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**“There’s Always Winners and Losers”:
Traditional Masculinity, Resource Dependence, and Post-Disaster Environmental
Complacency**

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Abstract

The 2013 Southern Alberta flood was a costly and devastating event. The literature suggests that such disasters have the potential to spur greater environmentalism and environmental action, as residents make connections between global environmental change and local events. However, the literature also suggests that residents in communities dependent on fossil fuel extraction might see technological disasters, like oil spills, as threats to their economic well-being, thereby limiting environmental reflexivity. Given that Alberta is home of the tar sands, how might a flood disaster affect men’s environmental views, given both traditional notions of masculinity and men’s economic dependence on oil production? Using a survey of 407 flood-affected residents of Calgary and in-depth qualitative interviews with 20 men directly impacted by the flood, this article demonstrates men’s decreased tendency to change their environmental views after the flood. The qualitative data reveal that men justify this reluctance by shifting blame for climate change to the Global South, by arguing for the economic centrality of the tar sands for Alberta, and by discussing how a warming climate will largely be a positive outcome for Alberta. The article concludes with discussion of relevance for environmental sociology and for public policy.

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Introduction

Research increasingly examines how environmental views and practices change after people are affected by a disaster. This literature finds that once confronted with a disaster, people understand the global-local connections involved in climate change, think more critically about how individual actions drive climate change, and consider how global climate change will produce more locally-experienced disasters. The sudden, jarring disruption of peoples' lives, the increased visibility of pre-disaster community and environmental problems, and the new openness of local institutions for strategic change following a disaster, have been shown to provide fertile ground for individual changes in attitude and praxis.

The literature also documents how gender matters in such environmental change. In many cases, research looks at how and why women perceive more environmental risk, and are more likely to favor conservation. Existing literature demonstrates that, outside of a disaster context, traditional forms of masculinity (which stress domination and control), as well as economic dependence on fossil fuel extraction, both limit the ability for men to change and to embrace environmentalism. Missing from the literature are examinations of how these literatures intersect: Are men any less likely than women to change their environmental views following disaster? Why? And, in what way is men's greater dependence on resource extraction employment related to a reluctance to embrace environmentalism even after experiencing a disaster? What discourses do disaster-affected, but fossil fuel-dependent, men evoke when explaining whether and how a flood has changed their views on energy and the environment?

This article provides one of the first attempts to answer these questions. Using both quantitative and qualitative data collected in flood-affected areas of Calgary, following the

devastating 2013 Southern Alberta Flood, the article focuses on men, traditional masculinity, and attitudinal stasis following a catastrophic flood. It establishes how masculinities and fossil-fuel dependence dove-tail to help us understand post-disaster environmental complacency.

The 2013 Southern Alberta Flood

In June 2013, the arid province of Alberta experienced record-breaking rainfall (up to 203 millimeters in 36 hours), which caused the Bow and Elbow Rivers, two of the province's largest rivers, to overtop their banks. This triggered catastrophic flooding in Southern Alberta where 32 states of local emergency were declared and the Canadian Armed Forces were deployed to help evacuate 175,000 people. The Insurance Bureau of Canada subsequently dubbed the flood the costliest disaster in Canadian history (CBC 2013). In the City of Calgary, the flood triggered the largest urban evacuation in Canadian history, with more than 80,000 people evacuated and with more than \$5 billion in eventual damages.

Catastrophic as this flood was, similar events have occurred Southern Alberta, though they do frequently catch residents off-guard. As Sandford and Freek (2014) write,

“Flooding of this scope in Calgary had been predicted as early as 1979, and very nearly occurred in 2005. But that did not stop politicians and others from claiming the 2013 flood was a once in a thousand years event. It wasn't. Calculations.... indicate that this flood was a once in 45 year event in Calgary.... It was not extraordinary; it was not the flood of the century; it was not even the flood of a lifetime” (p. 56).

In fact, the Bow River overtopped its banks at Calgary in 1902, 1915, 1929, 1932, 1950, and of course, 2013. The city's other major river, the Elbow, experienced floods in 1915, 1923, 1929, 1932, 2005, and 2013 (Calgary Flood Story Project 2014). This reveals eight major flood events in the last 100 years of Calgary's history (if we consider years in which both rivers flooded simultaneously), though prior to the 2013 flood, only the very elderly had experienced more than

one previous flood (2005). The work by Sandford and Freek (2014) also reveals gaps in Canada's flood prediction system that leave municipal governments and citizens extremely unprepared. Canada is "about the only developed country in the world that doesn't have a unified flood prediction service" (p. 61) and has done little to adapt flood risk estimates to Alberta's rapidly-changing and much more volatile climate, leaving residents with too little information about their objective flood risk.

Literature Review

In recent years, the sociological study of gender inequalities has led to a critical examination of masculinities, and their associated attitudes and practices. Traditional forms of masculinity, it is argued, contribute to a worldview that prioritizes domination, control, and the exercise of power. Like Connell (1995), we conceptualize masculinity as a gender project, or a "process of configuring practice through time, which transform their starting points in gender structures" (72). Though Connell argues that there are multiple masculinities (which vary based on race or ethnicity, region, and so on), and acknowledges that not many men meet the full normative standards for masculinity (79), Connell also contends that the traditionally masculine focus on power and hierarchy works directly at odds with many precepts of the environmental movement, particularly, ideologies of equality, collectivity, and solidarity. This incongruence makes men less likely participants in the movement (126-128). Connell also notes that for many men, performing masculinity means "there is a clear resistance to change" (178).

Within environmental sociology, this view is often recast as the human exemptionalism paradigm, a perspective that emphasizes control and domination of nature, an unwillingness to recognize environmental limits, and a hierarchical viewpoint that understands humans as the apex species (Catton and Dunlap 1980; Dunlap and Catton 1979). When interviewed, people

often discuss domination of nature, a focus on business and profit, and men's history of hunting as theoretical explanations for men's lesser environmental concern—all explanations drawing on hegemonic and traditional notions of masculinity (Stoddart and Tindall 2011).

Extant literature in environmental sociology demonstrates how women perceive and shoulder more ongoing environmental risk than men (Nagel 2015; Marshall 2004). When disasters happen, women are disproportionately affected by the event (Elaine Enarson and Meyreles 2004). For instance, white men are more accepting of living in well-documented risky places than black men and women (Marshall 2004) and disasters lower the life expectancy of women in affected areas by more than men (Neumayer and Plümper 2007). In yet another example of the myriad ways that women are more negatively impacted by disasters, Litt (2008) reveals that black women's Hurricane Katrina evacuations were slowed by their care-giving responsibilities (see also David and Enarson 2012). Overall, women are more likely to suffer employment and earnings loss (Willinger 2008), are at an increased risk of violence following a disaster (Enarson 1999), and are burdened with a disproportionate share of care-work (Fothergill 1999). The literature is also replete with evidence that these disproportionately felt effects translate into higher overall environmental concern than men (Sundström and McCright 2014; McCright and Xiao 2014; Yates et al. 2015). Within households, research finds that women's risk mitigation and disaster recovery needs are often sacrificed as decision-making power is maintained by male partners who discourage action (Enarson and Scanlon 1999; Milfont and Sibley 2016).

At the more macro level, men's complacency toward the environment can be observed in cross-national differences in carbon emissions. Richard York and colleagues demonstrate that nations where women occupy more seats in legislature and where women's suffrage has a

longer history, also have correspondingly lower carbon emissions (Ergas and York 2012) and increased likelihood of signing climate treaties (Norgaard and York 2005). The findings suggest that when men are afforded more decision-making power, the cumulative impact on the environment is larger and more deleterious, owing in large part to governance focused on control, domination, and hierarchy—all traditionally masculine qualities.

Though the literature is well-developed and generally suggests that men are more inclined toward environmental inaction, there is reason to believe that disaster might rupture that complacency. Using a theoretical perspective dubbed “punctuated equilibrium,” York and Clark (2006) contend that most social change happens not gradually and incrementally, but swiftly following disruptive watershed events. From this perspective, confronting localized events that may be connected to larger global climate shifts may carry the potential to disrupt people’s long-ossified environmental views.

There is a small literature suggesting that disaster triggers such environmental and attitudinal changes. Spence et al. (2011) find that the experience of an ecological disaster leads people to feel more concern about climate change, causes them to see it as more tractable, and to have a greater sense of ability in tackling issues of climate change than those who did not experience flooding (see also Haney and McDonald-Harker, forthcoming). Walters et al. (2014) surveyed residents impacted by Hurricane Katrina and discovered that the connection to nature is a significant motivator of environmental action after a disaster. One third of respondents said that they are participating in environmental action as a direct response to the Katrina disaster.

What sorts of environmental action do disasters trigger? Rung et al. (2011) demonstrates that experiencing a disaster prompts increased interaction with the environment, though neighbourhood park use. Similarly, work by Kato et al. (2013) and Kato (2013) demonstrates

that many New Orleanians embraced community gardening and local food production as a direct response to Hurricane Katrina. And, Ho (2014) finds that the 2011 Fukushima nuclear disaster prompted the resurgence of Japan's anti-nuclear movement. Therefore, this work demonstrates that disaster can prompt affected residents to engage in both individual (gardening) and collective (protest) action. This tendency for disaster to trigger changes in attitudes and behaviour, however, is tempered by geographic distance. For instance, Hamilton et al. (2015) find that 2012's Superstorm Sandy carried no lasting impact on the environmental attitudes of people in New Hampshire, a state brushed by the storm but not as directly impacted as New York or New Jersey. We do know, by contrast, that experiencing a localized severe weather event imparts longer-lasting (at least three-year) impacts on concern for the environment (Hannibal, Liu, and Vedlitz 2016).

In the case of Calgary, one factor that may limit the ability or willingness of residents to locate a newfound environmental reflexivity following the 2013 flood is their economic dependence on Canada's tar sands. Fortunately, an emerging literature also pays requisite attention to how economic dependence on fossil fuel extraction or processing is predictive of less support for environmental protection, largely outside of the disaster context. On the whole, Fisher (2006) argues that a combination of powerful industry interests as well as a reliance on the current energy infrastructure prevents significant political action. Additionally, non-action has been found to be a result of the political application of power from the American conservative movement (McCright and Dunlap 2010; McCright and Dunlap 2011). In a Canada we have seen the politicization and application of power on national level with policy to silence climate scientists enacted by the Conservative party (Manasan 2015), and the recent rise of industry-funded "Astroturf" campaigns (faux-grassroots movements spawned by industry), with names

like “Friends of Science,” to sway public discourse on climate change (Plait 2014). Davidson and Haan (2011) find that beliefs about climate change among Albertans are most strongly influenced by political ideology and gender. The gender finding, however, is almost entirely explained by women’s lower likelihood of holding conservative political values than men. They propose that in the province of Alberta, where many men work in the oil and gas industry, “many female voters have developed a shrewd scepticism of the reigning political ideology that serves to support such a system” (230). In short, gender socialization, which prepares men, but not women, for work in the oil industry, results in greater climate change scepticism among men than among women.

Work by Malin (2015) demonstrates how complete dependence on energy processing facilities creates “sites of acceptance,” whereby even residents being sickened by such facilities are reticent to speak out against them (22-23). In these places, “markets for commodities... become part of the community social fabric and are defended and supported by people as part of local culture and norms” (9-10), a phenomenon she dubs the “triple movement.” In Appalachia, Bell and Braun (2010) find that employment in coal mining discourages men’s potential participation in environmental justice activism, even in the face of ongoing harm to their families’ health. Women, they find, are paradoxically somewhat freed to oppose coal-mining practices, as they are not directly employed by the industry, though they are often married to men employed by the industry (see also Bell 2013). As Freudenburg and Gramling (2012) point out, however, environmental views in resource extraction communities are subject to a “multiplier effect,” whereby “a given person’s attitudes towards an industry are likely to be affected not just by whether that person works for the industry in question, but by whether her friends or neighbors do” (p. 137). Little of this work, however, focuses squarely and entirely on men and

their reasons for non-participation.

Following disaster, how does economic dependence on fossil fuel extraction or processing affect environmental views? Hamilton, Safford, and Ulrich (2012) demonstrate that after the catastrophic 2010 BP oil spill, working in the oil industry was a significant predictor of opposing a moratorium on offshore drilling, as well as opposing alternative energy development. Because Florida is economically dependent on tourism (which is threatened by events like the 2010 spill), and Louisiana is more dependent on oil and gas employment (which would be threatened by a stoppage of drilling), Louisiana residents were much less supportive of a moratorium on drilling and on alternative energy development. In short, residents voice views that are very consistent with the source of their state's revenue and jobs.¹

In contrast to the punctuated equilibrium view of disaster-induced change, Bishop (2014) dubs events like the BP oil spill “focusing events.” Bishop argues that prior to the BP spill residents living in counties highly dependent upon offshore drilling were not more likely than those in less dependent counties to maintain pro-drilling attitudes. After the spill, however, they were more likely to be supportive of continued or increased drilling. In these focusing events, Bishop finds, support for extractive industries is often emergent, as the event makes the issue salient and possibly causes those who are dependent on the industry to feel that their livelihoods are threatened. Though households dependent on oil income saw similar health impacts to other households (Cope et al. 2013), they are the households that see a reinvigorated support for resource extraction industry (Hamilton, Safford, and Ulrich 2012). This support is somewhat

¹ Drilling for oil did decrease for a prolonged period after the 2010 spill, but has recovered somewhat. The U.S. Energy Information Administration reports that total Gulf of Mexico drilling peaked at 1,562,000 barrels per day in 2009, slowing to a post-spill low of 1,266,000 in 2012, rebounding eventually to 1,515,000 barrels per day by 2015—still lower than prior to the BP spill (U.S. Energy Information Administration 2016)

paradoxical in that regions that host offshore drilling, in particular, often see fewer economic benefits than they anticipate or believe that they do (Gramling and Freudenburg 2006).

Louisiana, for instance, received no oil royalties from rigs positioned more than six miles from the shoreline, until the 2006 Gulf of Mexico Security Act (Jacobson 2010), yet Louisiana still exhibits high levels of industry support.

In the most recent investigation of this fossil fuel-dependence thesis, Bell (2016) discusses several barriers to the successful micromobilization of residents against harmful coal industry practices in West Virginia, a process she understands as encompassing the “the small group settings and interactions that facilitate the social-psychological processes necessary for recruitment” into organized social movements (46). Beyond the coal companies’ successful erosion of community social capital, she also identifies the salience of industry efforts to shape the prevailing ideology into one that stresses “the perception that coal is both the economic backbone of the state and the cultural identity of the citizenry” (4). Much like Gaventa's (1980) work in Appalachia, Bell demonstrates that this messaging about the economic and cultural centrality of coal mining becomes hegemonic, is mostly unquestioned, and provides an obstacle to environmental movements in the region. In the context of offshore oil, this ubiquitous support for extraction is, in some places such as Newfoundland, generated by a government that seeks to distract attention and divert criticism from its oil extraction activities (Sodero and Stoddart 2015).

While considering these literatures on gender differences in environmental awareness and risk perception, disaster-induced attitudinal change, and the ways that fossil fuel dependence generates attitudinal complacency and limits micromobilization, we still know little about how these literatures intersect. Previous literature has found that disasters can trigger rapid and

sudden change in environmental views, behaviors, and actions. It has also shown us how economic dependence on fossil fuel, along with traditional notions of masculinity, can work to produce climate change skepticism and inaction. However, for men affected by an environmental disaster, is the experience of that event enough to rupture this complacency? That is, in what ways does economic dependence on fossil fuel limit even disaster-affected men's potential for embracing post-disaster environmentalism? And how do traditional masculinity and prevailing ideas about economic competition and domination, play into men's post-disaster environmental views? In asking these questions, we bridge somewhat disparate literatures in environmental sociology, disaster sociology, masculinity and gender studies, and in the study of social movements and collective action.

Data and Methods

Data used in the following analyses are derived from a survey of 407 Calgary residents living in the city's 26 flooded and/or evacuated neighborhoods. In May 2014, the second author and a team of research assistants randomly selected 1,500 households from these 26 neighborhoods, proportional to each neighborhood's population. Households were selected by first numbering each block within each neighborhood, then numbering each house or apartment number (including all four sides of a block). Using a random number generator, the research assistants selected the required number of households on each block. For example, if a neighborhood contained 25 blocks and we required 50 households from this neighborhood, we randomly selected two households per block. As such, each household in the neighborhood had an equal chance of inclusion in the final sample of 1,500 households, and each neighborhood is proportionally represented.

After sampling was complete, we mailed a survey containing about 100 items to each of the selected households, along with an information sheet and an envelope with return postage. Participants were also given a form that allowed them choose whether they would like to receive a \$25 gift card as a way of thanking them for participation.

96 envelopes came back marked “return to sender,” which is very common in disaster-affected areas (Haney and Elliott 2013). Therefore, we assume that 1,404 surveys were received by residents, though this is surely a high-end estimate. In June 2014, the research team began visiting sampled households on-foot, asking residents to participate and dodging angry dogs. Many residents of sampled households completed the survey upon these visits, substantially increasing the response rate. On-the-ground data collection finished in late-September 2014 and, in the end, the research team completed 407 surveys. According to the Response Rate Calculator available from the American Association of Public Opinion Research, our response rate is 25.9 percent (AAPOR 2016), though of course it is likely that many of our envelopes reached vacant homes or apartments but were never officially returned to sender via CanadaPost. A few surveys continued to be returned as undeliverable even through May 2016, two years after the initial mailing went out.

The final sample is representative of the population living within sampled neighborhoods, though higher-income households are overrepresented. Using data available from the City of Calgary’s “Community Profiles” (City of Calgary 2015), which are derived from 2011 Canadian census data, we calculated descriptive statistics for the population of residents living in the 26 sampled neighborhoods. For instance, 66.43 percent of residents living in the 26 sampled neighborhoods have a Bachelor’s degree or higher, compared to 62.13 percent in the sample, meaning that the study is quite representative of those with a university degree. Higher-income

residents are oversampled, however; the median household income in the 26 affected communities was \$83,645 at the 2011 Canadian Census, yet the median income in the sample was between \$100,000 and \$109,999 (income was asked in the survey in \$10,000 increments). Similarly, although 50.04 percent of all residents in these neighborhoods were women, the sample contains 64.68 percent women. In short, there is an overrepresentation of both women and higher-earning residents, a finding that mirrors other work done in post-disaster settings, work that likewise oversamples more economically privileged people. Haney and Elliott (2013) suggest this occurs because of the comparatively easier time wealthier residents have returning after a disaster and, therefore, receiving the invitation to participate.

[Table 1 Here]

The logistic models below regress one dependent variable, measuring whether respondent environmental views changed (those who marked “uncertain” are grouped with “Yes”), on a host of independent variables. The models all use demographic variables including age (and age-squared), race (white/non-white), gender, marital status, parenthood, and educational attainment (Bachelor’s degree or higher). Household income is included as an ordinal variable with 21 categories, representing \$10,000 increments and ranging from \$0 to \$9,999 [coded as 0] to \$200,000 or more [coded as 20]. Since only 348 participants (86 percent) provided a valid income (i.e., 14 percent are missing), we have imputed the income variable using the multiple imputation command available in Stata (“impute”). The sex/gender variable was determined by asking the participants “With what gender do you identify” and providing “male, female, transgender” as responses. Unfortunately, by asking the question in this manner, the following analysis of changing environmental views rests on a foundation of gender essentialism. Still, the findings shown in the following section indicate that the interaction of sex/gender and resource

dependence significantly determine whether environmental views change. There is a significant difference in how men and women answered this question; therefore, we argue that while the gender variable was asked in a way that is theoretically limiting, the results are indicative of gender socialization. The models also include a variable for home ownership (yes/no) and, to measure flood experience, we include variables for whether the participant was asked to evacuate, the number of days they were evacuated (“0” for those who never evacuated), and whether the participant’s home flooded (1=Yes; 0=No). No measure of insurance coverage is included, as homeowner’s insurance does not typically cover overland flooding in Canada, nor did Canada have a national flood insurance program to cover flood losses.

The paper also utilizes qualitative data gleaned from 40 in-depth interviews with affected residents. Twenty of these interviews were with participants who identified as being men, and the analyses that follow utilize only those interviews. Interviews took place during the Fall of 2015, about two years after the flood, and about a year after the survey wrapped up. Residents participated in an approximately 90-minute interview and to thank participants, we offered them a \$50 gift card. All participant names are changed to pseudonyms to ensure confidentiality.

Findings

Table 2 presents logistic regression models of whether the respondents’ environmental views changed as a result of the disaster. For this variable [1=Yes, 0=No], those who answer “unsure” are grouped with the “Yes” group, because for this group, the disaster at least caused them to wonder whether their environmental views were changing. The first model utilizes sex/gender as the only predictor. Model 2 adds demographics, and Model 3 includes variables measuring experiences during the 2013 flood.

[Table 2 About Here]

Results in the first, sex-only logistic regression model reveal that being male is associated with a 60 percent decrease in the odds of changing environmental views as a result of the disaster (odds ratio = .395). Even when demographic variables are added in Models 2 and 3, this effect remains consistent. In fact, none of the demographic variables added in Model 2 are significant and our sex/gender variable is the only significant predictor of changing environmental views. In Model 3, even variables related to how participants experienced the disaster itself (whether one's home flooded, whether one was asked to evacuate) were not significant predictors of changing environmental views, nor were the other demographic variables. The exception here is length of evacuation (in days), whereby longer evacuations are related to increased odds of change. In the third model, with all the covariates added in, the gender effect persists.

Overall, the quantitative findings indicate that men are significantly less likely to say that the disaster impacted their environmental views, suggesting that men's environmental views are subject to a certain durability or stability, even through a disaster, demonstrating men's "clear resistance to change" (Connell 1995). These findings are supported by the descriptive statistics for the dependent variables. For instance, 44 percent of women in the sample report changing environmental views following the disaster, compared to only 23 percent of men. A likelihood ratio test between Model 3 and Model 1 reveals that the variables added in the second two models do significantly improve the model fit ($\chi^2[2]= 36.68, p<.0001$). Despite this improvement, the sex/gender variable "male" remains significant and, as indicated in Table 2, it is practically the only significant predictor of changing environmental views.

"Winners and Losers"

The above analyses demonstrate that men are less likely than women to change their environmental views as a result of the disaster. Qualitative data from the study reveal how men discussed their reluctance to change their environmental views.

Unlike findings from prior research (i.e., Spence et al. 2011), the participants largely viewed the flood as causally distinct from global climate change, often treating the interview as two separate interviews—one about their flood experiences, and one about their environmental views. As such, there was notable resistance to the questions attempting to link the two. For instance, when Kristopher is asked whether experiencing the flood affected his environmental views, he responds “zero” change, but then rhetorically asks “why didn’t it change? Why should it change?” When the interviewer responded that prior research has shown that disaster can have that effect, he responded “Wasn’t in my case!” and signals a desire to move to a different question. Bradley Rodgers likewise responds “I don’t.. uhhh... my views haven’t changed at all” before adding that “it’s hard to teach an old dog new tricks,” a nod to the durability of his steadfast belief that carbon emissions are not driving climate change. Though he does not reject the idea that a flood might change someone’s views, he believes he is too old and too set in his ways for such an influence. Because of definitive answers like the ones provided by Kristopher, Bradley, and many others, the 2013 flood became largely absent from the portion of the interviews that focused on environment. Although in other geographic locations, disasters have been found to trigger changes in environmental views, within our sample of Calgary men, this was not the case. A couple men do note that they expect disasters like the 2013 flood to become more common in the future, but they are the minority. Overwhelmingly, the men did not seem to believe that this particular flood had much to do with climate change, nor did it rupture their ossified views of climate change.

Two participants (Scott Carver and Allan Shelby) do discuss how experiencing the flood changed their environmental views, by making them more environmentally conscious. Interestingly, Scott was employed for many years as an environmental educator, while Allan works in the “environmental services” field. None of the men interviewed, outside of the two who worked in environmental professions, discussed changing environmental views, though one additional man (Timothy Jacobs) did speak about how the future will likely bring more intense weather events, and another (Martin Spellman) acknowledged that humans need to curtail hydrocarbon use or we will see more disasters. Most of the twenty men, as we demonstrate below, use carefully chosen discursive strategies to marginalize efforts of environmentalists and to argue for continued tar sands production, even after the devastating 2013 flood. In particular, however, men use three discursive strategies to frame the issue of climate change and the related potential for increasing disaster risk.

First, interviewed men framed climate change as naturally occurring, rather than as exacerbated by human activity and the burning of fossil fuels. At some point during the interview, more than half of men voiced a view that climate change is being driven primarily by natural causes. Derek Donaldson responded to a question about what should be done to prevent climate change by saying “nothing...because climate change is a mostly natural process that we have very little control over.” Instead, he believes the sun and solar radiation are the largest drivers of climate change. According to Dave Mitchell “don't tell me that when the ice ages started or ended (laughing) it's because some guy had a coal fired plant somewhere or was burning oil.... And the cycle of the earth, right? It's this cycle.” Much like Dave, many times throughout the interviews participants laughed while discussing environmental issues such as climate change. There have been multiple studies on the use of laughter in an interview

context. For example, Nairn (2005) finds that laughter is used as a method of protection or escape in a space that feels uncomfortable or unsafe. Holt (2012) discusses how laughter is used to diffuse complaints while maintaining solidarity. Our participants may be using a mixture of these two methods. For example, asking questions about climate change ‘outs’ a researcher as being concerned about this issue. As the participants had opposing views, laughter may have been used to cope with discomfort while also preventing complete disaffiliation.

Other men shared these views. Wayne Marlow believes that climate change is “nothing to be too worried about” because shifts are naturally occurring and cyclical. And, Gary Leland discusses how he believes that “98 percent of it is the natural earth changing” before explaining that Greenland used to have a moderate climate before natural climactic shifts made it much colder. Like many of the men, Gary struggles to discuss the issue without mentioning the economic necessity of oil and gas. According to him,

“It is a natural occurrence. The moisture comes off ... here is some water for you..... I think the environment is doing what it is naturally doing. Would it be a good idea to ... I mean we are still going to need oil, we still need natural gas, I mean you don’t have any even ... everything is oil. It takes oil or natural gas to build it.”

Morphing quickly into defensiveness, this passage demonstrates how Gary, like many of the interviewed men, discussed the earth’s naturally shifting climate, but also defended oil and gas as an economic necessity. Though many men, like Timothy Jacobs, felt that adaptation to climate change was necessary, they rarely felt that any mitigation is necessary. According to Timothy, “We are not changing [the climate]. It is changing, whether we want to or not. You can think that it is all us, and then if we stop using hydrocarbons that it will stop – it is not going to stop. We need to just accept that and deal with it, because if you don’t nature will just walk all over you. It will wipe us out.”

The paradox inherent in the accounts of many interviewed men is that they argue that attempts to mitigate climate change (through burning fewer hydrocarbons) are futile, while at the same time suggesting that it may be possible under the right conditions. According to Peter Jones, “I think it’s foolish, I think it’s arrogant of people to think that we can actually do something about it...This planet was here long before us, it’ll be here long after us. When it decides to shake us off it will, so. I really don’t think that....unless we go back to the.....stone ages, there’s nothing we can do.” Though Peter’s statement suggests that climate change is intractable, at the end of his statement he admits that there’s nothing we can do “unless we want to go back to the stone ages.” In saying that, he implies that it may actually be hydrocarbons that are responsible after all, but that stopping their usage would result in a significantly diminished quality of life. Contradictory explanations like this were common in the interview data.

Second, they discussed how climate change may actually be a positive thing for Albertans. According to Christian Donaldson, “by in large, for Alberta, I actually think climate thing will be a positive thing (laughing) ‘cause the worst issue we have in Alberta is the cold climate. ...And having that less cold winter, slightly warmer summers, even wetter summers, I think is a superb thing for Alberta.” This view is shared by several of the men, including Wayne Marlow who says “If the climate changes maybe it is good for Canada. I am not complaining! I like to have better weather here, don’t you?” Despite concern of scientists and disaster researchers about more extreme weather events, men such as Wayne and Christian look forward to the warmer weather that climate change may bring to Alberta. Few worry about catastrophic localized effects such as more frequent floods, fires, or threats to food security.

When asked about the ways that climate change may affect them personally, the men we interviewed spoke about minor inconveniences. According to Matthew Bower, “In my daily life

I might go skiing less. ‘Cause there won’t be any snow. I might go white-water canoeing less cause there won’t be any water. Might not be able to drive places ‘cause of crazy storms.” For Matthew, environmental change will be felt mainly through slight limitations on recreational activity and mobility. Beyond that, he discusses not worrying about it. His mention of skiing is particularly interesting, as Stoddart (2012) argues that skiing itself alters the landscape, damages vegetation, destroys wildlife habitat, and causes other environmental impacts. While the ability to ski may be lost in the context of climate change, skiing itself as a recreational activity is not a conservationist endeavour, much as ski operators frame it as such. As Stoddart shows, the social construction of mountain landscapes is contested between ski resorts (who present themselves as pro-environment) and First Nations and other protestors who challenge this view. Matthew worries that our ability to enjoy this activity might be disrupted by climate change, but skiing is simultaneously a driver of environmental change.

Like Matthew, Gary worries about not being able to introduce his grandchildren to the same recreational activities to which he is accustomed. He says “I got grandkids and I want them to be able to go out in the wintertime and ski. I want them to be able to go to their other grandparents’ [house] in Windermere [British Columbia] and swim in the lake, right?” And, for Caleb Marsden, the largest inconvenience he sees will be “paying more for insurance!” These statements demonstrate a disconnect from possible localized effects (floods, fires, or drought), but also demonstrate a potentially accurate assessment that as residents of wealthy region, they probably will be able to shield themselves from many of the effects of climate change.

Third, they framed the outcome of climate change in the language of competition. And, it involved an acknowledgement that Canada will probably be a “winner” in this competition, invoking discourses of competition normally considered a facet of traditional masculinity

(Connell 1995). According to Christian, “when you’re looking holistically from a planetary level, there’s always winners and losers. And yeah Africa may suffer, and India may suffer, but parts of North America will probably do very well.” Similarly, many of the men discussed resentment toward environmentalists and residents of other regions/countries who “pointed fingers” at Alberta as a main driver of climate change, much like in Norgaard (2011)’s work. Wayne believes that “We keep building things to try and be better, but we just keep getting like, fingers pointing at us all the time, like, “It is you guys!” You know what I mean? It is like ... I don’t know, we try our best, I guess.” Wayne also mentions how environmentalists are engaged in a struggle for “power and money,” a struggle to extract economic resources from Alberta, invoking the discourse of economic competition commonly found in traditional notions of masculinity. Similarly, Peter Jones sees the environmental movement as a government-driven initiative to extract wealth. According to Peter “Well, I’m sure they’ll start taxing us to use our cars more, or something like that. I mean I think it’ll be used as an instrument for our government to take more money out of pockets.” Concern over higher taxes is common in Alberta, a historically Conservative province (see Davidson and Haan 2011).² Dave Mitchell adds that “I find that the environmentalists attack the people that are doing the best job. You know, I mean our power plants here in Canada are probably some of the most efficient ones around.” He also points out that environmentalists are unrealistic in that they want “absolutely no emissions...everything is as green as hell..... nothing gets hurt.... We get all the energy we want, when we want it, no cost (laughing)... and it’s not going to happen.”

² It is important to note here that Alberta currently has the lowest tax rates in Canada, with no provincial sales tax (residents pay only the 5 percent federal sales tax) and, until 2015 (including at the time of the interviews), the province had a flat income tax where all earners pay 10 percent, regardless of income bracket. Even with the move in late 2015 toward a more progressive income tax, the top tax bracket only increased to 12 percent (Alberta Finance and Treasury Board 2016; Wood 2015).

Several men evoked the discourse of competition, and of “winners” and “losers,” a framework consistent with traditionally masculine conceptions of the environment (Connell 1990; Nagel 2015; Milfont and Sibley 2016; Ergas and York 2012). When asked about how a shifting climate may affect them, the men spoke about minor inconveniences (or just as often, mentioned no potential effects at all), sometimes acknowledging that “Africa may suffer” (Christian), but rarely acknowledging any locally felt effects. This is particularly salient given that the interviews took place shortly after a catastrophic flood, and given that all of the men interviewed were directly affected by the flood (most were flooded themselves, all were evacuated). At the same time, they resented environmentalists, governments, and others whom they viewed as competitors.

“It’s Not Us, It’s Them”: Fossil Fuel Dependence and Complacency

When asked about Alberta’s tar sands, and whether production should continue or expand in light of climate change and recent disasters like the 2013 flood, none of the 20 interviewed men believed that Albertans should cease producing oil from the tar sands, though a couple of them did support a gradual decline in production as we shift to other resources. To explain their reluctance, they utilized three discursive strategies.

First, they discussed worry over the economic effects of a moratorium on production from the tar sands. According to Matthew Bower, “Stop it all together?...You don’t want to have a ton of people out of work.” When asked about the main drivers of climate change, Gary quickly changed the subject to the economic effects of low oil prices on Fort McMurray, the urban hub for the tar sands. He said,

“You have Fort McMurray and there are thousands and thousands of families who have no income – hundreds of thousands – because it is going to affect ... Newfoundland was way

up on the positive side and now they are on the negative side because they got all the oil offshore, but with the price of oil ... so the environment ... I think the environment is changing naturally on its own.”

At the end of the passage, he again switches back to natural causes for climate change, suggesting that Gary is unable or unwilling to discuss climate change apart from the economic effects that a stoppage of tar sands production would bring. The two issues, for him and for most of the men, are interrelated.

In another example of the economic worry, Kristopher’s interview is replete with angst. In fact, whenever asked about environmental issues, he tended to immediately shift the conversation to economic concerns. And, Bryan Alden cautions us about shifting too quickly or suddenly away from oil production. He contends that “Where as, they do too much, too aggressive, too fast, they’ll alienate people.” Timothy reflects on how much we have come to depend on oil, and as a result, how it will be nearly impossible to transition away from it. He believes that “if you just go against oil and the production of oil, think about everything you are wearing, and everything you use. Take everything that has been touched by oil and gas out of your life and what do you have? You are living on ... well you are living under a tree naked, basically. You have no shelter, you have no heat in your house sort of thing.” As a result, he and the other participants do not see pathways for transitioning away from oil without economic ruin and major sacrifices in quality of life.

Second, the men argue that Canada should not have to pay the economic price for a problem they feel is largely caused by someone else. The irony here, of course, is that while many of the men speak about the tendency for the Global South to produce more carbon, they also said they do not believe that carbon emissions are responsible for climate change (see above). Peter Jones felt that a carbon tax (which Alberta later adopted on January 1, 2017)

would be “picking the low hanging fruit” because “there’s so many other big emitters who are causing so much damage out there, until they deal with the you know the big countries like China and India who just have no environmental regulations, then it’s all for nothing.” This view was shared by many of the men. Dave Mitchell recounts his years working in the oil transportation industry, and the environmental transgressions he witnessed abroad. According to Dave,

“When I was in the pipeline industry we went over to Russia, their pipelines and they leak so bad that 50% of it leaked into the air... We went over there trained them to repack their valves so they don't leak or leak minimally... That's way better than trying to take and force somebody over here to try and you know bring their emissions down... so it's that kind of approach we gotta take, we're already doing things better than most people.”

This participant, therefore, believes Canada’s responsibility should be travelling to both nations of the Global South and post-Soviet transitional countries in order to teach industries in those nations how to emit less carbon from their projects. In a similar vein, William Porter reflects that “There is other smaller, less developed countries that are worse polluters than anything the oil sand is doing.” Christian shares this view, but takes a tragedy-of-the-commons approach, believing Canadian actions are fruitless unless others do the same. He believes that “CO₂ is a global issue. If the world decides it wants more energy tomorrow...if Canada doesn’t pump it, produce it, somebody else will. So, it can only be managed, it’s one of those tragedy of the commons situations. Unless we do, unless all of us come together, it’s a waste of time.”

As Norgaard (2011) finds, finger-pointing by residents of high-emitting nations is a discursive strategy used to justify inaction. In an extreme case of this logic Peter muses about the effects of shutting down production from the tar sands. He believes that “if we shut down the oil sands down tomorrow it’s not even going, going to make a lick of difference in the grand scheme of things, because of big contributors like China and India.” As journalist Naomi Klein

(2014) points out, blaming countries like China for global emissions is done “as if we in the West are mere spectators to this reckless and dirty model of economic growth. As if it was not our governments and our multinationals that pushed a model of export-led development that made all of this possible”(p. 82).

Finally, participants immediately shift the conversation to other fossil fuels, such as coal, and away from tar sands oil production. This strategy shifts the burden of responsibility for mitigating climate change to other resource-extraction regions (like Appalachia). According to Christian, “I think we should have a phase plan to get out of coal. I still think it’s fifty percent of Alberta’s electricity counts as coal. If you change those coal plants into natural gas plants we would have a huge reduction in CO2 tomorrow. We could have a longer term plan internally in the province to get off our own energy.” In his view, we must stop using coal immediately but work toward a reduction in oil production and usage only gradually. Allan Shelby likewise believes that “getting off coal is number one....But then you know there are five hundred new coal plants coming online in China, so [closing] our twenty or whatever it is [won’t make a difference].” This finding is particularly salient given that none of the interview questions asked about coal or about any fossil fuels other than the tar sands.

Even the most environmentalist participant, Scott, who spent the majority of his career teaching and researching about environmental issues, stopped short of arguing for a slowing or stoppage of oil production from Alberta, even arguing that we discursively shift away from calling the resource “tar sands” and urging that we “not give up” on the resource. According to him,

“I have no answers there. I think ... I think certainly we are not going to sell the oil unless we have better methods of refining it. We are going to have to have energy and we are going to have to oil for ten or twenty years. And the oil sands – I hate that ‘tar sands’ [term] – and it does take more energy to refine the oil in the oil sands to create a barrel of

oil, it does take more energy but it still can be done in an efficient manner, and I think it is important for Canada that we don't give up on it. There has got to be a way"

The resistance to energy transitioning was evident in interviews with many of the participants who became defensive when the topic of oil came up. As an example, when the interviewer asked "do you think oil companies should play a role in ---" she was cut off immediately by Kristopher Reid who responded "nope!" When she started again by saying "--- in lessening climate change?" Kristopher responded "Nope!" again. When probed further, the participant said "No more than any other company." Later, when this same participant was asked what he thought was driving climate change, he responded "rising temperatures." When probed further about the cause of those rising temperatures, he said "No, no the temperature rising. Climate change comes from basically a long-term rise in global temperatures. That is the cause of climate change... You asked my opinion... And I gave it to you." Kristopher's defensiveness was fairly common during the interview portion of the project, especially when conversation touched upon the oil industry's responsibility for climate change or for an increase in the frequency or magnitude of disasters. Consistent with Cope et al. (2013), the 2013 flood served as a "focusing event" which prompted Calgary men to circle the wagons in defense of the oil industry, rather than initiating a process of environmental reflexivity, critique or micro-mobilization. These dynamics exemplify what Malin (2015) calls "sites of acceptance" and the "triple movement," locations where advocacy for particular commodities become embedded in the social fabric of the community.

While not identical, the discourses employed by participants in this study share some similarities to those of Norgaard's (2011) participants, who when asked about climate change, attempted to blame others, employed canned answers about their nation's love of nature, selected their perspectives carefully (omitting evidence that does not fit the desired narrative) or

displayed false optimism that science would unveil new less polluting energy sources. Although our participants did not use identical discursive strategies to Norgaard's, we do find a number of identifiable strategies that the men voiced, including: blaming nations of the Global South, arguing that climate change is naturally-occurring, deriding environmentalists as naïve or unrealistic, denying that climate change will affect them personally (other than providing fewer recreation opportunities), or stating that they believe in the inevitability of climate “winners” and “losers.” What these strategies share in common is that they all remove the responsibility for action from the individual; none of them require the men we studied to undertake any concrete action to mitigate the effects of climate change or to burn fewer fossil fuels—a complacency that, we argue, has much to do with living in a city so economically dependent on fossil fuels and the tar sands.

What is also noteworthy in the interviews is what is missing from them; despite being interviewed about a recent flood that affected them directly (nearly all of the participants' homes were flooded), none of the men expressed normative emotions of sadness during the interview. The interviews were matter-of-fact, though the environmental questions caused many men to shift into defensiveness, perhaps because under patriarchal arrangements and traditional forms of masculinity, men are allowed to express anger, but not sadness (Ross and Mirowsky 1984), in public settings like interviews (Schwalbe and Wolkomir 2003). This absence of sadness suggests a complex interplay between flood experience, environmental views, and normative gender identities and expressions. Like all disasters, the 2013 flood caused many Canadians to wonder about the future viability and desirability of the tar sands as an energy resource, which directly threatens the livelihoods of many people in Alberta—particularly men. Seen in this light, the defensiveness exhibited by many of the men could be seen as stemming from their

identities as residents of an oil-dependent region and as breadwinners (see Davidson and Haan 2011), identities that are increasingly threatened after focusing events like disasters (Bishop 2014). The discursive use of anger, defensiveness, as well as invoking the inevitability of economic competition between nations (“winners and losers”) is entirely absent from the 20 interviews with flood-affected Calgary women, suggesting important gender differences in how flood-affected men and women view the relationship between the environment and Alberta’s energy-extraction economy.

Conclusions

Our quantitative findings indicate that men in our survey are about 60 percent less likely than women to say that experiencing the 2013 Southern Alberta Flood changed their environmental views. Like Connell (1995), among men we find that there is “a clear resistance to change” (178). The qualitative findings, gleaned from interviews with flood-affected men, reveal that none of the men we interviewed favoured an abrupt or immediate stoppage of oil production activity in Alberta, even in light of their recent experience with environmental disaster – which they, by in large, saw as disconnected from climate change. Instead, many shifted the blame for climate change to others (i.e., China), framed climate change as stemming from entirely natural causes, or stated explicitly that economic growth and jobs should be prioritized. In fact, the only men who acknowledged the need to slow, and eventually halt, oil production are those men who have worked in environmental occupations. Men’s direct or indirect economic dependence stymied any discussion of oil production’s negative externalities. The analyses demonstrate that this prioritization of the economy over the environment, along with the discourses they evoked of competition, are fundamentally linked to traditional and hegemonic forms of masculinity (Connell 1995).

Though the literature is replete with such findings during non-disaster situations, our analysis adds a layer of complexity by doing the work in a post-disaster community. In particular, it helps us understand whether, and under what circumstances, experiencing an environmental disaster ruptures environmental complacency in a fossil fuel-dependent community. Our analysis reveals that the answer is a (somewhat qualified) “No.” Therefore, as resource-dependent communities experience more environmental disasters, we should not assume, *ipso facto*, that this experience will lead to greater efforts to protect the environment—particularly among men.

The environmental views of the men we interviewed are also paradoxical. When asked about climate change and its main drivers, most of the men mentioned natural causes and were careful not to indict hydrocarbons. However, several of them referenced expanding emissions by countries such as Russia or China, and how the main role of the Global North should be helping other countries to decrease their emissions. Accordingly, while the men do not believe that burning fossil fuels drives climate change, they do believe that to halt climate change countries of the Global South must cut their emissions. We argue that these seemingly contradictory views are logical in that they serve to shift responsibility away from the tar sands and from Alberta. From this perspective, we do not argue that the views expressed by the men necessarily reflect their deep-seated beliefs with perfect accuracy. Rather, they reveal a discursive strategy employed by men to protect tar sands production and the economic benefits derived from it, which come under attack following “focusing events” (Bishop 2014) like the 2013 flood.

The current paper carries limitations. First, due to the demographic question being asked in the survey, “With what gender do you identify?” (options: male, female, transgender), the quantitative analyses rest on static and mostly binary conceptions of gender identity and, to some

degree, conflate sex and gender. We encourage future research to utilize a more inclusive measure of gender identity in survey instruments and in interview protocols. Second, the survey question about changing environmental attitudes does not properly capture the type or direction of change. Though the findings indicate that men were less likely than women to have their environmental views change as a result of the flood, did those who change come to embrace an enhanced environmentalism? We cannot be sure. The qualitative data indicate, however, that many men rallied around what they viewed as a threatened oil industry, suggesting that many men's changing views may have been toward a generally *less* environmentalist politics. If this were properly captured in the survey, we would expect the sex/gender coefficient to be even stronger. Finally, the current paper relies on data provided by only the men in the study. Future work will build upon this base by contrasting the experiences and views of men and women, on a range of topics related to post-disaster environmentalism.

The analysis carries several policy implications as well. We find, of course, that men in a fossil fuel dependent locale, Calgary, are protective of the oil and gas industry in the aftermath of a focusing event such as a disaster. Researchers and policymakers should therefore not assume that as disaster becomes more common, those residing in disaster-affected communities will logically make the connection between burning hydrocarbons and climate change, and consequently, adopt more environmentalist attitudes and practices. Instead, we argue, they may double-down and protect the local fossil fuel industry. As politicians introduce policies such as carbon taxation, they should be aware of this calculated reluctance and protectionism.

Finally, and perhaps most importantly, the research reveals that men in oil-dependent but disaster-affected communities such as Calgary worry about economic ramifications and lost oil revenue. As the literature review established, this is often because of men's greater dependence

on employment in the oil industry, coupled with patriarchal notions that men should be the main income-earners. If policymakers hope to decrease oil production from carbon-intensive reserves such as the tar-sands, they will need to provide jobs in other industries or re-training opportunities to alleviate the reluctance that many men feel toward a post-carbon economy. This is not unrealistic, as many aspects of ecofeminism have been incorporated by policymakers (Buckingham 2004). However we choose to fund the transition, this work will need to overcome the reluctance of many men (and surely many women too) to embrace a post-carbon world, even after experiencing an environmental disaster.

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Table 1. Descriptive statistics for all variables

	Min	Max	Valid N	Mean	S.D.
<i>Dependent Var</i>					
Changed Environmental Views	0=No	1=Yes	405	.360	--
<i>Demographics</i>					
Male	0=Female	1=Male	401	.352	--
Age	18	99	399	47.81	16.02
White	0=No	1=Yes	398	.905	--
Married	0=No	1=Yes	400	.560	--
Children	0=No	1=Yes	407	.253	--
Bachelor’s or Higher	0=No	1=Yes	407	.631	--
Income	0=\$0-\$9,999	20=\$200,000+	348	10.63	6.32
Homeowner	0=No	1=Yes	407	.754	--
<i>Flood Experience</i>					
Flooded in 2013	0=No	1=Yes	405	.230	--
Ordered to Evacuate	0=No	1=Yes	404	.740	--
Evacuation in Days	0	396	403	12.26	47.89

Table 2. Logistic regression models of changing environmental views

	(1)	(2)	(3)
Male	0.395*** (0.093)	0.388*** (0.095)	0.396*** (0.099)
Age	--	0.985 (0.041)	0.983 (0.042)
Age ²	--	1.000 (0.000)	1.000 (0.000)
White	--	0.811 (0.302)	0.804 (0.309)
Married	--	1.026 (0.268)	1.026 (0.275)
Parent	--	1.468 (0.401)	1.539 (0.429)
Bachelor's or Higher	--	0.753 (0.182)	0.720 (0.178)
Income	--	0.982 (0.023)	0.980 (0.023)
Homeowner	--	0.994 (0.298)	0.963 (0.296)
Flooded	--	--	1.360 (0.397)
Ordered to Evacuate	--	--	0.932 (0.247)
Days Evacuated	--	--	1.005* (0.003)
Constant	0.774** (0.097)	1.811 (1.789)	1.923 (1.951)
Observations	400	385	379
Pseudo R-squared (McFadden's)	0.0318	0.0396	0.0554

*** p<0.01, ** p<0.05, * p<0.1