

**Climate action that works for workers? Exploring Canadian oil and gas workers'
perspectives on a just transition**

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Abstract

Canada is a major producer of oil and gas, and serious efforts to address the industry's contributions to the climate crisis will have an impact on the workers therein. The movement for a just transition aims to support these workers, but despite an increasing scholarly focus on just transitions, there is a lack of research which directly engages with workers themselves. Moreover, many environmental organizations are prominent proponents of a just transition, but the relationship between 'environmentalists' and 'fossil fuel workers' is typically characterized in terms of polarization and contention. Based on semi-structured interviews with Canadian oil and gas workers, I assessed myriad perspectives and priorities related to a just transition, including workers' views of just transition advocacy by 'environmentalists'. Specifically, through a discursive analysis I identified four distinct discourses practiced by workers, as well as specific 'common ground items' which could inform more widely supported just transition advocacy and the strengthening of cross-movement coalitions. Responding to the concerns of workers, while simultaneously minimizing resistance to a transition, is of heightened importance as the federal government seeks to advance just transition legislation with profound implications for Canada's climate commitments and global efforts to transition away from fossil fuels.

Keywords: Just transition, Climate change, Alberta, Oil and gas workers, Environmental organizations

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Table of Contents

1.0 Introduction	1
1.1 Context for a Just Transition	3
1.2 Status of a Just Transition in Canada.....	8
2.0 Literature Review	11
2.1 Just Transition as a Concept	11
2.2. State of Just Transition Research.....	13
2.2.1 Perspectives of Workers on a Just Transition	15
2.2.2 Environmental Organizations and a Just Transition	17
2.2.3 Workers' Perspectives on Environmentalism and Just Transition Proponents	19
2.3 Advancing the Just Transition Movement	21
2.3.1 Social Movement Theory and a Just Transition	21
2.3.2 Common Ground and Growing a Social Movement.....	24
2.3.3 Common Ground Between Oil & Gas Workers and Environmentalists	27
3.0 Methods	29
4.0 Results	36
4.1 Awareness and Concern Regarding Climate Change	37
4.2 Future of the Energy Industry.....	40
4.3 Just Transition and Personal Role Therein	46
4.4 Environmental Organizations and Environmentalism	49
4.5 Practical Considerations Regarding a Transition	52
4.6 Role of Governments in Supporting a Just Transition.....	56
4.7 Common Ground Between Workers and Environmentalists.....	59
4.8 Social Movements to Advance a Just Transition.....	65
5.0 Discussion of Implications.....	70
5.1 Relative Rigidity of Discourses	71
5.2 Contested Discourses and Alliances.....	73
5.3 Research Limitations and Future Opportunities	80
6.0 Conclusion	82
7.0 References	85
8.0 Appendix A	99
9.0 Appendix B	102

List of Figures and Tables

Figure 1. Projected decreases in oil and natural gas production (across global regions) required to reach net-zero by the year 2050 (in combination with other technical advancements). Obtained from the report ‘Net Zero by 2050: A Roadmap for the Global Energy Sector’ (International Energy Agency, 2021).....	4
Figure 2. Projected changes to Canadian oil production based on three different scenarios, or levels of ambition in pursuing net-zero carbon emissions by the year 2050. Obtained from the report ‘Canada’s Energy Future 2023: Energy Supply and Demand Projections to 2050’ (Canada Energy Regulator, 2023).	5
Figure 3. A simplified overview of the 4 identified discourses, presented in terms of how a worker therein might describe their personal ‘take’ on a just transition.	37
Figure 4. Simplified perspectives on climate change according to each discourse.	39
Figure 5. Simplified perspectives on the future of fossil fuels and the energy industry according to each discourse.	43
Figure 6. Simplified perspectives on workers’ personal role in a just transition according to each discourse.	48
Figure 7. Simplified perspectives on environmentalism and environmentalists according to each discourse.	51
Table 1. Specific examples to illustrate the coding process employed in my discursive analysis.	34

1.0 Introduction

Consider an oil and gas worker whose future employment might be in jeopardy due to a range of factors, including a possible societal shift away from fossil fuels by a government motivated to tackle climate change. Now consider that environmentalists typically want this shift to happen faster than society's current trajectory, often through efforts to impose limits on the supply of fossil fuels (Piggot, 2018). How might the worker feel about this shift, as well as those advocating for its accelerated timeline? For that matter, is this on the worker's 'radar', and has anyone even asked them what they think? This mental exercise paints an overly simplistic caricature of both oil and gas workers and environmentalists, but nevertheless provides a big picture view of a potential tension: Environmentalists want climate action, climate action almost certainly means less jobs in the fossil fuel industry, and oil and gas workers might therefore look upon environmentalists in a negative regard and/or view climate action as a threat to their livelihood.

The concept of a just transition can, in theory, serve as a framework to counter this 'jobs versus environment' narrative by tangibly guiding policies that promote job creation while fossil fuel-related jobs are affected by more stringent climate policy (Bainton et al., 2021; Healy & Barry, 2017). However, just transition research to date has primarily focused on shifts away from coal-powered energy (Muzzerall, 2022; Pai et al., 2020), and in line with a lack of people-centred research in energy scholarship (Sovacool, 2014), the vast majority of just transition research is theoretical in nature and workers themselves are rarely engaged in the research process (Muzzerall, 2022; Pai et al., 2020). Moreover, environmental non-governmental organizations (ENGOS) are increasingly prominent proponents of a just transition (Shelton & Eakin, 2022), and despite documented tensions between ENGOS and fossil fuel workers (Bainton et al., 2021; Ciplest & Harrison, 2020; Shelton & Eakin, 2022; Webster & Shaw, 2019), there are tangible indications of common ground which can serve to unite these

groups (Healy & Barry, 2017; Iron & Earth & The Green Resilience Project, 2022; Marshall & Bennett, 2018; Shelton & Eakin, 2022). Furthermore, appealing to common ground among seemingly polarized parties may positively impact the social acceptance of relevant policies, but striving to avoid pushback simultaneously risks delaying, or avoiding, important decreases in fossil fuel production with profound consequences for climate change mitigation targets (Bell & Katz-Rosene, 2024; International Energy Agency, 2023; Van Bommel & Höffken, 2023).

Given that there is a lack of empirical research on the opinions of Canadian oil and gas workers regarding a just transition and the potential role of environmental organizations in this process, my research asks:

- i) What are the perspectives of Canadian oil and gas workers on a just transition and their future employment prospects in the context of climate action?
- ii) Are there opportunities for environmental organizations to advocate for a just transition in a manner that is supported by oil and gas workers without compromising on bold climate action?

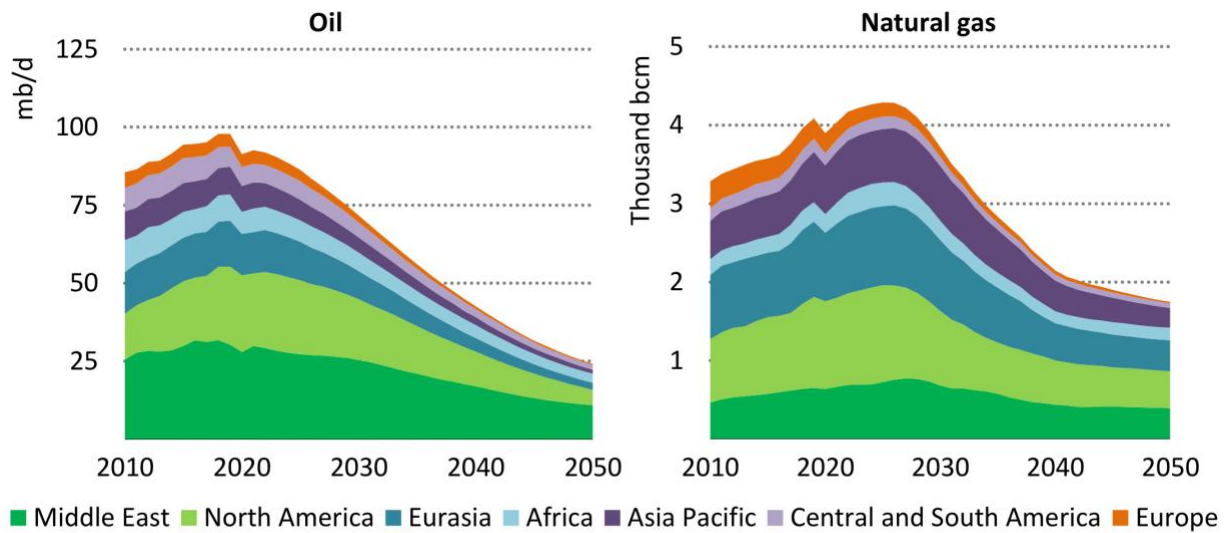
For my methodology, I undertook a qualitative analysis of both secondary and primary research data. Specifically, the secondary data was obtained by Iron & Earth (a Canadian non-governmental organization) via interviews and surveys conducted with oil and gas workers during 2021. I applied a discursive analysis to these interview transcripts (n=17) to categorize various discourses and their component elements. Subsequently, I identified hypothetical ‘common ground’ between the perspectives of workers and environmentalists (generally interpreted as proponents of bold climate action). Findings from this preliminary analysis then informed semi-structured follow-up interviews (n=10) I conducted with Canadian oil and gas workers. My primary interviews sought to validate the accuracy of my tentatively proposed discourses and ‘common ground’ elements, as well as explore whether ENGOs could

utilize this information to advocate for a just transition in a manner that mobilizes greater support among oil and gas workers.

This research, through compiling the firsthand perspectives and priorities of some Canadian oil and gas workers, can directly inform forthcoming governmental policies or programs, such as the Sustainable Jobs Act and associated Sustainable Jobs Action Plans (the first of which is expected in the year 2025). In turn, this could enhance the relevance and efficacy of these policies/programs for the workers who stand to be affected. Furthermore, identifying common ground between oil and gas workers and proponents of strong climate policy (particularly ENGOs) could catalyze a more rapid and coordinated just transition (with associated climate change mitigation benefits), so long as certain climate-related components of a just transition are not relinquished in the name of political compromise, as will be further discussed. Indeed, transitions away from (or to a substantial decrease in societal dependence on) fossil fuels can be impeded by resistance from groups and individuals (including workers) (Pai et al., 2020); decreasing resistance to bold climate action can thereby increase the political feasibility of Canada's climate change mitigation targets. In other words, if those advocating for a just transition are viewed as allies, not opponents, by workers themselves, opportunities for grassroots social change could flourish.

1.1 Context for a Just Transition

Avoiding the worst impacts of climate change requires concerted efforts to limit greenhouse gas emissions (UNFCCC, 2015), and research from the International Energy Agency suggests that the long-term growth of fossil fuel production is incompatible with any climate mitigation scenario (International Energy Agency, 2022). Moreover, to achieve net-zero by 2050, no new oil and gas fields can be developed, and the global production of oil and natural gas must substantially decrease (see Figure 1) as part of a scenario in which renewables account for roughly 90% of electricity generation (coupled with increases in nuclear energy and carbon capture) (International Energy Agency, 2021).



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Figure 1. Projected decreases in oil and natural gas production (across global regions) required to reach net-zero by the year 2050 (in combination with other technical advancements). Obtained from the report 'Net Zero by 2050: A Roadmap for the Global Energy Sector' (International Energy Agency, 2021).

Beyond global trends, a brief description of the various scenarios for future oil and gas production in Canada (i.e. domestic climate mitigation approaches which will affect the fossil fuel industry in different capacities) is also important to contextualize what circumstances oil and gas workers could experience in the years to come. The Canadian oil and gas sector, which accounts for 5% of the national Gross Domestic Product (Wang, 2021), is responsible for over 30% of total national greenhouse gas emissions (Government of Canada, 2024), and emissions from Alberta's oil sands in particular increased by 137% between the years 2005 and 2019 (Environment and Climate Change Canada, 2022a). Addressing production-related emissions is especially relevant for nations such as Canada who are large scale producers of fossil fuels. However, the time at which oil and gas production plateaus, as well as the rate of its subsequent decline, are markedly different depending on federal ambitions and the fulfilment of various commitments. For instance, Canada has stated their intention to achieve net-zero carbon emissions by the year 2050, and the long-awaited report 'Canada's Energy Future 2023: Energy Supply and Demand Projections to 2050' offered indication on potential pathways to this end (Canada Energy

Regulator, 2023). Crucially, any pathway in which Canada does get to net-zero by 2050 involves a decline in oil production beginning by the year 2030 (see Figure 2) (Canada Energy Regulator, 2023; Eaton et al., 2024).

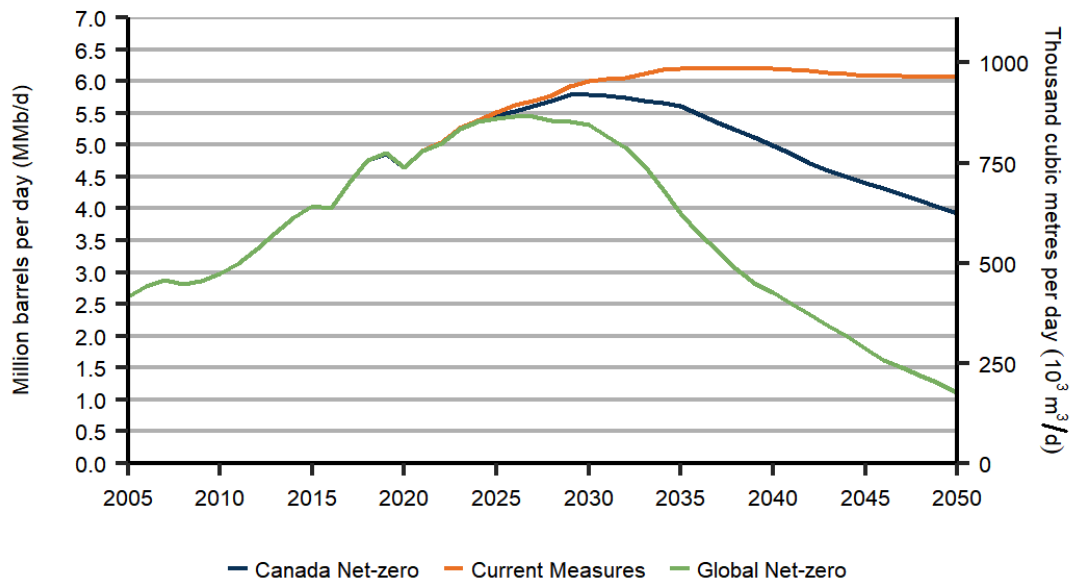


Figure 2. Projected changes to Canadian oil production based on three different scenarios, or levels of ambition in pursuing net-zero carbon emissions by the year 2050. Obtained from the report 'Canada's Energy Future 2023: Energy Supply and Demand Projections to 2050' (Canada Energy Regulator, 2023).

The most ambitious pathway, in which Canada achieves net-zero by 2050 and the rest of the world decreases emissions sufficiently rapidly to prevent a 1.5 °C increase in global warming, features a 76% decrease in Canadian oil production from 2022 to 2050, while a pathway where Canada achieves net-zero by 2050 but other countries lag in their emissions reductions would still see a 22% decline in Canadian oil production over this time period. According to a third pathway, in which Canada fails to adopt additional measures to decrease carbon emissions and therefore does not pursue net-zero, domestic oil production in 2050 will be *greater* than current levels. Of particular importance to Alberta, oil sands production is actually expected to increase in all three scenarios until the year 2030 (primarily due to the expansion of existing projects), but drastic decreases thereafter are required if net-zero is to be meaningfully pursued (Canada Energy Regulator, 2023). Furthermore, even in the most ambitious pathway put forward by the

Canada Energy Regulator (i.e. a 76% decline in oil production), Canada is still producing *over a million barrels a day* in the year 2050! This can hardly be viewed as a transition *away* from fossil fuels and signals a potential irreconcilability with how some climate proponents might define a transition (Bell & Katz-Rosene, 2024).

The projections for natural gas production laid out by the Canada Energy Regulator (2023) follow a similar trajectory to oil, with production in the year 2050 set to decrease by either 2/3 or 1/4 of 2022 levels under the global net-zero or Canada net-zero scenarios, respectively, while production would increase overall if current measures persist. However, these assumptions are subject to substantial fluctuations based on the domestic feasibility of, and overseas demand for, Canadian exports of liquefied natural gas (LNG) (Canada Energy Regulator, 2023). A deeper analysis of LNG is beyond the scope of this paper, but it's worth noting that this topic is increasingly a contentious issue as the start-up date for Canada's first LNG project draws nearer (Gibson, 2024). Indeed, articles such as 'Top 10 reasons to say NO to LNG in B.C.' from The David Suzuki Foundation (2024) argue, among other considerations, that LNG should not be viewed as a 'bridge fuel' (replacing coal in Asian markets) as it serves to delay a transition to renewable energy, while LNG proponents, such as Canada Action (an NGO with industry ties) and the First Nations LNG Alliance, highlight the economic and net emissions reductions benefits of this project (Canada Action, 2024; First Nations LNG Alliance, 2024).

Returning to the importance of decreasing production-related emissions, international climate agreements and domestic climate mitigation plans typically emphasize a reduction in the *consumption* of fossil fuels without providing a strategy to limit the *production* of fossil fuels (Janzwood & Harrison, 2023; Piggot et al., 2020). Efforts to limit fossil fuel production can also be affected by economic and jurisdictional tensions with respect to who claims authority over the extraction of energy resources, as exemplified by the relationship between the Province of Alberta and the Federal Government of Canada (Virla et al., 2021). Alberta, under the current leadership of Premier Danielle Smith, is steadily aligned with Canada's

net-zero by 2050 aspirations but has developed its own Emissions Reduction and Energy Development Plan which seeks to *increase* oil and gas production while relying primarily on investments in carbon capture, utilization, and storage (CCUS) technology to achieve net-zero (Government of Alberta, 2023). This plan is ideologically conducive to the vision of Alberta's oil and gas industry who increasingly recognize the imperative of decreasing carbon emissions but are opposed to declines in production (Pathways Alliance, 2023). Of note, the 2023 World Energy Outlook featured a special report entitled 'The Oil and Gas Industry in Net Zero Transitions' which explicitly denounced sustained growth in production and "excessive expectations and reliance on CCUS" (IEA, 2023, p.16). COP28, in December of 2023, also proclaimed to signal "the beginning of the end for the fossil fuel era" (United Nations Climate Change, 2023).

Amidst a growing recognition of the need for governments to reconcile the future of the oil and gas industry with domestic climate mitigation goals (Piggot et al., 2020), considerations of equity must also be directed to those who stand to be affected by a possible decrease in the production of fossil fuels. In Canada, the federal government has articulated the need for a low carbon transition to be equitable and referred to this process as a "people-centred just transition" (Natural Resources Canada, 2021). There is no widely accepted definition of a just transition and it remains a broad concept in scope, but McCauley and Heffron (2018), two prominent scholars in this field, define a just transition as "a fair and equitable process of moving towards a post-carbon society" (p. 2). The concept of a just transition can be traced to labour movements in the 1970's, as will be further described in the literature review, and over the past decade, just transitions have been increasingly connected to the oil and gas industry on a global stage. In 2013, the International Labour Organization passed a resolution supporting decent work and green jobs in the context of sustainable development (International Labour Organization, 2013). The 2015 Paris Agreement, to which Canada is a signatory nation, also offered a strong display of international support for the just transition movement in recognizing "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development

priorities” (UNFCCC, 2015, p. 2). The following section will provide a brief overview of major just transition-related milestones in Canadian politics, up to and including the novel Sustainable Jobs Act which represents Canada’s formal just transition legislation.

1.2 Status of a Just Transition in Canada

While the topic of this thesis is concerned with the employment prospects of oil and gas workers, the concept of a just transition in Canada initially centered on the coal industry. Following a 2016 commitment to phase out traditional coal-fired electricity by the year 2030, the ruling Liberal government established a task force to engage with relevant stakeholders and produce reports to inform a just transition for Canadian coal power workers and communities (Task Force on Just Transition for Canadian Coal Power Workers and Communities, 2019). The task force received generally positive recognition for their engagement with locally affected workers (Frank & Lindsay, 2022; Gürtler et al., 2021), and one of the seven principles for a just transition identified in their final report specified “worker participation at every stage of transition” (Task Force on Just Transition for Canadian Coal Power Workers and Communities, 2019). However, this ongoing transition has not been well received by many who have faced unexpected and accelerated losses in employment, such as a former worker at a recently decommissioned coal mine near Wabamun, Alberta who felt that workers didn’t have time to adjust to the closure (Nelson, 2021).

With respect to an oil and gas transition, Prime Minister Justin Trudeau announced during a 2019 election campaign speech that his government would introduce a Just Transition Act (JTA) to support and train workers in the shift to a clean economy (Trudeau, 2019). This speech also acknowledged the Paris Agreement as a motivating factor for the creation of a JTA. However, subsequent information or developments pertaining to a JTA were scarce, though this delay could be partially attributed to the emergence of the COVID-19 pandemic as an issue of pressing national concern.

A public engagement process for just transition legislation officially began in July 2021, and an associated Discussion Paper (Natural Resources Canada, 2021) provided information on the need for a just transition, as well as Canada’s climate goals and actions to date, potential components of just transition legislation, questions for further consideration, and a link to an online form where members of the public could submit feedback. Institutional delays in implementing just transition legislation were highlighted in a 2022 report from the Commissioner of the Environment and Sustainable Development to the Parliament of Canada which found that, despite being chosen in 2019 to develop just transition legislation, Natural Resources Canada “took little action until 2021...and it did not have an implementation plan to address a transition that involves a variety of workers” (Office of the Auditor General of Canada, 2022, p.4).

Arguably, the next major development occurred in early January 2023 when Natural Resources Minister Jonathan Wilkinson indicated that just transition legislation was forthcoming (Thurton, 2023). This sparked renewed attention towards the subject of a just transition among the media, politicians, and the public. Two days after the CBC article containing Wilkinson’s remarks was published, Danielle Smith, the Premier of Alberta, posted the following message on Twitter: “It has never been more clear. @JustinTrudeau intends to shut down our energy industry through something he calls the “Just Transition” plan. I won’t let him.” (Smith, 2023a). Smith also falsely claimed that “@JustinTrudeau’s “Just Transition” plan will eliminate 2.7 million jobs- according to a Liberal memo” (Smith, 2023b). In reality, the briefing document from which this figure was obtained referred to 2.7 million as the overall industry size, or the total number of Canadians employed in wide-ranging sectors which could be *impacted* in some capacity by a transition to a low-carbon economy (Natural Resources Canada, 2022). An analysis by Caranci & Fong (2021) estimates that such a transition would realistically displace 312,000 - 450,000 Canadian oil and gas workers over the next three decades.

Formal just transition legislation (Bill C-50) was eventually introduced in June 2023. Initially titled the ‘Just Transition Act’, this bill was quickly re-named the ‘Sustainable Jobs Act’, likely as a discursive attempt to foster increased acceptance of this legislation among a wider audience (Hulse, 2023). Indeed, the term ‘just transition’ has proven quite contentious in Canada. Seamus O’Regan, then Federal Minister of Labour, called it a “toxic” term (Varcoe, 2023), and polling among wider audiences found that ‘just transition’ was predominantly disliked as a way of describing an energy transition, with ‘responsible transition’ being a preferred way of describing this process (Melanson, 2020). Bill C-50’s official purpose is to establish “an accountability, transparency and engagement framework to facilitate and promote economic growth, the creation of sustainable jobs and support for workers and communities in Canada in the shift to a net-zero economy” (An Act Respecting Accountability, Transparency and Engagement to Support the Creation of Sustainable Jobs for Workers and Economic Growth in a Net-Zero Economy, 2023). A decline in fossil fuel production is *not* mentioned in this proposed legislation, which may mitigate pushback but is simultaneously concerning for proponents of bold climate action (Bell & Katz-Rosene, 2024; Mertins-Kirkwood, 2023). Additionally, Bill C-50 is federal in nature, but Alberta, as the province responsible for the vast majority of Canadian oil and gas production (80% and 63%, respectively) (Government of Canada, 2023), remains at the forefront of the just transition debate.

Since (and even pre-dating) Trudeau’s 2019 promise to enact a Just Transition Act, many organizations and individuals have contributed to the discussion of what a Canadian just transition should entail (or whether a transition is even necessary). Relevant contributions from the grey literature will be considered alongside academic materials in the following literature review to better situate the aforementioned research problems in this complex and constantly changing field at the nexus of environmental politics, economics, and justice. I will then provide an overview of my methodology, or how I sought to address my research questions. Next, the results section will highlight how each of the four identified discourses interpret issues related to climate change, the energy industry, a just transition, and environmentalism, in addition to various considerations regarding a transition which transcend discourses and may serve as

common ground between oil and gas workers and environmentalists. Next, the discussion section will examine the implications of these discourses and the capacity for workers to shift in their discursive alignment, with particular emphasis on seemingly opposed coalitions who wish to gain the support of said workers. Finally, the conclusion section will summarize my main results and propose three ways in which my research contributes to the literature on this topic.

2.0 Literature Review

2.1 Just Transition as a Concept

The term ‘just transition’ originated in the 1970’s when the North American labour movement, and labour leader Tony Mazzochi in particular, sought to protect the rights and livelihoods of workers in response to environmental regulations which could affect said workers (Kleinheisterkamp-González, 2023; Krawchenko & Gordon, 2021). International labour organizations have connected the concept of a just transition to climate change debates since at least the 1997 Kyoto Conference (Kleinheisterkamp-González, 2023), as government efforts to mitigate climate change pose potential impacts to workers and communities who are dependent on carbon-intensive industries (Healy & Barry, 2017; Krawchenko & Gordon, 2021). Broadly, scholars have also noted a shift in the literature from primarily ‘sociotechnical’ interpretation of just transition, which discuss the social and technical challenges of transforming energy systems, to research which also emphasizes the political and social justice aspects of just transition (Newell & Mulvaney, 2013). Academic research on just transitions often transcends traditional disciplinary classifications, with Krawchenko & Gordon (2021) noting that “the just transitions literature spans ‘jobs-focused’, ‘environment-focused’, and ‘society-focused’ interpretations” (p. 1). McCauley & Heffron (2018) suggest that just transition represents “a new framework of analysis that brings together climate, energy and environmental justice scholarships” (p. 1). New sub-disciplines have even been suggested to address a just transition, including an ‘environmental labor geography’ which unifies studies

of labour and climate change and emphasizes the value of worker-led mass movements (Kleinheisterkamp-González, 2023).

Further, the ‘just’ aspect of a just transition can reflect numerous scholarly interpretations of justice, and a systematic review of the key elements of a just transition for fossil fuel workers conducted by Pai et al.

(2020) focused on four forms of justice which were frequently highlighted in relevant studies:

Distributional justice (how the burdens and benefits of a transition are distributed), procedural justice (concerning the involvement of stakeholders in decision making), restorative justice (repairing harms to those who are negatively impacted), and recognition justice (identifying who might be impacted). These all fall under the umbrella of energy justice, defined by Sovacool et al. (2017) as “a global energy system that fairly distributes both the benefits and burdens of energy services, and one that contributes to more representative and inclusive energy decision-making” (p. 1). A “radical reframing” of the energy justice framework was recently proposed by LaBelle et al. (2021) which seeks to expose the specific agents who cause injustices and the power structures these injustices can serve in the context of the energy transition (such as the fossil fuel industry, at the expense of workers). My research methodology primarily addresses procedural justice by engaging with workers such that their perspectives can contribute to the advocacy of environmental organizations on relevant policy decisions. Furthermore, I explore how social movements which include workers can push for justice (in various forms) as part of the energy transition.

What is meant by ‘transition’ in the term ‘just transition’ is similarly varied in its interpretation. Indeed, Bainton et al. (2021) note that “the definition, scope and scale of this concept range from a modest claim for jobs in the ‘green economy’ to a radical and alternative global vision that replaces extractive capitalism” (p.626). McCauley & Heffron (2018), influential just transition scholars, argue that the concept of a just transition can unite climate, energy, and environmental justice scholarship as part of a societal transition *away* from fossil fuels, whereas some manifestations of a transition to a more sustainable economy do not specify a decline in fossil fuel production. Bell & Katz-Rosene (2024)

recently identified four distinct discourses on just transition in a Canadian context by analyzing rhetoric from politicians, environmental organizations, journalists, and other prominent public figures. These discourses include overlapping components but are simplified as ‘Transformation’, wherein oil and gas production is rapidly phased out alongside decolonial social justice policies, Worker-First, which prioritizes support for workers as fossil fuels decrease gradually in societal demand, ‘Economic Threat’, where oil and gas production can *increase* under industry-supported efforts to address carbon emissions, and ‘Balance’, which moderately tries to resist political pushback while achieving net-zero climate ambitions. Beedell & Corkal (2021) also sought to define how Canadian labour, environmental, Indigenous, and social organizations define an aspirational just transition and identified overlap concerning a low-carbon transition which prioritizes employment security and good jobs, and which furthers wider goals related to equity and inclusiveness. Scholarly research on how oil and gas workers interpret a transition is severely lacking, which my first research question aims to address, though Muzzerall (2022) provided indications that most workers have negative perceptions concerning “both the need for and intentions of a just transition program for the oil and gas sector” (p. 46). Further considerations regarding workers’ perspectives will be discussed with respect to methodological research trends in the just transition literature.

Overall, there is a lack of clarity in the literature regarding what a just transition theoretically and materially represents, but Snell (2018) believes this “may be the concept’s lasting strength” (p. 550) as it confers a certain degree of flexibility, thus allowing a just transition to be applied to various local contexts.

2.2. State of Just Transition Research

To date, most just transition research has focussed on shifts away from coal-fired energy, whereas transitions specific to oil and gas have their own unique challenges (Muzzerall, 2022; Pai et al., 2020). For instance, while Canada has implemented a definitive end-date of 2030 for unabated traditional coal-

fired electricity (Task Force on Just Transition for Canadian Coal Power Workers and Communities, 2019), debates persist on the rate and extent of oil and gas production declines (Climate Action Network Canada & Blue Green Canada, 2021), and this lack of policy certainty can contribute to mixed signals about the urgency and implications of a transition for workers. In terms of the geographic distribution of academic studies, Shelton & Eakin (2022) note that Canada is underrepresented in just transition research globally. Furthermore, most just transition research remains primarily normative, and specifically, there is a lack of direct engagement with the workers who stand to be affected (Muzzerall, 2022; Pai et al., 2020). Sovacool (2014) similarly noted a dearth of people-centred research in energy scholarship more broadly. By empirically engaging with Canadian oil and gas workers, my research seeks to address these pertinent gaps in the just transition literature.

Additionally, ENGOs are frequently involved in just transition advocacy (Shelton & Eakin, 2022). Indeed, a just transition has the potential to unite workers and environmentalists, and there are some indications of common ground between these groups (Healy & Barry, 2017; Iron & Earth & The Green Resilience Project, 2022; Marshall & Bennett, 2018; Shelton & Eakin, 2022). However, underexplored tensions exist around specific transition policies, in addition to broader apprehensions among workers towards 'environmentalism' (Bainton et al., 2021; Ciplet & Harrison, 2020; Shelton & Eakin, 2022; Webster & Shaw, 2019). In discussing these topics through semi-structured interviews with workers, my thesis responds to a lack of research on the perspectives of workers concerning the role, if any, that ENGOs could play in helping achieve a just transition (including the potential for cooperating, or forming coalitions, with workers). Moreover, reports from environmental organizations pertaining to upskilling Canadian workers in a climate-focused context often struggle with specific details and remain overly broad in terms of their well-meaning prescriptions (Mertins-Kirkwood, 2024). My research sought to address the 'nitty gritty' details by conversing with workers themselves around specific barriers and opportunities related to their current employment and what may be required as part of a shift to a 'greener

economy'. Ideally, these results can increase the on-the-ground relevance of future environmental advocacy for workers.

2.2.1 Perspectives of Workers on a Just Transition

In a systematic review of published peer-reviewed literature on just transitions, Pai et al. (2020) did not identify any scholarly articles which systematically incorporated the perspectives of fossil fuel workers (or their communities) into just transition strategies. However, indications of workers' perspectives on a just transition can be gleaned from select sources in the grey literature, as well as a few academic studies conducted since Pai et al.'s (2020) review. For example, Muzzeralls' (2022) Master's thesis featured interviews with 16 past and present fossil fuel workers and community members in Fort McMurray. Among other findings, uncertainty on climate change underscored some participants' perspectives that a transition isn't necessary and that Canadian oil and gas production is relatively clean compared to 'dirtier' producers (primarily in underdeveloped nations), all of which was further justified by the prevalence of societal demand for oil and gas (Muzzerall, 2022). Scheer et al. (2022) also interviewed Canadian oil and gas workers but for the purposes of contextualizing a quantitative assessment of how fluctuations in oil price (serving as a proxy for a future global transition to low-carbon energy) impact Alberta's labour market. This study, and the workers therein, emphasized that Alberta's economic dependence on oil and gas creates precarious labour conditions for workers (Scheer et al., 2022).

MacArthur et al. (2020) highlighted some signs of increased labour support for various transition policies in Canada, including a 2016 poll from Iron & Earth in which 80–95% of queried workers were supportive of just transition policies. A 2021 poll, also commissioned by Iron & Earth, similarly indicated that over two thirds of fossil fuel workers are interested in switching to the clean economy (Abascus Data, 2021). Workshops facilitated by the Alberta Narratives project, a community-based initiative organized by the Alberta Ecotrust Foundation and Pembina Institute (Marshall & Bennett, 2018, p. 11), found that “for the

workers, the main concern was whether the oil industry could sustain their livelihoods”, and they “were especially concerned about the long-term career prospects for their children”. Youth as a catalyst for the energy transition was also acknowledged by Janet Annesley, the former VP of communications for the Canadian Association of Petroleum Producers, who stated on the Energi Talks podcast (Hislop, 2023) that “when I talk to younger people in the industry...they don’t think that the C-suite is in touch with the energy transition”. Janet also claimed that the percentage of those in the oil and gas industry who believe in a transition to a low-carbon future is “way higher than people think” (Hislop, 2023).

The Sustainable Jobs Blueprint series, jointly undertaken by the Pembina Institute and the Canadian Labour Congress, was another initiative which engaged workers and undertook interviews, focus groups, and a survey with workers in various industries (including oil and gas) that could be affected by net-zero policies. This collaboration recommended various government interventions to support workers as part of a federal net-zero by 2050 strategy, including investments in skills, training, and income security, as well as enhancing engagement with workers and enabling union organizing (Gordon & Callahan, 2023).

Workers’ perspectives on a just transition were additionally a focus of the book ‘Total Transition: The Human Side of the Renewable Energy Revolution’, wherein authors Pai & Carr-Wilson (2018) spoke firsthand to several workers around Alberta’s oil sands. Generally, these individuals were interested in employment in the renewable energy sector and emphasized that diversifying energy sources is essential to safeguarding the livelihoods of workers moving forward. Eaton et al. (2024) also interviewed oil and gas workers for their recently published book ‘Unjust Transition: The Future for Fossil Fuel Workers’. Specifically, this book focused on a 2019 incident where Regina’s Co-op Refinery Complex locked out Unifor Local 594 workers following failed collective bargaining negotiations. When asked about the future of fossil fuel work, Local 594 members accepted the inevitability of a transition but felt it was still far off (2045 or beyond), primarily due to a lack of viable technological alternatives to replace fossil fuels (Eaton et al., 2024). Evidently, the question of *when* a transition might occur is an important

consideration for workers beyond simply whether or not it is necessary, and my research further explored the nuance and implications of this topic.

Outside of Canada, a project led by Harris et al. (2023) involved workshops with 34 offshore oil and gas workers in the UK, as well as a survey of an additional 1000 workers, to create a list of demands that were legitimized by strong support from workers, such as a demand for “clear accessible pathways out of high carbon jobs” which was supported by 93% of surveyed workers (p. 24). In the United States, over 1600 oil and gas workers were surveyed by Biven & Lindner (2023) regarding the future of energy and work, resulting in several recommendations which were broadly similar to those of Harris et al. (2023), and which were bolstered by an acknowledgement “that an energy transition, at least in part, is underway” (p. 6).

Overall, my methodology sought to expand on the available, albeit underdeveloped, scholarly research on this topic by further exploring how a general awareness of potential industry changes can discursively manifest amongst Canadian oil and gas workers, some of whom are likely more opposed to a transition than others. Moreover, this research was undertaken as Canada’s just transition-related legislation (the Sustainable Jobs Act) was moving through the federal legislative process; this heightened the relevance of my discussions with the primary interview participants and led to novel insights on how workers view the current state of Canada’s just transition landscape and the actors (political, environmental etc.) therein.

2.2.2 Environmental Organizations and a Just Transition

The diversity of actors working on a just transition was acknowledged by Flynn (2018) as a strength of the overall movement. A systematic literature review by Shelton & Eakin (2022) provided a ‘big picture’ analysis of the range of actors involved in just transition advocacy (across various countries) and the nature of their involvement, but it’s important to note that a lot of just transition advocacy work is never

formally documented in scholarly or even grey literature. Among the types of groups participating in just transition advocacy, environmental organizations were the second most common (behind local/affected residents), according to Shelton & Eakin (2022). These environmental organizations typically advocated against environmental degradation and greenhouse gas emissions, but also mobilized on behalf of procedural justice for workers/communities (Shelton & Eakin, 2022). Pertaining to specific methods of advocacy, environmental organizations frequently used extra-institutional tactics (such as protests), in addition to mobilizing and facilitating public participation, knowledge production for advocacy, and litigation (Shelton & Eakin, 2022). Shelton & Eakin (2022) also differentiated between environmental versus environmental *justice* organizations, as the motives of the latter typically focus on the effects of environmental/climate degradation on vulnerable communities. Further, while unions have historically been the primary messengers of a just transition on the international climate stage, the 2015 UN Climate Change Conference in Paris, France, signalled a “significant shift” as essentially all environmental NGOS – “from the more moderate to the more radical” – supported the concept of a just transition (Morena, 2018, p. 295).

In Canada, numerous environmental (justice) organizations have advanced knowledge generation by producing reports, such as the aforementioned Sustainable Jobs Blueprint (Gordon & Callahan, 2023), to highlight various aspects of a just transition and offer specific recommendations/policy suggestions. In this domain, the report ‘No Worker Left Behind: A Job Creation Strategy for Energy Transition in Alberta’ published by the Parkland Institute elaborated on research from the Alberta Federation of Labour and further emphasized the importance of economic diversification to protect Alberta’s workers and economy (Hussey & Pawluk, 2023). Specifically oriented towards Canada’s sustainable jobs (formerly just transition) legislation, several environmental and labour organizations also contributed to Hulse's (2023) report entitled ‘Proposals for the Canadian Just Transition Act’. A creative approach to advocacy was also coordinated by the fictitious Ministry of Just Transition Collective (affiliated with the independent media outlet The Breach) who hosted an in-person press conference statedly set in the year

2025 (Ministry of Just Transition Collective, 2022). This press conference highlighted multiple (imaginary as of yet) successes of the just transition movement, including the migration of thousands of workers out of the fossil fuel industry through a worker-led retraining and job matching agency (facilitated by a ‘Just Swipe to Job Swap’ app), as well as progress towards decolonial policies through a Land Back Secretariat which includes incentives for renewable energy development by Indigenous communities (Ministry of Just Transition Collective, 2022).

Shifting the focus away from governments, ‘Don’t Wait for the State: A blueprint for grassroots climate transitions in Canada’ from the Canadian Centre for Policy Alternatives discussed how advocacy at the community level can support workers as part of a transition away from fossil fuel production (Mertins-Kirkwood et al., 2023). In sum, these reports are only a snapshot of the grey literature produced by environmental organizations pertaining to a just transition. ‘Zooming out’, the resource ‘Talking Energy Transition and Climate Change in Canada’ offered communication strategies for organizations who wish to discuss the energy transition with Canadian audiences, including those in carbon intensive regions (Bennett et al., 2021). Evidently, many environmental organizations are focused on a just transition and addressing the concerns of workers. In particular, it’s worth highlighting Iron & Earth and Blue Green Canada as two organizations which are directly involved with connecting fossil fuel workers and environmental movements in a Canadian political context (Blue Green Canada, 2024; Iron & Earth, 2024). Findings from the literature on how workers in turn perceive the advocacy of environmentalists, and environmentalism more broadly, will be examined in the following section.

2.2.3 Workers’ Perspectives on Environmentalism and Just Transition Proponents

In Alberta specifically, complex and deeply rooted political tensions can affect the ways in which fossil fuel workers perceive environmental organizations and their just transition advocacy. For example, the Government of Alberta commissioned a public inquiry into allegedly anti-Alberta energy campaigns,

known as the Allan Report (Stephens Allan, 2021). In response, five environmental organizations featured in this inquiry sued Jason Kenney (then Premier of Alberta) and his provincial government for defamation (Weber, 2022). Indeed, Eaton et al. (2024) note that environmentalists and the federal government are often scapegoated by fossil fuel companies and provincial governments in Alberta and Saskatchewan for transition-associated job losses.

Among workers themselves, research out of Norway showed that distrust against environmentalists is widespread among fossil fuel workers, in addition to feelings of bitterness towards unions who are advocating for more climate-oriented regulations in this industry (The Norwegian News Agency, 2021). Similarly, communications research from Webster & Shaw (2019) found that workers and community members in fossil fuel-dependent areas can have negative connotations towards justice-focused framing and environmentalism/environmentalists. Oil sands workers in Marshall & Bennett's (2018, p. 10) Alberta Narratives Project similarly “singled out environmentalists in particular as opponents, and made unflattering generalizations about their lifestyle”, particularly with respect to hypocrisy, and “David Suzuki in particular was mentioned in most conversations as an environmental archetype”. Muzzerall (2022) also found that oil and gas workers can be skeptical of the ‘true’ intentions of environmental activists and feel that the concerns of other humans are ignored as part of a broader decarbonization ‘agenda’. Chris Turner, in his book ‘The Patch: The People, Pipelines, and Politics of the Oil Sands’, further notes that for those in the oil sands, it seems that “the climate activists would take away everything they cherish – their jobs, their community, their industry – if they could” (Turner, 2017, p. 318).

This dynamic was broadly simplified by Uzzell & Rätzl (2013) who observed that “when industries are attacked (i.e. because they are seen to be damaging to the environment), those who work in those industries may also feel attacked” (p. 5). Further, related to Eaton et al.'s (2024) assertion that environmentalists are frequently scapegoated for transition-associated job losses, the fossil fuel industry

stands to benefit from workers channeling their frustrations towards environmentalists, as opposed to companies or governments who have failed to prepare for future economic changes. Mayer (2009) articulated this concept as ‘jobs blackmailing’, which “attempts to refocus workers’ grievances against their employers toward environmental activism based on the fear that stricter environmental regulations will force companies to close production” and “has proven effective in driving a wedge between labor and environmental movements” (p. 221).

My research adds to this body of evidence on workers’ perspectives towards environmentalism, but with heightened relevance to recent developments in Canada’s just transition landscape, such as the push (as supported by many environmental groups) to implement Sustainable Jobs legislation.

2.3 Advancing the Just Transition Movement

Despite the aforementioned negative perspectives towards environmentalists held by some workers, a social movement which unites workers and environmentalists is a powerful concept which has received some attention in the literature and in practice, as will now be discussed. Before highlighting pertinent research on common ground and the collaborative potential between workers and environmentalists, a brief theoretical overview on social movements, and relevant actors therein, is necessary.

2.3.1 Social Movement Theory and a Just Transition

The study of social movements among sociologists dates back to the mid-1970’s (Sicotte & Brulle, 2017), and approximately a decade ago Hess (2014) noted increasing interest in how social movements can serve as influential actors in the politics of sustainability transitions. A social movement is a broad concept with numerous definitions but is generally referred to in the literature as “a network of informal interactions between a plurality of individuals, groups and/or organisations” (Diani, 1992, p. 8). A slightly different

interpretation de-emphasizes informality and argues that that a movement often requires sustained and structured collaborative networking (Saunders, 2007). Debates about formality and structure aside, coalitions and alliances are a vital part of social movements as cooperation between groups can grow a movement and contribute to the success of a campaign (Mayer, 2009). Initially, literature on coalition formation focused on within-movement coalitions (for instance, collaboration between different environmental groups), and even as of fifteen years ago, cross-movement coalitions (such as alliances between environmental and labour organizations) were a relatively underexplored aspect of social movement research (Mayer, 2009). In the context of politicized energy transitions, Hess (2018) has since developed a useful framework to categorize different cross-movement coalitions with respect to their focus and intended outcomes. Specifically, parameters within this framework consider whether a given mobilization (social movement) focuses on narrower sociotechnical transitions or broader societal transitions, as well as whether the orientation is geared towards terminating unwanted practices or supporting alternatives.

As previously mentioned, environmental groups are often key actors in social movements, including efforts to address the impacts of Canada's oil and gas industry. Around the year 2000, "the public discourse about the oil sands shifted from being primarily an economic discourse to one that included significant discussion of environmental impacts", coupled with an increase in research conducted by ENGOs to compensate for a lack of government-led research in this realm (Paskey et al., 2013, p. 54). In recognition of the need to curb fossil fuel extraction to meet climate goals, Piggot (2018) examined the political influence of the growing social movement to restrict fossil fuel supply, as well as a range of tactics used by environmental groups to this end (including civil disobedience, education and persuasion, and electoral strategies). The diversity of tactics employed by environmentalists speaks to the reality that environmental groups are not a monolith: Some environmental organizations operate primarily as 'insiders', in that they choose to work with governments to advance changes, while 'outsider' organizations advance social change by more radical means and are thus excluded from the political

process (Piggot, 2018). Partially due to such variances in approach, some social movement scholars believe that the environmental movement is better characterized as distinct sub-movements (Saunders, 2007). Since initially focusing primarily on the harms of the oil and gas industry, many environmentalists have shifted, or expanded, their advocacy/activism to also encompass a just transition for workers, as exemplified by the aforementioned reports in this literature review authored by environmental organizations. How variations in approach influence the feasibility of social movements which encompass oil and gas workers remains a relevant concern as the movement for a just transition seeks to broaden its base while mitigating pushback; this notion of feasibility was given due consideration in my conversations with workers and the accompanying discussion section of my thesis.

The coming together of workers and environmentalists is certainly not a novel concept, nor is it unique to energy transitions, and Brian Obach's (2004) book 'Labor and the Environmental Movement: The Quest for Common Ground' provides rich historical context on this topic. A high profile example was the so-called Teamsters and Turtles: Comprised of various environmental advocates and unions, this inter-movement alliance coordinated mass protests to oppose unrestricted free trade and disrupt Seattle's 1999 World Trade Organization meetings (Obach, 2004). As previously indicated, unions were also the foundational force behind the just transition movement in the 1970's which focused on environmental regulations affecting workers' livelihoods at a chemical facility (Kleinheisterkamp-González, 2023). Evidently, workers and organized labour are a crucial actor in social movements, but in the face of climate change there are currently substantial discrepancies across various unions about whether to support climate action or oppose shifts away from fossil fuels (Winkler, 2020). While the role of unions in providing support for workers' interests and forging collaborative ties with other (environmental) organizations cannot be overlooked, workers, as opposed to unions or union leaders, are the focus of my research on social mobilizing. To clarify, unions can serve as powerful change agents in the movement for a just transition, but awareness and mobilization for a just transition among workers themselves is a necessary condition for a just transition (Eaton et al., 2024).

Overall, the literature on social movements is broad and continuously evolving. My analysis drew from practical resources, such as Janzwood's (2022) report '14 Lessons for Social Movement Success', which summarize important concepts into actionable strategies for a wide audience, including workers, environmentalists, and others who wish to join the growing movement for a just transition. One of the most relevant concepts from this literature pertains to the value of common ground in fostering cross-movement collaboration. Accordingly, the following section will briefly address the importance, and indications of, common ground in strengthening environmental and labour alliances as part of a movement for a just transition.

2.3.2 Common Ground and Growing a Social Movement

From a psychological standpoint, discussions centered on common ground are an approach to interpersonal communication which can facilitate social connection and bonding (Berger, 2014). This is particularly important when forging alliances between groups whose relationship, at times, has been characterized as antagonistic. Indeed, establishing a meaningful sense of connectedness in cross-movement coalitions is no easy task, especially in the context of just transition advocacy, as the group identities of 'worker' and 'environmentalist' "have been defined partially through their opposition, as sardonically illustrated through common colloquialisms such as "Are you an environmentalist or do you work for a living?" (Mayer, 2009, p. 225). Short-term alliances over shared political goals (so-called 'marriages of convenience') can temporarily address these divisions, but Mayer (2009) noted that longer-term coalitions, predicated on developing a common identity, can foster solidarity and long-term collaboration among so-called blue-green coalitions. Similarly, Hess' (2014) framework for mobilizing sustainability transitions emphasized the need for social movement organizations, such as labour-environmental alliances, to "forge frames and discourses that allow cross-movement solidarity" (p. 279).

Theoretically, a just transition can serve as a unifying principle for such alliances as the breadth of its vision can permit different stakeholders to support the overall vision, even if they don't agree on all of its nuances (Winkler, 2020). In other words, if the core elements of a just transition are common to two (or more) parties, they can unite over a movement that aims to achieve the overall vision of said transition. In terms of the significance of a common goal, Obach (2004) claimed that "the creation of a just and sustainable economy depends on the ability of these two social movement sectors [labour and environment] to come together to advance this common goal" (p. 8). My thesis, which explored the narrative components that encompass various discourses espoused by oil and gas workers, can serve as a resource for scholars, movement organizers, and governments who wish to identify tangible common ground items which may help connect these sectors and further grow the just transition movement.

Ultimately, growing the movement by seeking common ground with others is a crucial aspect of building a critical mass of support which may generate the attention of policymakers and otherwise influence individuals in positions of power (Obach, 2004). Moreover, coalitions must often contend with corporate interests who have substantially more resources and political sway – the pooling of resources and political support is another advantage of coalition formation as, united, the constituents of a coalition can better oppose the agendas of adversaries which threaten to harm the common interests of said coalition (Beedell & Corkal, 2021; Obach, 2004). In the discussion section, I advance an argument that anti-just transition politicians and corporate groups, such as the Pathways Alliance formed by the corporations who account for 95% of total oil sands production (Pathways Alliance, 2023), represent this archetypal adversary. This further relates to the notion of political processes and opportunities, as some social movement theorists claim that a feasible political aspiration or opening is necessary to bolster mobilization, whereas others criticize this view as being too concerned with the State and its ability to enact change (Sicotte & Brulle, 2017).

While this literature review has highlighted some indications of support among workers for a just transition, research such as Muzzerall's (2022) thesis demonstrate that a just transition is still quite polarizing and will almost certainly never be universally endorsed by Canadian oil and gas workers. As such, common ground items serve a useful 'foot in the door' role in permitting initial discussions between workers and environmentalists that may lead to further collaboration and mutual understanding.

Relatedly, Obach (2004) notes that organizational interests and goals are not always static and can shift or expand through 'organization learning', thus permitting previously unexpected coalitions to form.

However, Mayer (2009) cautions that such learning needs to be two-sided; in other words, both parties need to be open minded and willing to learn.

Collaboration and learning in cross-movement coalitions can also be facilitated by the practice of bridging, where individuals or groups with ties to, or an understanding of, the different backgrounds and identities of the coalition's constituents can create a unique identity by linking core values which are shared by both movements (Mayer, 2009). In other words, so-called bridge brokers are in a unique position to identify possible areas of common ground and encourage communication between disparate parties. Returning to a historical example, an NGO called Public Citizen served as an effective bridge broker in joining environment, labour, and social justice activists at the 1999 World Trade Organization protests in Seattle (Janzwood, 2022). Bridge brokers can also aid with an additional consideration of coalition formation which most examinations do not explicitly address: Namely, how to go about initiating contact once suitable common ground and/or purpose is identified between hypothetical coalition constituents (Obach, 2004). Through their connections in each 'world', bridge brokers are in an informed position to arrange opportunities for collaboration to occur.

Overall, this notion of common ground primarily relates the first component of my second research question, as my thesis explored whether just transition advocacy focused on mutual common ground can be a way for environmental organizations to gain the support of workers. The second component, or

whether this can be achieved without compromising on ‘bold’ aspects of climate action, will be given due consideration in the discussion section. This review will now conclude with some tangible examples from the literature on common ground between workers and environmentalists.

2.3.3 Common Ground Between Oil & Gas Workers and Environmentalists

The literature does depict some indications of common ground between these parties which can foster sentiments of solidarity. For instance, while workers may report feeling under attack by environmentalists, an oil rig employee in Alberta simultaneously expressed frustration “when people assume that because I work at oil and gas I don’t care about the environment” (Marshall & Bennett, 2018, p. 9). This was validated by Muzzerall (2022), whose participants “routinely expressed a sense of care and appreciation for the environment” (p. 40). Similarly, community members in Hinton, Alberta (a fossil fuel-dependent region) interviewed by Iron & Earth acknowledged that caring about the environment does not necessarily mean someone ought to conflict with industry or the economy (Iron & Earth & The Green Resilience Project, 2022). Organized labour groups interviewed by Beedell & Corkal (2021) understood that worsening climate change poses a threat to workers’ livelihoods, and environmental groups recognized “the necessity of having labour onside to present a united front against vested corporate interests and to effect political change” (p. 6). Further pertaining to organized labour, Ken Smith, the President of Unifor’s Fort McMurray chapter and a mechanic for an oil and gas company, attended the 2015 Paris climate conference and expressed his support for a transition at a forum organized by Canadian labour and environmental groups (Turner, 2017) .

On-the-ground interviews by Pai & Carr-Wilson (2018) also featured testimony from Albertan workers who have a nuanced understanding of environmental and climate-related issues. For example, a former oil and gas worker emphasized that many colleagues are concerned that their work is contributing to climatic changes which will negatively affect the future of the environment for their children. This individual went

on to found the organization Iron & Earth. Pai & Carr-Wilson (2018) also interviewed a man from the Mikisew Cree First Nation who is a trapper, hunter, and oil sands worker and has noticed the effects of fossil fuel-driven climate change on local environmental and ecological processes. Concern for the environment, coupled with varying degrees of acceptance towards energy-related diversification and the necessity of a transition, as previously explored in the section on oil and gas workers' perspectives towards a transition, constitute valuable common ground which can bolster the strength of cross-movement coalitions. My research further sought to contribute to this foundation of movement building potential by highlighting specific areas of common ground (both explicitly identified by workers and inferred through my analysis) and by theorizing about how this may usefully contribute to a social movement for a just transition.

The need for such a movement has been well articulated: For example, Kleinheisterkamp-González (2023) agreed “with other scholars that organized worker-led mass movements will be key to solving the climate crisis” (p. 1), and Eaton et al. (2024) “see potential long-term benefits for both oil and gas workers and environmental groups through exploring strategic cooperation” (p. 200). My methodology is additionally validated by identified research needs, such as Letourneau et al.'s (2023) call “for engaging workers in the energy transition through meaningful collaboration with workers to build trust and investment in a shared future narrative” (p.1), and the imperative to focus on “how movements can address the concerns of those who will lose their livelihoods as a result of restrictions on fossil fuel extraction they are advocating for” (Beedell & Corkal, 2021, p. 950). Finally, Alook et al. (2023) strongly advocated for a coordinated movement “between Indigenous peoples, settler environmentalists, organized labour, and many others” (p. 1) and emphasized a need for further qualitative analysis to inform the strategizing of said movement.

3.0 Methods

This project, as approved by the University of Ottawa’s Research Ethics Board (S-01-23-8718), utilized both secondary and primary data to address the aforementioned research questions. Secondary data was provided by Iron & Earth, a non-profit organization founded in Alberta’s oilsands whose mission is to “create pathways to opportunities in the net-zero economy for fossil fuel workers, Indigenous Peoples, and their communities” (Iron & Earth, 2024). Following a meeting I requested with their Just Transition Lead, I was provided with interview transcripts (n=17) to aid with my thesis research. These interviews, conducted by Iron & Earth with Canadian oil and gas workers in 2021 to inform their organization’s just transition-related research outputs and advocacy, represent a unique trove of data capturing the firsthand perspectives of workers in this industry. As per Iron & Earth, I was only granted access to anonymized interview transcripts from participants who consented to having their data shared for research purposes. Further, I was not provided with demographic-related data for these participants, aside from the knowledge that Alberta was the geographic focus of this research.

In addition to these 17 interviews transcripts, I also obtained primary data by conducting semi-structured interviews (n=10) myself with Canadian oil and gas workers. A preliminary analysis of the secondary data obtained from Iron & Earth informed the subsequent interviews I conducted with workers (see Appendix A for a general list of interview questions). Specifically, my primary interviews provided an opportunity to hear workers’ perspectives on the tentative findings from a precursory analysis of the secondary data, in addition to exploring more specific subjects (related to this project’s research questions) which were not fully covered by the secondary data. For instance, participants validated whether certain instances of common ground (identified in the initial analysis) between workers and environmentalists were accurate and provided additional suggestions on advocacy strategies for environmental organizations.

To recruit participants, I created a formal recruitment letter which introduced myself, summarized my research project, and invited participants to contact me should they be interested in participating and/or forward my information to colleagues who may wish to participate (see Appendix B). This letter was distributed to potential participants by a research contact at Iron & Earth as well as obliging staff members at various Canadian trade unions. Due to feasibility considerations related to geographic separation and the pandemic, the interviews occurred virtually via Zoom. Upon receiving emails from interested workers, I communicated with them via email to schedule one-on-one Zoom interviews and attached the relevant consent form. Verbal consent to participate was obtained at the beginning of each interview. Due to the anonymization of the transcripts I received from Iron & Earth, it is theoretically possible that I spoke with someone who was also included in Iron & Earth's cohort of interviewees. To respect the principles of anonymity, I did not ask my primary interview participants whether they participated in the interviews that Iron & Earth conducted in 2021, but it bears noting that no workers provided indications to the affirmative, and even if this was the case, my primary interviews sought to expand on some topics which were not covered in the 2021 interviews (i.e. new insights of relevance would have emerged). Furthermore, the majority of my primary interview participants were obtained through the aforementioned labour channels and the subsequent snowball sampling that emerged from these interviews.

My approach to recruitment has an acknowledged sampling bias as participants were contacted via Iron & Earth, an organization (albeit worker-led) with an environmental component to their agenda, as well as through various Canadian labour organizations. As such, the workers who received my recruitment letter were potentially predisposed to having pro-environment and pro-union leanings, although the opportunity for snowball sampling (i.e. workers forwarding my recruitment letter to others in the industry) potentially contributed to the inclusion of participants with diverse perspectives on environmental and labour issues (as will be explored in the Results section). Moreover, as participation was entirely voluntary, those who agreed to speak with a self-identified master's student in Environmental Sustainability added an

additional layer of filtering to the overall sample (i.e. certain perspectives may have been absent from workers who were unwilling to speak with myself).

The inclusion criteria consisted of individuals, of any age and gender identity, whose current or former vocation directly relates to oil and/or gas production in any region in Canada. In my research I used the term 'oil and gas workers' to describe these individuals, and this intentionally broad definition sought to capture a variety of positions, from so-called roughnecks who are actively work on a drilling rig, to computer workers who examine statistical models of oil reservoirs. Alternatively conceptualized, these positions are directly at risk of being affected by policies which may seek to impose limitations on the Canadian oil and gas industry. While Alberta is the hub of Canadian oil and gas production, domestic climate change mitigation targets, as well as forthcoming just transition legislation, are federal in nature, so my research was open to considering the perspectives of oil and gas workers from anywhere in Canada. Furthermore, in the interest of hearing from a diversity of perspectives on this complex issue, there were no exclusion criteria pertaining to age or gender identity. I chose a sample size of n=10 primary participants partially based on informal conversations with Iron & Earth wherein they described the feasibility of recruiting interview participants according to their available contacts and previous experiences conducting research on similar topics. Moreover, as my research relied on a combination of primary and secondary data, where the primary data served to validate and/or expand on a preliminary analysis of the secondary data, it was deemed appropriate for the number of participants I personally needed to interview to be less than the number of participants associated with the secondary data.

Broadly, the qualitative analysis of interview transcripts (both primary and secondary) was guided by the methodology of discourse analysis. Discourses can be described as “a way of construing aspects of the world associated with a particular social perspective” (Fairclough, 2013, p. 11), but there are a diverse and inconsistently applied range of terms associated with discursive analysis (Riedy, 2020). My analysis draws on Riedy's (2020) framework for organizing the conceptual elements that comprise the discursive

landscape (specifically, memes, stories, narratives, and discourses), as well as Katz-Rosene's (2017) process of assessing competing narratives supported by various discourse coalitions. Following Riedy's (2020) framework, memes constitute the base-level content of an idea which can be spread, may mutate or change, and are the fabric of stories. Similar stories in turn comprise narratives, and discourses then ultimately incorporate various narratives on a range of topics and represent an overarching way of ascribing meaning to phenomena and framing problems (Hajer, 1993; Riedy, 2020). Understanding discourses in this context is important as they “offer a shared language and a basis for mutual understanding and practice, but also impose limits on imagination” (Riedy, 2020, p. 100); as such, what is desired, likely to be opposed, or even deemed possible, can be influenced by the discourse(s) with which one identifies.

In the debate over whether a just transition is necessary and/or what it ought to entail, a discursive analysis can therefore facilitate an understanding of the perspectives held by various stakeholders, including workers. Further, as indicated in the literature review, oil and gas workers are not a homogenous group with uniform opinions. Just transitions are a very complex topic with myriad components; as such, by presenting some broad discourses which encompass many of these components (including concerns with respect to climate change, the future of fossil fuels, the advocacy of ENGOs etc.), I attempted to capture the responses of Canadian oil and gas workers to a potentially forthcoming just transition, as well as discursive explanations as to why some workers might support or resist certain aspects of an energy transition. This also served to leverage more nuanced discussions of a transition which stand in contrast to binary interpretations where one is either ‘for’ or ‘against’ a just transition.

To undertake this analysis, I used NVIVO to code the secondary interview transcripts (n=17) for broad themes (e.g. future career prospects in the oil and gas industry). Within each of these themes I conducted a preliminary analysis by noting and grouping the diverse perspectives held therein. This allowed me to commence my primary interviews (n=10) by presenting a ‘high level’ overview of a range of opinions

held by workers on various topics (see Appendix A, the interview guide, for these observations which were loosely relayed to participants). My interview subjects then provided feedback on whether my grouping of these perspectives was generally accurate and offered commentary based on their own personal views and their experiences with peers in the industry. Following my primary interviews, I coded all 10 new transcripts into basic themes with sub-codes therein, then re-visited the initial 17 transcripts to account for new codes which had emerged. NVIVO permitted this analysis as I coded stories (quotes) directly from the interview transcripts into base-level memes, which I then incorporated into various narrative(s), which were then subsequently categorized into their applicable discourse(s) (see Table 1 for select examples of this coding and organizational process). Discourses, as the broadest unit of analysis, were differentiated and given names which summarized their overall perspective with respect to a just transition. While a quantitative analysis was not employed to estimate the prevalence of each discourse (among participants or extrapolated to workers as a whole), indications of the relative popularity and power (ability to affect change) of each discourse were gleaned from conversations with workers.

Table 1. Specific examples to illustrate the coding process employed in my discursive analysis.

Meme	Story (direct quote)	Narrative	Discourse
Reservations with respect to climate science	“It's so easy to manipulate science that hasn't been actually completed yet...all their science is just based on extrapolation” (Interview P7)	Climate skeptical	Antagonistic
Wary of false solutions which give the optics of change	“I think it's a bunch of political greenwashing. Net zero. I just feel really skeptical. I think politicians, industry, everyone wants to figure out some form of carbon accounting that works in their favour” (Interview S16)	Climate conscious	Spearheaders and Aware & Concerned
Day to day tasks supersede keeping up with political developments	“you're so busy just trying to, you know, keep all the balls in the air, you don't have time to think about politics” (Interview S4)	Not particularly engaged in discussions concerning a just transition	Carry On
Canadian oil and gas production is considered a global leader in terms of environmental and labour standards	“I honestly believe the oil and gas industry has, in Alberta, Saskatchewan, BC, Manitoba, gone above and beyond almost every other country trying to do their part to reduce emissions” (Interview P4)	Canadian oil and gas production should be an exemplar of low-carbon practices	Can apply to all 4 discourses
Actively seeking (or have already attained) new employment opportunities	“it's getting harder and harder every time I get in the truck to drive to work. Because I know that we need to be changing something” (Interview S8)	Accepting of the need for a just transition and wish to be involved Climate conscious	Spearheaders

The next phase of my analysis involved seeking common ground between workers and the climate action movement. Some key insights were explicitly provided by workers who commented on where they feel (mis)aligned with ‘environmentalism’ and climate action, as well as some workers who provided direct ‘feedback’, or suggestions, for environmental groups in the context of just transition advocacy. These observations and connections were at times teased out through dialogue; for example, if a participant mentioned worsening wildfires I would typically ask if this was a topic which might foster increased awareness of, and support for, climate action among workers. Other elements of common ground were assessed by searching for specific memes, stories, or even entire narratives which featured in some discourses and could be congruent with climate action. Environmentalists and environmental (justice) organizations, as anyone who has been involved in environmental organizing can attest, contain myriad opinions about how society should respond to the climate crisis and the forthcoming energy transition. The purpose of my research was not to capture or assess these perspectives, and admittedly, personal judgment calls (as a self-identifying ‘environmentalist’) were often used to determine what might reasonably constitute common ground between these groups. That said, to bolster my analysis of which discursive elements might align with the ‘environmental side’, I sought supporting data from reputable sources in the climate and environmental political economy literature, such as calls from the IPCC for enhanced government funding for worker re-training, as well as more regional-specific studies on the socioeconomic opportunities and impacts of a transition.

From this analysis, opportunities for environmental organizations, or those in the climate movement more broadly, to connect with workers over shared discursive elements were identified, as well as tangible ‘advice’ (provided by workers themselves) to facilitate more productive dialogue between workers and ‘environmentalists’. Specifically, if environmental organizations wish to gain the support of workers who ascribe to a particular discourse (or elements thereof), strategies tailored to said discursive elements could be beneficial. Moreover, instances of conflicting memes are similarly important to address as they can

further inform the advocacy practices of environmental organizations (i.e. what topics might be irreconcilable or hinder cooperation).

I will now commence the Results section with an overview of the various discourses I identified in my analysis, before returning to this notion of ‘common ground’ in the context of growing the movement for a just transition with workers meaningfully on board.

4.0 Results

Emergent from my analysis were four broad discourses which I labelled Spearheaders, Aware & Concerned, Carry On, and Antagonistic (see Figure 3 for a simplified depiction of these discourses). The following sections are organized thematically, wherein narratives are displayed in bold letters, specific memes are italicized, and stories/observations from participants are included in quotation mark. With respect to citing quotes from the interview data, ‘P’ and ‘S’ differentiate between a primary or secondary interview participant, respectively, and the associated number represents the order in which they were interviewed. As mentioned, memes and narratives are not intrinsically exclusive to one discourse, and they can often be present in multiple discourses. Through an iterative process beginning with an analysis of the secondary interview transcripts, these four discourses were validated and refined through conversations with primary interview participants. Though not specifically asked, several participants voluntarily self-identified with one (or multiple) discourses, and one participant lent credibility to these results by claiming to know colleagues who would likely ascribe to each of the proposed discourses: “I am having faces pop up in my head as you're describing that” (Interview P9). Moreover, I was not provided with demographic data for the workers interviewed by Iron & Earth, but my primary interview participants consisted of 1 female and 9 male workers, all of whom had worked and/or lived in Alberta, and 3 of whom were employed in ‘white collar’ positions within the oil and gas industry (whereas the other 7 held blue collar positions).

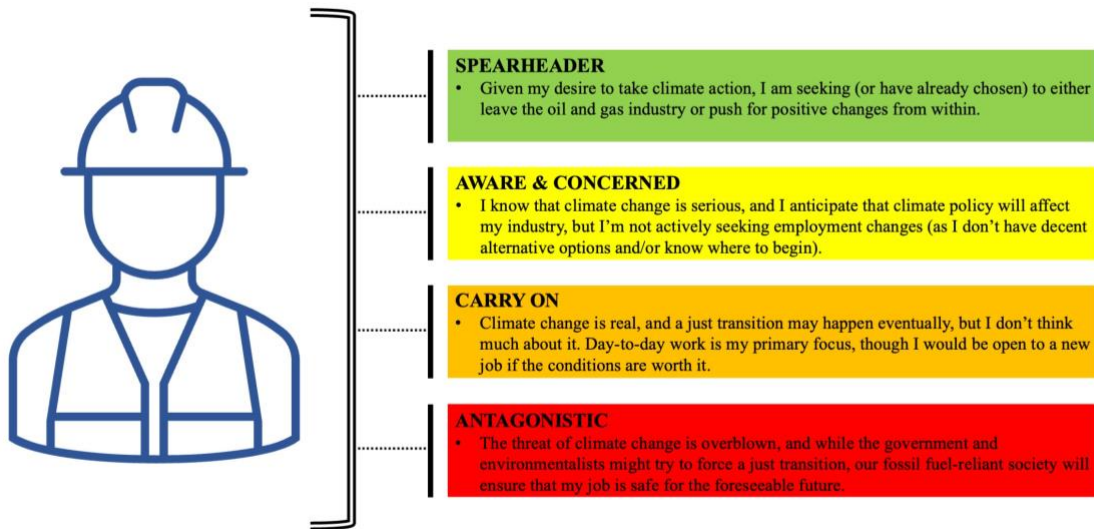


Figure 3. A simplified overview of the 4 identified discourses, presented in terms of how a worker therein might describe their personal 'take' on a just transition.

With climate change mitigation as a primary reason for governments to advance a just transition, one's perspective on climate change can fundamentally underpin whether one feels there is indeed a societal need for a transition, as well as the urgency required to this end. Accordingly, to assess the firsthand perspectives and priorities of oil and gas workers related to a just transition, I will begin by analyzing participants' diverse perspectives on climate change.

4.1 Awareness and Concern Regarding Climate Change

A **Climate Conscious** narrative is key to the discursive camps of Spearheaders and Aware & Concerned who share a meme that *climate change is a serious threat*. Workers who ascribe to this narrative *take issue with the lack of current climate action* and associated targets, such as Interview Participant S16 who thinks net-zero by 2050 is simply "too far away". This narrative is also *wary of false solutions which give*

the optics of change, such as a company who claims to have “planted 50,000 trees this year. But it's like, great, but did you change anything to become a greener company?” (Interview S12). It follows that climate conscious workers frequently do their own research to keep up to date with climate-related information. For example, Interview Participant P9 stated that “before I knew how many barrels the company I worked for was making I knew what our greenhouse gas emissions were”. Similarly, these workers may be more aware of the role of the fossil fuel industry in obfuscating scientific climate change information; indeed, this “industry was heavily lobbying, you know, to discount and negate a lot of the impacts counting it as just part of this whole, you know, world cycle that we go through of hot and cold weather” (Interview S2). In sum, the Climate Conscious narrative is up to date on climate change information and desires bolder climate action.

A **Climate Indifferent** narrative encompasses the Carry On discourse, which is neither actively concerned about climate change nor decidedly resistant to climate action. Individuals herein may simply feel that current *climate action is too ambitious* as the “general mentality is that we still have a while yet. Like you know, we don't need to do this right now” (Interview P3). Indeed, climate change isn't necessarily questioned under this narrative, but there is no sense of urgency and these workers are *not particularly concerned about climate change* or their involvement with the fossil fuel industry. Interview Participant P2 described “one chap, [who was] pretty knowledgeable about it and wasn't really disputing the facts but he was quite upfront saying he had lots of extra toys, like a number of extra vehicles...and liked the money rolling in...so he said right OK I'm aware of that but I don't have any intention of moving on, I'm just too fat and happy here”. The Climate Indifferent narrative, in essence, does not devote much thought to the role of the fossil fuel industry in contributing to climate change.

A **Climate Skeptical** narrative is a crucial component of the Antagonistic discourse. Some interviewees expressed personal *reservations with respect to climate science*, such as questioning whether “they really know that this [anthropogenic climate change] is what's causing” observed increases in temperature

(Interview P8). Some workers highlighted the pervasive skepticism of others, such as Interview Participant P2 who claimed that “coming from Alberta unfortunately I know way too many are willing to actively fight against the idea that climate change is happening, much less that we have anything to do with it”. While workers who align with the ‘climate conscious’ or ‘climate indifferent’ narratives may debate different aspects and timelines of a just transition, the relevant meme within the ‘climate skeptical’ narrative is that *a just transition isn’t necessary*. Indeed, Interview Participant P10 stated that “my core opinion is that it's not even really feasible. So like taking workers out of oil and gas industry, like...I feel like the whole thing is misguided”. The Climate Skeptical narrative thus does not endorse a transition in the name of climate action.

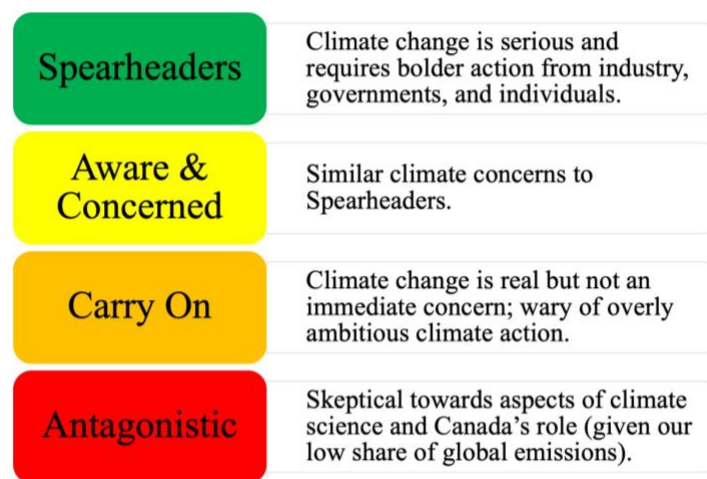


Figure 4. Simplified perspectives on climate change according to each discourse.

Across all discourses, awareness of climate change is broadly growing, though awareness does not necessarily translate to concern for workers, especially those aligned with the ‘climate skeptical’ narrative. For example, Interview Participant P8 is aware that “it's all environmental and everything now, don’t get me wrong I’m not totally under a shell, but many years ago I thought this is all bullshit and I just live in my bubble and do my own thing”. However, some stories provide tangible indications that climate denialism is not immutable: Interview Participant S9 noted that it “doesn't matter if you're conservative,

or whatever, people that have questioned the science are seeing it firsthand. Like, you can't have the entire continent on fire every summer”.

In terms of Canada's contributions to climate change, a meme that *Canadian carbon emissions are inconsequential globally* aligns primarily with the climate skeptical narrative, and to a lesser extent the climate indifferent narrative, and serves as a disincentive for action since “we could shut Canada off and it wouldn't even move the needle on global emissions” (Interview P10). In contrast, *a need for global adherence to reducing carbon emissions* is more compatible with all narratives. This has implications for the social acceptance of a just transition in the context of climate action, particularly amongst workers who might be ‘on the fence’: If domestic mitigation efforts are seemingly negated by other countries (particularly the world's largest emitters), this may foster sentiments of ‘what's the point in us trying to change?’. For example, Interview Participant P6 stated that “until it becomes a worldwide push I don't think nothing is really going to change. They might be able to curb what happens in Canada, but overseas and in the States...”. Mitigating climate change is inextricably linked to the future of the energy industry, which is the thematic focus of the next section.

4.2 Future of the Energy Industry

No discourse anticipates that the oil and gas industry can, or will, shut down in the immediate future. Moreover, no discourse is under the assumption that Canada can maintain, yet alone increase, its oil and gas production indefinitely. For the purposes of this analysis, the likely future of the oil and gas industry can be crudely captured by two narratives. First, workers who ascribe to the Spearheaders, Aware & Concerned, and (to a substantially lesser degree) Carry On discourses generally acknowledge that **the writing is on the wall for most oil and gas jobs, but not immediately**. Indeed, there exists variability amongst workers concerning the rate of anticipated changes (as will be further discussed in the context of reconciling climate advocacy with just transition timelines), but workers under this narrative anticipate

some sort of societal transition away from, or one which requires substantially fewer, fossil fuels (and hence jobs in this industry).

Production declines may be motivated by a *need to decrease demand and consumption* in response to climate change as “things will progressively get worse until we actually stop burning...fossil fuels or slow down the consumption of fossil fuels” (Interview P1). Workers are also keenly aware of *threats to jobs besides climate action*, such as automation and operational changes. For instance, “we actually have autonomous introductions that are more, I guess, dangerous to workers, for lack of better words, than what climate change is currently” (Interview P3). Moreover, this narrative is cautiously optimistic about the *ability of the fossil fuel industry to pivot its technology away from oil and gas production*, although technical ability and willingness are different entities, as will be further discussed. For example, the company that Interview Participant S6 works for “also do like solar farms and wind farms...which is also good for, you know, the way the future is going. That's the way I'm trying to go”. Pursuing a new career trajectory due to an awareness of how, and the urgency with which, climate policy could affect the fossil fuel industry is indeed a cornerstone of the Spearheader discourse, as will be further discussed in section 4.3.

Relatedly, while acknowledging important current and future limitations, this narrative overall has a *positive outlook on the future mass deployment of renewable energy*. Interview Participant P4 is “all about “we should be building more wind, we should be building more solar”, and every year the technology gets better and every year it gets to where it might be able to pay for itself rather than have it subsidized. But until you can get there you gotta rely on something”. Overall, this narrative is not resistant to an eventual transition away from the fossil fuel industry but encompasses varying levels of ‘practicality’ therein.

Another narrative, primarily espoused by proponents of the Antagonistic and Carry On discourses, is an **assuredness that industry jobs will be around for a long time in some capacity**. Additionally, some skeptical workers from the Aware & Concerned discourse may desire climate action but ascribe to this narrative under the belief that “unfortunately, people are so stuck on subsidizing fossils...[that we are] headed to a fossil future” (Interview S14). Fundamentally, this narrative does not envision a meaningful transition away from ours being a fossil fuel-based society. Important to this narrative is continued *demand as a justification for domestic oil and gas production*. Framed in economic terms, if “the demand for hydrocarbons...isn't going to go away anytime soon, and with the resources that our province [Alberta] has, it's crippling to the economy to not go after those resources, right?” (Interview P10). Connected to demand is the meme that *fossil fuels are fundamentally irreplaceable*. Indeed, the physical properties of fossil fuels confer certain inherent benefits, and their continued production is often justified through the *technical limitations of alternative sources of energy*. With respect to electric cars, “if it's 45 below tomorrow morning we gotta get up, start a vehicle that's reliable to go feed the critters...So I can't see the oil and gas going anywhere” (Interview P6), and wind power is also limited if “a wind turbine can only go down to a certain temperature then they have to be shut down” (Interview P4). Similarly, stories about potential *negative environmental impacts of alternative energy* align with this narrative. For instance, stories which highlight that “there's some bad oil spills from those [windmills], from the gearboxes and stuff too, like and the birds and...it's not all peaches on either side” (Interview P10) may stem from valid concerns but imply a level of equivalency between the harms of oil and gas production versus alternatives and offer a ready defense when the former is criticized.

Further ingrained in this narrative is an emphasis on the *need to produce oil and gas for material purposes*, with the underlying assumption that without said materials our lifestyles will regress.

Effectively, “all of our products, all our clothes, all our, like our houses, everything in our houses, like every little device we use, it's all produced from oil and gas and if we don't have that...our lifestyles are gonna go back like to like 400 years ago” (Interview P7). Certainly, an awareness of the importance of

fossil fuels for various industrial applications is not exclusive to this narrative, but the meme that we need to produce oil and gas for material purposes is often employed within this narrative as a primary reason why a societal transition away from oil and gas is not feasible.

While proponents of this discourse are confident with respect to the future importance of the fossil fuel industry in a global context, they are not under the assumption that local industry jobs will be unaffected indefinitely. Indeed, there is concern that the government is “gonna kill...all our jobs around here, get rid of all our oil, but our culture itself is oil based. They’ll just import oil still” (Interview P8). Even if the government doesn’t explicitly ‘kill’ all domestic oil and gas jobs, some workers believe that *fossil fuel companies may simply leave Canada* as they “are not going to want to produce in these areas” and will likely “go overseas and produce” if regulations become too stringent in Canada (Interview P6).

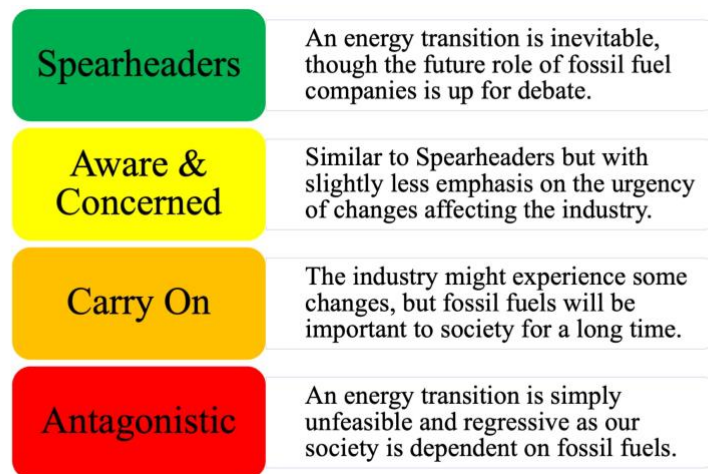


Figure 5. Simplified perspectives on the future of fossil fuels and the energy industry according to each discourse.

A meme that appears to bridge these two narratives on the future of the fossil fuel industry is a willingness to steer younger generations away from the industry. This drive comes largely from concerned parents who are “pushing their kids not to work in oil patch 'cause everyone can see it coming” (Interview P6), as well as workers on the ground, such as interviewee P8 who explained that “anytime we

had new roughnecks came out we try to chase them away from the rigs”. Concurrently, both narratives generally agree that energy systems lack a viable option B to meet energy needs should oil and gas hypothetically be phased out in the near future. Advancing alternative options through research and development into renewable energy and battery technology is not typically opposed in principle, and interest in “nuclear and enhanced geothermal [which] will both have the property of the firm generation, similar to what we use oil and gas for” (Interview S10) can transcend narratives. Furthermore, while discrepancies between different companies’ environmental standards and practices are prevalent, workers generally acknowledged that the oil and gas industry is making positive improvements towards decreasing emissions and their environmental impact. For instance, environmental, social, and governance (ESG) components are increasingly “a big thing” for Cenovus Energy and its peers (Interview P5), and technical developments, such as the electrification of pumpjacks, are helping to decrease production-related emissions (Interview P6).

The previous two narratives addressed the future societal importance of fossil fuel production, but examining workers’ perspectives on an idealized role for Canadian companies and workers requires additional nuance. Specifically, aspects of the so-called ‘last barrel of oil argument’, which posits that in the context of an eventual energy transition, ‘environmentally and socially responsible’ Canadian oil and gas companies ought to continue producing for a longer duration than less ‘progressive’ global counterparts (Braid, 2020), are especially challenging to situate within discourses. For instance, a worker who is discursively a Spearheader for climate action and a worker who is Antagonistic towards a transition may both ascribe to a narrative that **Canadian oil and gas production should be an exemplar of low-carbon practices.**

According to this narrative, since the world still needs oil and gas “it’s a shame that they’re shutting down places like Alberta where we...look after the workers and we look after the environment as much as we can” (Interview P7). Indeed, workers resent feeling “almost victimized that we in Canada do what we do

so well we're at the high end of the whole spectrum all over the world" (Interview P8). Canada's role, therefore, involves a *responsibility to continue improving and help other nations* "like India and China and...teach them about the efficiency that we can get out of a lot of our things here" (Interview P10). Simultaneously, the *Canadian industry is 'futureproofing' itself by engaging with climate action* through initiatives such as the Pathways Alliance, and investments in "building carbon capture sequestration facilities [which] is the only way" to mitigate carbon emissions from upstream oil and gas sites in the near future (Interview P9).

Efficiency is widely regarded as a good thing among workers, and irrespective of different views on climate change, "there is no one who wants to emit more emissions than we need to" (Interview P9). Accordingly, this narrative appears to be quite popular with workers from across the ideological spectrum. A counter narrative is crucially not in favour of making the oil and gas industry less efficient, but rather is **critical of whether oil and gas can enact sufficient change from within** as part of a just transition which meaningfully prioritizes a transition away from fossil fuels. Elements of this narrative are advanced by an arguably more 'radical' subset of workers in the Spearheader and Aware & Concerned discourses who desire a more ambitious phase outs of fossil fuels.

A central meme within this narrative is that *fossil fuel companies delay meaningful climate action*. For instance, one worker, who supports in principle the concept of net-zero carbon emission by the year 2050, noted that "large companies...are using it basically to delay any sort of immediate transition, which is what needs to happen" (Interview S16). Another worker observed that most of their peers would be interested in switching to a job in renewable energy but expressed concerns that "oil and gas has disincentivized the [union] leadership from pursuing those that work those jobs, because oil and gas basically wants the labor pool to be convenient to them" (Interview S4). With respect to the industry's attempted futureproofing, proponents of this narrative may not "want to pursue carbon capture and storage, because they see it as an enabler to continue the status quo" (Interview S13). Further, this

narrative *challenges the concept of Canadian exceptionalism in terms of environmental and social responsibility*. Counter to the previous narrative which praises the relative progressiveness of Canadian oil and gas in a global context, one worker highlighted that “the oil and gas industry isn't just bad because of its impact on the environment. It's also really harmful to the people that work in it. That live around it...And it's [a] very, very difficult industry to work in if you aren't, like, normative” (Interview S9). In other words, while the Canadian fossil fuel industry might appear progressive (compared to other nations), it can still be a difficult working environment for employees who are in the minority (demographically or in terms of their perspectives on certain issues).

Furthermore, as indicated, these differing narratives on the fossil fuel industry suggest a bifurcation amongst workers who are ‘climate conscious’. Specifically, within the Spearheader and Aware & Concerned discourses there are some workers who express an overall optimistic view of the fossil fuel industry’s role in responding to the climate crisis, while others remain skeptical of the industry’s willingness to meaningfully engage in climate action (especially that which entails a transition away from oil and gas production). The following section will further examine how workers view their personal career options in the context of a changing industry, as well as relevant factors which influence whether, and how, to ‘transition’.

4.3 Just Transition and Personal Role Therein

A defining narrative of the Antagonistic discourse is a **resistance towards the concept of a transition**. Many of the previously discussed memes associated with the Antagonistic discourse, including climate denialism and a belief in the importance of Canadian oil and gas, further serve to justify this particular narrative. Also relevant are *strong collective identities tied to oil and gas*, as exemplified by Fort McMurray which is “based on the oil and gas, so...you do have some folks that are, you know, vehemently against this transition” (Interview P3). Further, there is often a sense of pride associated with

working in this industry, which one worker described as “almost like a religion” (Interview S15). Degrees of antagonism towards a transition may vary within this narrative, as “some [workers] are going to be openly hostile...and then there's going to be guys who are, OK like they get it, but you know that's their job so they're going to fight for it” (Interview P1). While likely not a widely held view, some workers are even willing to leave Canada to follow high-paying industry jobs, such as Interview Participant P8 who attested “don't get me wrong I don't wanna go [to] Saudi Arabia and work but if it's required that's what I'll do”.

Workers in the Carry On discourse, as the name implies, are **not particularly engaged in discussions concerning a just transition**. Of course, these workers are not indifferent towards their livelihoods, but “you don't hear from the average person a whole lot...they're not raving and like trying to get other people to do all this stuff, they're just trying to live their lives” (Interview P7). Indeed, *day to day tasks supersede keeping up with political developments* (in general or even with respect to a just transition) as “you're so busy just trying to, you know, keep all the balls in the air, you don't have time to think about politics” (Interview S4). Further, this narrative does not fundamentally stand in opposition to workforce transitions, but *climate concerns and politics do not factor into employment-related decisions*. In some cases, it's as simple as being born into this industry so to speak, as exemplified by Interview Participant P6 who stated that “I'm not a fan of oil and gas, I work in oil and gas because I'm an Albertan”.

It follows that workers in the Aware & Concerned and Spearheader discourses are generally **accepting of the need for a just transition and wish to be involved**. Closely connected to the memes within the climate conscious narrative, these workers are *receptive to employment opportunities which contribute to climate action*. For example, under appropriate re-training conditions (as will be further discussed), one worker enthusiastically claimed they would “159,000 trillion percent” consider switching to the renewable energy field (Interview S11). What separates the Aware & Concerned and Spearheader discourses is that the former are *open to a career change but have yet to take material steps to this end*,

while the latter are *actively seeking (or have already attained) new employment opportunities*.

Furthermore, reflective of the previously mentioned division of opinion on whether the oil and gas industry can appropriately act on climate change, workers, particularly those in the Spearheader discourse actively seeking a change, may have contrasting perspectives on how they can personally be involved in a just transition. For instance, Interview Participant S8, who has been involved on and off with the industry for 20 years hopes to not “be in oil and gas much longer” and acknowledged “it's getting harder and harder every time I get in the truck to drive to work. Because I know that we need to be changing something”. On the other hand, Interview Participant P9, a non-Albertan with environmental and moral concerns towards the industry, accepted employment with an oil and gas company and advocates for a just transition in which “people don't need to be re-equipped...to go build solar panels, like people should be equipped to reduce methane emissions, to find the next generation of boiler” (Interview P9).

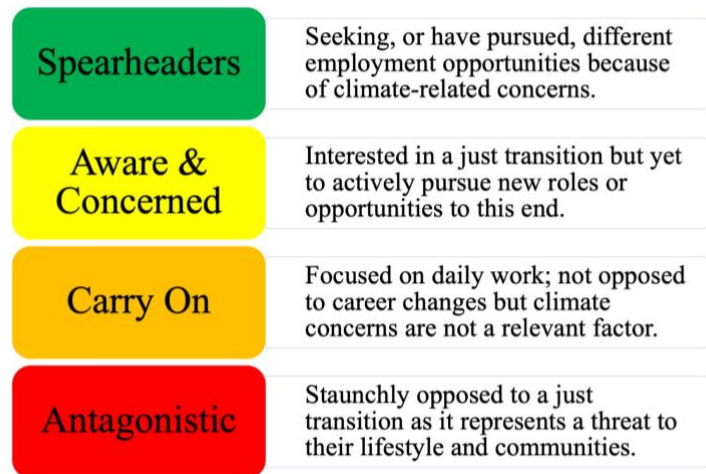


Figure 6. Simplified perspectives on workers' personal role in a just transition according to each discourse.

It bears mentioning that leaving the industry because of climate concerns does not appear to be a frequent, or at least frequently discussed, occurrence as of yet. Naturally this depends on one's employment and network of peers, but as expressed by Interview Participant P2, “there are a lot fewer [workers] who...have left the industry because it seems the good thing to do”. However, upon leaving the industry

for whatever reason (routine layoffs, new job offers etc.), climate concerns can be a strong dissuader for some individuals to re-join the industry. This represents a unique career trajectory among Spearheaders, including Interview Participant P2 who, “after finding out what fossil fuel is doing to the climate” has “since multiple times refused to go back in” (P2), as well as Interview Participant S5 who “made the choice that because of the issue of climate crisis” they “wouldn't go back to the fossil fuel again”.

An observation that climate change does not factor into employment-related decisions for many workers is likely not surprising for pro-transition advocates, such as environmental organizations who face additional challenges in reconciling negative perceptions towards environmentalism amongst workers and relevant communities, as will be discussed in the following section.

4.4 Environmental Organizations and Environmentalism

Participant responses varied regarding whether, and the extent to which, workers are aware of the just transition advocacy of environmental organizations. On one hand, “people are aware of it [a potential transition], and then that tension comes from, you know, those groups...that are making us aware” (Interview P5). Similarly, Interview Participant P10 stated that “a lot of workers are aware of these organizations, but I think they probably have a tendency to disagree with them”. Conversely, according to Interview Participant P8, “us oil field workers do not know about them and we don't pay attention to ‘em for the most part”. Personal interest in environmental issues also factors into workers’ awareness, as “if it’s people who aren't sort of interested then I don't think they'd open themselves to hearing about them, so I think the majority of them don't know about them” (Interview P2). Accordingly, Spearheaders who are conducting their own research on climate issues and transition options are likely to be the most aware of the advocacy of environmental organizations. As for other discourses, workers seem generally aware of some of the prominent organizations (The David Suzuki Foundation and Greenpeace, for example, were

mentioned several times by interview participants) but may not engage with, or be receptive to, their activism.

Delving deeper into workers' perspectives towards environmentalism, the Antagonistic discourse, which is staunchly opposed to a transition, espouses a narrative that **environmentalists are the enemy**. Indeed, Interview Participant P8 noted that many workers in Alberta view environmental organizations as “the devil” and “the people that are trying to end what we’re based on”. Proponents of the Carry On discourse, and even some within the Aware & Concerned discourse, may **acknowledge certain good intentions of environmental organizations but take issue with seemingly bolder aspects** of their advocacy, as will be further discussed. For instance, “the messages they're trying to get across is one that needs to get across, like when it comes to the venting and the emissions and all that kind of stuff, but...it's like they're going right to the extreme: we don't need oil patch” (Interview P6). Spearheaders are the most **receptive to the advocacy of environmental organizations** and may even seek personal involvement with these groups, such as a participant who knew a worker that “would show up at, you know, the climate protests saying this isn't good, but at the same time, at that point he still hadn't left the industry either” (Interview P2). However, Spearheaders aren't necessarily supportive of all tactics advanced by environmental organizations, as it depends “on what they're doing, right? Like if they're chaining themselves to an oil well, some sort of valve, or they're shutting down some oil line right, then you're going to get people...like “OK yeah that's too much”” (Interview P1). These various narratives towards environmentalists are ultimately a product of memes concerning climate change and the perceived need to transition; for example, Antagonistic workers who express reservations with respect to climate science (a primary component of the climate skeptical narrative) are also likely to ascribe to the narrative that environmentalists (who desire action in the name of mitigating climate change) are the enemy.

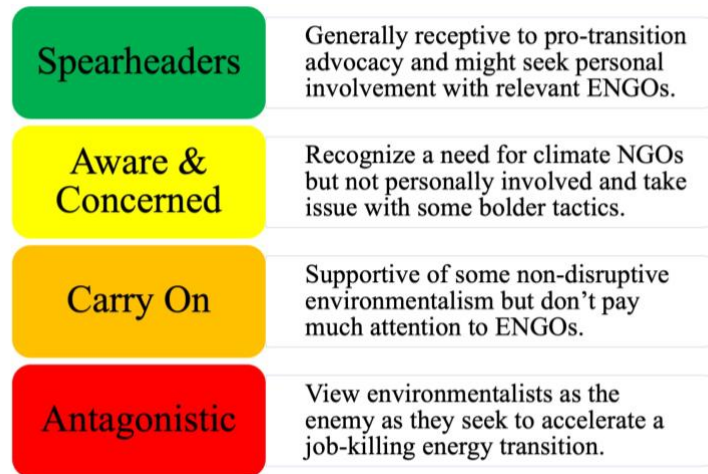


Figure 7. Simplified perspectives on environmentalism and environmentalists according to each discourse.

Participants across the ideological spectrum further identified several aspects of environmental organizing which may negatively impact workers' willingness to 'buy into' a just transition. For instance, perceived hypocrisy on the part of environmental activists can lead to adverse reactions amongst workers, such as "Leonardo DiCaprio...he's one of the ones that people laughed about lots when he came out [to Fort McMurray to film a documentary] because his lifestyle dictates that he needs oil and gas" (Interview P6). Beyond hypocrisy, several participants also commented on the ignorance of environmentalists regarding the on-the-ground operations of oil and gas production. Specifically, environmental groups are comprised of "people that have never actually been to an oil lease. They've never actually seen what we do...we view them as people that have absolutely no clue other than know how to read a book. And they see the worst ugliest pictures around and that's what they base their perspective of us on" (Interview P8). Some of these frustrations are directed at members of the younger generation (including famed climate activist Greta Thunberg) who "wouldn't have a clue about the oil and gas, but they're the ones that are preaching to me about what we should be doing" (Interview P6). Coupled to ill-informed criticism is a lack of recognition for the positive actions advanced by the industry, especially in terms of emissions reductions. For example, Interview Participant P3 noted that ideally "environmental groups could also see that the work that we are doing, like you know...we aren't all bad".

On a similar note, speaking generally towards environmental organizations, Interview Participant P6 stated that “if you are not willing to listen to what their [workers’] concerns are and you just keep pushing your agenda, no one’s gonna listen to you”. One aspect of this ‘agenda’, which is important for climate action but can “absolutely” lead to negative reactions (Interview P4), is a push for accelerated transition timelines. Accordingly, many workers feel that environmental organizations represent a fundamental threat to their livelihoods. Interview Participant P3 doesn’t know “what else we could identify as why we wouldn't want, or wouldn't be accepting of, you know, NGOs/environment groups...well you say “you have our best interests at heart” and, you know, “we want to do the right thing”, and I think I am not saying that we don't want to do the right thing, because we do, but not at the cost, obviously, of our jobs, right?”. For some workers, negative perceptions towards environmental groups have emerged relatively recently on a generational timescale, as “even 20 years ago...there was environmental groups and I was happy that they were out there and looking after the environment and stuff like that, but then it was when they became so radical and they started shutting down and destroying our livelihoods in Alberta, anyways, that's when it became too much” (Interview P7). Interview Participant P4 similarly mentioned growing up watching David Suzuki on television but claimed that “all he's done for me in the past ten years is start to look like a lunatic because he just went so far the other way and there's no compromise”.

Despite evidence of polarity regarding workers’ perspectives on a just transition and the environmentalists who wish to advance this policy proposal, when interview participants from across the discursive spectrum discussed their future career options several key topics were consistently mentioned as important criteria to consider with respect to a potential transition.

4.5 Practical Considerations Regarding a Transition

Fear of income loss (and associated lifestyle changes) is a primary concern for workers across all discourses; this speaks to the *raison d'être* for the just transition movement which acknowledges that a

transition can affect the livelihoods of workers and therefore necessitates considerations of justice. Oil and gas workers often make higher than average wages, and a lot of apprehension towards a transition “comes from fear of not being able to make the same kind of money” (Interview P3) and provide the same quality of life for one’s family. It was also noted that older workers in particular may further be disinclined to leave their current position as “their minds kind of like steel off, they're like “oh no...don't affect my pension”” (Interview S4). Evidently, many individuals enter this industry for financial reasons and may be hesitant to leave on similar grounds.

Indeed, there is a perceived uniqueness about the oil and gas industry insofar as workers can earn higher wages with comparatively less education or training than other industries (such as renewable energy) would require. This ability to work hard and get ahead is “not so much seen in other parts of Canada” (Interview P8) and is therefore a valued attribute of oil and gas producing regions. For instance, workers who have come to Alberta from other provinces may have “never dreamt of having more than maybe a small house on the edge of town. And then they come here and they make the money that we do and do what we do and pretty soon they own a \$700,000 house and drive 2 trucks and all that other kind of stuff because they worked” (Interview P8). Accordingly, a transition which affects the oil and gas industry not only jeopardizes workers’ livelihoods but potentially threatens an idealized, and increasingly rare, system in which workers can aspire to wealthy lifestyles purely through hard work. The effects of this threat are perhaps most pronounced for the ‘unskilled’ labour force, or those without a skilled trade (such as welding) whose trade could more readily pivot to other industries outside of oil and gas. This does not imply that unskilled workers are inherently antagonistic to a just transition, but it was noted in general terms that “they would get their back up on the wall when you bring up a topic like this, just because, yeah whatever their occupation is, if it were to disappear tomorrow I don't know what their skill would be” (Interview P5).

Perspectives on just transition aside, another important consideration with respect to finances is a common willingness to accept reductions in pay (either by switching jobs within the industry or pursuing a new career entirely) in exchange for certain lifestyle ‘trade-offs’. Indeed, the oil and gas industry is well known for ‘boom and bust’ cycles, and as a result of this instability, “even when things got good again [post-bust], they [many workers] said “look, I’m not going back...I’m going to move to something entirely different”” (Interview S5). Similarly, a worker from Atlantic Canada, a region where workers frequently ‘commute’ via airplane to Alberta, initially “enjoyed the money” and the “experience [of] flying around meeting new people” but emphasized it “got old pretty quick, honestly, when you got a family at home, kids at home, you’re missing birthdays, you’re missing hockey tournaments, you’re missing this, you’re missing that...it’s not easy” (Interview S15).

In addition to salary and lifestyle considerations, proximity to other feasible sources of employment remains a barrier for many individuals. For example, Interview Participant S7 stressed that “it has to be physically available, and it has to be out there...I would happily take a job tomorrow that was installing a new geothermal system or district energy system in the city or somewhere. Like I would...definitely prefer that over just continuing to renovate oil and gas facilities, but...those jobs aren’t there”. Even if/when local jobs emerge in renewable energy, there are concerns regarding the quantity of workers needed, as well as the long-term viability of employment prospects therein. For example, with respect to solar power, “maintenance on a solar farm isn’t that huge. It’ll employ a couple hundred people for 6-8 months while it’s being built, or a year, and then where do they go after that?” (Interview P4). Moreover, workers who are accustomed to the benefits of a unionized position may be concerned that “most of those companies doing, say installing geothermal or solar panels, they usually don’t get large enough to then get unionized” (Interview P2).

In terms of what workers are doing to prepare for the future, there is notable interest in transferability and “people broadening their skillsets” (Interview P9) to remain relevant given changing economic and

political conditions. A worker from Fort McMurray observed that “how we seem to be transitioning now is looking forward into the jobs that are still gonna be there” (Interview P3); for example, haul trucks are “going to be autonomous but we still need people to fix them” (Interview P3). In some cases, prior training or re-skilling is not necessary to switch to a role which contributes to a ‘green economy’; for example, one worker was aware of a crew chief of a construction company “who is doing a ton of net-zero buildings with great new practices...he didn't have to have his staff go take that kind of training...he could train them on the job” (Interview P2). However, in order to “move from an oil sands operation, say to a solar facility, plant installer, yeah. Yeah, that's going to require a lot more training” (Interview S13).

Accordingly, the logistics of “when and how would I train?” (Interview P5) remain an overarching concern for many working in oil and gas when considering the prospect of a transition. Apart from some who are explicitly resistant to transitioning, workers generally acknowledge that additional support will be required to accommodate the time and money associated with re-training. In other words, a just transition can't prescribe that workers “just make changes, quickly move away from fossil fuel and expect “Oh, well, okay, that's alright, you're going to be fine, don't worry, you'll find work somewhere else.” I know a lot of people who are going to actually need a lot of help moving along” (Interview S5).

Unions can play a valuable role in offering training opportunities, such as courses on installing solar panels or electric vehicle charging stations, and this is perhaps “something that isn't taken advantage of” to its full potential by union members (Interview S4). Additionally, the program ‘Women Building Futures’, which trains women in various trades and offers financial support to attend its courses, is “really popular in this area [Fort McMurray]” and facilitates a transition “back into the workforce in a job that's going to be meaningful, and that, you know, that can be transferable” (Interview P3).

Governments evidently have a prominent role in offering support for workers, and the following section will touch on several worker-identified avenues for government financing and policymaking to this end.

4.6 Role of Governments in Supporting a Just Transition

In terms of funding for training and re-education via grants and/or scholarships, “people respond well to the financial incentives, because that's, I think, the barrier for a lot of people... There's a lot of people that want to move forward, but just can't afford to do it” (Interview S7). Education in particular was noted as an effective upstream investment to facilitate a just transition and channel the next generation of workers into viable long-term careers. Several interview participants spoke positively about Alberta's Southern and Northern Institutes of Technology (SAIT and NAIT, respectively) and advocated for increased program funding, as well as scholarships/grants for prospective students. Interview Participant P4 further expressed that “all that money, all that effort [being put into federal just transition legislation] should go into schools like SAIT or NAIT, the technical schools... there needs to be a lot of money put into, you know, whatever equipment is needed, and teachers and everything else to teach solar, to teach all wind generation, to teach building with different materials”.

Online opportunities, such as virtual training courses or remote university/college programs, were also highlighted as a promising tool to provide “at least some basic training to give [workers] a foundation to be able to work outside of heavy oil industry” (Interview P5). While not a perfect solution due to practical limitations (such as workers who frequently spend long stretches away from reliable internet access), providing opportunities that “help you transition on your leisure” (Interview S6) are clearly an important piece of the re-education puzzle. Interview Participant P9 further broadened the scope of what constitutes inclusive re-education policy by calling for a “holistic approach” which includes “national daycare strategies so that parents can make sure that their children are being looked after in a safe, responsible way while they either go to school or go to work”.

Tied to aforementioned concerns regarding a lack of proximal alternative employment opportunities, workers further highlighted the need for governments to invest in emerging energy industries, as well as

the research and development that bolsters advancements in these sectors. This concept was described as “two thrusts going on at the same time”, where “one is designing the training, and the other one is getting these projects on the table and sanctioned so that they come together at the same time” (Interview S13). A potential ‘third thrust’ could involve government incentives for the oil and gas industry to lower their emissions, such as a company who purchased solar pumps through “a government grant kind of thing...otherwise who knows, we probably wouldn’t have got the solar pump” (Interview P6). As previously indicated, some companies (such as Interview Participant S6’s employer) are also diversifying into solar and wind technology. On a bigger scale, carbon capture and storage “won’t be done [by companies] unless there’s some amount of cost certainty” (Interview P9), as corporations won’t risk spending large amounts of money on CCUS technology unless substantial government incentives can mitigate the costs to a level that is justifiable to shareholders. This ‘third thrust’ of funding contributes to the futureproofing efforts of oil and gas companies which, in theory, can create (or maintain) employment opportunities within the industry, though as previously discussed, a subset of climate conscious workers are skeptical of this approach. Additional funding strategies suggested by workers include “putting money into dealing with all the abandoned [oil and gas] wells” (Interview S1), and Interview Participant S2 even noted that the “provinces can be looking at, like how exactly to encourage people to move out...if governments [of other provinces are] going to be providing incentives, I would definitely move”.

This nod to the role of provincial governments touches on the important concept of jurisdictionality as it pertains to a transition. With the current governments of Alberta and Saskatchewan both vocally opposed to a just transition, a sense of political disunity is not lost on workers. One worker acknowledged that Danielle Smith is “definitely putting fuel on the fire” and observed that conflict at the government level percolates to discussions amongst coworkers: “it’s always this head butting, and then so if it’s done like that at the top of government, provincial, federally, whatever, then to the masses, that’s where they go as soon as a conversation comes up” (Interview P5). Further, Interview Participant S13 questioned whether the federal government “constitutionally is able, even if they wanted to, to tell Alberta how to transition”.

In contrast to jurisdictional disputes, some workers also mentioned the need for increased standardization across governments. For instance, noting that differences in regulations can make working on renewable energy projects across provincial borders challenging, Interview Participant S15 advocated for a “designation on like a solar installer or wind installer, almost like a trade. But it would be a ticket saying that you completed this much of a course, and you got this much hours of experience or whatever”. On the subject of advancing emerging energy technologies, Interview Participant S12 observed that “there’s different departments and levels of bureaucracy. And one department’s like “yes let’s do clean energy” and the government’s like “we’re already doing clean energy”...it makes it difficult for these smaller companies to make headway when they’re fighting against policy that actually hasn’t even been written. So there isn’t policy for geothermal, they’re covered underneath like a blanket energy act that has like a couple lines [on geothermal]”. In this spirit of enhancing collaboration and bureaucratic efficiency, several interview participants also highlighted the important relationship between governments and corporations in terms of working “with private industry to do training” (Interview S3) for various sectors and skills associated with a transition.

According to some interview participants, the ideal role of governments in a transition should essentially be no role. Indeed, in a free market “transition will happen naturally as we start to wean ourselves off oil and gas...like we don’t need to be told how to transition, we don’t need legislation to transition” (Interview P4). This correlates to a broader distrust of governments who are “really good at creating bureaucracy, but as for the free market, like they really, if anything, hinder job creation” (Interview P10). Further, similar to aforementioned jurisdictional disputes, an increasing politicization of transition (including federal Sustainable Jobs Legislation) can contribute to pushback stemming from animosity towards governments themselves rather than the policies in question. For instance, polarized opinions towards Justin Trudeau can pre-emptively influence perceptions of a just transition, with one participant even noting the happenstance of shared initials: “JT. Just transition. Justin Trudeau. That would seem like it would be something he would coin” (Interview S12).

Generally, a free market-led interpretation of transition is not a component of the Spearheader and Aware & Concerned discourses as it is recognized that substantial government intervention will be necessary to drive a transition that is sufficiently rapid from a climate mitigation perspective. Moving forward, disaggregating the merits of government policies that may benefit workers from negative perspectives towards the governments themselves will be a crucial challenge for just transition advocates. Such advocates often include environmental organizations, and the following section will identify potential common ground between workers and so-called environmentalists.

4.7 Common Ground Between Workers and Environmentalists

Perspectives towards a just transition or environmental organizations aside, interview participants made it clear that oil and gas workers have concern and appreciation for the environment. Indeed, many workers “are farmers on their days off, are hunters, are people who care deeply about the environment” (Interview P9). For workers who live near production sites, personal proximity to the industry is one tangible incentive to maintain responsible practices, as “if there was like big spills or, you know, things leaching into the waterways, like it's in my best interest to not have that going on too, right?” (Interview P10). This may stand in contrast to anti-environment stereotypes, such as “the perception of people out in Ottawa in government...that Alberta’s just like really backwoods and we’re spraying oil all over the ground” (Interview P10). While concern for the state of the local environment may be essentially uniform, such consensus evidently does not extend to a desire for climate action. Some workers advocate for a ‘realistic’ level of concern, such as Participant P7 who stated that “I want the best for planet earth, it’s our home right, but there's like a balance of like extremism and being realistic, too”. Similarly, concern for the environment is typically viewed as separate from more ‘activist’ viewpoints which may be subject to prevailing stigma amongst workers. For example, “we don't see too many of the actual, I don't know how to call ‘em, I guess the old guys would call ‘em the Greenpeace kinda nature lovers... Those people don't usually come into the oil patch” (Interview P6).

One notable connection between the local environmental and broader climate change issues was described by workers as a decreasing ability to enjoy nature due to climate-related extreme weather events. For example, Interview Participant S9 mentioned that his father worked in the oil industry for over 30 years, and upon retiring has experienced substantial wildfire smoke and “he's sitting there going, like, whoa, what's happening? Like, this is terrible. Like, I can't enjoy this. And so it's affecting the quality of their lives”. Workers may also be wondering if their children are “gonna face this [wildfire smoke] every year for the rest of their life” (Interview S9). The link between carbon emissions and worsening wildfire conditions is certainly not lost on environmental organizations, and this could prove to be one bridge connecting a growing concern amongst workers to the need for more rapid climate mitigation. There is ample scientific research investigating the attribution of anthropogenic climate change to the heightened frequency and intensity of wildfires (Liu et al., 2022); in other words, workers and environmentalists can align with the scientific evidence that decreasing carbon emissions can mitigate the extreme fire weather we are increasingly experiencing. John Vaillant’s recent book ‘Fire Weather: The Making of a Beast’¹, which has already won numerous prestigious awards, may serve as an accessible resource on this topic and is of particular relevance to oil and gas workers as it focuses on Fort McMurray’s disastrous 2016 wildfire (which personally affected thousands of workers).

Furthermore, oil and gas workers are typically quite concerned with efficiency and take issues such as leaks very seriously. While oil and gas is still being produced in Canada, improving efficiency and avoiding unnecessary emissions can be supported by climate organizations. Indeed, the International Energy Agency notes that slashing emissions associated with the operations of oil and gas companies is a crucial first step in net-zero transitions (IEA, 2023). However, contrary to the last barrel of oil argument, “in a declining market [for oil and gas], ESG won't protect Canadian exports” (Dusyk et al., 2023). In other words, as global demand for oil and gas decreases, it may not matter if Canada’s products are

¹ <https://www.penguinrandomhouse.ca/books/739360/fire-weather-by-john-vaillant/9780735273160>

produced with higher environmental efficiency and social regulatory standards if there are less consumers who need to purchase said products. Accordingly, framing the just transition movement in a global context, where large countries such as China are accelerating their transition to an electrified society (McKerracher, 2023), can be an important tactic for environmental organizations in conveying the reality that future demand for Canadian oil and gas, regardless of how ‘clean’ or ‘efficient’ its production may be, is not dependable, nor should this be a justification to wager one’s employment prospects on the future of this industry. That said, maintaining a relatively small proportion of bitumen production in the oil sands for the explicit purpose of materials manufacturing (as advocated by the Bitumen Beyond Combustion initiative) could serve as a practical example of common ground between environmentalists and workers who appeal to the material uses of crude oil as an indication that a transition is not practical (Brost et al., 2020).

Another broad source of overlap between the desires of workers and environmentalists pertains to increased government funding for some aspects of a transition. Indeed, under the section on ‘Governance and Policy for Near-Term Climate Change Action’, the IPCC’s 2023 Climate Change Synthesis Report highlights the need for government investment in education, re-training, and research and development into technologies that support reductions in carbon emissions (IPCC, 2023). Possible options to directly benefit workers include increasing the quantity and quality of scholarship/grants for re-education and/or re-training, as well as enhancing the availability of online/remote options. However, the previously discussed ‘third thrust’ of funding which supports and incentivises fossil fuel companies is, overall, not conducive to bold climate action. For instance, the IPCC projects that removing fossil fuel subsidies will reduce global carbon emission and is a crucial component of attaining the Paris Agreement’s goals (IPCC, 2023). Beyond advocating for educational support directed at technical institutions such as SAIT and NAIT, an interview participant also suggested that environmental organizations should “get to the high schools...given they’re [the students are] 2, 3, 4 years away from “where am I going with my career?”” (Interview P2). This could involve connecting with students “through the environmental clubs” and the

“woke teachers” (Interview P2) and aligns directly with the worker-identified need to pre-emptively steer the younger generation away from the oil and gas industry.

Though the specifics may differ, workers and environmentalists also share an understanding that the workforce is changing. Whether through automation, government responses to climate change, or a combination of factors, oil and gas workers are generally aware that changes are coming, though the rate of change can prove a contentious discussion. The availability of new positions is of high importance for workers, and environmental organizations have noted that “in the next decade, 56,000 alternative jobs need to be created for current oil and gas workers across Canada” (Climate Action Network Canada & BlueGreen Canada, 2021). Concerns abound with respect to the proximity and quality of new jobs, but career shifts may be facilitated by a general willingness of workers to make changes (including accepting pay cuts) in order to prioritize improved working and lifestyle conditions. Accordingly, environmental organizations and workers alike may connect over shared demands for a transition with sufficient ‘silver linings’ that careers in a net-zero economy appear attractive in the long run. This was exemplified by Interview Participant P6 who doesn’t “think you’d see a resistance [to transition] if you started phasing out oil patch and started phasing in something else as long as the employment comes with it... Like these guys that are working 12 hour shifts at -30 below outside on the rig in all sorts of conditions... Sure we wouldn't miss it”. Similarly, the relative stability of work outside of the fossil fuel industry is another desirable aspect which can justify the initial difficulties of transition. For example, a younger worker with a family has to feel confident that finances might “be tight for six months, and then I've got work for the next 30 years” (Interview S4).

Moreover, despite some valid criticisms concerning the current state of renewable energy, interest in future opportunities in the renewables industry is prevalent among oil and gas workers. For instance, Interview Participant S4 claimed that “most of the people that I know would give their eyeteeth to be working in, you know, a solar panel situation or doing something with wind”. Connecting this interest to

the projection that “a net-zero Canada will see 700,000 more energy jobs than exist today” (Clean Energy Canada, 2023) is therefore a crucial aspect of facilitating buy-in from workers. Employing workers in “dealing with the all the abandoned wells” (Interview S1) is another opportunity which connects job creation to climate mitigation, as these wells can leak methane, a potent greenhouse gas, into the atmosphere (Schiffner et al., 2021).

Additionally, a complex topic, but on which common ground can prevail, involves considerations of equity and inclusion in the oil and gas industry. For instance, it’s no secret that this industry is directly responsible for myriad negative impacts on many Indigenous communities (Westman & Joly, 2019). Several interview participants acknowledged this in some capacity, such as Participant S9 who noted that the industry “pays well...And then I'm like, oh, but wait a minute...There's like, an Indigenous community directly on the other side. And then like traditional hunting and foraging lands, and we brought all this COVID into town...You know, like, it gets heavy”. The oil and gas industry also provides material economic benefits, including local jobs, to many Indigenous communities, a simultaneous reality which cannot be dismissed in discussions of a just transition. In terms of the advocacy of environmental organizations on this subject, Interview Participant P9 observed that “if a group...doesn't have a good enough understanding of what they're advocating for it gets disregarded quite quickly [by workers]”. Specifically, oversimplifying this issue by painting the industry as uniformly detrimental to Indigenous communities and workers can feed into perceptions among those on the ground that environmental organizations don’t have a nuanced understanding of this issue and risks closing off receptiveness to advocacy on other topics. This does not imply that environmental groups should avoid highlighting relevant harms, or worse, perpetuate pro-industry propaganda whose messaging that “Indigenous communities are benefiting more and more from oil and gas” is used to fuel resistance to a just transition (Jaremko, 2022). Rather, one crucial aspect of climate justice which is unlikely to generate opposition from workers pertains to advocating for increased Indigenous leadership and representation across various aspects of a just transition. Interview Participant S11 concurred that including Indigenous communities in

a transition plan is “a huge, huge deal”, as is meaningfully listening to the priorities of Indigenous peoples “to not, like, have the Saviour complex”. Indeed, many Indigenous communities are at the forefront of a transition to renewable energy and can offer lessons for workers and the environmental movement through resources such as the recently published ‘Just Transition Guide’ (Sacred Earth Solar et al., 2023).

Considerations of equity also encompass other demographics who are disproportionately underrepresented and/or subject to discrimination within the fossil fuel industry. Indeed, “we got to be able to put, you know, people of color and, you know, BIPOC communities and Indigenous people... [and] women...[at] the front of the line, just because they have been...most adversely, disproportionately impacted by this whole process” (Interview S2). Advocating for, and giving a platform to, the concerns of these workers is imperative to the justice component of a just transition, and in terms of climate mitigation, “the inclusion of women, youth populations and Indigenous people are practical steps for achieving a just transition within petrostates” (Hasan et al., 2024). Accordingly, support for (re-)training programs, such as the aforementioned ‘Women Building Futures’, can facilitate the inclusion of underrepresented demographics in the transition to a low-emissions economy. According to the most recently available data from Statistics Canada (from the year 2019), 36% of workers in oil and gas industry were women, 6% self-identified as Indigenous, 26% belonged to a visible minority, and 41% were immigrants (Statistics Canada, 2021).

The results section will conclude by exploring how environmental organizations and workers can leverage their theoretical common ground and meaningfully contribute to the growing social movement for a just transition.

4.8 Social Movements to Advance a Just Transition

The previous section sought to identify common ground between environmental organizations and a broad base of oil and gas workers; in other words, aspects of a transition which may evade pushback and/or promote buy-in from workers across the discursive spectrum. According to Mayer's (2009) analysis on bridging the labour-environment divide, such shared cultural attributes represent "potential areas for recruitment by social movement organizers" (p. 225). However, even topics which may seem broadly supported, such as increased funding for education and training, can lead to hostility (primarily among the Antagonistic discourse) if the advocacy is coming from environmentalists. For instance, "it's almost like an insult if...these environmental companies or people came in and said "well we'll...help you with your education of your kids, we'll help you with this, we'll help you with that", it's almost a slap in our face" (Interview P8). On the opposite end of the spectrum, Spearheaders are likely more receptive to bolder aspects of climate advocacy (which may alienate other workers) and therefore represent a crucial ally for just transition proponents.

Evidently, support for a just transition will never be universal among workers, but appealing to common ground may help shift some workers' perspectives on more polarizing topics (such as an accelerated decline of oil and gas production), a process which Obach (2004) referred to as organizational learning. This is crucial to climate action, as "with workers onside, the transition can move at the speed that the climate emergency demands" (Gordon & Callahan, 2023, p. 94). To this end, literature on social movement theory, such as Amy Janzwood's (2022) report on lessons for social movement success, can serve to inform the organizing strategies of environmental groups, particularly with respect to engaging workers across various discourses. Janzwood argues that coalitions of diverse allies are invaluable to social movements (Janzwood, 2022), and as indicated, Spearheaders who are supportive of climate action and actively looking to contribute to a transition are prime candidates for joining and/or collaborating with environmental organizations. For example, Interview Participant S9 has "been looking for volunteer

opportunities that, you know, closely aligned with my beliefs...I mean, it's not enough to talk about it over beers and friends". Pre-existing alliances, such as Blue Green Canada, readily provide workers with the opportunity to contribute their perspectives to the just transition movement, while novel collaborations may emerge around specific geographic/political/cultural considerations. However, growing the labour component of cross-movement coalitions will require buy-in from workers beyond just those aligned with the Spearheader discourse.

Accordingly, Spearheaders have a valuable role to play as 'bridge brokers' who can connect with other workers, particularly those in the Aware & Concerned and Carry On discourses, over observed common ground and facilitate their involvement in transition coalitions. Interview Participant P4 concurred that environmentalists "need a partner on this side, on the oil and gas side" to enable a "delivered together message". This can simultaneously address concerns amongst some workers that the 'environmental side' is wholly ignorant to industry operations. Further, Spearheaders can be strong advocates for both internal and external transitions, and Interview Participant P6 noted that it would be worthwhile to hear from workers who have left the industry as well as those who are pushing for positive changes from within.

How environmentalists and/or Spearheaders can actually 'reach' other workers remains a practical discussion with many region-specific variables. Again, bridge brokers are especially helpful in this context due to their internal industry connections and peers. While several workers acknowledged that transition isn't typically an accepted subject of 'shop talk', Interview Participant P1 mentioned the possibility of engaging in relevant discussions with "maybe a couple guys who...were interested in politics a little bit". Iron & Earth also facilitates worker-to-worker engagement on a just transition, and Interview Participant S9 noted that this organization is "really the only place...you can go to like, you know, say that's where the oil and gas workers are", and "it's really nice, actually, to not have it all watered down, all over the place". Overall, a diversified portfolio of tactics is essential to successful social movements (Janzwood, 2022). Interview Participant P2 suggested using the networks of

communication established through unions, as well as physically setting up information booths at locations frequented by workers (such as the large fitness centre in Fort McMurray). This ‘on-the-ground’ information dissemination and networking can complement the plethora of informational resources created by environmental organizations which likely are not reaching workers who do not seek them out.

Furthermore, the way in which issues are framed affects a social movement’s ability to gain new support and mobilize existing supporters (Janzwood, 2022). Framing is therefore a crucial component of shifting workers who are Aware & Concerned (but not yet ‘doing anything about it’) into a position where they are willing to seek changes, as well as demonstrating to the Carry On discourse why/how a just transition could be of personal benefit. A genuine openness to listening/learning will also foster more positive interactions with (most) workers, as opposed to environmentalists being viewed as a messenger of “this huge idea that we’re just gonna, you know, shut everything down overnight and make this transition without actually being, you know, democratic about it” (Interview P1). Further, Canada’s just transition is inherently political, but keeping discussions focused on relevant topics (including common ground), rather than politicians or political parties, can mitigate some of the polarization and partisanship which typically stymie collaboration. For example, Interview Participant P2 participated in a transition-related event hosted by environmental organizations and noted it was a “mistake” for the organizers to bring up their political opinions towards Alberta’s United Conservative Party.

Other general framing suggestions include emphasizing the gains of a transition over the losses (i.e. what workers are transitioning to), while simultaneously not understating the scope or complexity of a transition (i.e. pretending it will be easy or not a big deal). In fact, several workers spoke eagerly about wanting to be “part of something bigger” alongside others who are “fired up about it because it’s, you know, it’s a huge challenge” (Interview S7); leveraging this sense of ‘rising to the challenge’ is therefore a noteworthy consideration for social movement organizers. Understanding where workers might obtain information on relevant topics (i.e. engaging with competing frames outside of one’s ‘bubble’) is also

important for those on the ‘environmental side’ who wish to connect with workers – for example, Interview Participant P4 encouraged me to watch the YouTuber ‘Quick Dick McDick’, a farmer from Saskatchewan whose monologue-style videos cover a range of topics including pipelines, the electrical grid, the carbon tax, and environmental protests.

Linking issues is another aspect of social movement strategy which can amplify the aforementioned frames and expand coalitions by reaching broader audiences (Janzwood, 2022). In the context of a just transition, while the Carry On discourse may not be compelled to act on climate-oriented messaging alone, linkages to other issues can be a worthwhile approach for movement building. For instance, Interview Participant P2 connected a just transition to the housing crisis in Alberta: Many developers are in demand to construct sustainable housing and implement building retrofits, “but Alberta doesn't have the trades folks for it”, representing a “huge opportunity” for oil and gas workers to secure long-term positions in a growing sector. Linking a transition to other issues of concern could even be effective in appealing to some Antagonistic workers, as some individuals might identify as “climate deniers but still say “financially it might be better off in my particular role if I get something steady and I would be willing to be trained for that that”” (Interview P2).

Social movements are also bolstered by political opportunities where openings exist to gain influence (Janzwood, 2022); in Canada, this is primarily exemplified by Bill C-50 and its ensuing legislative components (such as the 5-year Sustainable Jobs Action Plans). Environmental NGOs, Indigenous peoples, and trade unions have seats (1, 3, and 3, respectively) on the forthcoming 13-member Sustainable Jobs Partnership Council and, ideally, could use this platform to advocate for worker and community-identified priorities and strengthen broad support for a just transition. The reclamation of oil and gas wells is another potential political opportunity which most workers can ‘get behind’. For instance, the Government of Alberta has requested to keep over \$100 million in unused (expired) federal funding as part of the Site Rehabilitation Program, and allocating this funding for Indigenous-led contractors to clean

up inactive oil and gas sites in Indigenous communities could substantially contribute to employment opportunities as part of broader transition efforts (Dyer, 2024). Relatedly, Interview Participant P4 also believes that governments should increase the ratio of reclamation certificates (i.e. proof of having reclaimed an abandoned well) to “10:1 at a minimum...[so] you need to do 10 rec certs to drill one new well”.

Lastly, disrupting the status quo, or direct action, can be a powerful tool for social movements but risks alienating more moderate constituents. In terms of a just transition, this may feed into negative stereotypes towards ‘radical’ environmentalists amongst workers and limit possibilities for coalitions. However, fossil fuel corporations and the government are keenly aware of the implications of collective power, as exemplified by Regina’s Co-Op Refinery Complex locking out Unifor Local 594 after bargaining negotiations failed in 2019 (Eaton et al., 2024). As the social movement for a just transition grows, disaggregating what is beneficial to workers from what is beneficial to their corporate employers will be a crucial component of resisting pushback from the fossil fuel industry – here, environmentalists can serve as allies by “advocating for supports for workers” and focusing on “the power centres (and power brokers) of this industry” instead of criticizing workers themselves (Eaton et al., 2024, p. 199). Essentially, should further blockades or strikes occur, workers need to know that environmentalists have their back and will support their interests, irrespective of whether they still work in an extractive industry.

In summary, a certain proportion of Antagonistic workers may always resist a just transition, but this growing social movement (which includes environmental organizations, Indigenous peoples, unions, and Spearheader workers, among others) can strive to mobilize the Aware & Concerned discourse and shift perspectives among the Carry On discourse such that a critical mass of support enables bolder just transition policies. There is ample evidence from workers to justify an optimistic outlook with respect to the power that such a movement can yield, such as Interview Participant S12 who stated that “there's a

spark somewhere waiting to happen, and I want to hop on that spark and ride with it. Because it'd be really cool if we could actually change the world. It's idealistic, but that gets me excited".

5.0 Discussion of Implications

Thus far, I have provided an overview of four broad discourses which attempt to capture the perspectives of Canadian oil and gas workers on a just transition. I also highlighted potential indications of where these perspectives could align with the climate action of environmentalists and contribute to a growing social movement. I will now expand on these results to discuss how the four discourses inform how we should think about the concept of common ground between workers and ENGOs; specifically, whether the urgency of bold climate advocacy is likely to be bolstered or hampered through efforts to promote buy-in from workers to the concept of a just transition.

To this end, my research suggested that ENGOs advocating for bold climate action in a manner that emphasizes common ground with oil and gas workers are unlikely to exacerbate resistance from workers (as some workers will continue to fundamentally oppose a just transition regardless) and could encourage alliances with workers (some of whom already support a transition, in addition to a crucial subset who could be on board given sufficient cause to make it worth their while). In the current political context, where just transition policy is relatively weak on climate action and still faces substantial opposition, such alliances are important in increasing the social and political feasibility of a just transition which does not further compromise on, and instead accelerates, bold climate action. However, there are important considerations to this argument which I will now discuss, particularly regarding the likelihood of workers shifting their discursive perspectives, as well as the presence of oppositional forces which can hinder the formation of cross-movement coalitions and ultimately delay climate action.

5.1 Relative Rigidity of Discourses

My research puts forward that, regardless of how environmental organizations approach just transition advocacy, workers associated with the Antagonistic discourse are unlikely to soften in their resistance (both to a transition and to environmentalists themselves). When directly asked whether there are tactics or approaches which environmentalists could employ to garner more support from workers, an interview participant (whose views aligned with the Antagonistic discourse) replied “I don't think there's any crossing or building of bridges between us” (Interview P8). Of course, individuals’ opinions can change (such as through aforementioned organizational learning), and these hypothetical discourses are imperfect and fluid generalizations of how workers perceive complex, multi-faceted topics. My assumption herein is simply that workers who are particularly opposed to a just transition and bold climate action are unlikely to change these deeply rooted and value-lade opinions, or perhaps more importantly, change their opinions in a timeframe that is commensurable with climate action in the short-term.

In the conclusion of Muzzerall's (2022) thesis, which also involved interviews with oil and gas workers, he noted that “in order to decarbonize with the rapidity required to meet both global and national emissions targets, targets crucial to a habitable future, it is imperative for the process of decarbonization to be conditioned by consensus rather than contestation. Just transitions offer a potentially effective framework for achieving this goal as long as all stakeholders, especially those most prone to antipathy, feel fairly represented through the process” (p. 59). Overall, my research agrees that minimizing confrontation and prioritizing worker representation are crucial aspects of a just transition, but it seems unlikely that “those *most* prone to antipathy” (*italics added*), who I would characterize as proponents of the Antagonistic discourse, will (perhaps ever) feel fairly represented in, let alone supportive of, the process of envisioning and implementing a just transition. I am not suggesting that ENGOs disregard the concerns of these workers, but from a movement building perspective, time and effort are better spent

elsewhere (for instance, courting the support of workers aligned with the Carry On discourse, as will be further discussed in section 5.2).

My discursive analysis also indicated that other subsets of workers, namely those who identify with the Spearheader and Aware & Concerned discourses, are, in broad terms, already supportive of decarbonization and will not contest the notion of a just transition. In my above argument I assumed that support for a transition among these workers is unlikely to change (specifically, switch from positive to negative) based on the advocacy of ENGOs. Accordingly, these workers are prime candidates for entering into coalitions with environmentalists. However, support for a transition as part of a general discursive worldview does not imply that positive relations or cooperation with ENGOs are assured. For instance, Interview Participant P2 sought out collaboration with a particular organization (who had beneficial resources including staff, access to funds, and a large network of contacts) over a campaign related to coal but abandoned this pursuit due to a separate topic (not related to fossil fuels) which was endorsed by said organization and did not align with the perspectives of this individual. Indeed, the umbrella of issues addressed by an organization, as well as their tactical approach to seeking change, can influence coalition formation. The importance of tactics was captured in Kate Beaton's autobiographical graphic novel 'Ducks: Two Years in the Oil Sands' when a colleague, upon showing Kate a newspaper headline about Greenpeace activists who clogged a tailings pipe in an act of protest, exclaimed "Who puts their life on the line to unclog that pipe? I tell you it sure as fuck isn't the president of Shell!" (Beaton, 2022, p.347). Crucially, I am not arguing that direct action is never an effective approach to environmental activism, but for environmental organizations who wish to foster solidarity and forge ties with oil and gas workers, it's important to consider how certain approaches could be detrimental to this end.

This relates to the heterogeneity of the environmental movement, and for the purposes of my research it's worth mentioning that I don't expect, nor do I think it would be beneficial for, all climate organizers to seek alliances with fossil fuel workers. In his book on labour-environmental alliances, Obach (2004)

emphasized that “in the face of competing pressures to develop common ground with and distinguish themselves from others, organizations adopt various strategies, with some opting for a broader range and more coalition capability and others retaining a narrow focus, giving them a distinct identity but forcing them to forgo many opportunities for coalition participation” (p. 289). Moreover, echoing comments from Interview Participant S9, it can be beneficial in some circumstances to have *less* organizations engaged in a particular niche of organizing. That said, the common ground and social movement insights from my research are applicable to a host of environmental organizations who wish to support workers in different capacities. Indeed, a broad movement for a just transition will contain myriad geographic and topic-specific components which could benefit from a pooling of resources and influence between workers and environmentalists. Examples could include efforts to advocate for free (and more virtual) educational training opportunities, influencing the membership and agendas of legislative bodies prescribed under the Sustainable Jobs Act, and even organizing actions to oppose precarious working conditions at specific fossil fuel companies.

As the next section will discuss, I argue that now is a critical moment for proponents of a just transition to seek unity over common ground (albeit with inevitable minor differences) and grow their movement, as opponents of a just transition are themselves coalescing in power and pose substantial discursive influence over the future of Canada’s climate and labour policies.

5.2 Contested Discourses and Alliances

As previously noted, a just transition (particularly, a transition which includes bold climate action) faces considerable barriers from opposing movements and social/political institutions. Indeed, such a transition is unlikely to emerge from federal just transition legislation in its current form *and* is actively being resisted by groups such as the Alberta Provincial Government, Pierre Poilievre and the Federal Conservative Party (who, current polling indicates, may assume power in 2025), and Canada’s largest oil

and gas companies (Bell & Katz-Rosene, 2024). These groups publicly espouse that a just transition represents an unnecessary economic threat and claim that Canada ought to *increase* domestic fossil fuel production while relying heavily on technology such as CCUS to reduce carbon emissions (Bell & Katz-Rosene, 2024). Such notions are ideologically conducive to the perspectives of Antagonistic workers, and indeed, appeals to the concerns of workers are a common tactic among those in opposition to environmental measures to grow and solidify their base of support (as will be further discussed).

While certain discourses are primarily decided in their perspectives on a just transition (see the above section on the relative rigidity of discourses), workers associated with the Carry On, and to a lesser extent, the Aware & Concerned discourse, which cumulatively may represent “the bulk of people working in the industry” (Interview P9), are crucial stakeholders in an ongoing ‘battle’ to influence the direction of Canada’s just transition policies. Specifically, gaining buy-in from these workers could substantially bolster either of the competing movements which seek to accelerate or oppose a just transition, respectfully. To this end, my research advanced a theoretical contribution on how common ground might lay the foundation for coalitions between workers (including the key groups just described) and climate organizers. Such blue-green alliances are not a novel concept (Mayer, 2009) but are of heightened importance given the current political contestation over a just transition, as increased worker support for a just transition can provide political benefits to this movement. In a simple sense, as more workers demonstrate support for a transition, administrative bodies (such as unions, governments at all levels, and even corporations) could be more inclined to shift their stances or pursue bolder ambitions in this realm. Moreover, change can be accelerated through actions taken by workers and their allies, including direct pressure imposed on policymakers or even protests/strikes. As an example of the former, a recent press conference hosted by a New Democratic Party MP and five prominent Canadian labour representatives criticized the Conservative Party for delaying the passage of the Sustainable Jobs Act through the House of Commons (Cable Public Affairs Channel, 2023). This speaks to the reality that workers themselves are embedded within larger organizational structures, and individual workers’ awareness of, and potential

role in, a just transition will inevitably be influenced by their employers, union representatives etc. The networking capacity and political influence of larger institutions (such as the labour organizations who participated in the aforementioned press conference) can, ideally, serve to unite workers and amplify their voices, but simultaneously, institutional powers (such as profit-driven corporations and anti-transition unions) may represent an oppositional force to the development of a grassroots social movement for a just transition.

Importantly, Winkler (2020) notes that constituents within an alliance can hold different values and perspectives, as long as support for a just transition is a shared and unifying attribute. Accordingly, in seeking to gain support from workers aligned with the Carry On discourse (wherein favourable impressions of a just transition are not a given), I argue that framing a just transition around mutually compatible transition-related concerns of workers (which are not irreconcilable with bold climate action) can sufficiently bolster the feasibility of these alliances such that the broad goal of transition is one that remains unifying. Moreover, Spearheaders (the workers most keenly on board with the idea that a transition is necessary) can play a valuable role as bridge brokers in mobilizing, or at least having productive conversations with, workers aligned with the Aware & Concerned and Carry On discourses.

In the conclusion of Hannah Ritchie's book 'Not the End of the World: How We Can Be the First Generation to Build a Sustainable Planet', she employs a metaphor of arrows pointing forwards (representing renewable energy advocates, technological change proponents, vegans etc.) and backwards (climate change deniers, fossil fuel companies etc.), albeit all at different angles, to emphasize that we should "stick with others pushing in the same direction" even if "we might have slightly different opinions" on the necessary solutions (Ritchie, 2024, p.298). Spearheaders, whether they have left the oil and gas industry or strive to push for changes from within (what I refer to as a bifurcation within the Spearheader camp), are ultimately pointing in a direction that is pro-just transition. This might be a contentious claim for some climate organizers, but in the interest of movement building I argue that these

Spearheaders who remain in the industry can absolutely be key allies in broadening support for a just transition. As cross-movement coalitions (particularly those involving the Carry On discourse) grow, constituents will inevitably not agree on all aspects of a just transition, but so long as they push in the same direction they will exert a positive influence that is counter to Antagonistic alliances pulling the other way.

A similar concept can be borrowed from a former Southwest Region Director with the US Fish and Wildlife Service who “urged collaboration between ranchers and environmentalists” and whose “guiding mantra to participants was to find the 80% of concerns that can be agreed upon and not to waste time arguing about the other 20%” (Hillis et al., 2020). This also relates to Hess' (2018) typological distinctions regarding energy coalitions, as various coalitions can pursue different goals regarding sociotechnical changes (e.g. increasing renewable energy or decreasing fossil fuels) and societal aspirations (e.g. ensuring better conditions in an emerging clean economy or addressing current energy-related injustices) while still contributing to a broader common purpose. In other words, more alliances addressing different aspects of the energy transition is generally a good thing!

With this in mind, it remains a reality that the rate of fossil fuel production declines could prove to be a ‘sticking point’ for certain alliances. For instance, some workers within the Carry On discourse, while not vehemently opposed to a transition, feel that talk of a transition is happening too fast (i.e. it’s being pushed on them). Accordingly, support for rapid reductions in oil production, such as the decrease beginning in 2030 depicted in the Canada Energy Regulator (2023)’s global net-zero projection, does not typically constitute common ground between environmentalists and the Carry On discourse. That said, a key takeaway from my research is that, ideally, if other concerns of these workers (regarding high quality and accessible re-training, local and decent alternative employment opportunities etc.) are meaningfully addressed, bold climate action would not serve as an unsurmountable barrier in their willingness to support, and participate in, a so-called just transition. In the words of Interview Participant P1, “maybe

with the right policies...more people will come on board”. Pursuing worker buy-in through common ground, effective framing, and employing bridge brokers is a key component of building cross-movement coalitions (to which I have devoted a dominant portion of my analysis), but I will now consider the ‘flip side’ of this equation; namely, why workers (particularly those in the Carry On discourse) might instead shift towards Antagonistic perspectives despite the anti-transition movement not truly looking out for the interests of workers.

For instance, Obach (2004) notes that the public are not overly sympathetic to the profit motives of corporations, so employers often promote a message that workers will be the ones to suffer (through layoffs or shutdowns) as a result of environmental measures which could affect corporate profits. Accordingly, the best interests of workers statedly align with the success of their employers; in other words, the interests of workers and corporations “are framed as one and the same” (Eaton et al., 2024, p. 5). This was exemplified in a public brief submitted to the House of Commons by the Pathways Alliance which emphasized that technological investments in the oil sands will create new jobs and preserve existing energy (oil and gas) jobs (Pathways Alliance, 2022). There are allies to this cause within the halls of power, such as Conservative MP Shannon Stubbs whose website and petition ‘StopJustTransition.ca’ claims that “Bill C-50 will kill 170,000 direct Canadian jobs” and disproportionately impact “blue-collar and lower-income workers, and many Indigenous Canadians and visible minorities” (Stubbs, 2023). This further relates to Mayers' (2009) description of jobs blackmailing, as workers are often disincentivized from identifying with environmental groups through concerted efforts to exaggerate how certain environmental policies will affect jobs (Stubbs, 2023).

Another common industry tactic is to present workers as the public face of opposition to environmentalists while corporations simultaneously continuing their lobbying in the background (Obach, 2004). Indeed, advocacy campaigns created by the fossil fuel industry, such as Canada’s Energy Citizens and Oil Sands Action, are “targeted at developing fossil fuel workers as defenders of their industry”

(Alook et al., 2023, p. 49). Relatedly, warnings that carbon intensive sectors are at risk due to changes in global markets (specifically, a decreasing demand for fossil fuels) can be interpreted as direct threats to Alberta's oil sands and "generate a protectionist response in stakeholders that could potentially slow down a low-carbon transition in Canada" (Virla et al., 2021, p. 582). In reality, institutional powers, such as politicians and industry, who staunchly defend the viability of expanding oil and gas production perpetuate 'risk blindness' which ultimately isolates workers, among other stakeholders, from the growing global movement for a just transition (Virla et al., 2021). Statements from Danielle Smith such as "Just Transition!? We have a labour shortage in our oil & gas industry & are growing to meet the world's energy needs. We need more Alberta energy workers...not fewer" (Smith, 2023b) exemplify this 'head in the sand' approach and yet could prove effective in convincing some workers that a just transition isn't necessary (despite global energy market projections indicating otherwise).

Another crucial concept is that of 'false solutions'. Carbon capture and storage is a prime example, as the International Energy Agency cautions against "excessive expectations and reliance on CCUS" (International Energy Agency, 2023) but oil and gas companies routinely lean upon this technology as a method of defending the future of their industry (Pathways Alliance, 2022). Notably, this could prove particularly effective in courting workers who are discursively Aware & Concerned by appeasing their climate concerns and demonstrating that a just transition (which involves decreases to oil and gas production) isn't necessary. In her book 'The Value of a Whale: On the Illusions of Green Capitalism', Adrienne Buller (2022) notes that false solutions are particularly nefarious as they effectively serve to preserve the status quo (which continues to exacerbate the climate crisis) while simultaneously delaying the implementation of real changes (such as a transition which emphasizes decreases in oil and gas production). This relates to the technological optimism articulated by Lamb et al. (2020) as a component of a discourse which pushes non-transformative solutions and thus delays meaningful climate action.

It bears mentioning a retort from Matt Huber, a prominent socialist geographer, to this line of reasoning: “When climate activists call many of these proposals—carbon capture, hydrogen, and nuclear power—“false solutions,” it is they who depart from the scientific consensus, not unions. If we truly are in a planetary emergency, we can’t be fickle about our technological options. All options must be on the table” (Huber, 2024). This is one example of where Huber feels professional-class left-wing environmentalists are ‘getting in the way’ of the labour movement who have a better on-the-ground understanding of how to achieve deep decarbonization. While ENGOs can, and should, show solidarity with workers exploring potential alternatives in a post-fossil fuel economy, I maintain that extolling the virtues of CCUS represents an effective strategy for industry proponents to undermine the urgency of a just transition and disingenuously provide a sense of security to oil and gas workers.

As a final note on contestation, Alook et al. (2023) stress that “if we don’t build a new political alignment for a just transition, the far right may succeed in building a much more dangerous new alignment instead” (p. 154). This right-wing alignment, which is explicitly anti-transition, frames threats to oil and gas jobs as stemming from workers being ‘sold out’ by global elites (tied to climate change conspiracy theories) and may call on racist narratives regarding the replacement of traditionally ‘white male jobs’ (Alook et al., 2023). Conversely, pro-transition alliances can unify workers around the reality that wealthy corporations and investors have created these precarious labour conditions and rally around collectivist approaches to transition that are inclusive and respect the rights of Indigenous, migrant, and other minority workers (Alook et al., 2023). Importantly, such alliances must also push beyond the current approach of the federal government (which Antagonistic stakeholders view as radical, but in reality remain insufficient in terms of climate action and justice). This undoubtedly seems like a large task, but the challenge of restructuring an energy system while looking out for the current workers therein is obviously not going to be easy. Relatedly, one intriguing aspect of the pro-transition movement is that it heeds the call to “avoid sugar-coating the overwhelming challenges ahead and “tell it like it is”” (Bradshaw et al., 2021; LaBelle et al., 2021). Elements of the Antagonistic discourse, as perpetuated by

proponents such as fossil fuel companies and the Alberta government, may offer reassuring platitudes to workers about the future of their industry, but it's important to recall that workers in this industry are accustomed to making trade-offs (such as moving from an oil rig to a more stable, albeit less lucrative position) and are generally aware that *some* changes are coming. As such, appealing to workers' willingness to make difficult decisions which benefit themselves and their families in the long run, in addition to harnessing prevalent sentiments of 'rising to the challenge', could give just transition alliances an upper hand in the discursive battle against powerful pro-industry forces.

5.3 Research Limitations and Future Opportunities

With respect to the aforementioned recruitment bias, I suspect that I engaged with a higher number of participants who expressed pro-transition perspectives (i.e. Spearheaders and Aware & Concerned) than would be likely if a random sample of oil and gas workers was selected. That said, my method of recruitment clearly didn't prevent some stakeholders who hold Antagonistic viewpoints from participating (as several participants indicated their disdain for environmentalists and were nevertheless happy to chat and share their perspectives). Moreover, workers frequently discussed the opinions of their peers, which seemingly offered an understanding of broader sentiments outside of their own personal viewpoints.

While acknowledging this source of bias, I would also propose that this isn't inherently a limitation as it allowed for a closer examination of these pro-transition perspectives. For instance, Muzzerall's (2022) master's thesis provided incredibly valuable insights into how workers evaluate proposals for a just transition, but the majority of his findings were consistent with anti-transition discursive elements. I certainly don't refute his findings, but the components of my research which validate the mere existence of workers who are sympathetic to a just transition could serve as a motivating force for environmentalists to pursue further alliances (and possibly even encourage some workers who discretely hold these

perspectives to be more 'open' and listen to a possible 'little voice of concern' regarding the future of their industry).

The natural question which follows relates to the relative popularity of each discourse. My research relied on informal statements to gauge this concept (e.g. "the 'aware and concerned' and 'indifferent' people down the middle, I would say that the bulk of people working in the industry are there" (Interview P9)), but future research could employ more formal measures, such as Q analysis (Webler et al., 2009), to assess the proportional representation of, and further refine the elements that incorporate, each discourse. This is important in informing the feasibility of my analysis, wherein I optimistically propose that all workers (except for those in the Antagonistic discourse) could ultimately lend their support to a just transition (which includes bold climate action). Specifically, this approach to building a social movement could be much more difficult if, say, 80% of workers are discursively Antagonistic, but my optimistic view on worker-environmental alliances would be further validated if the majority of workers are indeed in the Carry On and Aware & Concerned camps.

Pertaining to the common ground I identified between workers and environmentalists, another limitation of my research is that I did not validate said common ground with ENGOS, particularly those who are currently engaged in just transition advocacy. Instead, I connected some feedback from workers (e.g. on the need for more training) to scientifically informed climate literature (e.g. statements from the IPCC on the imperative for domestic funding allocated to worker re-training) as a proxy for 'the environmental side', in addition to using my subjective judgement as a self-identifying environmentalist. This is admittedly not as informative as asking ENGOS directly about whether specific worker-identified demands could be incorporated into their climate advocacy, but my research ultimately sought to address a research gap pertaining to a lack of information on the perspectives of workers themselves (which ENGOS can then use as they see fit). Moving forward, I would encourage future researchers to engage

with ENGOs to better understand their perspectives on barriers and opportunities related to engaging, and forming alliances with, oil and gas workers.

Furthermore, my research focused primarily on Alberta's oil and gas industry, and participants were based in Alberta and/or had engaged in long-term employment therein. Future research could investigate possible regional discrepancies regarding just transition-related discourses among workers in other fossil fuel producing regions (such as British Columbia or Saskatchewan), as well as the potentially unique considerations of transient workers (e.g. those commuting from Atlantic Canada to the oil sands, as well as youth or migrant workers who are not employed full-time or long-term in this industry). Moreover, my research admittedly underexplored the perspectives of Indigenous and other minority demographics in Alberta's oil sands. While I was not given access to demographic information pertaining to the secondary data from Iron & Earth, my primary interviews only included one female worker and did not include any workers from visible minority groups. There is absolutely a need for more research which specifically engages with underrepresented workers and communities to understand how cross-movement coalitions can support considerations of equity as part of a just transition that benefits *all* workers and demographics. Indigenous communities are at the forefront of a transition to renewable energy, and environmentalists must also ensure that climate action does not disproportionately impact Indigenous communities who are currently in a position of economic reliance on fossil fuels (Lavoie, 2018; Pasternak et al., 2019; Sacred Earth Solar et al., 2023).

6.0 Conclusion

My research explored the perspectives of Canadian oil and gas workers on various aspects of a just transition, including the advocacy of 'environmentalists' who seek to advance climate action through the frame of a just transition. Following a discursive analysis of primary (n=10) and secondary (n=17)

interview transcripts I identified four broad (and frequently overlapping) discourses: 1) ‘Spearheaders’ who are actively pivoting their careers with a low-carbon economy in mind, 2) ‘Aware & Concerned’ who are concerned about the future of their industry in the context of climate action but have yet to act on these concerns, 3) ‘Carry On’ who acknowledge the reality of climate change but don’t devote much thought to a future transition, and 4) ‘Antagonistic’ who are defensive of the oil and gas industry and staunchly oppose a just transition in principle. Moreover, I identified some discursive elements which could feasibly constitute common ground between workers and environmentalists, such as concern for the environment, an awareness of increasing wildfires, the need for increased funding to support worker re-training and education, and incentives to further develop alternative sources of energy. Based on this hypothetical common ground, as well as other concepts associated with social movement theory, I discussed the potential for greater collaboration between workers and environmental organizations in pursuing mutually beneficial outcomes. As highlighted in my literature review, I am certainly not the first researcher to understand the importance of listening to oil and gas workers, and the synergistic possibilities of worker-environmental alliances have been also demonstrated in numerous contexts to date. What I hope my research contributes to the literature is perhaps three-fold:

1. A resource (admittedly small, and with a sample that omits key voices in terms of demographic representation) for what oil and gas workers have to say regarding a just transition (primarily for Alberta) and environmentalism. This can be referenced by governments, ENGOs, and anyone interested in hearing, and addressing, the perspectives of workers themselves.
2. A rough guide, based on the four discourses I identified, for how ENGOs can advocate for a just transition in a manner that generates support from, and fosters alliances with, oil and gas workers. Crucially, I suggest that demands for bold climate action need not (and should not) give way, so long as there is sufficient cause for workers (particularly those aligned with the Carry On discourse) to buy into the vision of a just transition.

3. A call-to-action exemplifying why such cross-movement coalitions are of heightened importance in the current environmental political economy, where powerful anti-transition stakeholders are forming their own alliances (while also seeking the support of oil and gas workers) with profoundly negative implications for climate change mitigation and the future security of workers in this industry.

In sum, it is a promising time to be engaged in this field of research as the Government of Canada is moving forward with its novel just transition (or rather, sustainable jobs) legislation, but much more work is needed to reconcile this policy with necessary decreases in oil and gas production, and to ensure that the concept of a just transition is not abandoned altogether by oppositional political forces aligned with the interests of industry. Cross-movement coalitions, discursive overlap, mutually beneficial alliances – these academic terms all sound great on paper and are quite theoretical – but there is indeed historical precedence, and contemporary examples of, environmentalists and workers coming together in the real world to achieve a common goal. In the years to come, addressing the interrelated threats of climate change and workforce disruptions in a manner that meets the urgency of these challenges will require even more sustained collaboration between these groups.

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8.0 Appendix A

INTERVIEW GUIDE (SEMI-STRUCTURED)

OBTAIN VERBAL CONSENT TO PARTICIPATE (“have you read consent form and agree to participate?”)

Awareness of Climate Change

4 broad perspectives:

- 1) Actively trying to leave industry
 - Guilt/don't want to work in industry that contributes to climate change
 - Conducting own research/reading, try to stay 'in the know' politically about a just transition, might even be involved with NGOs or likeminded organizations
 - Pertaining to climate solutions: might think that net-zero by 2050 is too late/unambitious, distrust towards carbon credits, carbon capture and storage etc.
- 2) Aware and concerned about impacts of climate change; open to a change but not actively pursuing new opportunities or don't know where to start
 - Net-zero by 2050 is feasible and we can achieve it with ambition
- 3) Indifference towards climate change politics, just focused a job that pays well
 - Not opposed to a change if job conditions are worth it
- 4) Resistant to leaving oil and gas industry, potentially even hostile towards others for passion/concern about climate change

Ask for feedback

Re-training

Categorized perspectives on re-training into 3 general phases:

- 1) Considering a change
 - Understanding that some workers aren't interested in renewables or new fields
 - Lack of knowledge of how to find green jobs coupled with lack of skills/qualifications and/or geographic proximity
 - Removing cost barrier to 'take a chance' and re-train
 - Need for funding during transition period/if laid off
 - Demonstrate long-term worthiness and viability to risk-averse individuals and/or youth just joining the industry
 - Decisions about prioritizing who gets trained first
- 2) Training itself
 - Not random one-off courses but delivered by more reputable institutions; technical colleges are a possible avenue
 - Re-training program needs to be meaningful and not too brief or overly general
 - Flexibility/ability to pursue some online training courses without quitting job could ease transition
 - Weekend options, also potential satellite campuses

- Internet connectivity (remote locations) and competency (computer skills) are challenges to online learning/training for some individuals
- Some people (depending on skills etc.) will need much more support/re-training than others
- For some, core work shifts but certain skills remain (e.g. some skills could transfer to cleaning up wells, solar and wind installation, geothermal drilling)
- For others, core work remains similar but certain skills are different (e.g. mechanic incorporating electric functionalities, electrician switching to more renewable infrastructure)
- Possibility of shifting to new role (e.g. solar) within same company

3) What then

- Ensuring jobs/demand is there; don't want to re-train to then wait around/have no opportunities
- Importance of unions in re-training but needs to be coupled with jobs then going to unionized workers (instead of 'lowballed' out to potentially cheaper labour)
- Helping recruit/encourage other workers to move once you've left

Ask for feedback

Now going to move onto some more specific questions:

1. Several environmental organizations in Canada are currently engaged in some form of advocacy regarding a just transition (such as drafting petitions, reports, or social media information campaigns). Do you think workers are generally aware of this advocacy work? (*350, Environmental Defence, Blue Green Canada, Shake Up the Establishment...*)
2. What are your general feelings towards environmental groups who engage with issues related to the oil sands and/or Canadian oil and gas production?
3. Broadly speaking, what sort of messaging/tactics on the part of environmentalists can lead to negative reactions among fossil fuel workers?
4. Can you think of some messaging/tactics which environmental groups could employ which might be well received/supported by fossil fuel workers (in the context of a just transition or in general)?
5. The federal government is currently working on just transition legislation under the new name of the 'Sustainable Jobs Plan', and environmental organizations are hoping to influence what this legislation looks like. If environmental organizations seek out common ground with fossil fuel workers and advocate around these points, do you think it's possible for workers to feel that these groups have their interests in mind and lend their support to this cause? And do you think this might influence the government's actions? (Why or why not?)

Potential leverage points for environmental organizations I've identified so far:

- Concern for environment is more widespread than often portrayed
- Working with/pressuring governments/unions around *specific* concerns of workers
- Financial aspects and re-training (more online opportunities, paid leave for training etc.)
- Equity (Indigenous workers/communities, immigrants, and women)
- Health concerns of some fossil fuel jobs
- Providing clear sources of information for, and a means of connecting, workers who are interested in a possible transition
- Info about re-training options, jurisdictional questions about certifications, tangible stories/examples from workers who have shifted and want to help others...

6. What might an effective collaboration between environmental organizations and workers look like? Additionally, are there other groups (e.g. unions, community leaders) who should be involved, and in what capacity?
7. Do you have any final thoughts on how environmental organizations can best support the needs of Canadian oil and gas workers in the years to come?

SAY THANK YOU AND ASK THEM TO PLEASE FORWARD MY CONTACT INFO TO ANYONE WHO MIGHT BE INTERESTED IN THIS DISCUSSION.

9.0 Appendix B

RECRUITMENT LETTER

Hi there,

My name is Isaac Bell and I'm a master's student studying Environmental Sustainability at the University of Ottawa. For my research project, I'm hoping to chat with (current or retired) Canadian oil and gas workers about their opinions on a so-called 'just transition'. Specifically, I'm interested in tensions, as well as common ground, between the environmental movement and fossil fuel workers in the context of a just transition.

My research will build off interviews and surveys conducted by a non-profit organization in 2021. We know that working in the fossil fuel industry doesn't mean that someone doesn't care about the environment. Accordingly, I want to explore the role (if any) that environmental groups can play in advocating for both strong climate action and the needs/priorities of fossil fuel workers. These needs/priorities can only be understood by talking to workers directly, which is where you come in.

Who: Hopefully you! Feel free to forward this to any colleagues who may also be interested.

What: A virtual, conversational-style interview lasting no more than 1 hour. This research project has received ethics approval from the University of Ottawa (S-01-23-8718).

Where: Zoom (a personal link will be provided).

When: At your convenience – we can pick a day and time that works for you.

Why: To voice your opinions and contribute to bottom-up research on just transitions. I hope this research can inform decision makers as well as the advocacy of environmental groups.

How: If you are interested or have any questions, please email me at [email address redacted].

Approximately 10 participants will be selected on a first-come-first-serve basis.