred when the federal government allocated an additional eight million dollars to the Canada Revenue

Agency to audit environmental NGO's. Ostensibly to "ensure compliance with the statutory requirement that registered charities cannot spend more than ten percent of their resources engaged in "political activities" (ibid) The measure is viewed by Gunster and Saurette as an attempt to intimidate the environmental movement into moderating its critique of oil sands development and pipeline expansion (ibid). There are also reports of a backroom deal that took place between Postmedia and the Canadian Association of Petroleum Producers (CAPP). In 2014, a presentation was given to the CAPP by Postmedia suggesting that *The Herald* is especially eager to work alongside the oil and gas sector to "bring energy to the forefront of our national conversation" and "engage executives, the business community and the Canadian public to underscore the ways in which the energy sector powers Canada" (cited in Uechi, 2014; Gunster & Saurette, 2014, p.335). Another example of this conflict of interest happened in August of 2010 when the Alberta government crafted an advertising campaign that was "aimed at improving the image of the oil sands industry, designed to correct the misinformation planted by protestors" (CBC News, 2010). These are direct examples of the all too cozy relationships between the oil industry and other privileged accounts (Freudenburg, 2005).

Without a dramatic transformation in ideologies that support continual growth in fossil fuel consumption, it is unlikely that a substantial political mobilization will take shape. Without question, ideology in discourse is of paramount importance. I would like to draw upon Fairclough for some encouraging words at the end of this crucial section, who reminds us that "there is nothing that has been socially created that is inescapable of being socially changed. These representations are misrepresentations, which clearly contribute to sustaining unequal relations of power – they are ideological." (1995, p.134)

(iii) The Socio-Political Landscape of the *Calgary Herald*

Although climate change has been a recognized topic within the public sphere for quite some time, its coverage in *The Herald's* pages remains sparse. This is due in part to decreasing revenues from advertising, the monopolization of Canadian media (*The Herald* was purchased by Postmedia in 2015) and the emergence of free news online. It is important to remember that newspapers are businesses and economic constraints have helped precipitate a decline in investigative journalism. Expected to turn a profit, journalists are compelled to attract readership without challenging dominant power structures in Calgary (Parenti, 1986). The paper simply cannot afford to publish 'low-readership' content that could potentially run "counter to prevailing values" (Nelkin, 1995, p.111). Furthermore, the rapid nature through which we obtain and consume information forces the 'old-world' journalists to work around the clock to produce quality coverage. Journalists simply cannot keep up with the mounting pressures of new media that have transformed news into a 24-hour wire service. This is also reflected in the quality of coverage, whereby "news gathering efforts seek to find information to fill the story template rather than generating understanding of relevant viewpoints" (McLeod & Hertog, 1999, p.312) and more journalists are working as general assignment reporters as opposed to specialists (McChesney, 1999).

Additionally, journalists may impede successful communication by covering the climate change debate as balanced. While balance is an essential tool for objective and neutral reporting that covers "both sides in any significant dispute with roughly equal attention" (Entman, 1993), presenting both sides of the climate change debate as equal is neither a fair nor truthful representation. This strategy has given rise to the false belief

that climate deniers are as plentiful and influential as climate scientists (Boykoff et. al., 2004). Nelkin (1995) argues that in this instance, the norm of balance does not provide enough guidance to the audience as to the relative significance of opposing views. To the uninformed reader, claims made by climate denialists and climate scientists can appear equally valid. This over reliance on objectivity has seemingly taken precedence over critical and investigative reporting that speaks truth to power (Potter, 2011, p.133). It is also representative of how the media's construction of scientific knowledge is deeply intertwined with political ideology (Carvalho, 2007). This misrepresentation of the unanimity of agreement has also brought about considerable uncertainty among readers (Schweitzer et al., 2009, p.269) and allows policy makers to defray responsibility and delay action (Boykoff & Rajan, 2007). In effect, readers can still be misguided despite journalists' efforts to cover issues as impartially as possible.

Climate change is already a difficult enough topic to follow for both journalists and audiences. It is considered an issue that cannot be sufficiently covered in a few short articles, as one would cover a house fire or a bank robbery (Dotson, et. al., 2012). It takes significant cognitive effort for Calgarians to wrap their heads around the strategies for climate change adaptation as well as the potential effects on a reader's family, community, economy etc. (Moser, 2010). In light of these numerous considerations, readers can potentially experience a feeling of paralysis when confronted with the challenging and daunting information that so often accompanies climate change coverage (Lertzman & Wilt, 2015). What readers are experiencing is a form of "issue fatigue" or "green fatigue" that results in them being less motivated to learn about the issue. Reader apathy is only intensified during efforts to decode the wide array of inconsistent

information published in *The Herald* surrounding what “actions and consumer choices would achieve the lowest carbon footprint and more generally the smallest impact on the environment in terms of pollutants, toxins, and waste” (Selin, 2010). For readers to become interested and engaged in climate change adaptation, it is necessary for them to feel as though they have a sense of agency and the power to take action (Lorenzoni et al., 2007; Wolf & Moser, 2011). Arguably, this cannot happen if climate change discourse in *The Herald* is ideologically constrained and not well received by readers.

So what can be done to stimulate readers’ enthusiasm about climate change? Modifications can be made through adopting the strategies outlined in lessons from recent literature on the subject. Wibeck’s (2013) seminal work summarizes existing accounts of the ways in which environmental coverage has been reconstructed to better engage target audiences. First, Wibeck draws upon Myers et al. (2012) who express that promoting climate change as an issue of public health has proven to be useful in amassing public support for adaptation strategies in the United States. The *Calgary Herald* can adopt approaches that embrace the health benefits of eating less meat and purchasing food that is grown locally. To explain further, livestock on its own produces a sizeable volume of methane and nitrous oxide and food that is grown closer to Calgary will be responsible for fewer emissions from transportation (David Suzuki Foundation, 2017). In addition, Zia and Todd (2010) believe that priority should be given to highlighting the promising positive changes people will undergo as a result of transforming the energy sector. Feedback can also be given in the form of financial payback to homeowners who adopt measures to reduce emissions and energy use (Cooney, 2010). This can be conducted through use of digital tools such as carbon

calculators, where people can calculate their carbon footprint and compare the “relative contribution of different activities and how their lifestyles compare to others locally, nationally and globally” (Whitmarsh et al., 2011, p.58). These are examples of some of the potential gains that can serve as motivational tools for individuals, organizations, and communities around the province. However, Dilling and Moser (2007) state that presenting these gains alone are rarely sufficient to overcome the barriers typically encountered with climate change communication. If the *Calgary Herald* is to reshape its current forms of communicating on the issue and offer concrete “procedural knowledge” on how to adapt to climate change, the paper could then become the bridge between individual and collective political action. In order to reduce cynicism among readers, articles in *The Herald* can recount success stories that celebrate policies that have been successful in other jurisdictions, entrepreneurial endeavours, and efforts made by ordinary people. These are just some initiatives that can serve as a way for *The Herald*, as a dominant claims maker in the city, to encourage overcoming barriers to climate adaptation brought about by green fatigue. Of course, *The Herald* must be careful not to approach its coverage with a tone of alarmism or sensationalism. Communication that frames climate change as a dramatized and polarized issue only amplifies the reader’s lethargy. Hulme (2007) notes that these styles of reporting are counterproductive when attempting to engage readers on climate change related topics. Matters are only made more difficult because those who care most about climate change are unwavering partisans on opposing ends of the debate. Alarmists are the steadfast environmentalists who mistakenly believe that no social issue is more worthy of attention. Through the use of their communicative practices, alarmists ironically induce “paralysis [or]

apathy” among readers and “do not motivate people to become engaged with the issue of climate change" (Dilling & Moser, 2007). The use of fear appears to generate urgency and attention in the media is a de-motivator of action and is like “playing with fire” (ibid).

Dilling and Moser (2007) state that climate change should be left to those who have expert knowledge to signal, illustrate, and explain to those who do not. Proper communication is fundamental when trying to make climate change a salient topic in *The Herald*. Climate change needs to be communicated in a way that acknowledges that it is difficult to visualize, (as there is no clear enemy) but by no means is it less important than other spatially and temporally remote risks (Poortinga et al., 2011, p.1016). An old adage holds that “the first step in solving a problem is recognizing that a problem exists and in this lies the essence of the social aspect of issues like climate change” (Trumbo, 1996, p.269). Currently, Albertans, and just less than half of Calgarians (Wood, 2017), are in denial about climate change. This is an issue that begs closer examination into the relationship of the beliefs and values of the target population and why environmental communication is being disregarded (Chess and Johnson, 2007).

CHAPTER III: METHODOLOGICAL APPROACH

(i) Critical Discourse Analysis

Critical Discourse Analysis (CDA) is an interdisciplinary research method that analyzes the lexical and grammatical features embedded within a text (Stibbe, 2015). CDA suggests that texts are written with linguistic, stylistic, and structural choices in mind. Every aspect of textual content is a product of an author's choice to describe a person, an action, or a process one way over another, which ultimately shapes the text as a whole (Richardson, 2006). Baker (2010, p.265) reminds CDA practitioners that no form of language is neutral and that all authors create texts with their own ideological standpoints in mind. In the same way that a text can be shaped by an author's ideological predisposition, readers are also susceptible to interpreting texts in innumerable ways (Fairclough 2002; Wodak & Ludwig 1999). Therefore, texts are not simply transparent reflections of reality, but the result of choices that reveal the writer's ideology or belief systems about how the world is or ought to be (Richardson, 2006). It is the aim of researchers using CDA to illuminate ideological discourses within texts to reveal the "sources of power, dominance, inequality, and bias and how these sources are initiated, maintained, reproduced, and transformed within specific social, economic, political, and historical contexts" (van Dijk, 1988). My research sets out to identify ideological discourses in action by examining how climate change is covered in the *Calgary Herald*, and ask what implications such coverage may pose for environmental discourse?

CDA is a context sensitive method that unites the text with the larger contextual factors that aid in both the production and interpretation of a text (Huckin, 2002). Discourse analysis views texts as socially determined, meaning that texts are not only shaped by society and culture, but also constitutive of them (Fairclough, 2001, p.18).

Using CDA to study texts in a newspaper involves analyzing the presentation of facts or beliefs (which are often ideological), the construction of identities of participants discussed in the communication, and the strategies used to frame the content of the message (McGregor, 2003). A critical approach is necessary when trying to connect the micro level with power and ideological structures in society at the macro sociocultural level (van Dijk, 2003).

Despite the fact that CDA is composed of a multitude of differing theories and approaches, scholars working under the umbrella of CDA remain bound by the investigation and reproduction of ideology in language (Fairclough, 1992). Proponents of the method have argued that CDA's strength lies within its theoretical and methodological heterogeneity, which combines the analysis of texts and the social world in order to bring about social change (Martinez, 2007; Haig, 2004; Toolan, 1997). McKenna (2004) reminds us that if CDA is to remain true to its central focus of dealing with real world issues of injustice and inequality, then it must not do so from the safe haven of increasingly abstract theory. Huckin (1997) views CDA from a social constructionist perspective, which means that he believes reality is not seen as immutable but open to change – which raises the possibility of “changing it for the better” (Huckin, 1997). For the purpose of my research, I employ the CDA methodology as outlined by Thomas Huckin (1997). He describes CDA as an approach to textual analysis rather than a step-by-step formula. This approach fits well within my research on climate change as it focuses not only on the sociocultural and political contexts in which texts are disseminated, but also on the ideological dimension of stakeholders (Atanasova & Koteyko, 2015).

An issue specific to this research is that there is a possibility that my data from 2015 is no longer relevant. However, the NDP government is still in control of Alberta, oil is relatively similar in price at the time of writing, and there have not been as many noteworthy climate change events since those that occurred in 2015. Therefore, it is my opinion that 2015 remains a relevant timeframe for analyzing climate change discourses. Next, there are also some drawbacks associated with using CDA as a method within this research. First, CDA among other qualitative research methods have come under much scrutiny for being biased. CDA is a subjectivist approach and will always be met with this criticism. The act of coding is always a judgment call, “since we bring our subjectivities, our personalities, our predispositions, and our quirks to the process” (Sipe & Ghiso, 2004, p.482-3).

The following is a description of the critical discourse analysis (CDA) methodology that is utilized herein. Huckin’s strategy is to first approach the text as an ordinary reader in an undiscerning manner, and then to read it again in a critical manner. Obviously, there is no such thing as a completely neutral reading of a text but readers do not ordinarily pick up a text and begin to decipher it word by word. During my first reading, I do my best not to probe, or to visualize how articles can be constructed differently, or to compare an article to those read previously. This allows me to get a general sense of what is written in the articles. For the second step, I re-read the media sample and make determinations using his specific set of categories. This allows me to spot certain features that may mislead an inattentive reader. Such components or ‘tools’ are defined as:

Genre

Huckin suggests that CDA analysts should begin their study by looking at the text as a whole. It makes sense to start by determining the genre of a text. A genre is the distinguishable type of text that the discourse exemplifies. The genre of journalism, for instance has a specific format and structure to which writers conform. By examining the genre, analysts are able to better understand why the text appears the way it does and why information might be slanted. Genre allows the analyst to see why certain statements appear in the text and how they might serve the author. Huckin also points out that genres can be manipulated for special effect.

Framing

Framing is conceptually defined as the portrayal of the central idea in an article; a frame exhibits meaning and reveals the perspective a writer takes (Huckin, 1997). Huckin encourages discourse analysts to be mindful of the agent-patient relations where many texts present people in either powerful or passive roles. Framing can also make certain aspects of an article more salient than others, thus significantly influencing one's ability to locate, perceive, identify, and label the features of a news article (Entman 1993; Goffman, 1974). Framing is undeniably a powerful weapon an author has access to as frames "bring attention to, legitimize, and provide interpretive context for the abstract, complex, and often unfamiliar topics associated with environmental issues" (Doyle 2007; Lakoff 2010).

Foregrounding/Backgrounding

These tools refer to how the writer actively draws attention either toward or away from any given concept. Huckin notes that genres can also place prominence on certain items within a text by foregrounding them. Given the top down orientation of the news

genre, textual prominence is given to some topics and taken away from others depending on where they end up in an article.

Omission

Considered the greatest form of backgrounding and the most powerful aspect of textualization, the use of omission by a writer tactically excludes certain elements from a text (Huckin, 2002, p.366). What writers for *The Herald* fail to mention does not have the chance to enter the reader's mind. Huckin reinforces this idea by saying that it is impossible to scrutinize something in the text that is not there (ibid). Writers may choose to omit something from the text in order to create the illusion of non-commitment. Huckin also says that by using omission while writing, producers of such silences do not have to take a stance on how they view them (2002, p.366). Omission does not always occur at the topical level, but can take place when agents are omitted from texts. This usually happens when authors use passive verbs and nominalizations.

Presupposition

Presuppositions are manipulative tactics adopted by an author that persuade readers into believing that what the author is writing is regarded as a basic truth. Huckin (1997) argues that readers are hesitant to cast aspersions about an author's presupposition because the writer is commonly taking an idea for granted as if it were common knowledge. Presuppositions are a deceptive tactic in that they are very difficult to spot and even harder to challenge. They are also a common rhetoric in purportedly objective discourses like news media and usually take place at the sentence level.

Register

Each genre of writing has a unique register that indicates the tone of the text. A text's register is revealed through each linguistic and lexical decision made by an author. For instance, academic writing has a different register than advertisements or journalistic writing. Determinations are usually based on technicality and formality of writing.

Connotation

Connotations as defined by Huckin are the undertones and nuances of meaning that go beyond a word's dictionary definition. Connotations are carried in lexis and are based on the cultural knowledge of those involved. Finally, connotations can be difficult to pinpoint as people's associations with a word often differ.

(ii) Content Analysis

The *Calgary Herald* is the largest metropolitan area in the province and it is also the epicenter of Canada's energy industry. Over two thirds of Calgary's 124 head offices operate within the energy and oilfield services sector (City of Calgary, 2017). *The Herald* is the larger of two daily broadsheet papers in the city and reaches over 420,000 readers per week. It has been in print for 135 years and over half of its readers are university graduates with an average household income of \$99,464 per annum. These figures are for the print paper only and exclude the *Calgary Herald's* website and mobile app which attract over 1.8 million unique readers across Canada per month (Postmedia, 2015). In light of this, the *Calgary Herald* plays a role in supplying the frames, metaphors, and storylines about oil that reach the public. According to McCallum et. al (1991), *The Herald* plays a considerable role in determining the type and amount of climate change

coverage that reaches the public. This, in turn, influences public perception, affects public attitudes, and can influence public action and political interventions (Russil, 2008).

The parameters of my research involved analyzing newspaper articles spanning from January 1st 2015 – January 1st 2016 using content analysis and Huckin’s CDA framework. These dates are selected with numerous contextual events in mind. As Huckin suggests, it is important that my data keeps the larger historical and socio-cultural context concerning climate change in mind. Numerous unprecedented events such as the Paris Climate Accord, the Alberta Climate Leadership Plan, and Alberta’s first ever carbon tax (met with opposition from 66% of the city (CBC News, 2015) took place within the time frame of my data set. The federal NDP also (apparently without support from the NDP in Alberta) helped produce the Leap Manifesto, advocating for a fossil fuel free nation. These are major events to keep in mind when analyzing writings on oil and climate change in the news.

Using ProQuest Canadian Newsstand Complete, I search for the words ‘climate change’; ‘global warming’; and, ‘greenhouse effect’ within *The Herald*. This search yields 718 core results for the year. I analyze news stories only. All other content, including editorials, opinion columns, advertisements, and letters to the editor are omitted, given the tendency for this kind of content to function as an “ideological vanguard for the industry as a whole” (Gunster & Saurette, 2014, p.336). The majority of the articles (436) focus on other topics but include the words climate change. I decide to exclude this content in order to focus only on climate change related discourse. By removing these unrelated articles, I am left with 282 more functional and accurate samples to analyze how climate change is covered in the *Calgary Herald*.

For the purpose of this project, I reduce the number of articles to a more manageable size, so that a rigorous discourse analysis can be carried out. A system of random stratified sampling provides a method for achieving a representative sample of the 282 articles (Riffe, Lacy, & Fico, 2005). Next, I create a column with 282 rows and pasted the article file names into Microsoft Excel. Then, I use the application's 'RAND' function in order to generate 50 articles. This formula helps eliminate cherry picking from the sample while ensuring the credibility and reliability of the analysis. This is a manageable sample size that conveys with reliability and accuracy the overall trends within *The Herald's* climate change coverage for the year. I print 50 articles from ProQuest along with 50 coding component sheets and carry out my critical discourse analysis on paper. Not all of the components appear in each article, but they are there for use as needed. These articles are simply digital reproductions of the text that appear in *The Herald* and bear no resemblance to the original newspaper. There are no visuals and therefore I am unable to study the morphological characteristics of the articles.

CHAPTER IV: MEDIA ANALYSIS CASE STUDY

(i) General Overview

CDA is a step-by-step method that allows me to analyze articles within the newspaper by deconstructing utterances and evaluating their characteristics through components and tools. A common mistake that occurs when using CDA is to make cognitive claims. By this, researchers mistakenly assume that they have the ability to state what people believe. This is too simplistic and CDA does not afford researchers the ability to prove what goes on inside reader's heads. CDA on its own does not prove that Alberta, the energy province of Canada (Government of Alberta, 2018) is a "petro-state" (Karl, 1997; Davidson and Gismondi, 2011; Gunster & Saurette, 2014), or that almost half of Albertans deny climate change (Smith, 2013). My goal in using CDA as a method in this MRP is not to uncover this already well-known perception, but rather to explain, explore, and discuss it at length while providing examples from the most widely-read paper in the province (Postmedia, 2015). My research seeks to critically analyze the tactics adopted by writers in the *Calgary Herald* in order to illuminate how climate change is covered and also ask what sort of implications such coverage might have for environmental discourse?

When first approaching my 50 articles, I immediately notice that most writing is dedicated to covering the oil industry's recession. I am curious to see exactly how many articles from my randomly generated sample place emphasis on the economy or climate change itself. Before conducting my critical discourse analysis, I figure that the best way to address this question is with a brief yet significant content analysis (CA). Content analysis is a research method for the "objective, systematic, and quantitative description of manifest content of communications" (Berelson 1952, p.74). Using several

components (see appendix B), I am able to generate a numerical value by counting in order to generate a sum that represents the presence of each ‘foci’.

Articles do not have to explicitly mention the words “economy” or “adaptation” to be included in the count for I am able to easily deduce the implied context of the article for my content analysis. As an example, one article’s headline reads, “Study finds Canada loses if world keeps ‘carbon budget’” (Munro 2015, January 8). Even a quick glance through this article reveals that it is about the energy economy in Canada and its benefits to the national GDP. I examine all 50 articles as part of the content analysis and first code for business or economic matters that appear. Articles are tallied when mentioning topics involving oil, gas, coal, pipelines, manufacturing or even renewables. I pay close attention to specific words such as business, company, economy, financial, fiscal, free market, industry, industrial relations, corporation, organization, company, market, economist, economics, trading, profits, growth, losses etc. Next, I code for instances of writing about adaptation and mitigation strategies in the data set. Again, the words “adapt” or “mitigate” do not necessarily have to appear in the text to be categorized as writing about reducing the effects of climate change. I look for specific words deriving from adaptation and mitigation such as solution, action, reduction, cap, limit, cut, etc. As an example, one article titled “Creating an Alberta advantage; province should profit from renewable resources” is coded as part of the adaptation category because of its claims about Alberta becoming a leader in diversification. Interestingly enough, this article is also counted as part of the economically-focused articles.

Once the content analysis is complete, I tabulate the frequency of each component as it appears in my data and then calculate the occurrences as a percentage. 50 articles

that include writing about climate change are analyzed for their primary focus, of which 66% (n = 33) have a business or economic focus. The majority of these articles (84%, n = 28), focus on or at least mention issues at the sentence level that are affecting or happening directly in Alberta. The remaining four concentrate on national or international affairs without mentioning the province.

As expected, climate change is mentioned in the business sections of the paper, but usually in the context of how the issue itself is disadvantageous to both Alberta and Canada's economy. This frequently articulated perspective is visible not only in the number of articles that focused on the economy but also the article, "Speak up and help shape our economic future; We can demand fair return on natural resources" (McLeod 2015, September 5). Another article titled "Bright idea for our environment minister" states that "we don't need to create more means of harming our economic competitiveness" (Marsden 2015, January 6). The *Calgary Herald* quotes the current Minister of Energy in the Alberta Cabinet, Marg McCuaig-Boyd only once in my data set, and she is quoted once, stating: "We want to create a climate where people want to invest in Alberta" (Braid 2015, June 18). The only other instance of her name appearing is in the bottom of the December 2015 article, "Phillips says province has 'done enough'; Greater greenhouse gas reductions needed to meet Paris goal, critics say." There is a small portion following the article, which describes the illustration accompanying the text. It reads: "Illustration: Environment Minister Shannon Phillips, right, shown with Energy Minister Margaret McCuaig-Boyd, left, says Alberta is under no pressure to toughen up its climate change plan" (Wood 2015, December 9). Minister Phillips and Minister McCuaig-Boyd are high profile individuals who work together and can (to a

large degree) alter some of the wide-ranging policies within Alberta's energy sector. Yet, they are featured in an article that says Alberta has done enough on climate change. In an earlier article published by *The Herald*, journalist Mariam Ibrahim writes, "Greenhouse gas emissions from Alberta have been climbing for more than a decade [...] its strategy won't come close to meeting a target set in 2008 to cut emissions by 50 megatonnes per year by 2020" (2015, March 18).

In the months leading up to the Paris Climate Accord it is apparent that articles take a more balanced approach and read as less editorial. Writers also regard pro-environment topics as commensurate with discourse on the oil industry. How much of this is coincidental based on the random selection of articles cannot be determined, but the stories from my data set that are written around the month of November unexpectedly adopt a more favourable approach to climate change. Despite this overall increase in the prevalence of climate change discourse in *The Herald*, journalists often follow up their encouraging statements by mentioning the importance of not damaging the economy any further. This is clear in the following articles that read, "Notley has to move forward with a tougher carbon policy but not to the degree that it permanently compromises investment in the energy sector" (Yedlin 2015, July 16). Similarly, an article written only four months later states that, "Alberta must have a climate policy [...] but we also have to make sure this province doesn't get screwed" (Braid 2015, November 20). The article goes on to praise a spokesperson from Canadian Association of Petroleum Producers who advocates for "a balanced approach that says, 'Yes, let's do better on climate, but let's not put the economy or industry or jobs at risk'" (ibid). While discussing the importance of climate change mitigation, writers for *The Herald* oftentimes negate altruistic endeavours

by immediately insisting that the economy should not suffer. Journalists for *The Herald* commonly relate back to the importance of the economy writing statements like, “it's critical those [carbon] revenues are recycled in a way that is helpful to economic growth” (Yedlin 2015, November 27). Presenting information from a supposedly unbiased source gives the impression of which issues are priorities, and which ones readers can disregard. The kind of discourse on climate change that stresses the economic health of the province over its environmental health can have serious future implications for uncritical readers.

Again, this type of discourse is identifiable in the lack of articles (18%, n = 9) that mention adapting to and/or mitigating the effects of climate change. Articles included in the count clearly refer to themes of adaptation and read along the lines of, “The plan is brilliant in its simplicity. Montemagno's team aims to turn a bad thing – CO₂ – into a good thing, one that creates value, wealth and new jobs. And he hopes to do it without trashing Alberta's existing oil-fired economy” (Lamphier 2015, October 31). Note that the same logic used in Yedlin’s writing applies to this article where the economic impact of Carlo Montemagno’s revolutionary Carbon Transformation Project is regarded as the most central component of this excerpt. Another example comes from Graham Thomson (2015, August 8), who writes, “climate change is nothing, if not fickle– and expensive. If we don't help pay the cost to fight it now, we'll be paying a much higher price later.” This type of writing represents an alternative way of approaching the topic in the newspaper. Fewer than one-quarter (<n = 10) of the articles discuss alleviating climate change’s adverse effects. The majority of articles referring to climate change in *The Herald* focus on business related subjects, while offering minimal coverage on themes of adaptation. As a result, it would be easy for readers to accept that they are not part of the general

consensus if they were to support the fight against climate change. Furthermore, it is possible that the nine results that mention taking positive action towards fighting climate change are actually amplified. I credit this to the aforementioned contextual events that occurred in Alberta and across the world in 2015. In light of these events, *The Herald* still affords very little space in its pages for the topic of ‘climate change,’ ‘global warming,’ or the ‘greenhouse effect’ further illustrating how *The Herald* fosters Carvalho’s (2007) notion of a pro-industry ideology.

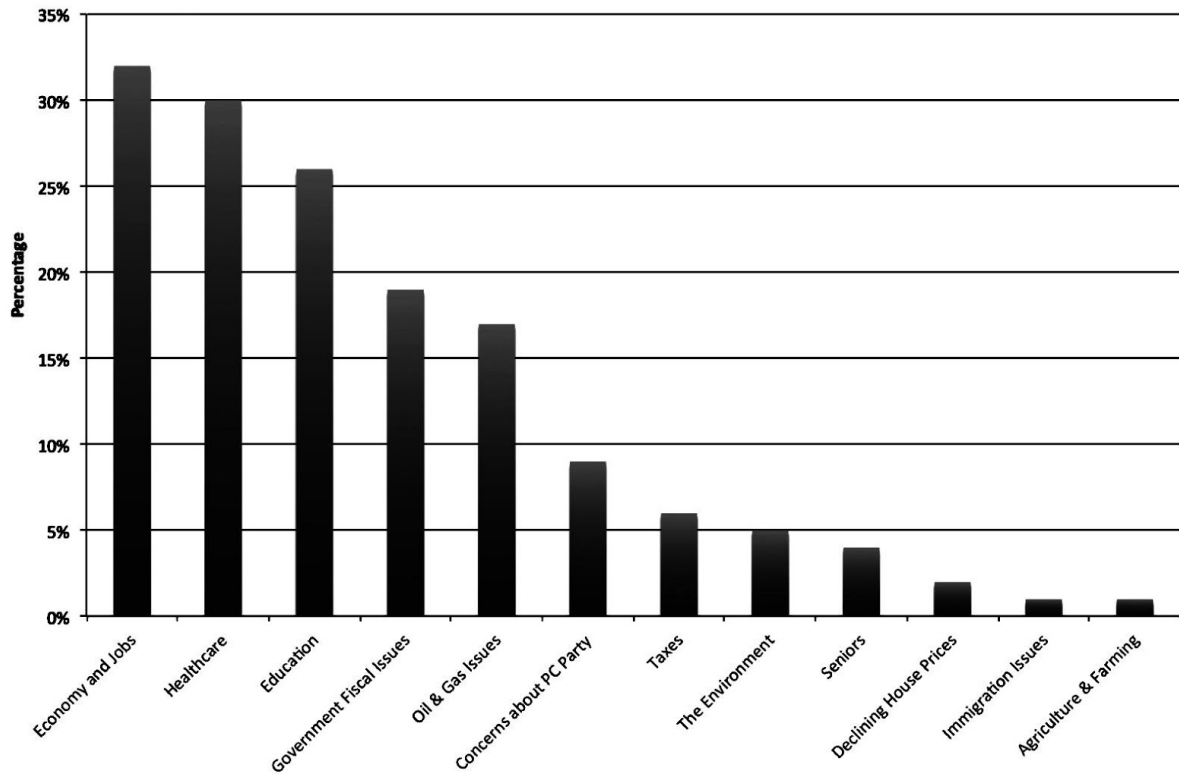
Previous research (Funkhouser, 1973; Mazur, 1998) has focused on the connection between the amount of coverage an issue receives and the subsequent importance the public then attributes to that particular issue. In this case, only 718 (2.8%) of the entire 24,825 news pieces published in *The Herald* in 2015 mention climate change or its closely related terms. This is an alarmingly low figure given that the amount of coverage of the environmental movement directly relates to the public’s perceived importance of the issue (Nelkin, 1995). Comparably, Schudson (1995, p.20) finds that “public amplification [...] provides a certification of importance.” As a matter of fact, most readers pay little attention to an issue until it reaches ‘saturation’ coverage and “continues to make the news regularly for an extended period of time” (Bennett, 2007, p.91). As a frame of reference, conducting the search with the same parameters, but substituting climate change for “hockey,” yielded nearly 2,500 results. “The number of texts is a crucial indicator of the importance awarded by a news organization to an issue” (Carvalho 2008, p.171). Readers may regard climate change as less significant than other subjects given its infrequent coverage. Under no circumstances am I suggesting that *The Herald* should be a leader in climate coverage. Given the complex nature of the subject,

no single newspaper can garner widespread action or attention. However, I am arguing that *The Herald's* lack of coverage on climate change can have serious negative effects regarding its readers' interest in the issue. Journalists often side with efforts to bolster the economy and do not have much interest in addressing issues of climate change. One writer for *The Herald* explicitly states that the province's strategy "hopelessly addresses the wrong problems facing Albertans," effectively speaking on behalf of the interests of an entire province and likely reaffirming any negative convictions the reader may have (Priaro 2015, August 22). Finally, Nisbet & Myers' (2007) work analyzes over twenty years of climate change coverage and public opinion polls to uncover a common trend that also occurs outside the pages of *The Herald*. They discover that general concerns about climate change among the public are eclipsed by the prioritization of economic issues. An ROI poll (see figure. 1) conducted in Alberta within the time range of my data set found that Albertans regard climate change as a 'low salience' topic.

[figure 1.]

Issues of Importance In Alberta (2015)

“What is the most important issue facing Alberta today?” Unprompted



CBC-ROI Alberta Poll April 25-28, 2015

32% of the province deems the economy and jobs to be the most important issues, in comparison to a mere 5% of Albertans who believe that the environment deserves the most consideration. This may seem obvious given the urgency behind getting the province out of the recent recession sparked by a faltering oil economy but the results of this poll are important. Research carried out by Nisbet (2009) concludes that “opinion intensity is a central driver of participation on policy issues, predicting whether a citizen calls or writes to his or her elected official; discusses the issue with friends or coworkers; attends or speaks up at a public meeting; joins an advocacy group; or participates in a public demonstration.” The amount and type of discourse on climate change in *The*

Herald is certainly something to keep in mind as we move forward to the critical discourse analysis.

(ii) Analysis

Genre and framing

There are only two genres that appear in my data set. Both can be classified under the umbrella of news writing, but the first and most frequent genre is the typical straightforward journalistic writing one would expect from a broadsheet newspaper. This means that discourse on climate change is written in a simplified language that is commonly in third person and relies on a variety of sources in order to appear unbiased. It is also written with a top down orientation that describes the most important parts of the story first. The use of genre in *The Herald* results in simplistic coverage on an extremely complex topic. Context is given about current events surrounding climate change discourse but deep discussion is absent from most texts. For example, the social and economic practices that contribute to climate change, including everyday practices that Western society takes for granted, such as power generation, consumption, vehicle use and air travel, are largely left unexamined. As well, the ethical implications of climate change, including the international injustices regarding the impact of climate change on developing countries and indigenous communities, are also disregarded. Genre is also used by reporters in *The Herald* to give voice to different sub groups involved within climate change discourse. This will be discussed at length in the agent and patient relation subsection.

The second and less common genre that I discover is news written by columnists. This genre allows those creating the text to write with more editorial freedom while

revealing biases. The reason there are only two genres may have to do with the choices I made in retrieving my data. Within ProQuest, I only select front matter and news and do not include features, letters to the editor, or column pieces. The reason for this decision is explained earlier on. The genre of news reporting compels journalists to order information in a top-down sequence with initial writings creating the frame for the news piece.

According to Huckin (1997), framing refers to how the content of the text is presented and what slant or spin an article takes. Framing is one of the most important components of my analysis as it both highlights and organizes discourse around central concepts in the text (Gamson & Modigliani, 1989). Likewise, framing can be used by writers as a powerful tool to cast stories in a specific way by deploying “culturally constructed codes that function ideologically, as if they were the creations of nature” (Olausson, 2009, p.423).

Journalists in *The Herald* adopt the discursive habit of framing climate change advocacy and its proponents in several ways. The first method is to frame pro-climate and anti-oil sands activists as outsiders who do not understand the true conditions and needs within the province. Then, this same group is seen as an obstacle when trying to gain access to natural resource extraction sites. Framing environmentalists’ viewpoints as an outsider’s perspective is common in *The Herald*. *The Herald* also makes mention of Ottawa and Parliament as being insensible to the goings on within Alberta. For example, one article reads, “Ottawa imposes more costs on an industry that is already on its knees because of Notley's climate change legislation” (Iverson 2015, December 17).

While framing climate change in this way, *The Herald* often fails to mention any other alternative perspectives or support claims with any sort of verifiable facts. This defeatist approach to framing climate change discourse has the capacity to discourage readers from becoming involved in the movement if they believe that their actions will not make an impact. This frame is reinforced by the journalists' tendency to frame oil as a valuable resource that benefits everyone. Another article in *The Herald* by Graham Thomson tells readers that the Energy East pipeline is in the "best interest of all Canadians" and that it would be a "huge political victory" for the province (2015, October 31). Authors that use this frame – praising oil as the province's gem – often do so by neglecting climate change's effects and mitigation efforts. At the sentence level, *The Herald* frames the newly created climate leadership plan "misguided, unnecessary and debilitating that will only lead us to an economic dead end" (Priaro 2015, August 22). *The Herald* is generally unresponsive and insensitive towards environmental concerns – frequently framing adaptation efforts as imposing more costs on an industry that is already suffering.

As with any polarized political issue, it is difficult to refer to any given outlook in completely nonpartisan terms. This phenomenon is expected within news coverage, but *The Calgary Herald* takes matters to an entirely different level, which in turn, gives rise to heavily biased coverage that consistently exaggerates the power of oil and reminds readers of Alberta's "exceptional role as a global energy supplier" (Gunster & Saurette, 2014, p.134). At the word and phrase level, *The Herald* describes oil as being responsible for the "wealth that comes into the province [...] increasing the attractiveness and improving Albertans' quality of life" (McLeod 2015, September 5). Oil is highly praised

in the province because of its history of providing high paying jobs and generating revenue for the government. By framing oil in such a positive light and naturalizing its development, the *Calgary Herald* draws attention away from more substantive aspects of the issue and negates any efforts made towards adaptation.

Framing also has the ability to “bring attention to, legitimize, and provide interpretive context for the abstract, complex, and often unfamiliar topics associated with environmental issues” (Doyle, 2007; Lakoff, 2010). Framing can also alter how the public will understand and interpret climate change (Boykoff, 2007; Nisbet, 2009). In 50 articles alone, I uncover numerous examples at the sentence and word level describing oil’s critics as “more determined than ever to shut down our energy sector” (Wood 2015, December 9) and how there is a need to “counter the negatives expounded by the environmental movement” (Hussain 2015, April 11) so that oil companies are not seen as “pariahs” (Yedlin 2015, November 24). There are even articles that take an overt stance and do not mention any other perspectives. Comments are made at the wording level about how it is easy to dismiss climate policies as “cynical politics and wealth-distribution schemes” (Ewart 2015, July 15). To follow this up, an article in *The Herald* makes mention of a December 2015 Mainstreet Research poll conducted for Postmedia showing that 68 percent of Albertans disapprove Alberta’s climate leadership plan (Wood 2015, December 9). The way that climate change adaptation is framed in *The Herald* does not encourage the development or dissemination of such discourse. This is apparent from the consistency with which pro-oil frames appear within my data set.

Foregrounding and backgrounding

As previously mentioned, numerous frames appearing in *The Herald* foreground oil while simultaneously backgrounding climate change adaptation. Based on the genre of news reporting, whatever the author chooses to present first to readers will be the most important. A common trend revealed in this analysis is for *Herald* authors to foreground industry spokespeople first, and then cite environmental viewpoints. This is also the case for the news articles that focus solely on environmental issues. For example, an article about climate change and its potential concerns cite BP's and Statoil's CEOs before giving other stakeholders a chance to voice their concerns (Yedlin 2015, April 24). The same article also uses the majority of its paragraphs to highlight how industry will be hurt by efforts to mitigate climate change. At the word and sentence level, I discover a frequently occurring trend where speakers first mention the need to address economic issues in the province, and then mention climate change last.

According to Huckin (1997), what is mentioned last at the word level in journalistic discourse can easily be interpreted as less important given the previously mentioned top down feature of news discourse. As an illustration, a piece from the *Calgary Herald* first mentions the need for a climate change strategy that is "pragmatic enough not to damage the provincial economy" (Thomson 2015, June 17). Also, the article only cites one small portion of Premier Notley's speech where she says, "We need to consider the economic health of the province, we need to consider jobs" (ibid). When looking at the structure of the sentence, it appears that the order of these topics denotes their priority and the author mentions climate change adaptation almost as an afterthought. Two articles in particular clearly represent this form of backgrounding at the sentence level where Rachel Notley is quoted saying, "We're looking at the royalty

review. Fair enough. Alberta deserves a government that's going to do that. We are also looking at climate change” (Braid 2015, June 18). Next, an article cites the head of the Alberta Investment Management Corp (AIMCo) at the beginning of the article with the passage, “We want the province to be as focused on improving the industry's economic viability and boosting innovation as it is now on improving energy royalties and curbing carbon emissions” (Lamphier 2014, August 4). Further on in the article before any environmentalist perspectives are heard, the GM of General Electric’s heavy oil division stresses the need to “continue to extract value from this incredible resource *we* have here in Alberta” [emphasis mine] (ibid). Particularly interesting is the use of first person plural pronouns by the authors. The excessive use of the word ‘we’ can subconsciously prompt readers to believe that they are a part of what the author is writing. However subtle, foregrounding the benefits of the oil industry and backgrounding climate change to the last part of the sentence or article is a consistent feature within my data set. Again, this could have potentially harmful effects for those interested in discourse about climate change adaptation if climate change adaptation is backgrounded.

Omission

Within the news reporting discourse, one would reasonably expect objective and detailed coverage, but in this instance, all but one of the articles from the *Calgary Herald* fail to mention why climate change policy and adaptation is important. An example of a typical article that meets adaptation efforts with skepticism reads, “fighting climate change” with the use of quotations and refers to efforts to reduce greenhouse gas emissions as “high cost and [of] negligible benefit” (Coyne 2015, November 24). He continues by saying that new subsidies for renewable energy and energy efficiency

programs are all “unnecessary” but never gives any explanation as to why they are not necessary. The paper is especially vague when it comes to discussing the potential effects of climate change. In another article that covers Calgarians gathering in a park on the eve of the Paris climate negotiations, a mother is reported to be in attendance to teach her daughter about climate change and “why it matters” (Derworiz 2015, November 30). However, I notice that there is no further discussion about this and no comment is made about the reasons why climate change would matter. This is a glaring omission within an article covering a rally about climate change in the city. Another woman is labeled as a “concerned citizen” and is labeled as believing in climate change. She is quoted saying that she “wants to make an impact” (ibid) but again, the author excludes any reasons why the interviewee is concerned. As a result of this omission, this type of coverage can perpetuate the idea that climate change is a conspiratorial issue in which people either believe or disbelieve.

An article in *The Herald* (Ewart 2015, January 20) does not provide any reasoning as to why the City of Vancouver is desperately pushing for the NEB to consider greenhouse gas emissions. Mention of any implications stemming from oil’s continual extraction, production, and use are omitted in my data aside from one short paragraph in an article that briefly touches on the outcomes of climate change without adaptation (Thomson 2015, August 8). The article mentions the rise in ocean levels and changes in weather that will “trigger the kind of flood that devastated Calgary in 2013” (ibid). Yet the article does not disclose any scientific facts or make reference to the extractive industry as having anything to do with climate change. These aforementioned examples of omissions may escape the uncritical reader but after going beyond the surface level

reading of a text, CDA analysts can make them visible. It is not the news media's purpose to promote climate change adaptation, however it is the news media's job to provide readers with detailed coverage about current issues. This is especially true for the genre of journalistic discourse, which allows for detailed background information. By omitting climate change's causes and prospective ramifications, the *Calgary Herald* is arguably failing to completely inform their readers about the issue at hand.

Presupposition

Authors in *The Herald* are able to use presupposition as a way of manipulating a story by taking certain ideas for granted and using a particular type of writing that offers no possible alternatives. The first presupposition I notice in my analysis appears in an article that refers to a speech given by the Minister of Environment and Climate Change. The article discusses Catherine McKenna's speech as making "everybody yawn [...] she merely talked about how essential it is to have a credible climate-change policy" (Braid 2015, November 20). At the word level, the author's choice to use 'merely' to describe climate-change policy reveals the presupposition that policies are unnecessary. It is expected that the Minister of Climate Change would discuss these issues yet the author presupposes that her speech on climate policy and adaptation is uninteresting. This trend carries on throughout the paper whereby adaptation efforts are often presumed to be idealistic. From the aforementioned article, the author presupposes that the NDP government is going to "sellout provincial interests" and says, "idealism is a wonderful thing but it can get you cleaned out at a poker table" (ibid). Here, the author is likening climate mitigation strategies to a card game and presupposing that the adaptation efforts currently in place are impractical and unrealistic. An article discussing the Paris Climate

Accord asks readers to visualize what 36,276 people accomplished when trying to deal with “another global threat– if you answered ‘not much,’ then grab the first-prize ribbon” (Nelson 2015, December 10). A presupposition like this can be seen, at least by some readers, as trivializing the fact that 190 countries are meeting to address climate change. Further on in the article, the author assumes that such efforts would be “worth the jumbo-jet carbon emissions to get to Paris if they’d actually accomplish something” (ibid). Again, the writer is insinuating that the climate accord is not meaningful and those involved are hypocrites. This has several potentially negative ramifications, as many readers will turn to the news media to inform them about the success of the meetings in Paris. The majority of *Herald* readers, I believe, will interpret that the conference was something of a failure as a result of these presuppositions writers afford to the event.

This type of presupposition relates closely to the frames that delegitimize adaptation efforts and render them as irrational decisions made by fervent activists. The CEO of TransCanada is quoted in *The Herald* presupposing that all environmentalists out of touch with reality, “As if somehow if you don't pick oil you will get a windmill and somehow you will still be able to drive a car” (Hussain 2015, April 11). Next, a columnist from *The Herald* writes that the students who voted in favour of fossil fuel divestment are full of “idealistic zeal” and appear not to have “made the connection” (Yedlin 2015, November 24). Furthermore, the author writes, “like many movements opposed to the development and use of fossil fuels, the issue is being viewed through decidedly fuzzy logic” (ibid). In other words, the author is presupposing that the majority of campaigns to date that aim at transitioning away from fossil fuels for the betterment of the planet are illogical. It is worthwhile to note that the authors of these articles speak on

behalf of an entire group and do not give a voice to differing opinions or stances anywhere in their articles. The coverage in *The Herald* implies, although never explicitly states, that environmentalists are motivated by a radical ideology. The word radical in this instance seems to refer to the idea that environmental issues should be addressed.

Similarly, former Minister of Natural Resources Joe Oliver presupposes that environmentalists “use funding from foreign interest groups to undermine Canada’s national economic interest. They attract jet-setting celebrities with some of the largest personal carbon footprints in the world to lecture Canadians not to develop our natural resources” (Wherry, 2012). This type of insinuation at the sentence level maintains negative coverage of environmentalists and preserves the idea that adaptation efforts derive from out of touch and idealistic environmentalists. In a *Herald* article called, “The Danger in NDP’s race to impress the world in Paris” (Braid 2015, November 20), it is clear that at the phrasing level, the writer depicts those who are attempting to pass climate policies as out of touch and idealistic saying, “For those who don't have a clue about what goes on in Alberta (the vast majority of the planet), it doesn't matter.” Writers also commonly assume that environmentalists are being sanctimonious in their endeavours towards climate change. Another article published just one week after Premier Notley introduced the province wide carbon tax (the first piece of legislation set out to aggressively battle emissions) reads, “one can only hope and pray that our entire economy isn't handed over on a silver platter in some preening, ‘look at me, how good am I?’ gesture” (Klassen 2015, November 30). Klassen’s tone, use of quotations, and word choice here clearly reflects her presuppositions about climate change. She believes adaptation efforts are an act of self-righteousness rather than self-sacrifice.

It is clear that journalists in *The Herald* take their ideas for granted and regularly make claims without any validation or presentation of scientific proof. For instance, a journalist writes that pipeline leaks are an “improbability given today’s technology” (Marsden 2015, January 6). This is a blatant – and misleading – presupposition because there have been 122 small spills and four ‘significant pipeline spills’ the year before according to the Canadian Energy Pipeline Association. There have also been five major spills since 2015 in Canada, all of which occurred in Alberta (CBC News, 2015). By negating the reality of oil spills altogether, the author can convey to readers that any concerns environmentalists have about pipelines are not well founded. Another *Herald* journalist presupposes that Alberta’s oil sands represent only seven percent of emissions (Ewart 2015, January 20). This is an arbitrary figure made up by the author and is not substantiated anywhere in the article. The journalist expresses to readers that the oil sands are “hardly the only climate concern to be addressed” (ibid). While this statement may be correct, a quietly released report by Environment Canada in 2014 revealed that the oil industry has surpassed transportation as the largest generator of climate-change causing gases (Canadian Press, 2014). Presuppositions like this can retract power away from those demonstrating against pipelines and who are trying to gain traction in the mainstream media. After analyzing for presuppositions, it is clear that they have the capacity to negatively affect climate change discourse by perpetuating the idea that adaptation is becoming less practical and realistic.

Agent-patient relations

Agent-patient relations are an important feature to analyze within the umbrella of CDA as the media acts as a gateway for various claims-makers to have their messages

heard by the public. CDA analysts study agent-patient relations to determine who is exerting power in a text, reveal whose interests are served by this discourse, and to identify some of the potential consequences. During my initial cursory reading of the *Calgary Herald*, I discover that the majority of articles cite various sources and there are no obvious beneficiaries from this coverage. By quoting politicians, industry stakeholders and voices from environmental organizations, *The Herald* maintains the appearance of objectivity. Yet upon closer inspection, a recurring trend arises within the structure of *The Herald's* news articles. Voices promoting industry are met with acceptance from the authors (see previous writing on foregrounding and backgrounding), while and pro-environment voices, if mentioned at all, are quoted further on in the article.

As previously discussed, the news genre follows a specific top-down orientation whereby prominence is repeatedly awarded to the pro-oil sands voices that regularly appear earlier on in the article. In an article about the climate change plan, Diana McQueen, Alberta's Climate Change Minister is only cited when discussing the importance of the province's economy (McClure 2015, March 23). This subtle yet tactical maneuver ensures that industry critics are not dominantly presented and are featured only after the government and oil sands officials' views have been presented. At the sentence level, *The Herald* extracts certain parts of speech from pro-climate stakeholders who are given a voice in the paper and present them to include discussion about the economy.

CDA has a vested interest in exposing those who are rendered voiceless when struggling against social inequality (van Dijk, 2004, p.113). This form of omission does not occur at the topical level but instead, occurs when writers exclude agents from texts

(ibid). Omitting voices is political by its very nature, as the repetition and normalization of particular frames manifests and enables (or withholds) power from particular voices or groups (O'Neill, 2013, p.12). CDA demonstrates that the voices of those who hold social power and authority, primarily industry spokespeople and politicians, are more prominent than those who are already disadvantaged in society. It is a rarity to come across public polls or voices from local communities who are directly affected by the issues covered in the data.

For example, only one article includes First Nations and the general public as stakeholders who will be consulted for Alberta's climate change panel (Henton 2015, August 15). I also search for the terms First Nation, Aboriginal, Indigenous, and even Native in my data set only to find five hits that mention these groups in passing. Aboriginals commonly live in the areas around the Alberta oil sands and are disproportionately affected by industry and visibly underrepresented in the paper. Importantly, of the five times that indigenous voices are mentioned, none of the sources are given names. While studying agents and their representations in discourse, Trumbo (1996) argues that one of the best indicators of successful access to the media is the direct quote. When other stakeholders are quoted, their names are at least mentioned, but this is not the case for First Nation voices. Clearly, Canada's indigenous population has been granted hardly any access in this data. Those who are quoted most frequently (industry, government, NGO's) have "more direct access to framing the issue of climate change to meet their own desires" (Dotson, et. al., 2012, p.67). If some voices are omitted or their viewpoints are backgrounded or excluded altogether, then whatever type of discourse that is constructed about climate change adaptation will end up being skewed. Decisions

regarding the future of oil, its extraction, and mitigation climate change should involve all parties. By omitting certain voices, journalists do not cover the issue in a fair and just manner.

Another type of coverage that actually mentions differing perspectives can render agents as passive and less dominant. When the *Calgary Herald* mentions these commonly omitted groups in articles, they often do so in a way that takes power away from what they are saying. For instance, in an article (Ewart 2015, January 28) about a protest put on by environmentalists in Vancouver, the first voice referred to is Ali Hounsell's, a spokeswoman for Kinder Morgan. Much later on in the article, Tamo Campos, the figurehead behind the protest, is mentioned but not given a full quote, nor identified as initiating action. Rather, he is positioned passively, as a recipient of the restaurant goer's actions instead of an agent. Campos is also paraphrased and only two words in the article are words he actually speaks. The author of the article likens Campos' peaceful protest to the actions of the "thugs" and "anarchists" who gathered in Vancouver to protest a pipeline and those in Toronto for the G20 Summit (ibid). The author ends the article by negating the efforts and convictions of the protestors, arguing that they do not equate to what the suffragettes or Rosa Parks did. Not granting the other side equal amount of coverage, paraphrasing, and using these adjectives makes it easier for the author to represent the protest unfavorably.

Van Dijk (2004, p.302) reminds us that marginalized groups such as protestors and aboriginals do not have the resources, status, and validation to be included in most types of discourse on climate change. Consequently, power is retracted from these groups, and they have a much tougher time finding room to participate in an open

discussion about climate change adaptation. According to Hajer & Versteeg (2005, p.179), these group's limited opportunities for agency is a direct result of powerful actors who see their interests threatened by already established or emerging discourses. Gitlin (1980) supports this argument and contends that if the values of a social movement do not align with the concerns of powerful actors, then it is likely that the movement will not receive attention in prevailing frames. By exploring how certain voices are afforded more room in the pages of the *Calgary Herald*, this section of the analysis contributes to our understanding of discourse on climate change. It is evident that competing stakeholders will have to work extremely hard to have their voices heard in the media and their success will play a crucial role in how climate change adaptation is discussed in the province.

Register and connotation

The register in the *Calgary Herald* is both formal and semiformal. Given that climate change is an issue of environmental science, there are numerous occasions where ecological terminology and scientific language could have been utilized. However, *The Herald* makes use of simplified and non-technical terms when discussing climate change in order to appeal to as many readers as possible. It is clear that the author's register adopts a more informal tone when authors are discussing climate change advocacy. The following are unmistakable examples of a disdainful tone used to discuss adaptation efforts. This shift in register serves to trivialize and delegitimize the concerns of environmentalists. One *Herald* journalist directly refers to the Paris Climate Change Conference as "sordid puffery" and nothing more than a "global feel-good gabfest" (Nelson 2015, December 10). Another article tells *Herald* readers that environmental

organizations and their advocates are “ill-informed” (Yedlin 2015, November 24) and that adaptation efforts in Alberta would “register little change” because other wealthier and more resourceful nations have been trying to mitigate climate change for decades. It is laudable that writers in *The Herald* acknowledge that Alberta’s oil sands are the “fastest-growing source of emissions in Canada.” However, they quickly justify the emissions by saying that Alberta’s involvement in a global context “does not amount to a hill of beans” (Yedlin 2015, November 24). Similarly, in a follow up to Yedlin’s writing, *Herald* journalist Karin Klassen writes in an article later that week that climate change is a “farce” and that efforts to address climate change, or “eco-illogical cheerleading” as she refers to it, will result in not a “burp of actual global environmental difference” (2015, November 30). The adoption of this informal register and indecorous choice of words (burp and beans) has a special significance at the word and phrase level. By discussing climate change adaptation in this defeatist manner, *The Herald* elicits uncertainty and reinforces the idea that efforts to adapt to climate change are futile – further maintaining the status quo and hindering change.

I discover several noteworthy connotations when examining the text at the sentence level that have to do with how protestors are regarded when discussing the struggle between pro-climate and pro-industry voices. One *Herald* journalist reinforces the idea that environmental advocates are fervently protesting corporations and the extractive industry without due consideration, writing that industry has to battle with protestors “vehemently opposed to the development and [who] have little interest in finding middle ground” (Hussain 2015, April 11). The journalist writes in a factual tone and gives the impression to readers that industry (not environmentalists) is trying to find

middle ground. There is a strong connotation in the data whereby environmental protestors are seen as overzealous alarmists acting against the interest of hard working Albertans. Again, this relates back to the way environmentalists are presented in *The Herald* as being uninformed, and viewing the oil industry as a collection of huge conglomerates who wish nothing more than to extract the earth's resources for profit. At the word level, a *Herald* journalist calls British Columbia and Quebec "hotbeds of environmental activism and opposition to pipelines" (Ewart 2015, January 20). The author's choice to describe these locations as 'hotbeds' of environmental activism and pipeline opposition (however inadvertently) can create the impression that advocating for the environment is unnecessary due to the associations that readers may carry with the word. As previously mentioned, environmentalists are not given much of a voice in articles that are dominated by industry and politicians. Therefore, this one-size fits all typecast of environmentalists is flawed, as many environmentalists are aware that bringing industry to a standstill is unrealistic given our current dependency on oil.

Finally, there is a strong connotation of an ongoing war between the industry and environmentalists. Articles make statements at the sentence level like "natural gas export projects are emerging as a new battleground for those opposed to fossil fuel development" (Hussain 2015, March 24) and "350.org, the New York environmental group that's built its name battling the 830,000-barrel-a-day oil pipeline" (Ewart 2015, November 7). Such statements make it easy for readers to conclude that 350.org is resisting and obstructing the almost one million barrels of oil that would upsurge Alberta's faltering economy. 350.org can be seen as an adversary in this 'war.' In a later article, another journalist in the *Calgary Herald* says that students in Ontario are falling

victim to “the propaganda of organizations such as 350.org” (Yedlin 2015, November 24). Calling an environmental organization’s policies propaganda connotes the information as being biased or misleading and only used to promote a specific political viewpoint.

In sum, the aim of this content analysis and critical discourse analysis is to contribute to a greater understanding of how climate change is discussed in Calgary’s largest newspaper. By studying the discourse in the paper and relating it to the social, political, and economic contexts in the province, we are able to witness how dominant values and public understanding of the oil industry can be shaped in ways that are slanted and not immediately perceptible (Davidson & Gismondi, 2011, p.27; van Dijk, 1991, p.134). CDA allows me to delve beneath surface appearances of objectivity and uncover various discursive strategies and lexical choices used by writers in the *Calgary Herald*. I discover that the *Calgary Herald* frequently covers climate change in a manner that normalizes and sustains capitalist relations, commends Alberta’s strong resource economy and the free market, while at the same time, discredits political intervention and marginalized voices. While these patterns are easily perceptible, it is worthwhile to note that there is an exception to this style of coverage within the paper. There is a surprising percentage of articles (18%) in my data that discuss the need to reduce climate change’s negative effects. I am also surprised by the percentage of news articles that carry an open bias and read as though they are column pieces. These are anomalies that I did not expect to occur in my data. Before beginning my research, I was anticipating that there would not be any pro-climate discourse published given the controversy and pro-oil ideology in the city. Looking back, the majority of these examples are quotes from politicians but that

does not undermine the fact that *The Herald*, in the middle of a recession, mentions that climate change is an issue requiring immediate attention. Unfortunately, neither CA or CDA provides answers to solving issues around climate change but it does allow researchers to better understand the conditions behind the problem (Palmquist, 1999). Improvements are contingent upon people becoming conscious of the social realities that either exploit or dominate them and demanding liberation from these forces (McGregor, 2003). And while environmental concerns are becoming more widely recognized in the mainstream media, the type of coverage in *The Herald* presents a clear barrier to facilitating an open debate about climate change. Future research may generate original insights into how prevailing ideologies carry over into the media's coverage of climate change and could prove to be useful in other settings. Research conducted outside of Calgary, Alberta could prove to be useful in gaining support in numbers due to the enormity and ubiquity of climate change.

CHAPTER V: THE FUTURE OF ENVIRONMENTAL JUSTICE

(i) Revisiting Climate Change Adaptation

At present, we find ourselves at the tipping point where policies enacted today have the ability to make or break the future climate. We can begin to deal with climate change through adaptation and mitigation strategies before it spirals out of control or alternatively, we can continue to communicate about the issue in the same ways, deferring its impacts until we reach a point where runaway climate change will become too severe and can no longer be overlooked. Accordingly, “the future world is unavoidably dependent on the degree to which the public is engaged on the issue of climate change” (Moser, 2008; see also Halpern & Bates, 2004). With this in mind, the success of the *Calgary Herald's* discursive tactics must not be overlooked because adaptation will be delayed if readers cannot foster mutual learning and reflexivity on the issue of climate change (Lorenzoni et al., 2007, p.67). Arguably, its readers are not adequately served by *The Herald* if only certain participants are given access to shape and discuss climate change (Moser, 2008). Overcoming this struggle will require extraordinary efforts by environmentalists to gain traction in a competitive and saturated discursive arena. According to Hall (1977), differentially empowered groups must continue their struggle for legitimacy through discursive means. By adopting strategies that interfere with networks of communication power, movements can win space in the public sphere and put forth radical ideas to engage their opposition in the symbolic politics of the public debate (Castells 2009; Jensen 2001, p.25).

I will conclude my analysis by outlining a plan of action that readers can adopt to help improve communications, reduce climate impacts, and support sustainable developments. Communication is the essential starting point for sparking action among

laypeople. If readers are not told that there is a problem and are not aware of an underlying issue “collectively defined as illegitimate” as put forward by some of the articles in *The Herald*, then they will not begin to push for change (Davidson & Gismondi, 2011, p.205). Therefore, it is an absolute necessity for the public to at least know what can be done to mitigate climate change. Actions to address climate change need not be seen as costly and out of reach. Instead, citizens need to consider more prosaic options that have a massive impact when adopted by many. The following suggestions can drastically reduce domestic and commercial carbon emissions while putting Canada closer to its goal of cutting GHG emissions 30% by 2030 from its 2005 levels.

People can begin by reflecting on their own ways of living – from what they buy, how they travel, how they spend their free time, where they choose to put their money and what kind of democratic pressure they exercise on their governments. They can kick-start their engagement by supporting or volunteering for a local environmental organization. Eventually, one could consider creating or joining an energy co-operative which explores how individuals can begin to transition away from fossil fuels. People can make the choice to eat fewer emission-intensive foods, as well as reduce, reuse, and recycle – in that order. Many could easily adopt greener commutes, like biking in the summer and taking public transit or carpooling in the winter. Further, retrofitting one’s home and adopting clean power measures can drastically reduce energy consumption. If this is not offered, people can work to implement it by contacting their hydro companies. People can also write to provincial and federal government representatives to inquire into how they are promoting the shift toward renewables. Lastly, observing the transformation

that other jurisdictions have undergone towards a low carbon economy can be a source of inspiration. This could be useful in demonstrating to people that a better social and environmental logic lies within their grasp. People must be presented with easily adoptable alternatives to common activities such as heating or cooling their homes and getting to work otherwise no action will be taken. Therefore, for communication to create social change, it must be followed by action in the form of political, technological, and infrastructural changes (Ockwell, et al., 2009).

In closing, climate change must no longer be considered a future threat that can be handed down to future generations. In the wake of the worst natural disasters Alberta has ever experienced, climate change is alive and growing more destructive. For the sake of future generations, action must be taken to offset the harmful effects that will inevitably be imposed on future generations. To begin adaptation, readers of the *Calgary Herald* must have a clear understanding of what climate change is, what can be done to combat it, and what are some possible outcomes if action is to be taken. Communicators must avoid focusing on excessively alarmist or skeptical viewpoints and provide readers with a sense of control over the issue. We must never give up simply because the idea of divesting away from fossil fuels for the sake of mitigating climate change seems politically impossible. Implementing these measures will take exceptional amounts of time, determination, and cooperation all on a scale that we have never seen before but if some of the suggestions made in this research are adopted, we will ideally move the province and its people one step closer to reshaping communication so that it acts not as an obstacle, but as a catalyst for social and environmental change.

REFERENCES

- Adger, W., Dessai, S., Goulden, M., Hulme, M., Lorenzoni, I., Nelson, D. (2009). Are there social limits to adaptation to climate change? *Climatic Change*. 93(3):335.
- Atanasova, D., & Kotevko, N. (2015). Metaphors in Guardian Online and Mail Online opinionpage content on climate change: War, religion, and politics. *Environmental Communication*.
- Antilla, L. (2005). Climate of skepticism: US newspaper coverage of the science of climate change. *Global Environmental Change* 15(4): 338–352.
- Antilla, L. (2010). Self-censorship and science: A geographical review of media coverage of climate tipping points. *Public Understanding of Science*, 19(2), 240-256.
- Armitage, K.C. (2005). The United States and the politics of global warming. *Globalizations*, 2(3), 417-427.
- Arsenault, C. (2017). Alberta's Oil Workers Are Shifting To Renewable Energy Jobs. The Huffington Post. Retrieved 2017, from http://www.huffingtonpost.ca/2017/08/13/albertas-oil-workers-are-shifting-to-renewable-energy-jobs_a_23076086/
- Baker, E. A. (2010). *The New Literacies: Multiple Perspectives on Research and Practice*. The Guilford Press.
- Beck, U. (1995) Ecological politics in an age of risk. Cambridge, UK: *Polity Press*.
- Beeler, C. (2016). Wildfires like Alberta's are fueled by climate change. Retrieved April, 2017, from <https://www.pri.org/stories/2016-05-06/wildfires-alberta-s-are-fueled-climate-change>
- Bennett, W.L. (2007). *News: The Politics of Illusion*, 7th edn. White Plains, NY: Longman.
- Berelson, B. (1952). *Content Analysis in Communication Research*. New York: Free Press.
- Birchfield, V. (1999). Contesting the hegemony of market ideology: Gramsci's 'good sense' and Polanyi's 'double movement.' *Review of International Political Economy* 6(1): 27–54.
- Best, J., & Hoberg, G. (2008). Alberta's Oil Sands: Key Issues and Impacts. Retrieved 2017, from <http://www.mapleleafweb.com/features/alberta-s-oil-sands-key-issues-and-impacts.html>
- Boykoff, M. T. (2007). Flogging a dead norm? Newspaper coverage of anthropogenic

- climate change in the United States and United Kingdom from 2003 to 2006. *Area* 39(4): 470–81.
- Boykoff, M. T. (2007). From convergence to contention: United States mass media representations of anthropogenic climate change science. *Transactions of the Institute of British Geographers* 32(4): 477–89.
- Boykoff, M.T., & Jules, M. (2004). Balance as bias: Global warming and the US prestige press. *Global Environmental Change*, 14(2), 125-136.
- Boykoff, M.T., & Rajan, R. (2007). Signals and noise. *EMBO Reports*, 8(3), 207–211.
- Canadian Press. (2014). Oil industry Canada's biggest contributor to greenhouse gases. Retrieved from <http://www.cbc.ca/news/canada/oil-industry-canada-s-biggest-contributor-to-greenhouse-gases-1.2608295>
- Caravelis, C., & Robinson, M. (2016). *Social Justice, Criminal Justice: The Role of American Law in Effecting and Preventing Social Change*. New York: Routledge. 8.
- Carey, I. (2012). The Great Economy Versus Environment Myth. Retrieved March, 2017, from http://www.huffingtonpost.com/ian-carey/the-great-economy-versus-_b_1398439.html
- Carrington, D. (2016). Shattered records show climate change is an emergency today, scientists warn. *The Guardian*. Retrieved May, 2017, from <https://www.theguardian.com/environment/2016/jun/17/shattered-records-climate-change-emergency-today-scientists-warn>
- Carroll W.K., & Ratner R.S. (1996). Master framing and cross-movement networking in contemporary social movements. *The Sociological Quarterly* 37(4): 601–625.
- Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science*, 16, 223–243.
- Carvalho, A., & Burgess, J. (2005). Cultural circuits of climate change in U.K. broadsheet newspapers, 1985–2003. *Risk Analysis* 25(6): 1457–69.
- Castells, M. (2009). *Communication Power*. Oxford: *Oxford University Press*.
- CBC News. (2010). Alberta defends oilsands in ads. Retrieved from <http://www.cbc.ca/news/canada/calgary/alberta-defends-oilsands-in-ads-1.866662>
- CBC News. (2015). Alberta election poll: Economy, jobs top election issue, says ROI. Retrieved from <http://www.cbc.ca/news/elections/alberta-votes/alberta-election-poll-economy-jobs-top-election-issue-says-roi-1.3056691>

- CBC News. (2015). 4 significant pipeline spills last year, oil and gas group says. Retrieved from <http://www.cbc.ca/news/canada/calgary/pipeline-report-performance-review-spills-inspections-1.3301481>
- CBC News. (2015). 68% of Albertans opposed to NDP's climate change strategy, poll suggests. Retrieved from <http://www.cbc.ca/news/canada/calgary/climate-change-plan-mainstreet-postmedia-poll-1.3353891>
- Chastko, P. (2004). *Developing Alberta's Oil Sands: From Karl Clark to Kyoto*. Calgary: University of Calgary.
- Chaudhary, P. and Bawa, K.S. (2011) Local Perceptions of Climate Change Validated by Scientific Evidence in the Himalayas. *Biology Letters*, rsbl20110269. <http://dx.doi.org/10.1098/rsbl.2011.0269>
- Chess, C., & Johnson, B.B. (2007). *Information is Not Enough*. Cambridge, UK, Cambridge University Press.
- City of Calgary. (2017). Oil & Gas Industry | Calgary Economic Development. Retrieved from <https://www.calgaryeconomicdevelopment.com/industries/focus-areas/energy>
- Clark, P., Weaver, E., Brook, E., Cook, T., and Steffen, K. (2008) *Abrupt Climate Change*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. U.S. Geological Survey, Reston, VA, 244 pp.
- Cooney, C. 2010. The perception factor. Climate change gets personal. *Environmental Health Perspectives* 118:A485-A488.
- Corrigall-Brown, C. (2016). What Gets Covered? An Examination of Media Coverage of the Environmental Movement in Canada. *Canadian Review of Sociology/Revue Canadienne De Sociologie*, 53(1), 72-93.
- D'Arcy, S., Klein, N., McKibben, B., Russell, J. K., Black, T., & Weis, A. J. (2014). *A line in the tar sands: struggles for environmental justice*. Toronto, Ontario, Canada: Between the Lines.
- Davidson, D., & Gismondi, M. (2011). *Challenging Legitimacy at the Precipice of Energy Calamity*. New York, NY: Springer.
- David Suzuki Foundation. (2017). Food and climate change - What you can do. Retrieved from <http://www.davidsuzuki.org/what-you-can-do/food-and-our-planet/food-and-climate-change/>
- Dilling, L., & Moser, C. (2007). *Creating a climate for change: communicating climate*

- change and facilitating social change. *Cambridge University Press*. Cambridge, UK. 0-521-86923-4.
- Dotson, D. M., Jacobson, S. K., Kaid, L. L., & Carlton, J. S. (2012). Media Coverage of Climate Change in Chile: A Content Analysis of Conservative and Liberal Newspapers. *Environmental Communication*, 6(1), 64-81.
- Doyle, J. (2007). Picturing the clima(c)tic: Greenpeace and the representational politics of climate change communication. *Science as Culture*, 16(2), 129– 150.
- Dryzek, John (2005). *Politics of the Earth: Environmental Discourses (Second Edition)*. New York: Oxford University Press.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *The Journal of Communication*, 43(4), 51–58.
- Environment and Climate Change Canada. (2017). Greenhouse Gas Emissions by Canadian Economic Sector. Retrieved April, 2017, from <https://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&n=F60DB708>
- Fairclough, N. (1992). *Discourse and social change*. Cambridge UK: Polity Press.
- Fairclough, N. (1995). *Critical discourse analysis: the critical study of language*. Harlow, UK: Pearson Education.
- Fairclough, N. (2001). The discourses of new labour: Critical discourse analysis. In Wetherell, M., Taylor, S. & Yates, S.J. (Eds.), *Discourse as data: A guide for analysis* (pp. 229-266). London, UK: Sage Publications.
- Fairclough, N. (2002). The dialectics of discourse. *Textus*, 14(2), 3-10. Retrieved from <http://www.ling.lancs.ac.uk/staff/norman/2001a.doc>
- Fairclough, N. (2003). *Analyzing Discourse: Textual Analysis for Social Science*. New York: Routledge.
- Financial Post. (2014). Here are the breakeven oil prices for every drilling project in the world. Post Media. Retrieved 2017, from <http://business.financialpost.com/business-insider/here-are-the-breakeven-oil-prices-for-every-drilling-project-in-the-world>
- Fitzsimmons, R. C. (1953). *The Truth About Alberta Tar Sands: Why Were They Kept out of Production?* Edmonton, Alberta. Pamphlet.
- Flannigan, M. (2016). Wildfires to grow worse in Canada as the world warms. The Weather Network. Retrieved 2017, from <https://www.theweathernetwork.com/news/articles/in-a-warmer-world-wildfires-to-grow-worse-in-canada/67837>

- Freudenburg, W.R. (2005). Privileged access, privileged accounts: toward a socially structured theory of resources and discourses. *Social Forces* 84(1), 89–114.
- Funkhouser, G. (1973). The issues of the sixties: An exploratory study in the dynamics of public opinion. *Public Opinion Quarterly*, 37(1), 62-75.
- Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, 95(1), 1–37. doi:10.1086/229213
- Gelbspan, R. (1998) *The Heat is On: The Climate Crisis, the Cover-Up, the Prescription*, updated edn. Cambridge, MA: Perseus.
- Gitlin, T. (1980) *The Whole World Is Watching: Mass Media in the Making and Unmaking of the New Left*. Berkeley, CA: University of California Press.
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. New York, NY: Harper & Row.
- Golan, G. (2006). Inter-media agenda setting and global news coverage: Assessing the influence of the New York Times on three network television evening news programs. *Journalism Studies*, 7(2), 323 334.
- Government of Alberta. (2007). *Oil Sands Consultations Aboriginal Consultation Final Report*. Retrieved 2017, from http://www.energy.alberta.ca/OilSands/pdfs/AboriginalCon2007_MSC_OS.pdf
- Government of Alberta. (2007). *Oil Sands Consultations*. April 24, 2007. Calgary, Alberta. *Oil Sands Consultations Multi-stakeholder Committee* http://www.energy.alberta.ca/OilSands/pdfs/FinalReport_2007_OS_MSC.pdf
- Government of Alberta. (2017). *Unemployment Rate*. Retrieved from <http://economicdashboard.alberta.ca/Unemployment>
- Government of Alberta. (2018). *Oil and gas*. Retrieved from <http://www.albertacanada.com/business/industries/oil-and-gas.aspx>
- Gramsci A. (1971). *Selections from the Prison Notebooks*. New York, NY: International Publishers.
- Gunster, S., & Saurette, P. (2014). Storylines in the Sands: News, Narrative, and Ideology in the Calgary Herald. *Canadian Journal of Communication*, 39(3), 333-359.
- Gurevitch, & J. Woollacott (Eds.), *Mass Communication and Society* (pp. 315–348). London: Edward Arnold.
- Haavardsrud, P., & Bakx, K. (2016). Tallying Alberta's oil revenue losses from Fort

McMurray wildfires. CBC News. Retrieved 2017, from <http://www.cbc.ca/news/canada/calgary/wildfire-alberta-fortmcmurray-royalties-1.3622811>

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

Haig, E. (2004). Some observations on the critique of critical discourse analysis. *Studies in Language and Culture*, 25(2): 129-149.

Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning*, 7(3), 175-184.

Hall, S. (1977). Culture, the media and the “ideological effect”. In J. Curran, M.

Halpern, D., & Bates, C. (2004). *Personal Responsibility and Changing Behaviour: The State of Knowledge and Its Implications for Public Policy*, London, UK Prime Minister’s Strategy Unit,

Hasse, M., & Raufflet, E. (2012). The Making of Markets for Canadian Tar Sands Oil: From “Dirty” to “Ethical” Oil. *Proceedings of the 37th Annual Macromarketing Conference - Sustainable Development of Markets and Marketing Systems in a Globalized World*, 382. Retrieved 2017.

Hawkins, C. A. (2010). Sustainability, human rights, and environmental justice: Critical connections for contemporary social work. *Critical Social Work*, 10(3). Retrieved May, 2017, from http://www1.uwindsor.ca/criticalsocialwork/sites/uwindsor.ca.criticalsocialwork/files/coates_5_pdf.pdf

Henton, D. (2015). Climate change panel gets surprising input. *The Calgary Herald*. Retrieved 2017, from <https://www.pressreader.com/canada/calgary-herald/20151013/281500750086431>

Huckin, T. N. (1997). Critical discourse analysis. In T. Miller (Ed.), *Functional approaches to written text* (pp. 78-92). Washington, CD: US Department of State.

Huckin, T.N. (2002). Textual silence and the discourse of homelessness. *Discourse Society*, 13, 347-372.

Hulme, M. (2007). Newspaper scare headlines can be counter-productive. *Nature*, 445, 818. Intergovernmental Panel on Climate Change. (2001). *Climate change 2001: Synthesis report. Summary for policymakers*. Cambridge, UK: Cambridge University Press.

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

- IPPC. (2007). *Climate Change 2007: Working Group III: Mitigation of Climate Change*. Retrieved from http://www.ipcc.ch/publications_and_data/ar4/wg3/en/annex1-ensglossary-a-d.html
- Ives, P. (2004) *Gramsci's Politics of Language: Engaging the Bakhtin Circle and the Frankfurt School*. Toronto: University of Toronto Press.
- Jensen, R. (2001). *Writing dissent: Taking radical ideas from the margins to the mainstream*. New York: Peter Lang Publishing, Inc.
- Karl, T. (1997). *The Paradox of Plenty: Oil Booms and Petro-States*. Berkeley, CA: University of California Press.
- King, B. (2017). I Support The Energy East Pipeline As A Pragmatic Environmentalist. Retrieved January, 2017, from http://www.huffingtonpost.ca/blair-king/support-energy-east-pipeline_b_9073624.html
- Kojola, E. (2015). (Re)constructing the Pipeline: Workers, Environmentalists and Ideology in Media Coverage of the Keystone XL Pipeline. *Critical Sociology, Critical Sociology*.
- Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication, 4*(1), 70–81.
- Leiserowitz, A. (2006). 'Climate Change Risk Perception and Policy Preferences: The Role of Affect, Imagery, and Values', *Climatic Change, Vol. 77*.
- Lertzman, R., & Wilt, J. (2015). Will This Be Remembered as The Summer North Americans Woke Up to Climate Change? Retrieved 2017, from <https://www.desmog.ca/2015/08/29/will-2015-be-summer-north-americans-wake-climate-change>
- Lorenzoni, I., Nicholson-Cole, S. & Whitmarsh, L. (2007). Barriers Perceived to Engaging with Climate Change Among the UK Public and Their Policy Implications, *Global Environmental Change, Vol. 17, Nos 3-4*.
- Martinez, D.F (2007). From theory to method: A methodological approach within critical discourse studies. *Critical Discourse Studies, 4*(2), 125-140.
- Mazur, A. (1998). Global environmental change in the news. *International Sociology, 13*, 457–472.
- McCallum, D., Hammond, S., & Covello, V. (1991). Communicating about environmental risks: How the public uses and perceives information sources. *Health Education & Behavior, 18*, 349–361.
- McChesney, R. (1999) *Rich media, poor democracy*. Chicago: University of Illinois

Press.

- McCombs, M.E., & Shaw, D.L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36, 176-185.
- McGregor, S.L.T. (2003) Critical discourse analysis: a primer. *Kappa Omicron Nu FORUM*, 15(1). [www. document]. URL <http://www.kon.org/archives/forum/15-1/mcgregorcda.html>
- McKenna, B. (2004). Critical discourse studies: Where to from here? *Critical Discourse Studies*, 7(1), 9-39.
- McLeod, D.M. & Hertog, J.K. (1999). Social control, social change and the mass media's role in the regulation of protest groups. In D. Demers and k. Viswanath (Eds.), *Mass media, social control, and social change* (pp. 305-330). Ames, Iowa: Iowa State University Press.
- Merilä, J. and Hendry, A. P. (2014), Climate change, adaptation, and phenotypic plasticity: the problem and the evidence. *Evol Appl*, 7: 1–14.
doi:10.1111/eva.12137
- Mertz, E. (2016). Top 10 most costly disasters in Canadian history for insurers. *Global News*. Retrieved 2017, from <http://globalnews.ca/news/2810070/top-10-most-costly-disasters-in-canadian-history-for-insurers/>
- Moser, S., & Ekstrom, J. (2010). A framework to diagnose barriers to climate change adaptation. *Proceedings of the National Academy of Sciences of the United States of America*, 107(51), 22026-31.
- Moser, S. (2010). Costly knowledge—unaffordable denial: the politics of public understanding and engagement on climate change. In: Boykoff MT (ed) *The politics of climate change*. Routledge, Oxford, pp 161–187
- Moser, S. (2008). Toward a Deeper Engagement of the US Public on Climate Change: An Open Letter to the 44th President of the United States of America, *International Journal for Sustainability Communication*, Vol. 3. 2008.
- Myers, T., Nisbet, M., Maibach, E. & Leiserowitz. A. (2012). A public health frame arouses hopeful emotions about climate change. *Climatic Change* 113: 1105-1112.
- Nelkin, D. (1995) *Selling Science: How the Press Covers Science and Technology*, revised edn. New York: W.H. Freeman & Co.
- Newspapers Canada. (2011). 2011 Daily Newspaper Circulation by Province. URL: <http://www.news-paperscanada.ca/sites/default/files/2011%20Daily%20Newspaper%20Circulation%20by%20Province.pdf> [February 2017].

- Nikiforuk, A. (2016). Can Justin Trudeau See the Forest Fire for the Trees? Foreign Policy. Retrieved 2017, from <http://foreignpolicy.com/2016/05/11/canada-trudeau-fort-mcmurray-wildfire-oil-sands-climate-change/>
- Nisbet, M., & Myers, T. (2007). Trends: Twenty years of public opinion about global warming. *Public Opinion Quarterly*, 71(3), 444-470.
- Nisbet, M. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*. Retrieved from <http://www.environmentmagazine.org/Archives/Back%20Issues/March-April%202009/Nisbet-full.html>
- Ockwell, D., Whitmarsh, L., & O'Neill, S. (2009). Reorienting climate change communication for effective mitigation: Forcing people to be green or fostering grass-roots engagement? *Science Communication* 30(3): 305–27.
- Olausson, U. (2009). Global warming-global responsibility? Media frames of collective action and scientific certainty. *Public Understanding of Science*, 18, 421–436. doi:10.1177/09636625070 81242
- O'Neill, S. J. (2013). Image matters: Climate change imagery in US, UK and Australian newspapers. *Geoforum*, 49, 10–19.
- Palmquist, R. (1999). *Notes for a lecture on discourse analysis*. School of Information, University of Texas at Austin, Austin, TX. Retrieved from <http://www.gslis.utexas.edu/~palmquis/courses/discourse.htm>
- Papoulis, D., Kaika, D., Bampatsou, C., & Zervas, E. (2015). Public Perception of Climate Change in a Period of Economic Crisis. *Climate*, 3(3), 715-726.
- Parenti, M. (1986). *Inventing reality: Politics and the mass media*. New York: St. Martin's Press.
- Poortinga, W., Spence, A., Whitmarsh, L., Capstick, S. & Pidgeon, N. (2011). Uncertain climate: An investigation into public scepticism about anthropogenic climate change. *Global Environmental Change* 21:1015-1024.
- Postmedia. (2015). Calgary Fast Facts. Retrieved from <http://www.postmediaadvertising.com/wp-content/uploads/2015/05/Calgary-Fast-Facts.pdf>
- Potter, W. (2011) *Green Is the New Red: An Insider's Account of a Social Movement under Siege*. San Francisco: City Lights,. Print. 133.
- Pratt, L. (1976). *The Tar Sands: Syncrude and the Politics of Oil*. Edmonton: Hurtig.

- Richardson, J. E. (2006). *Analysing Newspapers: An Approach from Critical Discourse Analysis* (1137136731st ed.). Macmillan International Higher Education.
- Riffe, D., Lacy, S., & Fico, F.G. (2005). *Analyzing media messages: Using quantitative content analysis in research* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Publishers.
- Russill, C. (2008). Tipping point forewarnings in climate change communication: Some implications of an emerging trend. *Environmental Communication*, 2, 133-153.
- Schneider, R., & Dyer, S. (2006). *Death by a Thousand Cuts: The Impact of In Situ Oil Sands Development on Alberta's Boreal Forest*. Published by Canadian Parks and Wilderness Society and the Pembina Institute. <http://pubs.pembina.org/reports/1000-cuts.pdf>.
- Schudson, M. (1995) *The Power of News*. Cambridge, MA: Harvard University Press.
- Schweitzer, S., Thompson, J., Teel, T. & Bruyere, B. (2009). Strategies for communication about climate change impacts on public lands. *Science Communication* 31:266–274.
- Selin, N. (2010). *The Politics of Climate Change: A Survey* – Edited by M.T. Boykoff *Environmental Change and Foreign Policy: Theory and Practice* – Edited by P.G. Harris *Climate Change and Foreign Policy: Case Studies from East to West* – Edited by P.G. Harris. *Review of Policy Research*, 27(5), 662-666.
- Shiffman, D. (2014). "I'm Not a Scientist" Is a Dangerous Cop-Out. Retrieved April, 2017, from http://www.slate.com/articles/health_and_science/science/2014/10/i_m_not_a_scientist_excuse_politicians_don_t_need_to_be_experts_to_make.html
- Sipe, L. R., & Ghiso, M. P. (2004). Developing conceptual categories in classroom descriptive research: Some problems and possibilities. *Anthropology and Education Quarterly*, 35(4), 472-485.
- Smith, C. (2013). Alberta is a centre of climate-change denial, but not all Albertans deny reality of global warming. Retrieved February, 2017, from <https://www.straight.com/news/394316/alberta-centre-climate-change-denial-not-all-albertans-deny-reality-global-warming>
- Stelmach, E. (2007, April 23). Canadian Energy Research Institute Oil Conference. Speech, Calgary, Alberta.
- Sudmant, A., & Gouldson, A. (2018). How Canada's oil capital can become a climate leader. Retrieved from <https://theconversation.com/how-canadas-oil-capital-can-become-a-climate-leader-92909>
- Toolan, M. (1997). What is critical discourse analysis and why are people saying such

terrible things about it? *Language and Literature*, 6(2), 83-103.

- Trumbo, C., & Shanahan, J. (2000). Social research on climate change: Where we have been, where we are, and where we might go. *Public Understanding of Science*, 9, 199-204.
- Trumbo, C. (1996). Constructing climate change: claims and frames in US news coverage of an environmental issue. *Public Understanding of Science*, 5(3), 269-283. doi:10.1088/0963-6625/5/3/006
- Uechi, J. (2014). Presentation suggests intimate relationship between Postmedia and oil industry. Vancouver Observer. URL: <http://www.vancouverobserver.com/news/post-media-prezi-reveals-intimate-relationship-oil-industry-lays-de-souza>.
- University Corporation for Atmospheric Research. (2017). How Much Has the Global Temperature Risen? Retrieved June, 2017, from www2.ucar.edu/climate/faq/how-much-has-global-temperature-risen-last-100-years
- 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.
- van Dijk, T. A. (1988). *News as discourse*. Hillside, NJ: Erlbaum
- van Dijk, T. A. (2003). Principles of critical discourse analysis. In Wetherell, M., Taylor, S. & Yates, S.J. (Eds.), *Discourse theory and practice: A reader* (pp. 300-317). London, UK: Sage Publications.
- van Dijk, T. A. (2004). Critical discourse analysis. *The handbook of discourse analysis*, Blackwell, Oxford, UK (2004), pp. 352-371
- Wherry, A. (2012). Get your environmental concerns off Joe Oliver's lawn. Retrieved from <http://www.macleans.ca/politics/ottawa/get-your-environmental-concerns-off-joe-olivers-lawn/>
- Whitmarsh, L., Seyfang, G. & O'Neill, S. (2011). Public engagement with carbon and climate change: To what extent is the public 'carbon capable'? *Global Environmental Change* 21:56-65.
- Wibeck, V. (2013). Enhancing learning, communication and public engagement about climate change – some lessons from recent literature. *Environmental Education Research*, 1-25.
- Wodak, R., & Ludwig, C. (1999). *Challenges in a changing world: Issues in critical discourse analysis*. Vienna: Passagenverlag.
- Wolf, J. & Moser, S. (2011). Individual understandings, perceptions, and engagement

with climate change: insights from in-depth studies across the world. Wiley Interdisciplinary Reviews: Climate Change 2:547-569.

Wood, J. (2017). Majority of Albertans remain opposed to NDP's carbon tax, new poll finds. The Calgary Herald. Retrieved June, 2017, from <http://calgaryherald.com/news/politics/majority-of-albertans-remain-opposed-to-ndps-carbon-tax-poll>

Woynillowicz, D, Severson-Baker, C., & Reynolds, M. (2005). Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush. Edmonton: Pembina Institute.

Zia, A., & Todd, A. (2010). Evaluating the effects of ideology on public understanding of climate change science: How to improve communication across ideological divides? Public Understanding of Science 19:743-761.

Zucker, H.G. (1978). The variable nature of news media influence. In B.D. Rubin (Ed.), Communication Yearbook 2 (pp. 225-245). New Brunswick, NJ: Transaction Books.

APPENDIX A: ARTICLES REFERENCED IN DISCOURSE ANALYSIS

- Braid, D. (2015, June 18). NDP Not wasting any time on royalties and climate change. *Calgary Herald*, p. A4
- Braid, D. (2015, November 20). The Danger in NDP's race to impress the world in Paris. *Calgary Herald*, p. A4
- Braid, D. (2015, December 9). Climate target could have 'larger' impact on Alberta. *Calgary Herald*, p. A4
- Coyne, A. (2015, March 23). Carbon tax hits, misses; As laudable as it is, NDP's climate policy adds to the regulatory, tax burden. *Calgary Herald*, p. B5.
- Derworiz, C. (2015, November 30). Calgarians rally for climate treaty on eve of Paris talks. *Calgary Herald*, p. A3.
- Ewart, S. (2015, January 20). NEB ventures into 'eye of the storm'. *Calgary Herald*, p. D1.
- Ewart, S. (2015, January 28). Distasteful restaurant protest sums up battle over pipeline. *Calgary Herald*, p. D1.
- Ewart, S. (2015, July 15). Tough to see premiers with 'shared vision' for energy; Focus has shifted from pipelines to climate action. *Calgary Herald*, p. D1.
- Ewart, S. (2015, November 7). 'A good week' for those environmentalists battling oil. *Calgary Herald*, p. C1.
- Henton, D. (2015, August 15). Province announces climate change panel; No targets or deadlines will be made until 'we have heard from Albertans'. *Calgary Herald*, p. A4.
- Hussain, Y. (2015, April 11). Oil industry set to blow its horn more. *Calgary Herald*, p. C1.
- Hussain, Y. (2015, March 24). Denial of permit heats up Squamish LNG fight. *Calgary Herald*, p. C4.
- Ibrahim, M. (2015, March 18). Former environment minister put in charge of climate plan. *Calgary Herald*, p. A6.
- Iverson, J. (2015, December 17). Liberals fear Alberta meltdown. *Calgary Herald*, p. N7.
- Klassen, K. (2015, November 30). Notley owes us the numbers for climate action. *Calgary Herald*, p. B5.
- Lamphier, G. (2015, August 4). In need of a new oil game plan; 'Good time to look at

- how we can do things differently'. *Calgary Herald*, p. C1.
- Lamphier, G. (2015, October 31). Simple yet brilliant plan to save Alberta's economy. *Calgary Herald*, p. B4.
- Marsden, D. (2015, January 6). Bright idea for our environment minister. *Calgary Herald*, p. A8.
- McLeod, T. (2015, September 5). Speak up and help shape our economic future; We can demand fair return on natural resources. *Calgary Herald*, p. A24.
- McClurre, M. (2015, March 23). Greenhouse gas claims aren't measuring up; Experts say decrease in emissions are due to drop in oil production. *Calgary Herald*, p. A3.
- Munro, M. (2015, January 8). Study finds Canada loses if world keeps 'carbon budget'. *Calgary Herald*, p. B3.
- Nelson, C. (2015, December 10) If Notley doesn't get carbon tax right, Albertans will suffer. *Calgary Herald*, p. A20.
- Priaro, M. (2015, August 22). Clean oil plan needed; Alberta must address resource, economic and climate issues. *Calgary Herald*, p. A25.
- Thomson, G. (2015, June 17). A matter of trust; Premier sets out to rehabilitate Alberta's image on climate change. *Calgary Herald*, p. A6.
- Thomson, G. (2015, August 8). Finally, our politicians have stopped denying climate change. *Calgary Herald*, p. A19.
- Thomson, G. (2015, October 31). There may be hope for new pipelines after all; Shift in power, and will, has changed the equation. *Calgary Herald*, p. A19.
- Wood, J. (2015, December 9). Phillips says province has 'done enough'; Greater greenhouse gas reductions needed to meet Paris goal, critics say. *Calgary Herald*, p. A4.
- Yedlin, D. (2015, April 24). Costs and climate common concerns. *Calgary Herald*, p. B1.
- Yedlin, D. (2015, July 16). Rate cut reflects impact of oil decline; Conservatives insist economy not compromised. *Calgary Herald*, p. B1.
- Yedlin, D. (2015, November 27). Oilpatch adjusting to Alberta's new climate policy. *Calgary Herald*, p. B1.

APPENDIX B: LIST OF ARTICLE COMPONENTS

Part 1

Article Component	Notes
Date	
Adaptation focus	
Economic focus	
Tone of article (positive, neutral, negative)	
Language (formal, semi-formal, informal)	

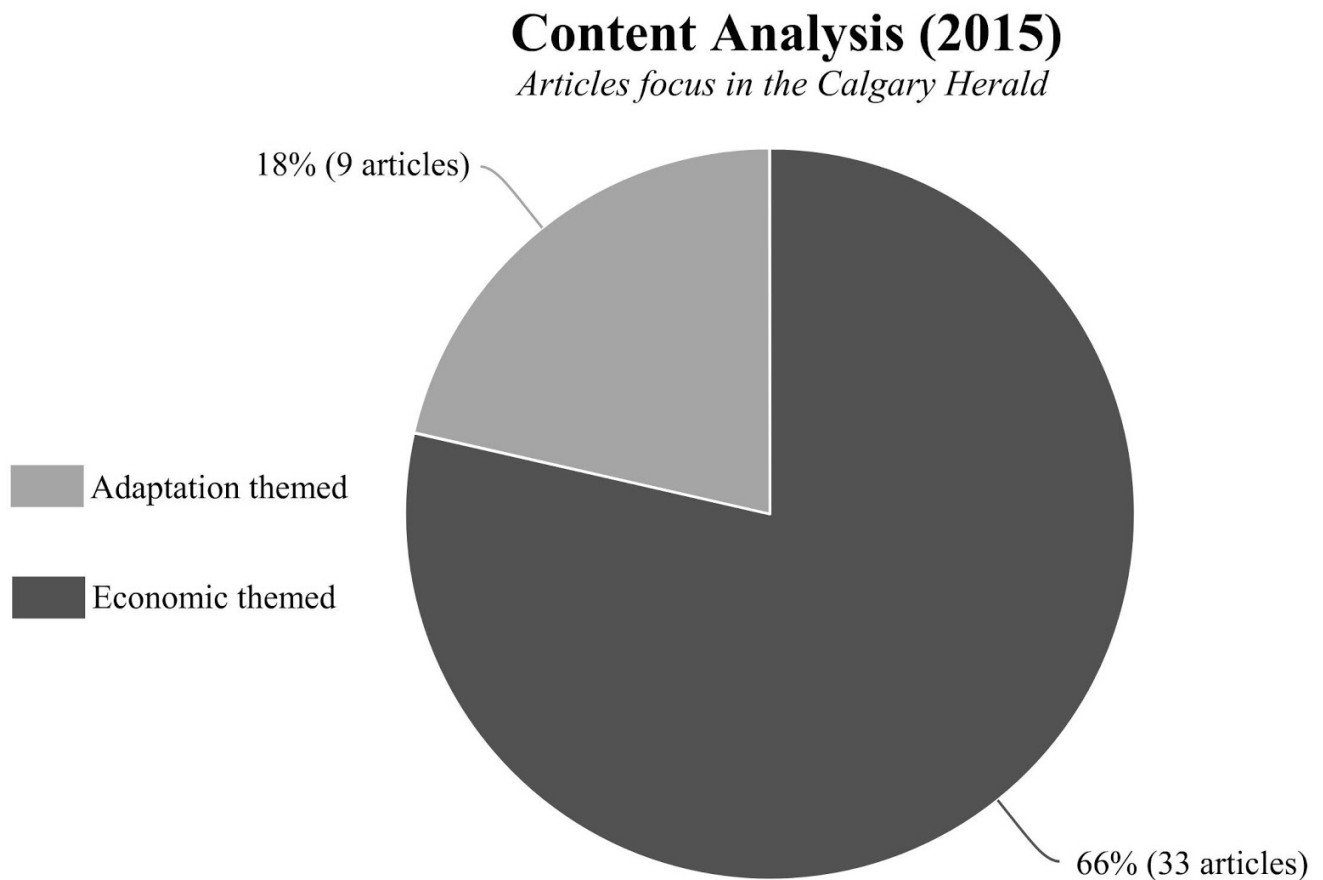
Economic:

I code for articles that have an economic focus. I tally articles when a particular industry is named, i.e. oil, energy, natural gas, coal, renewables, automotive, etc. or when the following are discussed: economic impact of adaptation on industry, industry initiatives, industry conferences or meetings, industry relations with government, and criticism or commentary about industry. I pay close attention for specific words that appear such as business, company, economy, financial, fiscal, free market, industry, industrial relations, corporation, organization, company, market, economist, economics, trading, profits, growth, losses etc.

Adaptation:

Climate change adaptation refers to —initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects (IPPC, 2007). I code for the articles that focus on themes of adaptation. Articles are included in the count when they mention the words: “adapt”, “mitigate”, or some similar variation in the context of adapting to climate change.

Results:



Part 2

Blank CDA Coding Sheet

Text as a whole

Article Component	Notes
Type of genre	
Language (formal, semi-formal, informal)	
Tone of article (positive, neutral, negative)	
Type of frame (central idea)	
Word choice	
Foregrounding/backgrounding	
Grammatical or punctuation choices	
Omissions	
Presuppositions	
Assumptions and inferences	

Sentence Level

Component	Notes
Main topic	
Deleted or omitted agents	
Tone of sentence (positive, neutral, negative)	
Presuppositions	

Agent-patient relations

Component	Notes
Who is speaking	
Passive or active	
Tone of sentence (positive, neutral, negative)	
Order of appearance and amount in article	
Paraphrasing	
Deletion or omission of agents	

Words and phrases level

Component	Description
Register and tone	
Noticeable linguistic tactics	
Formality of writing	
Connotations	

FIGURES & GRAPHS:

figure 1. "Issues of Importance (2015)"

CBC News. (2015). Alberta election poll: Economy, jobs top election issue, says ROI.
Retrieved from <http://www.cbc.ca/news/elections/alberta-votes/alberta-election-poll-economy-jobs-top-election-issue-says-roi-1.3056691>

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