Between the Covers and Beyond the Page: Gauging the Impact of Climate Fiction through Ecocritical Analysis and Virtual Book Club Observations

by

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A thesis

presented to the University of Waterloo

in fulfillment of the

thesis requirement for the degree of

Doctor of Philosophy

in

Social and Ecological Sustainability

Waterloo, Ontario, Canada, 2025

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Despite increasing global concern about climate change, a gap persists between climate worry and action. Researchers across various disciplines and popular media suggest that narratives can motivate pro-environmental behaviour. Cli-fi novels, in particular, are believed to influence readers' behaviours and perceptions of climate change. However, most evidence supporting these claims comes from classroom observations and traditional humanistic inquiry. In 2018, a new research methodology emerged, empirical ecocriticism, which set out to determine how general readers engage with these novels. This dissertation follows the principles of this method, namely, the combination of ecocritical analyses with empirical methods. To that end, the first part of this dissertation (Chapters 2 and 3) is an ecocritical examination of four diverse cli-fi novels published in the last decade to determine how they conveyed climate change information to their readers and how this portrayal may affect readers' understanding of this issue. The second part of this dissertation (Chapter 4) is a report on empirical findings from a book club observation study of readers reading these same cli-fi novels.

The two interdisciplinary objectives of this dissertation were to firstly examine how cli-fi novels relate information about climate change and what aspects of climate change are emphasized to readers in these novels, and secondly to contribute to the emerging field of empirical ecocriticism by reporting on how groups of readers discussed cli-fi novels and the climate change information therein. To achieve these objectives, I: (1) interpreted of four diverse cli-fi novels using ecocritical methods and (2) designed and implemented a book club observation study of general readers reading these same novels.

Drawing on ecocriticism, climate change communication, and social sciences research, Chapter 2 introduces a new subcategory of cli-fi – *ambivalent cli-fi*. This subcategory is defined through an analysis of two realistic cli-fi novels *Weather* by Jenny Offill and *Blaze Island* by Catherine Bush to determine how climate change is portrayed in these novels and how their narratives might help readers explore their emotional responses to climate change. The novels were chosen due to their connections to the 2020s and the ecocritical analysis of these novels demonstrates that they can help readers sit in the uncomfortable space where the world is not yet irreversibly ruing, yet there is also no easy solution.

Chapter 3 examines *Blackfish City* by Sam J. Miller and *The Marrow Thieves* by Cherie Dimaline, two speculative cli-fi novels, whose authors claimed they wanted their readers to feel hope despite

narratives that portray radically altered environments and nightmarish societies. This chapter reviews climate change communication research that points towards more inclusive messaging favouring neither hope nor despair. The ecocritical analysis of the two novels utilizes Albert Camus' notion of the absurd to address the feelings of existential crisis evoked by the novels' depictions of climate change. It concludes by advocating for the creation of narratives that help audiences find ways to embrace futures that are neither apocalyptic nor utopic.

Chapter 4 reports on virtual cli-fi book club sessions conducted from January to June 2022, involving 40 participants from across Canada. Participants read the same cli-fi novels discussed above in order to ascertain how ecocritical readings of these novels might differ from general readers' interpretations. Pre- and post-survey data indicated that participants were younger than the average Canadian population (65% less than 44 years old compared to 42%), liberal, and concerned about climate change. The study identified three main themes from participant discussions: (1) the *relatability* of the cli-fi novels enhanced the believability of the story and climate change; (2) *the presence or absence of hope* was linked to whether novels included individual actions to mitigate climate change; and (3) participants experienced *anxiety* when they empathized with characters and scenarios. These findings suggest that readers use cli-fi novels to understand current climate issues. Results from the book club observation study also suggested that general readers in groups find solace and reach new conclusions through discussion. This discovery underscores the importance of considering reading as both an individual and social practice for empirical ecocriticism.

The conclusions drawn from the ecocritical chapters highlight how cli-fi narratives have the potential to influence reader emotions. The arguments in Chapters 2 and 3 demonstrate that the negative emotions present in each cli-fi novel are necessary for readers to engage with and learn from. Chapter 5 concludes with a comparison of these arguments with the results from the book club study (Chapter 4). This discussion reinforces research from climate change communication and the social sciences that argues audiences (and readers) do not need to be frightened with catastrophic images of climate change dystopias. Instead, what readers (and non-scholarly audiences) might need now are stories that help them learn how to live with climate uncertainty, and spaces to do this together.

Acknowledgements

I'm so excited to write my acknowledgements section as it means two things (1) I'm done! and (2) that I finally get to thank everyone who helped on this journey.

First, I'd like to thank my supervisor, Dr. Brendon Larson, and my committee members, Drs. Andy McMurry, Imre Szeman, Johanna Wandel, for their support and feedback over the years. I'd also like to thank my external examiner, Dr. Greg Garrard, for his support and interest in this project. Our conversation at my defence was a pleasure!

So much thanks to all the friends and colleagues I've made over the years: my Orca-pod (Drs. Lauren Smith and Kira Cooper), Drs. Shefaza Esmail, Stephanie Barr, Sondra Biennale, Nicole Balliston, Sophie Sanniti, as well as Natasha, Tyler, and everyone in the SERS writing club. I'd like to give a big shoutout to Dr. Sarah Wolfe and her SEE-Lab (Avery, Beth, Stephanie, and everyone else!) for welcoming me and helping me to find my footing when COVID hit. And I would never have gotten this far in grad school without the help of Dr. James Skidmore; you are a true mentor and friend. Thanks for all your support and breakfasts!

Many thanks to all the participants in the book club, without you a large part of this project could not have happened. I'd also like to recognize the help I received from the Hamilton Public Library in recruiting readers from across Canada and I am grateful for the kind service of King West Books in Hamilton who helped me get all the books to my local participants.

Of course, as I was studying life was also happening, so I would like to thank all my friends and family for their patience and support. Thanks to my mom for always believing and supporting my career choices. Many thanks to Maureen and Tony (and the whole Czerneda family!) for their help with childcare and being excellent cheer leaders. To my friends Rachel, Annie, and Kristin, I should have more time to hang out now and watch all the shows and books you've been trying to get me interested in!

Bryan – Thanks for all your love and support. I am finally done grad school, now what should we do?

Avery – Mama's all done her big project so let's turn on the loud music, go get some ice cream, and ride bikes.

Dedication

This dissertation was written with a love of reading and concern about the future. I dedicate it to future readers; may we have found a way to *live-with* climate change.

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List of Abbreviations

- IPCC – Intergovernmental Panel on Climate Change
- CAST – The Centre for Climate Change and Social Transformations
- Cli-fi – Climate fiction
- SERS – School of Environment, Resources and Sustainability
- YPCCC – Yale Program on Climate Change Communication
- SASSY – Six America's Super Short Survey

Chapter 1
Introduction

1.1 Research Context and Problem Rationale

Humans have known about the potential consequences of climate change since at least the 1980s (Markowitz and Guckian) and with increasingly dire reports from the Intergovernmental Panel on Climate Change (IPCC) (Masson-Delmotte, Zhai, Pirani, et al.; Leitzell) it may be surprising that there is still a gap between climate concern and action (Ballew et al.). Overcoming this separation between attitude and action is essential for creating a livable future (Gunster; Kollmuss and Agyeman; Moser and Dilling). Research on how best to communicate climate change to motivate transformation abounds and shows that information alone is insufficient to create the social change necessary to address climate change (Boykoff; Callison; Hornsey and Fielding, "Understanding"; Lorenzoni et al.; Verfuerth et al.). In short, climate change and its consequences (rising sea levels, species extinction, energy and food concerns, etc.) are not solely scientific concerns; instead, these problems are mediated by our social and cultural lives (Hulme, *Why We Disagree*; Neimanis et al.). Our outlook on climate change has been dominated by Western science – which emphasizes objectivity, rationality, and logic and disregards the emotional and human elements of our lives (Verlie, *Learning*). This outlook is problematic as adapting or mitigating climate consequences requires participation from governments, institutions, and the public (Giddens).

Psychologists and cultural theorists alike have identified barriers to action even for those concerned about climate change (Hoffman; Lakoff; Stoknes, *What We Think About*). Many of these barriers occur due to emotional responses to this problem, and research on this aspect of human behaviour and climate change action increased in the late 2010s and early 2020s (Head; Moser, "More Bad News"; Norgaard; Pihkala, "Eco-Anxiety"; Ray; Verlie, *Learning*; Wolfe and Tubi; Wray). Alongside growing awareness of these interior dimensions, climate change communication researchers have become increasingly interested in the potential for "cultural expressions" of climate change such as novels, films, and theatre to nudge audiences from "mere awareness" to action (Moser, "Reflections" 361). Human geographers Karen O'Brien and Gail Hochachka argued that "cultural interpretations of climate change" were under-researched and their effects underestimated when trying to communicate the dangers of climate change to general audiences (91).

In response to this growing awareness of the cultural side of climate change, communications scholar Susanne Moser suggested that climate change communication had much to learn from researchers in the humanities and arts, who work with different communication forms (such as novels, film, etc.) ("Reflections"). These forms can be characterized by their connections to narrative and fiction. Researchers both within and beyond literary studies have touted narrative as a solution to engaging audiences about climate (Arnold; Bulfin; Caracciolo, *Contemporary Fiction*; Dahlstrom, "Using"; Veland et al.; Weik von Mossner, *Affective Ecologies*). But how to exactly define narrative, or what constitutes a successful narrative, is a source of debate.

Narratologist Erin James defines narrative as "worldbuilding for some purpose, or somebody telling someone else on some occasion and for some purpose(s) that something happened in some world" (*Narrative* 178–79). According to James, this definition is important for two reasons: one, it affords equal significance to both day-to-day storytelling and entertainment media (including novels); and, two, it emphasizes how narrative not only evokes emotions, experiences, and worlds for readers to help them understand their lives but also how it takes "an active role in creating and shaping" their sociocultural and environmental contexts (*Narrative* 179). As James' definition hints, the influence of narrative is not only found in the stories created and reinforced through news media and other institutions but can also be found in fiction (Veland et al.).

Reading fiction as a way to mold our understanding of the world is a hope shared by scholars and popular media outlets alike. Specifically, climate fiction (cli-fi) is thought to have the potential to shape and change reader behaviour (Armitstead; Baden and Brown; Death; Glass). A short definition of cli-fi is that it is a: "distinctive body of cultural work which engages with anthropogenic climate change" (Goodbody and Johns-Putra, *Cli-Fi* 7). Cli-fi novels appeal to readers' emotions and, in contrast to films about climate change, present a myriad of futures (Brady, "Confronting the Climate Crisis Through Fiction"; Svoboda). But claims about these novels' influence are often based on traditional humanistic inquiry (Milner and Burgmann; Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*). That is, ecocritics have largely relied on thought-provoking arguments about the effects of certain "formal, thematic, intertextual, cultural, and ideological factors" without also testing these claims through "the copious empirical data on the psychological and social work of stories" (Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism* 7). And this gap goes both ways; scholars in the environmental sciences might be interested in the effects of these stories (Veland et al.) or note the importance of narratives in

influencing audiences (Dahlstrom, "Using"), but they rarely take note of the more formal aspects of texts (such as genre, style, and other narrative choices) (Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*).

In response to this oversight, interdisciplinary scholars developed empirical ecocriticism to test questions posed by researchers in the environmental humanities through social science methods and vice versa (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction"). Early empirical ecocritical studies demonstrate that cli-fi novels do influence their readers but that more research is needed to fully appreciate the extent to which these novels can actually motivate their audiences to take action or change their minds about climate change (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "Whose Odds?"; Schneider-Mayerson, Gustafson, et al.). If, as ecocritic Antonia Mehnert has remarked, literature "is seen as the last resort to communicate the urgency of environmental crisis and prompt action" (228), then what is needed now is a clearer picture of the impact these cli-fi novels have on their general readers.

This introductory chapter outlines the topic of my dissertation (including purpose, objectives, and key contributions), then delves into its underlying research context through a literature review of climate change communication, ecocriticism, and emotional responses to climate change (as defined by various psychologists, human geographers, and social scientists). It then describes my research design, methodology, and concludes by presenting the overall organization of this dissertation.

1.2 Research Purpose, Objectives, and Key Contributions

On the one hand, climate change communication researchers have established that simply informing audiences about climate change and its consequences does not work to motivate change (O'Neill and Nicholson-Cole). On the other hand, ecocritical and other scholars tout cli-fi as a cultural phenomenon that can influence the behaviour and minds of its audiences without necessarily directly engaging with these audiences (Heise; Mehnert; Trexler; Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*). The purpose of my dissertation was to investigate the influence of cli-fi novels on non-scholarly readers' understanding of climate change. To those ends, my research questions were:

Q1: How might cli-fi novels contribute to our cultural understanding of climate change?

Q2: How, if at all, do non-scholarly readers use cli-fi novels to negotiate issues related to climate change?

Q2.1: How do non-scholarly readers discuss climate change in a cli-fi book club setting?

Overall, my interdisciplinary objectives were to firstly examine how cli-fi novels relate climate change information to their readers and what aspects of climate change these novels emphasize to their readers, and secondly, to contribute to the emerging field of empirical ecocriticism by reporting on how groups of readers discussed these novels. To achieve these objectives I (1) interpreted four diverse cli-fi novels using ecocritical methods and (2) designed and implemented a book club observation study of non-scholarly readers reading the same novels as in (1). This work is motivated by empirical ecocriticism's call to combine humanities and social science research to explore how "people from various cultural backgrounds engage with environmental narratives and the larger repercussions of such engagement" (Małecki et al.). Responses to the above research questions can be found as follows: Chapters 2 and 3 respond to Q1 and research objective (1) and Chapter 4 responds to Q2 and Q2.1 as well as research objective (2), and Chapter 5 contains a concluding discussion comparing the arguments from Chapters 2 and 3 with the results from Chapter 4. The dissertation ends with thoughts for further applications of this research.

1.3 Literature Review

The two main bodies of literature I utilized and contributed to in this dissertation are: climate change communication scholarship and ecocriticism. In the following literature review I provide a background in climate change communication research that focuses on audience-related work (i.e., audience segmenting and audience responses to various artistic representations of climate change), then I outline the shift towards emotions and narratives that has developed in the last two decades. From there, I define and explore the developments in ecocriticism, which have culminated in the creation of a new sub-field of inquiry, empirical ecocriticism. Finally, I provide an overview of the guiding research I used to understand emotions related to climate change (e.g., psychology, sociology, and human geography). These bodies of knowledge are united in their understanding of climate change as more than a scientific issue to be resolved by governments or institutions alone. This research highlights the necessity for cultural change alongside policy change.

1.3.1 Audience Segmenting and Audience Response Research in Climate Change Communication

After reviewing the state of climate change communication research since the 1980s, Moser noted "the importance of different messages for different audiences" ("Communicating Climate Change" 43). To define these different audiences, in 2009 a group of scholars with the Yale Program on Climate Change Communication (YPCCC) surveyed a diverse group of Americans[1] not only to uncover information about their perceptions of global warming[2], but also to provide an image of who they were (supplying details on age, occupation, political leaning, and habits, etc.). Their results suggested that over half of Americans were convinced that global warming was "happening and a serious problem" (Maibach, Roser-Renouf, et al. 1). Maibach et al. also developed a continuum of audiences they termed the "Six Americas" to depict the range of reactions that Americans had about global warming. These categories go from highest to lowest levels of concern: Alarmed – Concerned – Cautious – Disengaged – Doubtful – Dismissive. Since the original survey, YPCCC researchers have surveyed audiences from around the world (Carman et al.) and other groups have also developed their own audience segmentation methods to better understand what different audiences think about climate change (Martel-Morin and Lachapelle). Although there are methodological concerns about how this strategy is applied and used for climate research (Hine et al.; Detenber and Rosenthal), there is also growing support that this method might be useful in creating messages that impact audiences' environmental consciousness (Kidd et al.). For the purpose of this dissertation, I utilized the YPCCC's Six Americas Super Short Survey (SASSY), a series of four questions designed to provide an overview of a person's climate beliefs and opinions (I provide a more in-depth explanation in Chapter 4). This tool was helpful to provide an image of how my book club participants viewed climate change.

The YPCCC surveys have not been static over the years. In 2013, the results showed that the American public was less concerned with global warming (Hoffman), but since 2019 there has been a rise in those concerned about this issue (Goldberg, Gustafson, et al.; Gustafson et al.; A. A. Leiserowitz et al.). YPCCC researcher's claim that even with small changes in the groupings,

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[1] Although my study is focused on a Canadian audience, I utilized the YPCCC's research methods. I provide a brief explanation as to why in section 1.4 as well as in Chapter 4 section 4.3.2.

[2] Throughout this dissertation I will mostly use the term climate change as it is a ubiquitous term found in both popular and academic work (e.g, IPCC reports). However, the YPCCC's questions use the term global warming and there are a few instances where other cited literature uses the term climate crisis.

"overall, Americans are becoming more worried about global warming, more engaged with the issue, and more supportive of climate solutions" (A. A. Leiserowitz et al., para.3). And yet, the gap between these attitudes and climate action remains (Ballew et al.). Reasons for this gap are explored below in sections 1.3.2 and 1.3.4.

Alongside audience segmentation research, some climate change communication researchers look at the role that "cultural expressions" of climate change could play in moving audiences from "mere awareness" to action (Moser, "Reflections" 316). Reviewing research on arts-based interventions about climate change, Burke et al. argued that "there is a need for an understanding of how these artworks are interpreted and evaluated by a lay audience from a social science perspective" (96). Although this could include a myriad of cultural artefacts (e.g., theatre, film, novels, poetry), many studies in the early 2010s remained fixed on audience responses to visual representations of climate change (Howell; Leiserowitz; Lowe et al.; O'Neill and Nicholson-Cole; Reusswig et al.). The findings from these various studies revealed that although films could emotionally sway their audiences, further intervention is required for these emotions to then be directed into action on climate. Climate change communications researchers Saffron O'Neill and Sophie Nicholson-Cole also suggested that climate change communicators need to be careful when using fear messaging as it can lead audiences to feel nihilistic about climate change (Chapter 3 in this dissertation discusses nihilistic thought and climate change action).

1.3.2 Shift Towards Emotions and Narratives in Climate Change Communication

Climate change communications research has shown that there is no "linear pathway" from information to action (Boykoff; Gunster 50; Lorenzoni et al.; Moser and Dilling; Petrescu-Mag et al.; Soliman; Whitmarsh; Verfuerth et al.). In an attempt to understand what might motivate audiences to act on climate change, some researchers have noted the effects of emotional responses to climate change on human behaviour (Feinberg and Willer; Lertzman; Kleres and Wettergren; Moser, "More Bad News"; Smith and Leiserowitz; Salama and Aboukoura; Weber). However, this research is divided on whether positive or negative emotions should be evoked in order to motivate audiences for action (Hornsey and Fielding, "Cautionary Note"; Hornsey and Fielding, "Understanding") or if we should move beyond binary messaging of climate hope versus despair (Hall; Head; Lertzman; Verlie, *Learning*; Wray). Additionally, when seeking to evoke different emotions communicators need to understand the short- and long-term effects of these messages (Chapman et al.; Wolfe and Tubi). In

the last two decades, to further understand emotions' role in climate response, there has been a growing interest in the use of narratives or stories to engage audiences' emotions (Arnold; Baden and Brown; Christensen et al.; De Meyer et al.; Dahlstrom, "Using"; Lakoff; Morris et al.; Veland et al.).

Research from the cognitive sciences and evolutionary theory suggests that humans organize and understand their world through story or narrative (Boyd; Gottschall; Kingsnorth and Hine). In climate change communication research, these proclamations have led researchers to look to narratives as ways to capture audiences' attention and emotions (Arnold; Dahlstrom, "Using"; Nikoleris et al.; Veland et al.). Stories are one way for climate science communicators to better relate with and to increase climate change information reception among their audiences (Markowitz and Guckian). Communications researcher Maxwell Boykoff has argued that "there is great psychological, social, political, ideological and cultural power in stories we tell ourselves (and each other)" (35). This research has also led to a growing interest in fictional representations of climate change and how they might be just as influential as journalistic or institutional reports on climate change (Boykoff; Harris; Hulme, *Weathered*; Milkoreit, "Promise"; Yusoff and Gabrys).

With the growing climate change messaging and narrative research on their respective emotional impacts, it is becoming clear that simply eliciting emotions in stories alone is not going to lead to pro-environmental action. An interdisciplinary group of geographers, psychologists, and communications scholars have estimated that over 98% percent of climate change media coverage was negative, leading to feelings of despair and discouraging audiences from taking action (De Meyer et al.). As a solution, communications scholars and psychologists are suggesting what we may need now to encourage pro-environmental action are stories that are emotionally moving and that also have solutions embedded within (Baden; Baden and Brown; Coren and Wang; De Meyer et al.; Sabherwal and Shreedhar). Communications researcher Denise Baden conducted a study asking participants to read four short stories, two that contained pro-environmental actions (e.g., one mentions recycling and another talks about an activist who plants 'seed bombs') and two that described the world ending catastrophically due to climate change. Overall, her participants reported more "switching off" (Baden 262) – disengaging from pro-environmental action – when they read the catastrophic stories. In contrast, the stories that contained behaviours that readers could mimic led to readers reporting they felt they could take on these actions themselves. Similarly, behaviour psychologists Anandita Sabherwal and Ganga Shreedhar found that participants who read stories with characters who they could identify with and who carried out pro-environmental behaviours were more likely to say they

would take pro-environmental action themselves. However, more research is necessary to understand how different audiences react to these narratives and the emotions elicited by the narratives – and what *intended* actions are actually completed.

Of note, both Baden's and Sabherwal and Sheedhar's studies were conducted in the UK; a recent study by W.P. Malecki and Matthew Schneider-Mayerson demonstrated that audiences' country of origin may play a role in how they react to pro-environmental narratives. Malecki and Schneider-Mayerson conducted a survey in the US and India asking readers to read three texts: one dystopian, one utopian, one *ambitopian* – a combination of dystopian and utopian (Malecki et al. 2). Both the utopian and ambitopian texts had pro-environmental actions embedded within them. Their survey revealed mixed results: US participants reported feeling motivated to take pro-environmental action after reading the dystopian text, while participants from India seemed more engaged by the ambitopian text. Malecki and Schneider-Mayerson concluded that more research is necessary to really understand how different audiences interact with emotional stimuli. Additionally, these findings support what ecocritics and climate communicators argue may be a key factor in cli-fi novels' influence –in order for these stories to engage audiences, researchers must consider what happens when participants read multiple longer narratives (like novels) over longer periods of time (Malecki et al.; Schneider-Mayerson, Gustafson, et al.; Trexler). Keeping this in mind, in Chapter 4 of this dissertation I report on my book club study where participants read four novels over a four-month period. In Chapters 3 and 4, I discuss how some of the chosen novels for this study may not lead to pro-environmental behaviour choices due to a lack of explicit and tangible actions in their narratives. Finally, while I focus on emotions in this dissertation, it is important for future research to consider what actions participants actually take beyond self-reported intent, as this is a recognized inconsistency (Kollmuss and Agyeman; Whitmarsh).

In Section 1.3.3, I discuss how I defined narrative and how ecocritics can learn from and provide insight to climate change communications research.

1.3.3 From Ecocriticism to Empirical Ecocriticism

Literary scholars, specifically narratologists, view this focus on narratives with equal parts interest and dismay. Interest as they believe in the potential for narrative to influence audiences and dismay at the way narrative is used outside of their discipline (Caracciolo, *Contemporary Fiction*; James, *Narrative*). In traditional literary studies, narrative is often defined by its three fundamental elements:

causality, temporality, and characters (Bal, 2017). James argues that when science communicators imagine the potential uses of narrative, they go no further than this standard definition. Making specific reference to the work of Michael F. Dahlstrom who has published extensively on the use of narrative to communicate science to lay audience ("Persuasive Influence"; "Using"; "Narrative"), James claims that this understanding of narrative is incomplete. Narratologists, like James, focus on a text's structure (who speaks, what happens, how and when it happens, etc.) with the purpose of understanding a text (Cobley, 2005). But as mentioned above, James seeks to deepen our interpretation of narrative even further and reminds us that the potential power of narrative lies in its capacity to bring its audience into new worlds, where they can learn something about the real world. For this reason, I defined narrative similarly to James as a way of telling someone about something that happened in the world for the purpose of understanding something about the world. This is a useful definition as it encourages us to look at narratives found both in policy, news media, and fiction.

Fiction often fabricates characters and events, but may also establish connections to real ones (Bruner). Ecocritic Adam Trexler defined fiction "as the product of social ideas, cultural beliefs and individual imagination" and claims that fiction expresses "truths that cannot be described by direct, declarative writing" (29). This is not to say that we cannot discern between fiction and reality. Instead, fiction provides a space to explore "what-if-questions" (Boyd). Combining evolutionary and literary theory, Brian Boyd argued that our capacity to create fictional stories stems from our ability to merge and synthesize past experiences. Boyd further claimed that fiction can encourage social change. Climate change communication research has shown that information alone will not motivate audiences to take action on climate change (Gunster). Geographers Veland et al. contend that current climate change messaging only presents narratives that reinforce climate change science and policy and governments' roles in resolving this issue. There are few discussions of other solutions or opportunities for the public to engage with stories about future climates. Moving forward, researchers should look to fiction and the future stories being told there as they may help their readers "imagine their agency in different ways in enabling or preventing such futures" and fill the "narrative deficit" (Veland et al. 44). The tradition of looking to narrative and fiction to grasp humanity's connection to the environment is best found within the literary discipline of ecocriticism.

Although the term ecocriticism was first used by William Rueckert in an essay in 1978, it was Cheryll Glotfelty who provided the first working definition of ecocriticism in 1989 as "the study of

the relationship between literature and the physical environment" (xviii). Scholars in this field ask questions about how these cultural works represent, express, and influence human perspectives on nature or they examine how environmental issues are shaping and changing various media. Since Gloftelty's initial definition ecocriticism has expanded to include other media such as film, songs, and games. An underlying theme that ties research on these different forms of media is to understand how environmentally engaged narratives might be influencing their audiences (Schneider-Mayerson, Weik von Mossner, and Małecki). Environmental humanities scholar Matthew Schneider-Mayerson has pointed out, "the ecopolitical value of environmental literature has been a key subtext for the growing interest in climate fiction in (liberal) popular discourse and the academic fields of ecocriticism and environmental humanities" ("Influence" 474). He further argued that evidence for ecocritics' readings is rarely grounded in empiricism. In 2018, scholars Małecki, Schneider-Mayerson, Weik von Mossner, and Hakemulder launched the website *Empirical Ecocriticism* to help collect work and connect scholars interested in a new methodology of the same name. Answering calls to unite climate change communication research and ecocriticism (Slovic et al.), empirical ecocriticism seeks to combine knowledge from communication studies and the social sciences to test claims of traditional ecocritical theory concerning the influence of fictional narratives on their audiences (Schneider-Mayerson, Weik von Mossner, and Małecki). Although empirical ecocriticism, like traditional ecocriticism, acknowledges that environmental narratives exist outside of literature (for example in film or television), I will focus on the narrative texts of climate fiction (commonly shortened to cli-fi) (Trexler and Johns-Putra).

The abbreviation cli-fi emerged in popular culture in 2007 (Andersen) and was defined as climate fiction, a type of science fiction "in print and on cinema and TV screens" that engages "with the local and global impact of man-made global warming" (Bloom, para.1). As the term has gained traction in popular media, scholars have sought to provide a more precise understanding of cli-fi. Trexler's 2015 monograph *Anthropocene Fictions: The Novel in a Time of Climate Change* is often cited as the first book length approach to cli-fi novels. However, his novel choices have also been criticized as being too broad (Andersen; Johns-Putra). In the last two decades, a key tenet to define cli-fi novels is that they must acknowledge that climate change stems from human choices (Andersen; Goodbody and Johns-Putra, *Cli-Fi*; Mehnert). As mentioned in section 1.1., this dissertation utilizes the definition of cli-fi by Axel Goodbody and Johns-Putra because it allows for works that deal with climate change in the present such as *Flight Behavior* (Kingsolver), speculative works like *Clade* (Bradley), and also

allows for different mediums, such as films (*The Age of Stupid*) or plays (*The Contingency Plan)* (Ahmed).

I chose to focus on cli-fi novels for several reasons. These novels are the product of multiple cultures; that is, they do not appear in only one country or language (Milner and Burgmann). According to ecocritics Goodbody and Johns-Putra, interest in cli-fi novels stems from their attempts to bring together the scientific facts of climate change and its associated dangers so that they rouse readers' "curiosity" and engage them "psychologically, intellectually and emotionally" (*Cli-Fi* 11). As mentioned in section 1.1, this is important as there is a growing movement to understand the role of interior dimensions of behaviour, which includes values, worldviews, and emotions (O'Brien and Hochachka).

1.3.4 Climate Change and Emotions

There are calls from across disciplines to develop a more thorough understanding of climate change's emotional toll (Albrecht; Doherty and Clayton; Head; Pihkala, "Eco-Anxiety"; Weintrobe, "Introduction"; Wray). One of the most frequently cited case studies on emotional reactions to climate change is sociologist Kari Marie Norgaard's observations of a small Norwegian village. Through her work, Norgaard sought "to shift our view to the emotional and psychological experiences of noticing or thinking about climate information, the normative aspects of thinking and feeling, and the active production of cultures of emotion and talk regarding climate change" (9). Her study was one of the first to describe how a lack of action on climate change issues was not apathy or skepticism, rather "socially constructed silence" (Pihkala, "Eco-Anxiety" 549). One way to overcome this silence might be to cultivate space to discuss climate change and the emotions evoked (Hendersson and Wamsler; Norgaard; Stoknes, *What We Think About*; Verlie, "Bearing Worlds").

Reporting on her students' emotional reactions about climate change and the future, sociologist Balance Verlie simultaneously argued for the importance of recognizing and discussing these emotions and described this process as "learning how to live-with climate change" (Verlie, "Bearing Worlds" 758). According to Verlie, those in Western societies are trained to ignore or dismiss our emotional reactions to climate change – to our detriment. Without acknowledging and accepting our emotions about climate change we will be unable to take effective climate action. Similarly, another study on students in an environmental studies class found that emotions were tied to fostering a sense of "authorship" in students (Hendersson and Wamsler 348). That is, for students to feel empowered to

act on climate change they had to be able to acknowledge their emotions, even difficult, negative emotions like shame and guilt (Hendersson and Wamsler 353).

Further, human geographers Leslie Head and Theresa Harada interviewed Australian climate scientists and observed that in order to have their work accepted by the scientific community these scientists had to separate their emotions from their work. Head and Harada argued that this separation was causing scientists to downplay the dangers of climate change. Studies such as these point to the growing awareness that emotions evoked by climate change influence our actions on this issue.

Throughout this dissertation, I rely on the above work from psychology, sociology, and human geography to understand the emotional effects of climate change information.

1.4 Empirical Context

The empirical context for this research was chosen based on geographical and societal lenses along with special allowances for COVID-19 restrictions.

Geographically and socially, Canada was chosen as the research site for several reasons: there are relatively few published studies of Canadian audiences' climate change perceptions and beliefs (Cross et al.), there are no studies of Canadian cli-fi readers, and although Canadians are concerned about climate change as an issue, there remains a gap between their concern and action on this issue (Gislason et al.; Pickering and Dale). Finally, the book club observations that are the subject of Chapter 4 were conducted virtually due to ongoing uncertainty created by COVID-19 restrictions in Ontario and more broadly in Canada in 2021-2022.

One of the most well-known research institutes on audience segmentation and climate change is the YPCCC. Although they have published studies on Canadian audiences this is mostly as a result of cross-sectional audiences from around the globe (Carman et al.; Verner et al.), with one exception (Mildenberger et al.). As my book club observations were completed before Martel-Morin and Lachapelle's all-Canadian audience study was published in 2022, I utilized the YPCCC's categories. The results of my participant survey in Chapter 4 reveal an audience with a high level of concern (with more than 75% of participants identifying as Alarmed) the implications of this are discussed in Chapter 4.

Empirical ecocritical studies of cli-fi readers have centered on American audiences (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "Whose Odds?"; Schneider-Mayerson, Gustafson, et

al.), but as mentioned previously, cli-fi novels are not an American phenomenon. Although a significant number of these novels have been published by American authors, fiction authors from around the globe are writing about climate change (Goodbody; Milner and Burgmann; Puchner). My research adds to our understanding of how these novels might be affecting non-American audiences and will be useful as a cross-cultural comparison as more studies are completed.

Depending what metrics are used, Canada is ranked in the top ten or higher on greenhouse gas emissions per capita (Canada; Woodside). This is despite numerous promises from both federal and provincial governments to reduce emissions and achieve net-zero by 2050 (Haig). Although there has been progress towards this goal, stronger policies and actions are required by these governing bodies for this goal to become a reality (Haig; Leach et al.). Motivating the general population to push their government on these issues is one way to increase the likelihood that these goals will be met (Devine-Wright et al.; Ockwell et al.) – and there is a general undercurrent to ecocritical studies that cli-fi novels may be able to help motivate audiences take action on this issue (Schneider-Mayerson, "Influence"). Additionally, although the consequences of climate change (e.g., wildfires, increased storms) have arrived in Canada, there is still a gap between Canadians' concern about climate change and action (Pickering and Dale). My research uncovered how non-scholarly Canadian readers of cli-fi think about climate change and provided insight into why this gap persists.

Chapter 4 reports on a series of book club observations conducted from January 2022 – June 2022. During the project development stage (September – October 2021) several research guidelines from the University of Waterloo cautioned against in-person studies (Dean, *New Processes*) that were then mostly lifted by April 2022 (Dean, *Research*). Further, from December 2021 to January 2022 there was increased uncertainty regarding COVID-19 across Canada due to the rise of the omicron variant ("Coronavirus"; Jabakhanji). For these reasons, I chose to run the book clubs virtually over Zoom. Section 1.5 and Chapter 4 discuss the impacts of this decision.

1.5 Research Design, Methodology, Materials, and Methods

This section provides a brief description of the design, methodology, and methods utilized in this dissertation. Each of the following chapters describe their specific methods in full.

1.5.1 Research Design Alignment with SERS Goals

Graduate research at the School of Environment, Resources and Sustainability (SERS) is focused on problems of social and ecological sustainability and seeks to "work within, between and across disciplines and ways of knowing" ("About"). As such, this dissertation sought to work within, between, and across disciplines.

Some of the more common terms associated with cross-disciplinary research are multidisciplinary, interdisciplinary, and transdisciplinary (Pohl). In reviewing how researchers use these terms, Christian Pohl argued that they represent a spectrum of progression for research that integrates differing disciplines. Building on his research, Tomohiko Sakao and Sergio Brambila-Macias defined each term separately: multidisciplinary is "research that includes more than one discipline, and where each discipline makes a separate contribution"(1399); interdisciplinary research occurs "when researchers from two or more disciplines integrate information, data, tools, perspectives, concepts, and/or theories to solve problems whose solutions are beyond disciplinary boundaries" (1400).

My research was interdisciplinary as it combined methods and knowledge from different disciplines to examine the impact of cli-fi novels on their readers. The focus of my work was also climate change, which is one of the most pressing environmental and social problems of our time (Masson-Delmotte, Zhai, Pörtner, et al.). The conclusions drawn from my research are useful in learning how cultural artefacts (such as novels) influence an individual's understanding of climate change.

1.5.2 Research Materials, Methodology, and Methods

My research followed a qualitative approach to explore how humans (readers of cli-fi) might utilize cli-fi novels to understand a social problem (climate change) (Creswell). Chapters 2 and 3 utilized ecocriticism principles to analyze and interpret four cli-fi novels (*Weather* by Jenny Offill, *Blaze Island* by Catherine Bush, *Blackfish City* by Sam J. Miller, and *The Marrow Thieves* by Cherie Dimaline). Chapter 4 summarized findings from four virtual book clubs I facilitated based on the principles of empirical ecocriticism. I observed each book club as they discussed the same four novels from Chapters 2 and 3.

Chapters 2 and 3 of this dissertation provided brief explanations about why each novel was chosen as an object of study. Chapter 4 presented a more in-depth justification for these choices. Here, I will

give an overview of these choices to provide a coherent narrative to frame this dissertation as a whole.

In creating my methodology for Chapter 4, I reviewed both empirical ecocritical (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "Whose Odds?"; Schneider-Mayerson, Weik von Mossner, and Małecki; Schneider-Mayerson, Gustafson, et al.), book club (Carson and Archer-Lean; Clarke and Nolan; Long; Swann and Allington; Todd; Willis), and online focus group studies (Abrams and Gaiser; Flynn et al.; Liamputtong; Krueger and Casey).

1.5.2.1 Materials

The four novels I chose for my dissertation were: *Weather* by Jenny Offill, *Blaze Island* by Catherine Bush, *Blackfish City* by Sam J. Miller, and *The Marrow Thieves* by Cherie Dimaline. See Chapter 2 section 2.3.1.1 for a summary of *Weather,* Chapter 2 section 2.3.2 for a summary of *Blaze Island,* Chapter 3 section 3.3 for a summary of *Blackfish City* and Chapter 3 section 3.4 for a summary of *The Marrow Thieves*.

My dissertation project was inspired by Schneider-Mayerson's first survey of American cli-fi readers. As such, I began my search for appropriate cli-fi novels based on his original study's method: "the works most often cited in articles on climate fiction in magazines and websites, the number of reviews on the book review–aggregating website Goodreads, and recommendations from scholars and critics of environmental literature" ("Influence" 477).

One major finding from Schneider-Mayerson's second survey study was that readers of certain dystopian cli-fi became survivalist oriented (Schneider-Mayerson, "'Just as in the Book'?"). In an attempt to avoid this outcome, I chose two critical dystopias, *Blackfish City* and *The Marrow Thieves.* Additionally, I chose these novels as I wanted to engage with research from environmental psychology and climate change communication that argues we need to find a middle ground for climate messaging. In the words of environmental psychologist Renee Lertzman, messaging that describes "both-and" futures that are neither overly hopeful nor despairing (para.9). See

Literary research suggests that readers approach and read genres in prescribed ways (Bergthaller; Bruner; Phelan). *Blackfish City* and *The Marrow Thieves* are two speculative novels, while *Weather* and *Blaze Island* are more likely to be labelled as literary fiction. I adhere to Goodbody and Johns-Putra's expansive definition of cli-fi (as explained above), which can encompass novels from all

generic backgrounds. As such the choice of these markedly different novels was deliberate to see if the readers responded differently to each type of novel (e.g., do they identify more readily with the realist or future novels, do they take the literary fiction more seriously?).

Finally, there have been calls for more cli-fi narratives and authors who are not white, men, or heterosexual as can be seen from the online magazine Grist's annual Imagine 2200 call for stories (Grist Magazine Inc.) as well as submission guidelines from indie publishing companies such as Stelliform Press (Stelliform Press). *Weather* and *Blaze Island* are written by female authors, but deal with western, white protagonists. *Blackfish City* and *The Marrow Thieves* are written by a queer male author and a female Métis author respectively and have queer and non-white main characters. I sought to include cli-fi novels written by diversely identifying authors along with diverse characters because climate change does not affect just one social group or one part of the planet. It affects everyone and to effectively mitigate or adapt to climate change we need multiple perspectives (Hochachka), knowledges (Orlove et al.), and stories (Veland et al.). Some criticisms of these authors are noted in section 4.6 Recommendations for Future Studies.

1.5.2.2 Empirical Ecocriticism and Book Clubs

Despite the assertion that cli-fi novels influence their readers, few ecocritics engage with *non-scholarly* readers of cli-fi. Outside of classroom studies (Siperstein, *Climate Change*), the majority of ecocritics rely on their own interpretations of the novels to provide evidence of cli-fi's power (Schneider-Mayerson, Weik von Mossner, and Małecki). Empirical ecocriticism seeks to understand what is happening when non-scholarly readers engage with cli-fi novels. Its proponents argue that it is the "logical conclusion" (Schneider-Mayerson, Weik von Mossner, and Małecki 2) to recent developments in cognitive narratology that recognizes the influence of novels on their readers (James, *Storyworld*). Researchers interested in conducting empirical ecocriticism choose a social science methodology (interviews, focus groups, surveys, etc.) and set out to test ecocritical conclusions. They may also draw from empirical literary studies. Before I delve into empirical literary studies, I provide a brief discussion of why these scholars argue for the "empirical" study of literature.

Using "empirical" to name this methodology brings up some divisive epistemological expectations. Advocates of empirical ecocriticism are quick to defend their choice claiming that they are not suggesting that empirical evidence is the only way to get an accurate or factual representation of reality (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 13). Rather, they

argue that they want to come into dialogue with conclusions drawn from various social sciences, and one way to do this is to adopt their empirical methods. Empirical ecocriticism explores the tension between conclusions drawn from both empirical data and humanistic inquiry. This is not an entirely new argument; ecocritic Simon Estok proposed that for ecocriticism to fulfill its activist ambitions it should look towards the field of empirical literary studies. According to Estok, empirically grounded literary inquiry is not searching for an objective truth but seeks to understand the relationships between reader, author, and text as "social processes" (33). He further argues that just as scientists may "have no personal experience of what literary people actually do," literary scholars often mistake empirical studies as being positivistic without fully understanding the more nuanced avenues available to empirical inquiry (34).

In their 2023 introduction to *Empirical Ecocriticism*, Schneider-Mayerson, Weik von Mossner, Małecki and Hakemulder assert that they hope to see more projects that combine research from ecocriticism, environmental communication, and empirical literary studies. They define empirical literary studies as having originated in the 1980s as a collection of alliances between literary scholars, psychologists, and sociologists. There are two major streams of research from empirical literary studies that might be useful to empirical ecocriticism: (1) "studies that focus on the cognitive processing of literary texts" and (2) "studies that examine the practical applications of the power of literature" (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 17). The first stream involves empirical research that looks at the influence of certain narrative techniques at engaging with readers. For example, there is research that suggests there may be a link between genre and how readers respond to a text (Kuijpers et al.). The second stream seeks to understand "practical uses of literature in social contexts, such as literary education or therapeutic settings" (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 17). This points to research that supports the notion of readers using fiction to learn about the real world (Kutsch; Polvinen and Sklar) as well as work that supports the reading and telling of stories for adolescents to aide them in understanding their own emotional responses to the world (Killick and Bowkett). Empirical ecocriticism draws on work from this field but also differs from empirical literary studies in that rather than searching for "specific textual features" that engage readers, empirical ecocriticism takes a more expansive approach to understanding the effects of reading on readers (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 16). This relates to empirical ecocriticism's concentration on how its findings can be applied socially as well as its focus on socioecological issues

(such as climate change). To date, not all empirical ecocritical studies have been informed by empirical literary studies, but Schneider-Mayerson et al. believe that there is synergy to be found between the two fields of inquiry.

In developing the project for Chapter 4, I looked at the first three empirical ecocritical studies of cli-fi readers in America, which indicated that neither authorial intention nor critical reception can entirely predict reader responses to cli-fi narratives (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "Whose Odds?"). The third study found that although immediately after reading short stories about climate change readers felt emotionally moved, this effect tended to fade at the one-month mark. The researchers claimed that this "transient effect" could be due to the short length of these stories, indicating that a single exposure over a short term may not result in lasting change (Schneider-Mayerson, Gustafson, et al. 13). Their work points to the need for future research on cli-fi to look at how reading occurs in the real world namely by exploring whether longer narratives (like novels) and multiple exposures to pro-environmental behaviour messaging might have a longer-lasting effect on readers. Additionally, I then chose to focus on groups of readers interacting together rather than surveys of individual readers.

My choice stemmed from book club research that suggests reading can be characterized as inherently social (Childress and Friedkin; Long; Radway). Although the act of reading is often individual, readers are likely to discuss what they read with others (Milkoreit, "Imaginary Politics"; Swann and Allington) and they may even come to new conclusions from these interactions (Clarke and Nolan; Todd). To properly examine the potential social impact of reading, English literary scholar Joan Swann and cultural studies scholar Daniel Allington advocate for a "naturalistic" approach, where researchers observe readers' interactions in groups (248). As such, I sought out other book club observation studies (Clarke and Nolan; Todd) as well as those that specifically focused on environmental literature (Carson and Archer-Lean; Willis) or cli-fi novels (Fücker and Schimank). Only one of these studies had the researcher taking an active role by participating in the group (Willis). In Chapter 4 I outline how I set myself up as a facilitator of the book clubs rather than an active participant to mitigate biases from my research interests and collect useful data for my dissertation. These other studies were all conducted in person and to update the project for an online study I established my research protocol from online focus group studies.

1.5.2.3 Online Focus Groups

As mentioned above, the choice to conduct Chapter 4's project virtually was due to the continued uncertainty of in-person research due to COVID-19. Online groups that utilize Zoom or MS Teams are thought to be able to recreate a similar level of data collection as in-person focus groups (Abrams and Gaiser). Additionally, to find participants I sent my advertisement to a local library which was able to send my call for participants across Canada. Several of my participants mentioned that advertising and I believe it was a step towards establishing trust with my participants as they could see me as part of the library and thus, part of their community. Establishing trust with participants is especially key in online research as they only get to interact with the researcher through the screen (Flynn et al.). To minimize drop-outs and no shows, I overrecruited and offered multiple times for meetings (Kite and Phongsavan).

1.6 Organization of dissertation

I chose to complete my dissertation according to SERS' three manuscript structure, as such, there is this introductory chapter, three manuscript chapters, and a concluding chapter to combine and expand on my overall findings (School of Environment, Resources and Sustainability).

Chapter (Manuscript) 2 concentrated on the first research question regarding how cli-fi novels relate the problem of climate change to non-scholarly readers. In this chapter I introduce a new term to identify cli-fi that attend to our present moment of climate uncertainty – *ambivalent cli-fi*. I developed my term through an ecocritical analysis of two realist novels *Weather* and *Blaze Island.*

Chapter (Manuscript) 3 also addressed the first research question, but this time through two speculative cli-fi *Blackfish City* and *The Marrow Thieves*. Through an ecocritical analysis of these two novels, this manuscript called for climate change messaging to look for narratives that are neither hopeful nor despairing.

Chapter (Manuscript) 4 explored the last two research questions about how non-scholarly readers utilize cli-fi novels to understand climate change and how they discuss these issues in a group. This chapter described my observations of four virtual book clubs as they read the same novels from Chapters 2 and 3.

Together, all three manuscripts offered examples of how to gauge cli-fi novels' impact on our social understanding of climate change (the overall purpose of this dissertation): in chapters 2 and 3

through ecocritical analyses and in chapter 4 through the principles of empirical ecocriticism. Chapter 5 brought the research findings from chapters 2, 3, and 4 together, and noted their contributions to both academia and the broader public.

Chapter 2

Ambivalent Cli-Fi: *Weather* and *Blaze Island*

2.1 Chapter Summary

This chapter is an interpretation of two realistic cli-fi novels *Weather* (Offill) and *Blaze Island* (Bush). I began by outlining arguments for the use of narrative to help foster climate awareness and specifically for cli-fi novels to influence readers' perceptions of climate change. To explore how this might take place, I turned to two non-speculative novels and introduced a new label to group them under: *ambivalent cli-fi.* I defined this term through the way these novels sought to understand how it feels for humans to live in a climate crisis while also attempting to maintain their daily lives. Ambivalent cli-fi aide readers in recognizing and connecting with their affective responses to living in a time when the climate is changing, and the future looks bleak and uncertain. *Weather* and *Blaze Island* are two such novels. Both novels offered opportunities to, in Blanche Verlie's words, learn how to *live-with* climate change. Living-with climate change is not a nihilistic concept; it is a way to learn how to connect with our planet and each other by (1) encountering emotions induced by climate change; (2) witnessing climate change through more than a scientific lens; and (3) sharing climate stories. *Weather* and *Blaze Island* (1) have main characters who are highly anxious about climate change, (2) describe climate change through both scientific and human lenses, and (3) are stories about climate change. I first demonstrated how these two novels are representative of ambivalent cli-fi through their connection to other works, how they are set in a time not unlike the present, and their open endings. Then I utilized Verlie's concept to analyze the novels showing how these ambivalent cli-fi make readers sit in the uncomfortable space where the world is not yet irreversibly ruined, yet there is also no easy solution. *Weather* and *Blaze Island* provide the reader with space to think about how we are living and to consider how we might instead begin to live-with climate change.

2.2 Introduction

In response to the Intergovernmental Panel on Climate Change's (IPCC) 2018 *Global Warming of 1.5°C report* (Masson-Delmotte, Zhai, Pörtner, et al.), climate communicator Susanne Moser asked that we find a way to live in the "uncomfortable space of denying neither endings nor possibilities" ("Work" 2). Rather than giving into apocalyptic visions of the future or clinging to some form of perfect salvation, Moser asked what it would be like to sit with the realisation that the climate is

changing, and not for the better. Drawing on Donna Haraway's notion of "staying with the trouble," she argued that although humans may not be able to stop global climate change, if we can sit in this "uncomfortable space" we can find a way to transform our culture and learn how to survive the coming changes.

One way to foster a cultural transformation is through narrative. It is thought that humans construct our reality through narrative (Polletta et al.; Veland et al.) and, specifically, that fictional narratives, such as those of climate fiction (cli-fi), have the capacity to influence readers' emotions and behaviours (Milkoreit, "Promise"; Goodbody and Johns-Putra, *Cli-Fi*). Scholars from multiple disciplines have pointed out that climate change raises questions about what it means to be human and that these questions are being explored through artistic representations (Hulme, *Why We Disagree*; Yusoff and Gabrys). Since the early 2000s there have been a multitude of narrative representations of the climate crisis. Cli-fi films like Roland Emmerich's *The Day After Tomorrow* are credited with having a lingering effect in the minds of American audiences, providing – perhaps unrealistic – images of climate change that enable easy entry into discussions of this problem (Svoboda).

Cli-fi novels' effect on readers is less clear, but emerging evidence reveals these novels are affecting readers. In 2018, ecocritic Matthew Schneider-Mayerson published the first empirical survey of American cli-fi readers. Schneider-Mayerson concluded that reading cli-fi novels provided some readers with an opportunity to discuss climate change in their social circles and enabled them to visualize the future effects of climate change. Neither his 2018 study, nor his subsequent studies suggested that reading any one cli-fi novel will directly lead every reader to take action on climate change, but they did point towards something happening when cli-fi novels are read (Schneider-Mayerson, "'Just as in the Book'?"; Schneider-Mayerson, Gustafson, et al.).

To understand what might be happening, I turn to sociologist Blanche Verlie. Verlie developed the concept of *living-with* climate change after observing a spectrum of affective responses in her students when they reflected on a future defined by climate change. She argued that living-with climate change can be characterized by both negative and positive experiences, ranging from anxiety, frustration, and guilt through to hope ("Bearing Worlds"). For Verlie, climate is not a noun or an idea, it is a verb: something we do (*Learning* 5). As such, living-with climate change has three key practices: encountering, witnessing, and storying, which are explored further below. Verlie's work

has been utilized by sociologists Miranda Iossifidis and Lisa Garforth, who sought to understand reader reactions to Jeff VanderMeer's speculative novel *Annihilation*. These two scholars analyzed online book club discussions of *Annihilation* and found that although readers were worried about the future world portrayed in the novel, they used their affective responses to explore their own feelings regarding climate change. The readers demonstrated aspects of Verlie's concept of living-with climate change: together they worked through feelings of sadness, fear, and even found joy while doing so. Iossifidis and Garforth found that readers were not passive in their readings and discussions of the novel; they used discussion of the novel as an opportunity to work through their reactions to the environmental crisis caused by climate change.

In this manuscript, I demonstrate how two non-speculative novels, *Weather* by Jenny Offill and *Blaze Island* by Catherine Bush, set in times analogous to our own, can also help readers connect with their affective responses to climate change. I begin by providing an overview of Verlie's three key practice of living-with climate change (encountering, witnessing, and storying) then I explain my new term *ambivalent cli-fi*. After, I analyze the two novels to show how they fit within this label and how their characters are more or less living-with climate change. My analysis focuses on the endings of the novels as well as their connections to previous texts. Both *Weather* and *Blaze Island* ask readers to sit in the uncomfortable space where a climate-changed future is not defined by endings, but by possibilities. There is no way to know exactly what the future will bring, and these novels can aide readers to embrace that uncertainty. The ambivalence of *Weather* and *Blaze Island* provide the reader with space to think about how we are living and to consider how we might live otherwise.

2.2.1 What is Living-With Climate Change?

Before explaining Verlie's concept, it is important to note that she is not the first scholar to argue for learning how to live with the coming climatic changes. For example, human geographer Mike Hulme has contended that the future will require "new concepts and metaphorical ideas, beyond climate" to meet "the emotional, spiritual and material demands of living" in a world that will be drastically different than the present (*Weathered* 154). In 2019, geographer Holly Jean Buck published a monograph reflecting on the purpose and potential of geoengineering. The introduction is a set of 'choose your own adventure stories' showcasing different climate changed futures depending on the technological intervention the reader chooses. Buck then demonstrated the necessity to pair these interventions with significant social change.

Verlie's concept is useful for reading these two ambivalent cli-fi as it looks at both the unpredictability of the future and our affective responses to that uncertainty. According to Verlie, living-with climate change offers a way out of Western "extractivist understandings of humans as autonomous, entrepreneurial selves who, if only they cared enough, would be able to exert morally righteous control over themselves, their actions, and therefore, the non-human world" (*Learning* 4–5). She hopes that living-with climate change can remind humans that we are part of our environment and not separate from it. Further, her concept builds on research from psychology that shows apathy and inaction are not due to lack of care but are symptomatic of not knowing what to do with our worry about climate change and uncertainty about the future. Drawing on feminist scholarship and Indigenous philosophies, Verlie argued that living-with climate change does not mean giving in to fatalism. It means learning how to live with uncertainty and recognizing how we humans are entangled with one another and the non-human world. Living-with climate change is meant to transform humans as individuals into humans in relation with others, who can then act collectively on this crisis.

In the first of Verlie's three practices of living-with climate change, "Encountering Climate Change Anxiety," she expanded clinical definitions of climate change anxiety to include not just short-term worry triggered by climate change information, but also a longer-term sense that our "world – relationships, assumptions, dreams, security and identity – is in the process of ending" (*Learning* 50). Our reactions to these concerns encompass a multitude of responses and actions that are driven by anxiety and uncertainty about the future. Human geographers Leslie Head and Theresa Harada contend that those of us in the Western world do not allow ourselves to engage with these negative emotions and by ignoring these emotions we are stymying our ability to act on climate change. Similarly, Verlie argued that we need to allow ourselves to encounter climate change and grieve for the futures that are no longer possible.

Verlie's second practice, "Witnessing Climate Change Realities," proposed a way to remain connected to our humanity in a time of climate change. Citing the last thirty years of climate change communications, Verlie argues that climate change has been framed as a scientific phenomenon, an approach that was important to underscore scientific consensus. However, we now have an outlook dominated by Western science – emphasising objectivity, rationality, and logic, disregarding the emotional, human elements of living with climate change. When regarded as a scientific problem, climate change accommodates two "selves" who can respond to it: either a dispassionate and

objective climate observer (scientist) or "faceless masses of 'humanity' represented as numbers within computer models" (Verlie, *Learning* 3). Neither of these selves allow for emotional responses or the "diverse possibilities of ways of being human" (3). To witness climate change, we must move beyond dispassionate and rational knowledge of climate change. We need to accept our varied affective reactions to this issue and give up on the idea that we can somehow control or perfectly understand what is and will happen.

In Verlie's third and final practice "Storying Climate Change Communities," she defined stories as a practice that connects "occurrences and information into meaningful and memorable narratives" (91). Storying climate change for Verlie means coming together in community to share personal climate stories. On this point I diverge from Verlie as she then declares that cli-fi novels are unable to help readers come to terms with their affective responses to climate change because readers are solely "consumers, not creators" (93) of cli-fi stories. Yet, within cognitive narratology, the study of how narrative affects our perception of reality, scholars have contended that narrative, even in novels, engaged readers both cognitively and emotionally (Boyd; James, *Storyworld*; Weik von Mossner, *Affective Ecologies*). Further, qualitative and empirical studies of readers have revealed that readers are not passive receptacles for the stories they read (Clarke and Nolan) and they often speak with others about what they read (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "'Just as in the Book'?"; Todd)

Whether or not the two novels in this study can encourage readers to open up to others about climate change is open for further study; I argue that the potential for these novels to help readers learn how to live-with climate change is within their pages. Before analyzing the novels through the lens of Verlie's concept I outline what I mean by ambivalent cli-fi.

2.2.2 Uncertain Climate and Ambivalent Cli-Fi

We are living in a time of uncertainty. While climate science tells us that our current trajectory is "extremely likely" to lead to negative future scenarios, including higher global temperatures and extinctions (Masson-Delmotte, Zhai, Pirani, et al.), there is no way to predict precisely how our future will play out. When communicating climate science to the general public, this uncertainty often leads to psychological barriers and delays on climate action (Lewandowsky et al.). As Verlie and others have observed, the unpredictability and uncertainty of climate change threatens humans on an existential level (Stoknes, *What We Think About*; Wray).

Climate change jeopardizes Western notions of progress and posterity leading to feelings of anxiety and guilt (Head). Although the future has never been certain (Hulme, *Why We Disagree*), climate change research emphasizes the need to change our lives and societies to be more sustainable (Klein; Hulme, *Weathered*). Contemplating the end of our current way of living without knowing what future will bring causes a myriad of emotional responses (Head; Moser, "Work"; Verlie, "Bearing Worlds"; Wray) that often lead to different forms of climate denial and inaction (Norgaard). Narratologist Marco Caracciolo believes that one way to move beyond inaction is through narratives that embrace uncertainty and help readers develop a collective and "nuanced appreciation of instability" (Caracciolo, *Contemporary Fiction* 18). To find narratives that might help readers embrace uncertainty we should turn to cli-fi.

Narratives of cli-fi encompass a range of stories. On the one hand, popular media outlets looking to showcase how to live in a time of climate change tend to favour cli-fi novels that are future oriented and catastrophe focused (Glass; Abraham; Armitstead). There are also ecocritical studies that demonstrate how cli-fi provides insights into how it might feel to live in the dangerous futures forecasted by scientific reports (Andersen; Mehnert). On the other hand, solarpunk stories, focused on just and hope-filled futures (R. Williams, "Solarpunk"), and novels like Barbara Kingsolver's *Flight Behavior*, set in a time not unlike the present, are also gathered under the auspices of cli-fi (Goodbody and Johns-Putra, "Rise"; Hull; Milner and Burgmann; Schneider-Mayerson, "Influence"). This wide range of narratives that are claimed as cli-fi has led several scholars to call for an end to the canonization of cli-fi (Craps and Shaw) as well as for ecocritic Stephanie LeMenager to set cli-fi apart not as a genre, but as a mode.

Genre is often associated with taxonomy as a way to group different works, be they novels, movies, plays etc., that share similar form or content (Chandler). But defining a work as a certain genre can be a difficult task and "attempts to define genres in terms of distinct sets of formal or thematic features fail to capture their fluid and dynamic nature" (Bergthaller 123). As can be seen from the above listing of cli-fi, these novels exemplify more than one genre. In response, ecocritics Axel Goodbody and Adeline Johns-Putra have provided an expansive thematic definition of cli-fi as: "a distinctive body of cultural work which engages with anthropogenic climate change" (*Cli-Fi* 2). A better way of thinking about cli-fi might be in the sense of genre as a form of "social action," which calls to a certain way of reading and writing cli-fi (C. R. Miller 153). Or one could forgo the connection to genre altogether as LeMenager has and view the "remarkably diverse" stories of cli-fi as "a symptom

of a social need, the need for new patterns of expectation" (222). Following the work of literary theorist Alastair Fowler, she claims that cli-fi should be seen as more of a mode than a genre because it marks "another way of living in the world – a world remade profoundly by climate change" (LeMenager 222). Cultural studies scholar Veronica Hollinger has similarly claimed that science fiction can be described as a mode rather than a genre because it is "a way of thinking and speaking about contemporary reality" (140) where technology and culture are thoroughly imbricated in Western societies (143). In line with LeMenager and Hollinger, I argue that cli-fi is a mode marked by the imbrication of climate change into our daily life. It does not have a set genre; cli-fi reflects the ways in which climate change influences our society. *Weather* and *Blaze Island*, reflect one aspect of how climate change impacts our daily life, namely, through uncertainty.

2.3 *Weather* and *Blaze Island* as Ambivalent Cli-Fi

Neither *Weather* nor *Blaze Island* are speculative; both are grounded in times and places that the reader is likely to recognize as familiar. In this way they could be regarded as realist cli-fi, which Goodbody and Johns-Putra have argued are able to expose "readers to the experiences of others" and distribute readers' "empathy in ways which lead them to break down existing habits of thought and identify with new perspectives" ("Rise" 238). Ecocritic Sylvia Mayer has suggested that all cli-fi novels are about risk and further categorizes present-day cli-fi as "narratives of anticipation" (24). Mayer states these narratives are not dystopic, although the possibility of dystopia might drive the plot. Narratives of anticipation draw attention to the uncertain and precarious position of the current social order as global climate disaster looms. Despite their similarities with these two understandings of realistic and present day cli-fi, I argue that *Weather* and *Blaze Island* can be further separated into the category of, what I call, ambivalent cli-fi.

This distinction is required as unlike Mayer's narratives of anticipation, which display the socio-political effects of climate change, *Weather* and *Blaze Island* explore feelings of climate anxiety. Like Goodbody and Johns-Putra's understanding of realist cli-fi they help readers to break down habits of thought, but they do so in the specific way of helping readers to acknowledge the unpredictability of the future. The first task of breaking down our habitual way of life through exploring our emotional responses to climate change is important as scholars interested in mental health effects of climate change have noted that when people think about this issue, they often get stuck in several types of eco-distress or denial (Norgaard; Lertzman; Pihkala, "Eco-Anxiety"; Wray). One way to overcome

this denial is to help people notice their negative reactions. Ambivalent cli-fi novels aim to do just that. They may inform readers about different scientific aspects of climate change, but this is a by-product of their focus on climate change and not the intention of the novels. These novels explore the feeling of living in a precarious present. They are set in the early 2000s into the 2020s, often making explicit references so that the timing is clear. These cli-fi do not give in to visions of apocalypse, rather they investigate how it feels to know there is the possibility of catastrophe, while continuing with daily life.

As for the second task of helping readers come to accept the uncertainty of the future, Head has argued that in order to adapt to coming climatic and associated social changes, humans – especially those of us living in Western societies – need to learn how to live with uncertainty. Head claims the Western notion of "linear or progressivist understandings of history and progress" (189) is not compatible with a climate changed future. LeMenager has similarly argued that we need narratives that reinvent "the everyday" and help readers learn how to make home in "a broken world" (225). Ambivalent cli-fi novels help readers to learn how to make home with uncertainty, to interrupt their daily lives, and, hopefully, use this pause to engage with the ambiguity of the present. These cli-fi aide readers in accepting that the future was never certain (Hulme, *Why We Disagree*) and to appreciate the "open-endedness" of an unknowable future (Caracciolo 184). To accomplish this, uncertain cli-fi may be inspired by other texts and often have open endings. It is due to these open endings that I label these cli-fi ambivalent.

There are four definitions of ambivalent in the *Oxford English Dictionary*. For the purposes of my new term, I have utilized the second definition which states: "Of a person […] undecided between contradictory opinions or courses of action" ("Ambivalent"). Ambivalent cli-fi do not push the reader towards any specific action. They may mention or describe pro-environmental behaviours, but their endings leave a feeling of uncertainty about what happens next. They do not presume to know what should or will happen. As awareness of climate change saturates our culture, Johns-Putra has noted that the contemporary cli-fi novel tends towards open endings to reassure readers that even an unknowable future is survivable (167). With their open endings, ambivalent cli-fi provide space for readers to think about what might yet be possible.

Weather and *Blaze Island* have connections to the early 2000s: *Weather* is set during the summers before and after Donald Trump's 2016 election as president of the United States. *Blaze Island* has

clear references to the 2009 University of East Anglia Climate-Gate email scandal, where climate deniers hacked the emails of researchers and tried to use these as proof that the data was being manipulated. Setting these novels in times that closely resemble the last few decades reminds readers that the present is not safe from climate change. It is not something that will happen: it is already happening. Offill's *Weather* shares similarities with a 2007 poem by British poet Ruth Padel and Bush has stated that *Blaze Island* is an adaptation of William Shakespeare's play *The Tempest*. Both main characters in *Weather* and *Blaze Island* are white and live in relative safety, yet their concern for the climate affects their daily lives. Read side by side, these novels foreground what happens when anxiety about the climate becomes overwhelming. In *Weather*, the narrator vacillates between her concern about the new president and her family's future, without ever resolving her worries. In *Blaze Island*, the main character focuses so much on her own world that she forgets there is a larger planet to care for. On the surface, neither of these novels appear to incite action in readers, however, when read together with Blanche Verlie's concept of living-with climate change, a new story appears.

2.3.1 Living-With Climate Change in New York City

Literary critics of Offill's writing note that all three of her novels look at what it means to make family in a dangerous and uncertain world (Lefferts; McBee). What differentiates *Weather* from her previous novels is how political and planetary concerns are keenly connected to the everydayness of domestic life (De Cristofaro; McBee). Offill has been quite vocal that she did not wish to write a didactic novel about climate change but was trying to sort out her own climate fears (Conroy). She was also trying to understand how an insular person, who does not want to engage with the world, might find they have to start contributing as climate change can no longer be ignored (Lefferts). According to literary scholar Claire Fisher, the focus in *Weather* on the trivial aspects of everyday life alongside the vast and terrifying knowledge of climate change helps to break down the climate crisis "into fragments small enough for both writer and reader to bear" (para.15). Shannon Lambert's 2021 doctoral thesis argued that for the protagonists in both *Weather* and Ruth Padel's *Slices of Toast* "scientific information becomes a visceral experience of 'feeling facts'" (202). I agree with the above interpretations of Offill's novel, and Lambert's in particular. However, my reading of *Weather* differed from these interpretations. As an example of ambivalent cli-fi, *Weather* seeks to situate the reader in the uncomfortable space where the future is not yet set in stone. It showcases the ambivalence of the current moment, where we are uncertain whether we will be able to create a liveable future. Below, I provide a summary of *Weather* and then analyze the novel using Verlie's

three practices to demonstrate how it reflects the uncertainty of living in a time of climate change. To analyze *Weather's* final scene, I turn to Ruth Padel's *Slices of Toast.* Slices of *Weather*

Weather pays close attention to the experiences of a harried New Yorker mother, Lizzie. Written in short scenes, like messages on a social media platform, the novel allows Offill to explore a variety of instances in the quotidian life of a mother as well as the multiple threads that can pull and entangle us in life outside ourselves. Lizzie is concerned for those around her and the future climate, but feels trapped by her everyday concerns, unable to solve the larger issues revolving around her. A graduate school dropout living with her husband (Ben) and young son (Eli), she works at the local university library, making extra cash answering emails for a podcast called *Hell and High Waters*. The podcast is run by her former PhD supervisor, Sylvia, who interviews different scientists about topics relating to climate change. While Lizzie juggles responding to climate denialists, the climate anxious, and the outright bizarre, she also becomes engrossed in helping her recovering addict brother, Henry, as he navigates sobriety and fatherhood. Throughout *Weather*, everyday concerns are contemplated alongside existential encounters with climate change creating a sense of uncertainty and unease: are Lizzie and her family safe?

Lizzie's daily life is woven through with anxiety about climate change. Throughout *Weather* she attends Sylvia's lectures, listens to her podcasts, and gains a scientific understanding of climate change. In turn, the reader comes to see how this knowledge leads to Lizzie's anxiety about climate change. At one lecture, she hears Sylvia speak on the infamous "hockey stick graph" (Mann et al.) and describe how the meaning of living a "good life" changes in a time of crisis (Offill 25). But having knowledge of climate science does not make her more confident about the future; Lizzie observes that "environmentalists are so dreary" (51). Head and Harada interviewed Australian climate scientists and found that they were supressing their emotional responses to climate change because they were concerned about their research findings. Head and Harada then claimed that this led to "everyday denial" that favoured positive future scenarios over worst-case scenarios (39). One of Sylvia's episodes relays to the reader that "many scientists are in a state of barely suppressed panic about the latest data coming in. Their previous models were much too conservative" (Offill 76). Through her work with Sylvia, Lizzie learns about climate change through a scientific lens and is stuck in the first of Verlie's three practices of living-with climate change, encountering climate change anxiety, unable to reconcile her fears. There is a hint that this is changing when Lizzie answers a podcast listener's question about the future.

The podcast listener asks, “what are the best ways to prepare my children for the coming chaos?” (Offill 93). Lizzie answers “to sew, to farm, to build. Techniques for calming a fearful mind might be the most useful though” (93). Her response shows that fear is not something to be avoided, as fear can lead to denial and inaction on climate change (Pihkala, “Eco-Anxiety”). In *Slices of* Toast, a similar scene is acted out when at a lecture by James Lovelock “a woman in the auditorium asks: *If all you say is true, what should we be teaching our children?*” (Padel 42–43) and Lovelock replies “*I don’t know. I really don’t know”*(46). Then, the narrator answers: “But if all he said is true, the only answer is *commando skills*. Fight to the death for any high ground you’re standing on” (46–48). The contrast between the response in Padel’s poem and Lizzie’s answer is striking. Lizzie echoes Naomi Klein’s arguments against “climate barbarianism” (para.26) and proposes that surviving a future marked by climate change will involve not only learning new work skills but will also require new emotional capacities. Lizzie’s response shows that she is learning how to relate not only to people around her, but also to her own affective responses to climate change. In Verlie’s words, Lizzie is witnessing climate change and is on her way to learning how to live-with it.

By the end of the novel Lizzie has made very few changes in her life that are recognizable as climate actions. The biggest change seems to be that she has accepted her feelings of anxiety and chooses to live her life despite her concerns. She goes to the dentist (Offill 193), she gets a suspicious mole looked at (194), she even attends church with her mother (197). In answering a podcast question about the difference between a disaster and an emergency, Lizzie says that an emergency “is a situation in which normal operations cannot continue and immediate action is required so as to prevent a disaster” (196). The novel appears to conclude that climate change is an emergency as Lizzie then asks “what if we went for a walk, if we walked out into the streets?” (196), or in other words, if we want to create change, we will need to occupy the streets and protest. However, on the next page there is a response: “it’s impossible. It’s barely possible” (197). These words then bring a level of uncertainty to this statement as they declare “it’s impossible,” but then temporize with “it’s barely possible.” This question and response further underscore the ambivalent nature of *Weather*; action is necessary, but what action will be effective goes unsaid.

Although Lizzie does not take any discernable action on climate change, *Weather* highlights what needs to happen before we act, namely, that we accept our emotional reactions to climate change. In Verlie’s terms, we must learn how to witness climate change as more than a scientific issue. Climate grief researcher Britt Wray similarly claims that action is vital, but action as “the antidote to despair”

about climate change will not lead to engaged long-term change (112). Put simply, when we are unable to reconcile our grief and fear for the future, we are more likely to burn out or become paralysed by our climate anxieties (Pihkala, *Climate Anxiety*).

The final scene in *Weather* ends with Lizzie waking "to the sound of gunshots. Walnuts on the roof, Ben says. The core delusion is that I am here and you are there" (Offill 201). Narratologist Marco Caracciolo sees this statement as indeterminate. The 'I' and 'you' could be referring to Lizzie and her husband, or the 'you' could be the reader. He further argues that it reflects a possibility that "individuality might be a 'core delusion'" (*Contemporary Fiction* 188). In a time of climate change, we do not need more individualistic ways of being, we need to find ways to live together (Puchner 97). However, the statement is open-ended and who exactly is being addressed is unknown. I now turn to Ruth Padel's *Slices of Toast* as I believe looking at the endings of these two texts side by side provides yet another interpretation. First, I provide a short introduction to Padel's text and then I demonstrate how *Weather* and *Slices of Toast* point towards different solutions for those concerned about children's futures in a time of climate change.

Ruth Padel is an award-winning British poet, whose work, like Offill's, often focuses on the intersections of the political and personal ("Burning Bright"). Her 2007 poem *Slices of Toast* reflects on everyday life alongside the global threat of climate change. It begins by describing how the unknown narrator recalled needing to get dressed under the covers in December as it used to be cold, but now Decembers are warm. The last line of the poem reads "*my daughter, my daughter, how is she going to deal with this?*" (Padel 55–56), which, according to Johns-Putra, reflects the popular environmental call to action of invoking worry for future generations (5).

The second to last stanza in *Slices of Toast* describes how "the window rattles again; rattles louder" (Padel 50) and then muses how worrying about your own family may be the "least of our problems" when compared to global disasters (54–55). Although Lizzie awakens to walnuts on the roof and Padel's narrator hears a window rattling, they both elicit feelings of concern for the narrators' homes. The place of their families. A home is supposed to be a place of safety and certainty, however, each of these texts remind the reader that in a time of climate change, nothing is certain. Neither Offill nor Padel provide a direct answer about what to do about this uncertainty. Padel ends her poem with a question "*my daughter, my daughter, how is she going to deal with this?"* (56). This question could reflect a tendency to see climate change as a problem for future generation rather than one for the

present (Jones et al.). Offill challenges this sentiment with her final statement "the core delusion is that I am here and you are there" (201), perhaps a reminder that our actions in the present affect the future. In this statement, the present (here) and the future (there) exist together. A review of research on the psychological barriers to taking action on climate change, including the difficulty for humans to act on problems that are distant in time or space, concluded that these barriers are social (Atkinson and Jacquet). That is, these barriers are culturally created and enforced through societal norms. Which means in order to help the general public to act on climate change now, we should seek to change our cultural understanding of this problem – to no longer view climate change as a problem for the future but also for the present. Offill's novel seeks to do that. Although climate change is never officially named as the source of Lizzie's anxiety, readers cannot help but see it reflected over and over again throughout the novel, reminding readers that climate change is a current issue.

Using *Weather* as an example, environmental humanities scholar Heather Houser has remarked that cli-fi is stuck, unable to create a climate change novel that can inspire action. She argues that cli-fi novels are better understood as "barometers of states of mind" (para.15). *Weather* does reflect a state of mind that may be relatable to many readers. Closely following the thoughts of Lizzie, an overworked mom concerned about her son's academic progress, her family, the political landscape, and, as the story develops, who becomes an anxious doom scroller looking up climate survivalist tips, the novel succeeds in connecting the complex issue of climate change to our human experience. In this way, it reflects the third aspect of Verlie's living-with climate change, storying. However, it is unknown whether readers will take this story and share it with others or even feel compelled by this story to share their own (for more on this, see Chapter 4 in this dissertation, *Reading Fiction*). But, as Houser's charge against cli-fi asks, are these novels required to inspire action?

My analysis suggests that, at least for ambivalent cli-fi, perhaps not. Reading *Weather* alongside Verlie's three principles for living-with climate change demonstrates that inspiring action, in the form of protesting or lobbying politicians, may not always be the purpose of cli-fi. Ambivalent cli-fi, like *Weather*, allow readers the space and time to think through their anxieties about the climate crisis.

I now turn to *Blaze Island* as my second exemplar of ambivalent cli-fi. To begin, I provide a summary of the novel, an overview of its connection to *The Tempest*, and then analyze the novel following Verlie's three practices. My discussion reveals the main character in *Blaze Island*, Miranda Wells, has a deep connection to her island and that her emotions are tied to her environment.

2.3.2 Living-With Climate Change on an Island

Blaze Island takes place on a fictional island off the coast of Newfoundland. The main characters are Miranda Wells, the nineteen-year-old daughter of renowned climate scientist Milan (Alan) Wells, and Caleb Borders, a local islander who is the Wells' closest neighbour and works for Alan. Nine years prior to arriving on Blaze Island, Alan received death threats and lost research funding due to his outspoken views on climate change. In response, he abandons his research, changes his name, and relocates with Miranda to Blaze Island. There he focuses on teaching Miranda what she will need to know to survive in a changing climate.

The novel's plot revolves around a level five hurricane; the storm's arrival signals a shift for both the landscape and the characters. Suspense builds as Bush slowly reveals that Alan has not been honest with Miranda or Caleb. Right before the hurricane hits, Alan asks Caleb to meet with three mysterious strangers. As the story progresses, it is revealed that the three strangers are representatives of an airline, looking to capitalize on a secret geoengineering project, ARIEL, that can release aerosols into the atmosphere and stabilize the global climate.

Jumping between past and present, between personal and global crisis, *Blaze Island* unfolds like a thriller and as such has a requisite twist. At the end, all the characters gather at Alan's workshop where he reveals that ARIEL is his technology, and it is unlikely to fix the problems of climate change unless it is also coupled with social change. His revelation overwhelms Miranda and Caleb, who run away from the workshop. This ambiguous unfurling of events puts the onus on the reader to decide how the story ends: do the airline representatives give in and strive for social change, do they try to force Alan to use his prototype technology, or does nothing change?

2.3.2.1 *Blaze Island's* Tempest

Catherine Bush is not as well-known an author as Jenny Offill and as such there are fewer critical reviews of *Blaze Island*. What reviews there are emphasize that the novel purposely ends unresolved. For comparative literary scholar Petra Fachinger this is necessary to remind readers of "the precariousness of our current situation and the urgent need for social and cultural change" (47). English studies scholar John Ball sees the indeterminacy of *Blaze Island's* ending as a way to foster the reader's capacity to deal with "uncertainty and complexity" (Ball, "Gun Island and Blaze Island" 81). My analysis also primarily focuses on the end of the novel.

Readers familiar with William Shakespeare's *The Tempest* will likely note similarities between the play and the above summary. Bush has even acknowledged that inspiration for her novel came from Rupert Goold's 2006 production of *The Tempest* ("Writing"). *The Tempest* lends itself easily to environmental stories via its island setting, focus on power structures, and "the role of art in taming nature" (Fachinger 38). The modern updates made by Bush (e.g., naming Alan's geoengineering project ARIEL after the wind spirit summoned by Prospero) may remind the reader that in a time of climate change even the familiar is changing.

Authors and editors Amy Brady and Tajja Isen have described the present moment as one "when climate change is altering life on Earth at an unprecedented rate, but also a time when the majority of us can still remember when things were more stable" (xii). They go on to say that the "new normal" of climate change is one many of us have yet to adjust to: "our lives jostle against incongruous memories of familiar places" (ibid.). Using *The Tempest* as a template for her novel, Bush creates a similar feeling of being jostled for readers. Readers may compare and contrast *Blaze Island* to Shakespeare's play. Things that are familiar – the island setting, powerful nature imagery, and even using Milan as a character name rather than a city – are altered in Bush's novel. Ambivalent cli-fi may evoke or call back to other texts as reminders that we live in a moment where everything familiar is changing. Below, I show how Bush's novel reflects our present uncertainty and points towards how to live-with climate change.

Bush has stated that she wanted to write a novel that dealt with climate change "artfully" and did not go about swinging "an apocalyptic sledgehammer" ("Writing," para.5). Even though climate change is a more tangible threat to the characters in *Blaze Island* than for Lizzie, the novel does not give in to dystopic scenarios. Instead, each character in the novel has a personal connection to climate change and witnesses it on multiple levels, or, in Verlie's terms, they encounter their anxiety about climate change and witness climate change through both scientific and emotional lenses. For instance, after reporting on rising gases in the atmosphere, Alan Wells goes on to say "*We're in deep shit*" (Bush, *Blaze* 46). After losing his research position, his wife is killed in a cycling accident that is loosely tied to the protesters who were angered by Alan's statements. Concerned for Miranda's safety, he relocates to Blaze Island, where he hopes to keep her safe from the effects of his research and climate change. However, the consequences cannot be avoided altogether.

Due to her father's research, Miranda is well aware of the dangers of climate change. In one scene, she reveals how her scientific knowledge of climate change causes her to be laden with anxiety. One day, Caleb asks Miranda to go on a boat trip to watch icebergs. While out on the boat Miranda describes how she feels watching the icebergs drift by: "her body quailed and yearned – for what? Something turned over deep inside her" (298). She is searching for a connection to the iceberg when one suddenly breaks, and Caleb tries to take her to the mainland for a visit. She immediately becomes upset as she thinks it is too dangerous. Her father told her to never leave the island, and, to her, the mainland is populated by climate deniers and people who ignore "the blanket of gases" accumulating above them (300). Caleb's actions make her question who he is to her. She is certain she should adhere to her father's rules as they help her to keep her anxiety and worry about climate change manageable; she is no longer certain that she can trust Caleb. By the end of the novel, Miranda finds new ways to deal with her anxieties about climate change, but the bulk of the novel is coloured by encounters with climate change that are filled with uncertainty and worry. Much like Lizzie, she is stuck in Verlie's first practice of encountering her climate anxiety.

Miranda's yearning to connect with the melting iceberg is also one of the multiple instances in which she, as Verlie would say, witnesses climate change through more than a scientific lens. From her time on the island, she is attuned to the wind and weather. She feels connected to the changing seasons. Her father's need to accurately measure these same occurrences means that she also has a grounding in scientific climate knowledge. However, throughout the novel she relies more on her emotional connection to the island to understand the changes in her life. This is most clearly seen at the novel's end when Miranda becomes overwhelmed by Alan's deceit. As Alan explains that ARIEL was intended as a social experiment, his words incite a tumult of emotions in Miranda, causing her to run away:

> Breathe in, breathe out, and with each breath love swelled amid the turmoil. Fear. Need. Joy. Shock. The island was her world and the world was an island, full of people like these and others. The lost ones and the dead. Trees. Birds. Broken things. The seams of her body expanded, alive to all possible feelings. Panic. Hope. What would happen next?
> (357)

The scene is filled with uncertainty; it is left to the reader to decide what happens next. Miranda does not challenge her father. But while running away, she concludes that Earth itself is her island.

Her personal epiphany is framed by feelings, both positive and negative. Fachinger has claimed that this ending demonstrates Miranda's turn to activism (38). Looking at other novels by Catherine Bush, this interpretation is likely. For example, by the end of Bush's *Rules of Engagement*, the main character "gains a new understanding of her embeddedness in the world and a new vision of her ethical responsibilities and potential transnational agency" (Ball, "Duelling" 184). The same could be said for Miranda in *Blaze Island*. Miranda may very well become a climate activist, however, that is secondary to what comes before she makes that decision. Namely, that she finally allows herself to be "alive to all possible feelings" (Bush, *Blaze* 357). Verlie claims that learning to live-with climate change involves acknowledging the spectrum of emotions it incites in us ('Bearing Worlds'). Rather than trying to ignore climate change, Miranda is beginning to learn how to live-with it.

The final practice of living-with climate change is storying. For Verlie, this means telling and creating stories that can "transform our understanding of what it is to be human, stories that dissolve, or at least blur, the skin-bound individual as the template for relatability" (*Learning* 92). *Blaze Island* concludes with a brief epilogue that reminds the reader that climate change is not just a human story; there are other creatures on the planet. The closing words paint a strikingly vivid picture of nature: "The ocean water shifted with the air. The waves swung round like flocks of birds. A storm moves in a circle. If you know the wind you know the land. Wind decides everything" (Bush, *Blaze* 359). These words prompt the reader to consider how our environment affects us and to remember that we are living in a time of change. Miranda and Caleb are often found connecting with the flora and fauna of the island. When another character asks Miranda probing questions about how she lives her life, she gets upset and focuses instead on the wind allowing the "troublesome questions to fall away" (97). When Caleb begins to suspect that Alan's project will hurt a salon of curlews, he pours "all his awareness into the lichen … seeking consolation. And advice" (323). Miranda and Caleb are transformed by their environments and connect with the species around them, exhibiting the process that Verlie hopes will occur when we learn to live-with climate change.

Alan's project, ARIEL, also points towards the need to change society and the current story we tell ourselves about how to live with climate change. When discussing his plans with a fellow scientist, Alan realizes that he needs to modify the nature of the project "to focus on altering the human instead of the atmospheric" (289). Although Alan is a scientist and the reader might expect him to provide a scientific solution to climate change, he instead wants to transform how certain humans (specifically the airplane executive) think about this issue. As multiple scholars have argued, responding to climate

change does not simply mean finding the holy-grail of climate technology, we need to learn how to transform our society (Buck; Hulme, *Weathered*; Moser, "Work"; Veland et al.). Uncertainty comes to the forefront again because the novel does not provide a blueprint forward; it only cautions that geoengineering is not the whole answer. By showing that even a scientist like Alan does not have all the answers, readers may be left feeling ambivalent about what actions are suitable to respond to climate change.

Bush's novel ends with a final caution: the time of climate change is now, and this story is unfinished. The last sentence states: "Change is clear after it happens" (360). The ending is deliberately unclear because the change is still underway. We are living in a moment of change, the effects of our action or inaction will only be understood in hindsight. The IPCC's Sixth Report lists some of the already known consequences of inaction on climate change (e.g., rising sea levels, extinctions, stronger storms), but the future remains uncertain. *Blaze Island* urges action but does not stipulate what is needed. It simply points to the conviction that to survive the coming changes, those of us living in spaces of relative safety need to acknowledge our emotional reactions to this crisis. As researchers in the social sciences have argued, ignoring our emotional reactions to climate change leads to various forms of climate denial and inaction (e.g., Norgaard; Pihkala "Eco-Anxiety, Tragedy, and Hope"; Ray; Wolfe & Tubi; Wray). We need to acknowledge and accept our emotional reactions and begin sharing our climate stories. By sharing these stories, we can begin the next task of creating new and more desirable future stories.

Returning to Houser's description of cli-fi novels as "barometers of states of mind" (para.15), *Blaze Island* seeks to remind readers of our connection to one another and the non-human world as well as the consequences of our current way of life. Miranda and Caleb consistently turn to the environment to make sense of their lives, highlighting how we are connected to the non-human world. Miranda's emotional epiphany at the end of the novel shows readers that our response to climate change can encompass a spectrum of emotions. That this epiphany comes alongside an acknowledgement that she is connected not only to her island, but also to the whole planet, reflects Verlie's third practice: storying. By acknowledging and telling our climate stories, Verlie believes we will also be able to develop a deeper connection to our planet and one another. Ambivalent cli-fi, like *Blaze Island*, may not provide readers with specific instructions about how to tackle climate change, but the work they do to help readers connect with their affective responses to this issue is equally important.

2.4 Conclusion

Ambivalent cli-fi, like *Weather* and *Blaze Island*, bring climate change home for readers whose lives have not yet been overturned by climate disasters. If reading climate dystopias leads readers to overly despair about our future prospects (Schneider-Mayerson, "'Just as in the Book'?"), then perhaps reading novels about climate change in the present may provide readers space to embrace their affective reactions to this crisis. Bush and Offill both wrote novels about climate change without giving into apocalyptic visions of the future and yet they also did not provide a utopic framework for resolving climate change. Their novels instead did what Moser suggested might be more important for future transformation: they allow readers to sit in in the "uncomfortable space of denying neither endings nor possibilities" ("Work" 2). *Weather* and *Blaze Island* may be able to help readers identify as humans that are living during climate change.

Additionally, each novel immerses the reader into the lives of two women who are highly anxious about climate change and for different reasons, unable to take tangible action on the problem. Readers may be able to see themselves in the characters' uncertainty about what to do and how to live. Lambert argues that Lizzie feels the facts of climate change, but even more than that, I believe Lizzie comes to recognize that she must accept her emotional responses. The ending scene illustrates she is still aware of the dangers of climate change (she reacts to walnuts on the roof as gunshots), but she has not given into nihilism. She will live her life with the knowledge of climate change. Similarly, Miranda has come to welcome in the emotions that climate change incites in her. She already has a deep connection to her island, but through her emotional awakening she learns that the world is her island. Of the two characters, Miranda's connection to the more than human makes her a better representation of what happens when someone learns to live-with climate change as Verlie describes. However, as I argued, it is unclear whether this pushes her – or if it could even push the reader – to climate activism.

Reading ambivalent cli-fi can help readers notice that the present moment is defined by uncertainty, where things are not yet over and there is no easy solution. Future research into this sub-category of cli-fi might look to novels such as Elenor Catton's *Birnam Wood*. Catton's novel is set in a time analogous to the 2020s and is a retelling of Shakespeare's *Macbeth*. Like the other two novels in this study, it ends abruptly with no resolution to the climate change haunting its pages. As we move closer to different tipping points and dystopian futures described in the IPCC reports, literature may

reflect more catastrophic stories. However, for now, while things are not yet devasting everywhere, there will be novels written that reflect this experience of uncertainty and the ambivalence of not knowing what exactly will happen next.

Concern about climate change is rising, but action on climate issues is slow (Goldberg, Gustafson, et al.). It is possible that some of this stalling is due to fear, anxiety, and uncertainty about the future. Perhaps what is needed are more stories that help readers connect with their affective responses to climate change in the present moment – stories that help readers, in Verlie's terms, to encounter or witness climate change. Novels like *Weather* and *Blaze Island* can remind readers that their reactions are reasonable and shared. Reading ambivalent cli-fi that refuse closed endings and reflect an everchanging world might help readers to become comfortable with uncertainty (Caracciolo, *Contemporary Fiction*). Maybe with these stories as guides, readers will in turn be more willing to share their own stories and come to learn how to live-with climate change. By learning how to live-with climate change, perhaps we can learn how to be transformed by this practice and begin to imagine other possible ways of being.

Chapter 3

Reimaging Existential Struggles: Reading *Blackfish City* and *The Marrow Thieves* through the Absurd

3.1 Chapter Summary

This chapter is an interpretation of two cli-fi novels *Blackfish City* (Miller) and *The Marrow Thieves* (Dimaline). I began by reviewing climate change communications research that point towards more inclusive messaging favouring neither climate hope nor despair. I then established climate change as an existential crisis that leads to feelings of futility for individuals concerned about finding ways to mitigate or adapt to this problem. As an antidote to the debilitating feelings of climate despair, nihilism, and a protective measure against the apathetic promises of hope, I turned to the French philosopher Albert Camus and his writings on the absurd.

I then examined *Blackfish City* and *The Marrow Thieves* via a close-reading of their endings. I chose these novels because their authors claimed they wanted to give hope to their readers despite narratives that portray radically altered environments and nightmarish societies. I argued that although both novels leave these problems unresolved, neither leaves readers in despair about a climate-changed future. This chapter joins calls to move beyond binary messaging of climate hope versus despair. I concluded that helping audiences find ways to embrace futures that are neither apocalyptic nor utopic, but somewhere in the absurd middle, may prove to be a better motivator in a time of climate uncertainty.

3.2 Introduction

"It is worse, much worse, than you think" with this sentence David Wallace-Wells reminds us, as if we needed reminding, that the problem of climate change is dire (*Uninhabitable Earth* 1). Climate change is an existential threat requiring change on all scales of life (Masson-Delmotte, Zhai, Pörtner, et al.) and messaging to bolster climate action vacillates between hope and despair. Wallace-Well's statement is not uncommon; it is estimated that approximately 98% of media stories about climate change are negative (De Meyer et al.). This seems appropriate given that dark emotions created by negative climate change messages are able to grab our attention (Weik von Mossner, "Climate Change"). Furthermore, when climate messaging focuses too much on optimism, there is concern that

it can lull audiences into a false sense of safety and complacency (Hornsey and Fielding, "Cautionary Note"; O'Neill and Nicholson-Cole).

American literary scholar Andrew McMurry has argued that as a society we are blinded by our view of climate change as apocalypse so much that we would rather deny its existence as "denialism, with its hopeful mushy center, is easier to swallow than acceptance, which tasks us with that most difficult question: 'So *now* what should I do?'" (68). In McMurry's view, if we were able to accept that there is *no* hope for the future, we might actually be able to muster the capacity to take action on climate change. There is research from environmental psychology to suggest that negative emotions play a role in motivating audiences to take action on climate change (Brosch; Brügger et al.; Leviston et al.; Weber). Reviewing both psychology and communication studies, Tobias Brosch noted that "negative affect toward climate change" was the "largest predictor of individual willingness to engage in climate change mitigation behaviors" (15). Similarly, Leviston et al. contend that climate change communication needs to take care to not assume messages have a homogenous effect on audiences and although there is a growing trend to move away from disaster related climate change imagery, these visuals can have a motivational effect.

However, continuous negative messaging can also lead to counterproductive feelings of despair and anxiety by causing people to believe that they have no agency and that the future is set on a downward trajectory (Hickman et al.; Pihkala, "Eco-Anxiety"; Ray; Veland et al.; Verlie, "Bearing Worlds"; Wolfe and Tubi; Wray). Environmental and mental health researcher Britt Wray published *Generation Dread* about finding purpose and meaning in a time when every climate action seems simultaneously significant and yet at the same time inadequate. Wray compares climate change anxiety and dread to the fear her father felt about the Cuban Missile Crisis. When asked how it felt to live through that moment he reported "it was numbing" (Wray 37) and described how he could not think of actions to take nor could he talk about it. Becoming numb to an issue and incapable of action is a form of climate denial that arises when the problem seems insurmountable (Norgaard). Although Leviston et al. argued that negative imagery has it place in motivating climate action, they also suggested that "we lack a coherent positive narrative about climate change," which until resolved will likely lead to more defensive reactions from audiences (453). A global study of youth (aged 16-25) supports this assertion, noting that participants overwhelmingly felt worried about climate change and 75% felt that "the future is frightening" (Hickman et al. e869). But, as alluded to above, researchers such as Sarah J. Ray claim that "hope alone cannot get us" through climate change (123) and studies

on positive versus negative emotional appeals to climate change tend to be inconclusive (Brosch; Chapman et al.; Hornsey and Fielding, "Cautionary Note").

We need to wend a way between these pessimistic and optimistic extremes, of the focus on doom and gloom or overly hopeful predictions about climate change. Ecocritic Alexa Weik von Mossner, for example, concludes that "translating the science of climate change for a lay audience may mean helping people acknowledge the dark side of its insights without extinguishing the light" (122). Perhaps climate messaging should shift to more discussions of possibility, change, and loss (Boykoff; Gunster; Hall; Head; Hornsey and Fielding, "Understanding"). Looking to current climate policies Wallace-Wells has retracted much of his climate pessimism saying "we are getting a clearer sense of what's to come: a new world, full of disruption but also billions of people, well past climate normal and yet mercifully short of true climate apocalypse" ("Beyond Catastrophe," para.5). For environmental psychologist Renee Lertzman messages like this demonstrate how communication about climate change is "not about hope *or* despair or solutions *versus* warnings. It's about openly acknowledging that climate change is a classic *both-and* situation" (para.9). These scholars' work suggests that we need to stop promoting visions of the future that define it narrowly as either positive *or* negative. Instead, we should look to increase messages that support our collective capacity to embrace uncertain futures that might be better characterized as *both-and futures*.

French philosopher Albert Camus was also interested in finding a way to live life that was not defined by either pessimism or optimism. Similar to McMurray's contention that only when we stop being hopeful about climate change can we take action on this problem, in his essay *The Myth of Sisyphus*, Camus explored how embracing the futility of life might allow us to live full lives without hope. Starting from the premise that the only constant in life is death and that there is no meaning to life, Camus sought to understand if suicide was a legitimate option. Rejecting suicide and refusing to give in to nihilism, Camus proposed that life is absurd: it must be lived in spite of the knowledge that we will one day die. He claimed that consciously accepting the absurdity of our existence will lead to three consequences: (1) revolt (living despite immanent death), (2) freedom (from meaning), and (3) passion (the refusal to disengage). In this way Camus believed it was possible to live a life free of hope. Below, I demonstrate how Camus' interpretation of the absurd is useful in our present moment of climate change.

In looking at the state of climate change messaging and its overarching negativity, several scholars have suggested we require new narratives (Leviston et al.; Veland et al.). One place to look for these narratives could be within the fictional worlds of cli-fi novels (climate fiction). Cli-fi is defined by ecocritics Axel Goodbody and Adeline Johns-Putra as "a distinctive body of cultural work which engages with anthropogenic climate change, exploring the phenomenon not just in terms of setting, but with regard to psychological and social issues" (*Cli-Fi* 2). These narratives can encompass a range of present or future scenarios from dystopic (e.g., Paolo Bacigalupi's *The Water Knife*) to the hope-filled stories of solarpunk (R. Williams, "'This Shining Confluence of Magic and Technology'"). Both popular media and scholars believe that these novels have the potential to influence audience behaviour and perceptions of climate change (Abraham; Armitstead; Mehnert; Siperstein, *Climate Change*).

Considering the above research on negative and positive messaging on climate change as well as the potential for fiction to influence its audiences, I conducted a close-reading of two cli-fi novels, *Blackfish City* by Sam J. Miller and *The Marrow Thieves* by Cherie Dimaline. One of the first empirical studies of American cli-fi readers revealed that certain dystopian novels caused these readers to become insularly survivalist and pessimistic about the future (Schneider-Mayerson, "'Just as in the Book'?"), with this in mind I chose these two cli-fi novels as although they could be categorized as dystopian I argue that they can help readers foster a capacity to embrace life *despite* the uncertainty that climate change engenders. *Blackfish City* and *The Marrow Thieves*, portray radically altered landscapes and nightmarish societies and yet, their authors claim they wrote these novels to inspire hope for the future. To explore how this is accomplished, I analyze these novels through the lens of Camus' absurd. I begin by providing an overview of Camus' notion of the absurd and why I believe it is an important concept in a time of climate change as well as its relationship to hope. I then interpret the end of each novel through Camus' absurd to show how these novels portray what it might mean to live in a world without hope. I argue that these novels demonstrate that although future catastrophe and suffering might be inevitable, we can still learn how to live through it.

3.2.1 Why Camus?

Camus died well before climate change became a popular topic of discussion, but his work has resurfaced providing a fresh perspective for how humanity might face the climate crisis. In particular,

Camus' notion of the absurd and his commitment to human life have drawn scholarly interest for those looking at the gap between climate knowledge and pro-environmental behaviour. Noting that western culture is predicated on fast capitalism, which encourages the accelerated consumption of items that are slowly destroying the planet, geographer Raymond Bryant observed that this lifestyle can be characterized in Camus' terms as "slow collective suicide" (185). For Bryant, our inability to change our culture is a reflection of a life lived in willful ignorance of its own absurdity. Like McMurry, Bryant suggests that we accept that the current situation is hopeless and from that place of hopelessness find a way to act on climate change. Philosopher Diane Stuart has also called for a re-examination of Camus' work in light of the absurdity that is inaction on climate change. Stuart denounces this inaction as injustice and demonstrates how Camus' ethic of rebellion could be useful today. Further, she claims that Camus' focus on the limits of knowledge is a lesson that we need to learn if we are to survive in a time of climate change. Other scholars from philosophy, health, and literary studies have also used Camus' philosophy to point to ways we could move beyond our current failure to act on climate change (Coetzee and Loubser; Fox; Gourley).

Although Camus famously refused naming his philosophy existentialism, his work is often labelled as existentialist (Burnham and Papadreopoulos; D. Simpson). While living, Camus was well-known for his fiction and journalism, but he is now often remembered for his understanding of the absurd. Like many existential concepts, the absurd deals with the twin concerns of how to cope "with the emotional anguish arising from our confrontation" with the meaninglessness of existence and how to respond to "the question of whether surviving" this indifference is possible (Pratt, para.10). The absurd was first introduced by Danish philosopher Søren Kierkegaard, but is more often remembered in conjunction with writers such as Camus and Franz Kafka (Aronson, "Albert Camus"; Sherman). It should be noted that Camus' philosophy has a tumultuous history. Many contemporaries dismissed his writing because it was unsystematic and presumed a level of universality that could not be proven (de Torre; Sherman). However, early proponents of Camus as well as more recent reviews of his work have found that his ideas are useful if one does not hold him to the rigorous standards of philosophical inquiry (Aronson, "Albert Camus"; Sherman). Instead, philosopher David Sherman argues that despite Camus' inconsistencies and poor argumentation, his work reflects someone who sought to find a way to act morally in a non-rational world. Climate change communicators, psychologists, and human geographers have all argued that climate change induces non-rational responses from humans (Chapman et al.; Debra J. Davidson; O'Brien and Hochachka). It is from this

vantage point, one where we know climate change is a problem and yet we struggle to take effective action, that looking to Camus' conception of the absurd could be useful.

Camus' particular brand of existentialism, which is grounded in his notion of the absurd, should be of interest to sustainability and climate change researchers for a few reasons. First, his writing shows him to be "deeply sceptical" of the "misguided confidence in steady rational progress" (Hayden 132). He may not have lived long enough to witness the destructiveness of unfettered growth, but Camus was already suspicious of those who purported that progress was always for the best. Relatedly, Camus also argued for the importance of limits. Camus contended that there were limits to what we as humans can know and understand; I expand on these ideas in the next section. These two points – suspicion of progress at all costs and the importance of limits – demonstrate that Camus' philosophy would fit well within sustainability discussions that highlight boundaries and limits to growth (Hickel; Meadows et al.; Rockström et al.; Steffen et al.). Secondly, Camus was convinced that life held no meaning and simultaneously, that humanity could endure this knowledge without the "corrosive effects" of nihilism (Pratt, para.11). For Camus, as discussed in the following section, the futility of one's actions did not negate the need to act. Thirdly, Camus often depicts the world as beautiful and does not reject the material world in favour of the inner world (Aronson, "First Encounters"; Sherman). This aspect of Camus' writing is important as it points towards a connection to environmental concerns. A final reason for utilizing Camus to understand two cli-fi novels is that he was certain that art, and stories in particular, were the best way to transmit ideas and understand the world (Aronson, "First Encounters"; Sherman; D. Simpson; Stuart). To that end, he often wrote out his philosophical ideas in the form of fiction (e.g., plays and novels). This inclination, to use fiction to understand the world, is shared by scholars and popular media outlets alike who hold that cli-fi novels have the potential to shape and change reader behaviour (Armitstead; Baden and Brown; Death; Glass). As environmental humanities scholar Matthew Schneider-Mayerson points out, "the ecopolitical value of environmental literature has been a key subtext for the growing interest in climate fiction in (liberal) popular discourse and the academic fields of ecocriticism and environmental humanities" ("Influence" 474).

The criticisms and reception of *Blackfish City* and *The Marrow Thieves* demonstrate, as detailed in their respective section below, that these two cli-fi novels are believed by scholars and popular discourse to have something of worth to tell readers about climate change. First, I outline Camus'

notion of the absurd and argue how it might be useful in a time of climate change. I end with a brief discussion of the absurd's connection to hope, which I take up in my novel analyses.

3.2.1.1 Sisyphus and Sustainability: A Camusian Response to Climate Despair

The groundwork for Camus' notion of the absurd is laid out in his 1942 essay "The Myth of Sisyphus." It begins with a question: is there meaning to life – is it worth living? – and, if not, is suicide a legitimate option? Although he concludes that life is meaningless, Camus ultimately rejects suicide and refuses to give in to nihilism. Instead, he proposes that life is absurd: it must be lived in spite of the knowledge that we will one day die. Camus goes on to observe how human nature is grounded in the necessity to know and understand. He even explicitly names science as the impulse of our desire for certainty (Camus, *Myth* 20) and cautions that there are limits to what science can teach us. Camus argues that the absurd exists in the space between what we can measure and know, or what science can tell us, and reality.

To establish his notion of the absurd, Camus reinterprets the Greek myth of Sisyphus. In the original myth, Sisyphus is condemned by the gods for attempting to outwit death and is sentenced to an eternal punishment of futility: rolling a rock up a mountain every day, only to have it roll down again. Camus, however, focuses on what happens while Sisyphus descends the mountain. He imagines Sisyphus as happy, and this happiness is defined by Camus as passion. Passion is about engaging with our feelings, both negative and positive. Camus further characterizes an absurd life as one that is full of passion and in contrast, death is the absence of feelings. In this way, a life without passion is tantamount to suicide. Passion, according to Camus, occurs after two things: (1) when we accept that we will one day die, meaning we acknowledge our actions are futile, and choose to live anyways (revolt) and (2) when we recognize that we are allowed to live our lives however we choose (freedom). However, Camus cautions that the only way to truly live with the absurd and experience passion is to be aware of our ethical responsibility to others. To live a good life, we must be prepared to take responsibility for the consequences of our actions and how they might affect others. Camus' notion of the absurd occurs when humans interact with the universe and recognize that it is impersonal and silent. Then when this recognition leads us to accept that life is absurd, Camus claims we will experience these three consequences: (1) revolt (living despite immanent death), (2) freedom (from meaning), and (3) passion (the refusal to disengage). Embracing the absurd in a time of climate change means we can move beyond narratives that place humans in

control and somehow outside of nature (Crist; Malm; Palsson et al.). When we can accept our limits as humans on a finite planet then we can also choose to live freely within these limits, just as Camus' Sisyphus continued his absurd existence despite the futility of his situation. It remains uncertain how climatic changes will play out, which is exactly why Camus would argue that we cannot give into nihilistic pessimism. Further, he would argue for solidarity to alleviate the suffering of others due to inaction on climate change issues (Stuart 10). Camus' absurd encourages us to live our lives for others in spite of our eventual fate and the uncertainty of climate outcomes.

Of course, Camus' philosophy has certain drawbacks in terms of climate change messaging and capacity to inspire action. For one, embracing the absurdity of our predicament and futility of climate action could easily cause people to descend into the very nihilism that Camus rejects. Psychologists and climate change communication researchers alike note the debilitating effects of nihilistic thought on pro-environmental behaviour change (Doherty and Clayton; Feinberg and Willer; O'Neill and Nicholson-Cole). In order for people to feel motivated to act on climate change they may need to feel that their actions will have an impact (Feldman and Hart; Pickering and Dale). Similarly, communications scholar Densie Baden contends that motivating audiences to take action on climate change requires "role models" whose actions "are easily imitable" (262). Camus' absurd does not prescribe any specific action to take on climate change. However, his work can still be beneficial as it displays a way of living that does not require hope. This is important as communications research is divided on whether or not inspiring hope can motivate climate action (Hornsey and Fielding, "Cautionary Note"; Hornsey and Fielding, "Understanding"). Further, despite the calls to show that there are reasons to be positive about our future (Wallace-Wells, "Beyond Catastrophe"), drastic changes are still coming to both our environment and society (Blyth; Moser, "Work"). For this reason, it could be useful to find a way to live beyond hope.

Camus believed that hope was a dangerous concept as it can alleviate the need for action. He argued against ideations of a perfect world or utopia in favour of "lucid hope in the real yet also limited political possibilities of the present" (Hayden 131). Embracing the absurdity of the climate crisis can help us be no longer daunted by the continuous need to roll the proverbial rock up the hill. In other words, we can choose to act on climate change even when it feels futile. Camus' absurd also encourages us to live with passion and accept the range of affective responses we have towards climate change – guilt, hope, fear, anxiety, grief etc. (Brosch; Dennis and Stock; Salama and Aboukoura; Verlie, *Learning*; Wray). Before I move to my analysis, I provide an overview of the

popular reception and scholarly criticism of these novels to highlight how my interpretation lends us another understanding of these narratives.

3.2.2 *Blackfish City* and *The Marrow Thieves*: Reception and Scholarly Interest

Both cli-fi novels have garnered national awards (*Blackfish City*; *The Marrow Thieves*) and interest from scholars and reviewers alike. Reviews and scholarly work on *The Marrow Thieves* have focused on the ways that the novel examines colonialism and dispossession as drivers of the environmental crisis (Ingwersen; 'Reviews The Marrow Thieves'; 'The Marrow Thieves'; Xausa) as well as the problems with reconciliation as it has been enacted in Canada (Zanella). Reviewers and scholars who have written on *Blackfish City* have discussed its portrayal of human and non-human entanglements (Leavenworth & Leavenworth) and found the depiction of LGBTQ2+ characters to be refreshing and necessary for the writing of a hopeful future (Hull; Tidwell; Weaver)[3].

The notion of hope is important for any analysis of these novels as both authors have declared that they intended to give readers hope despite their novels' dark narratives. In an interview, American author Sam J. Miller stated that *Blackfish City* is not for climate skeptics (Brady, "Q&A"). Miller's future world is filled with his personal fears, written into a story to show how change is possible no matter how bleak the future might look. In a similar vein, Métis author Cherie Dimaline has stated that *The Marrow Thieves* aims to bring hope to both Indigenous and non-Indigenous readers. Despite its dreary storyline, Dimaline insists that she wanted to show Indigenous youth that they have a role to play in the future. She further wanted to admonish non-Indigenous readers to pay attention and never let history repeat itself (Iyer).

Blackfish City and *The Marrow Thieves* feature futures that readers will want to reject, but, at the same time, neither allows readers to fall into despair nor uses their dystopian imagery purely for entertainment (Lepore). Instead, these cli-fi novels fall into the category of critical dystopias, seeking to galvanize their readers against despair (Moylan). Environmental humanities scholar Michael Cole has argued that cli-fi need to move away from making its readers fear climate change. Instead, he claims that if writers of cli-fi want to do more than create "compensatory fiction" (Cole 12) they will

[3] None of the scholarly reviews of *Blackfish City* noted that the novel's main characters are intended to be Inuit descendants and, although the mysticism and animal bonding in the novel cannot be directly related to any one Indigenous culture, there is discourse on the forum site Reddit that take umbrage with Miller's potential cultural appropriation as a non-Indigenous author. I explain my inclusion of this novel in Chapter 4 of this dissertation.

need to help their readers imagine new modes of awareness and responsibility for human suffering and environmental distress as well as demonstrate how intertwined the two are. By applying Camus' notion of the absurd to these novels, I show that these two narratives attempt to capture that effort Cole suggests of doing 'more.' Each novel ends unresolved providing necessary space for readers to imagine what happens next. Through my below summaries and analyses, I indicate how these two cli-fi novels hold a range of competing affective responses to unknown and possibly futile futures. Further, I highlight how using Camus' absurd could enable readers to find a way to accept and move beyond the incapacitating effects of climate despair.

3.3 *Blackfish City:* Disruption and Community

Blackfish City takes place in a future where the only safe place after the Climate Wars is a floating city, Qaanaaq, high in the Arctic circle. Although Qaanaaq is a techno haven from a ruined environment, it is far from utopic as there are many dangers and social inequalities. The city is run by intelligent computer systems, and a few select investors, known only as shareholders. A viral sickness – the breaks – stalks the streets and infects its victims with the memories of other breaks' sufferers, causing the sick to eventually succumb to confusion and die. Adding to the tension, Masaaraq, a strange woman riding an orca with a caged polar bear at her side, has appeared and is bent on revenge against a mysterious shareholder who has imprisoned her wife, Ora.

The driving action is Masaaraq's quest to free Ora from Qaanaaq's jail. Along the way, she is reunited with her family: her daughter Ankit, a political worker, her son Kaev, a street fighter, and Kaev's child Soq, a non-binary messenger, whose mother is Kaev's ex-lover and boss, Go. The end of the novel comes quickly, but not decisively. Masaaraq frees Ora; Soq is reunited with their parents but kills Go. The city of Qaanaaq and its indifferent, unjust systems have been ruffled by the actions of this group, but it is unknown whether any real change will occur.

Each character in *Blackfish City* has a meaningless job. Ankit is a staffer for a government official, but, as everyone knows, the computer systems run Qaanaaq; neither she nor her boss have any real power to effect change or help her constituents (S. J. Miller 29). Every action that they take is ineffectual and futile; they are only going through the motions of living. Kaev is a beam fighter – sports entertainment in Qaanaaq – who is paid by the crime boss, Go, to lose every fight so that her chosen fighters win (17). Although he could win, Kaev has no choice but to lose (19). Soq is a messenger for the richest of Qaanaaq, a job that is as dangerous as it is underpaid (41). The only hope

for change they have is to one day work for Go and become her lackey, but this would be yet another job without purpose or meaning. According to Camus, the absurdity of the universe is not simply how modern life is full of inconsistencies and paradoxes. He claims that human life is defined by our need to live a life of purpose and the absurd occurs when this need is confronted by the "unreasonable silence of the world"(Camus, *Myth* 28). Each of these characters is aware that they are stuck in an uncaring world and their options are limited. It is not until they each encounter Masaaraq that they begin to embrace the absurdity of their existences.

In order to see the absurdity of life, Camus argues one must break free of everyday existence. The absurd arises only when "the chain of daily gestures is broken"(Camus, *Myth* 12). Masaaraq's arrival in Qaanaaq is the gesture that interrupts each character from their daily life. The two characters most changed by Masaaraq's arrival are her two children, Kaev and Ankit. Unbeknownst to the two, they were kidnapped along with their mother Ora from a nanobonder[4] enclave. Kaev, a little older than Ankit, had already bonded with a polar bear when the kidnapping occurred, and the separation left Kaev mentally and physically unstable (S. J. Miller 21). Masaaraq restores the polar bear to Kaev and he joins forces with her to do the impossible, free his mother, Ora, from prison. For Kaev, his encounter with Masaaraq provides the impetus for him to finally be able to act of his own accord and no longer live in service to Go. Hearing of Masaaraq's arrival also spurs Ankit to photograph and post a picture of a breaks' sufferer to her bosses' social media feed (30). Rather than continue to work a job that allows the injustices of Qaanaaq to flourish, Ankit is emboldened by Masaaraq's arrival to force her boss to confront the suffering of her constituents. The orcamancer's appearance represents an opportunity to reject the lure of the everyday – doing the same thing out of habit – and instead to embrace an absurd life, one defined by revolt, freedom, and passion (Camus, *Myth* 64).

Soq and Ora's actions best exemplify the consequences of an absurd life. According to Camus, the first consequence, revolt, meant acknowledging the absurdity of life: that we will die, and our lives have no meaning. Soq and their family are aware that their lives are absurd: they live in a city controlled entirely by intelligent computer programs (S.J. Miller 31) with no recourse to improve this situation (223). Despite knowing that their life is meaningless and that they will one day die, Soq revels in their futility by taking comfort in "the cold of the wind and the warmth of the food and the

[4] Nanobonders are humans who have been bonded with animals through microscopic machines known as nanites.

fact that everyone eventually dies" (45). Accepting that death comes for everyone frees Soq to embrace their absurd existence and choose life (revolt).

Just before meeting Masaaraq and learning who their parents are (Go and Kaev), Soq becomes infected with the breaks. Luckily, Masaaraq initiates Soq as a nanobonder. The nanite blood saves Soq's life and enables them to sift through the jumble of memories that comes with their infection. In their memories, they find the location of a group of apartments that a shareholder was saving as insurance. Once Soq knows the addresses of each apartment, they occupy these apartments with some of Qaanaaq's poorest. In this way Soq is exhibiting the second consequence of an absurd life, using their newfound freedom to help others. For Camus, embracing the absurd means being free to act, but our actions must be weighed for how they affect others. Observing Soq after they open up the apartments, Ankit notes that Soq is living with an "open-armed embrace of the night to come, with whatever good or awful things waited for them inside it" (322). They are living with the third consequence of the absurd, passion. They do not shirk from experiencing life, choosing instead to live it fully. Their grandmother Ora has also embraced an absurd life.

The reader only meets Ora at the end of the novel, as she has been imprisoned for unknown reasons in Qaanaaq's highest security prison. But it is quickly revealed that she has played an active role in the city despite her imprisonment when she shares that she is the author of the podcast *City Without a Map* (298). *City Without a Map* episodes are interspersed between the chapters in *Blackfish City* and provide background information to readers about Qaanaaq's history and current state. There are many theories about its shadowy authorship: is it a bot or a collective of authors? Soq's one-time lover believes there is a singular author and that their goal is to help others do more than just survive in Qaanaaq: "what the Author wanted was for them to find happiness, joy, bliss, community" (7). The podcast did not prescribe what the listener should do; Ora's goal was simply to let those who were struggling know they were not alone. Listening to her mother describe the podcast, Ankit recognizes the power of connection: "they made a square, a circle, a coven, a brigade, and Ankit felt confident that there was nothing they could not accomplish when they stood together" (325). In his 1951 essay *The Rebel*, Camus continues the argument he began in *The Myth of Sisyphus* that embracing the absurd means to revolt. But what constitutes revolt? For Camus, it means acknowledging that all human life is valuable and when that is threatened the only answer is to rebel. Rebellion can start with an individual (Ora), but it takes its true form when humans come together to affirm their common dignity and life (Fox 2), as Ora and her family have done.

The ending sequence of *Blackfish City* has Masaraaq's family reunited, poised to return to Qaanaaq and fight for the city's freedom. Although Miller may have intended this to be an uplifting moment, and scholars such as Christy Tidwell have argued that the novel's portrayal of a queer future provides an argument that there is "a lot left to live for" (13), nothing substantial has changed. Yes, Ora is free and reunited with her family and Soq has claimed several apartments for the unhoused, but the novel ends and begins with the same sentence: "*people would say she came to Qaanaaq in a skiff towed by a killer whale harnessed to the front like a horse*…" (S. J. Miller 325). This conclusion brings the novel full circle and may lead some readers to focus on the bleaker aspects of the story's future, such as how the computer software is still running the city, and it is only a matter of time before the shareholders retaliate (298). In this way, the actions of Soq and their family seem futile. But if we look at this ending through the lens of Camus' absurd, the futility of their actions does not negate their necessity.

Camus exhorts that we should not be dissuaded from living by a lack of responsiveness from the universe. By choosing to return to Qaanaaq and fight its unjust systems, Soq and their family choose life (revolt). The group is not returning just for themselves, they are seeking to free Qaanaaq's citizens from the tyranny of the shareholders (freedom). Finally, Soq emerges as a leader, but with the promise of being different than the shareholders. Remarking on their difference Ankit says that Soq is open to "whatever good or awful things" await them (S. J. Miller 322), as such, Soq is showcasing the third consequence of the absurd – passion. Some readers might find the ending of the novel hopeful as Tidwell did because the characters persevere no matter how futile their actions seem. Reading the novel alongside Camus' notion of the absurd this interpretation becomes more likely as the characters exhibit Camus' version of living without hope, that is without the assurance of success. Similarly, *The Marrow Thieves* showcases a family undaunted by a nightmarish and cruel world, who continue to act no matter the impossibility of their situation.

3.4 *The Marrow Thieves*: Dreams of Hope

The Marrow Thieves follows the story of Frenchie, a Métis teenager, who lives in a future North America drastically altered by global warming. On top of the ecological disaster, most of the remaining white population has lost the capacity to dream. When it is discovered that Indigenous people can still dream, the Canadian government develops a new form of residential school. At the

schools, the bodies of Indigenous peoples become sites of extraction as it is determined that their marrow holds the key to learning how to dream again.

The reader meets Frenchie on the run from the Recruiters, government officials charged with bringing Indigenous people to the schools. Eventually he meets another group of Indigenous fugitives: Miigwans – or Miig, leader of the group; Minerva, elder/grandmother of the group; and several other youth.

They have numerous adventures as they make their way north to where it is believed there is a secure, Indigenous enclave for them to live. Just before they reach safety, Minerva is captured by the Recruiters, which catalyzes change for the family. Although they are distraught, they decide to rescue her rather than simply disappear into the forest. In trying to locate Minerva, they instead find the promised northern safe haven near Espanola. The enclave agrees to help Frenchie's family find Minerva, but during the rescue mission, a Recruiter kills her. The novel ends on what appears to be a hopeful note as Miig's long lost husband arrives at the safe haven, however my following analysis shows that this might not be the only interpretation.

The central issue in *The Marrow Thieves* is survival, namely: how will humans survive a climate-ravaged future? Dimaline imagines a future characterized by fear and hate, where those in power have ignored an important aspect of the second consequence of the absurd, that the freedom found in an absurd life is only free when it acknowledges its own limitations. Camus is clear that his notion of the absurd is not nihilistic. Instead, he argues that embracing an absurd life requires embracing an ethical life: "'everything is permitted' does not mean that nothing is forbidden" (Camus, *Myth* 67). In Frenchie's world, rising sea levels have caused dramatic landscape changes and "half the population was lost in the disaster and from diseases" (Dimaline 26). Rather than updating their practices, governments and corporations try to keep the old system going, which leads to citizens (specifically the white population) developing a new disease where they can no longer dream and eventually succumb to madness. Seeing that the Indigenous population is not suffering in the same way, the Canadian government and the Church team up to find a scientific response to this problem (89). Based on a rumour that Indigenous peoples' bone marrow holds their capacity to dream, the government and the Church create a new Residential school program to harvest their marrow. Camus cautions that there are limits to what science can accomplish on its own in the world. He argues that science that does not recognize its own limitations will order everything "in such a way as to bring

into being that poisoned peace produced by thoughtlessness, lack of heart or fatal renunciations" (Camus, *Myth* 20). Without heart, or the acknowledgement that we have a responsibility to others' welfare, humans can use the knowledge granted us by science to harm others. Although *The Marrow Thieves* is a speculative story and the extraction of dreams from bone marrow is only a gruesome metaphor, the visceral quality of this action provides a detailed image of current fossil fuel practices for the reader (Ingwersen). A future where one part of the population stops dreaming may be purest speculation, but the extractivist tendencies of the government is not hard to imagine.

Dimaline does not leave the reader to wallow in doom and gloom; her story points to a different way to resolve complex social and environmental problems through the character of Minerva. The family is distraught when they find Minerva is gone but upon arriving at the Espanola enclave, they are relieved to discover that she is not dead. They also learn the enclave's Council has a spy who reports that Minerva has destroyed the School. During her capture, she was taken to the laboratory, hooked up to the marrow harvesting machine, and "that's when she called on her blood memory, her teachings, her ancestors. That's when she brought the whole thing down" (Dimaline 172). It becomes clear that Minerva knew her capture was inevitable and that she had a plan: she would unleash her language and dreams inside the School. The strength of her dreams and song are so powerful that they overload the harvesting machine, causing the whole building to burn down and collapse. Through this scene the reader is told that there is power in Indigenous teachings, as evidenced by the force of knowledge collected in Minerva's body and the destruction it wreaks, even briefly, on the unequal power balance in this dystopian future. The Schools and the Recruiters are seeking technological and scientific solutions to the ecological and social issues facing them, but Minerva shows the reader that there is another way forward. As Camus' conception of the absurd cautions us against relying entirely on science to understand how to act in our world, Minerva's actions show the power of different ways of knowing and being in the world. This is not to say that science does not have its place; this outlook asks us to utilize all ways of knowing in the world, especially when dealing with complex problems like climate change.

Most of *The Marrow Thieves* follows Frenchie and his family as they trek through the wilderness trying to avoid the Recruiters. It is not until Minerva is captured that they decide to act against the Recruiters. Like the appearance of Masaaraq in Qaanaaq, Minerva's capture is a catalyst for Frenchie. Camus claims that at some point in a person's journey of recognizing the absurdity of life, there comes a moment when they realize they need to act. He argues that "the individual can do nothing

and yet he [sic.] can do everything" (*Myth* 86). Facing the loss of Minerva, Frenchie discovers he can no longer live mindlessly running away (Dimaline 153); he must act. Frenchie's desire to rescue Minerva galvanizes both his family and the Espanola enclave. An individual may be unable to make social change, but one person can encourage others to rise up in protest. Camus argues that protest is another inevitable response to understanding we live in an absurd world. Protest for Camus means staying on "the side of the struggle" (*Myth* 87). Similar to Donna Haraway's admonition of "staying with the trouble" (10), living an absurd life means working towards a better life no matter the odds, even if the conclusion of our actions is not a perfect solution, acting is better than ignoring our responsibilities. For Camus, our responsibilities include feelings of solidarity and actions that help others (*Rebel* 17). In the end, Frenchie and his family are unable to save Minerva, but their futility does not dishearten them. Together with the Espanola enclave they set up a new camp and, in the summer, it is revealed that one of Frenchie's family is expecting a baby (Dimaline 213). They have suffered loss, but that does not stop them from continuing to live.

The Marrow Thieves' concluding sequence focuses on the arrival of strangers to the new encampment after Minerva's death. Frenchie sets out with a greeting party to determine if these strangers are friends or enemies. Almost immediately, Frenchie realizes that one of the strangers is Isaac, Miig's long-lost husband and as the two meet Frenchie reflects in the final lines of the novel,

> I understood that as long as there are dreamers left, there will never be want for a dream. And I understood just what we would do for each other, just what we would do for the ebb and pull of the dream, the bigger dream that held us all.
> Anything.
>
> Everything. (231)

For Frenchie and the other characters, dreaming means believing the future can change despite the desperate reality of the present. In this closing sentence, Frenchie understands that he has to act in the present ("I understood just what we would do for each other"). When discussing his notion of the absurd, Camus often remarked that it is characterized by a lack of hope, but that this is not negative: "being deprived of hope is not despairing" (*Myth* 91). Camus argued that those who embrace the absurd live without hope and are therefore free to act. For Camus, the only certainty in the future is death (57) and from that he contends that embracing the absurd means giving up on future salvation (hope). He also claims that by accepting there is no future hope, one is free to act in the present: "conscious that I cannot stand aloof from my time, I have decided to be an integral part of it" (85). When they lose Minerva, Frenchie and his family believe they have lost the only one who could help

them act against the Recruiters. Finding Issac is not only a happy ending for Miig, but Issac also speaks Cree (Dimaline 228). Frenchie and his family believe that knowing the language as Minerva did is essential to changing their present lives. The novel ends with the expectation that they will continue to resist. They will be an integral part of the present moment.

Of course, as with *Blackfish City* and the hope felt from Masaaraq's reunion with her family, finding Issac might bring a temporary feeling of hope and renewal for readers, but there is lingering unease that nothing has been resolved. The Recruiters have not been stopped nor has the ecological disaster abated, although one character notes that if they can get back to their land, they can help heal it (Dimaline 193). Again, Camus' notion of the absurd can help explain how even in a world where every action seems futile, there is still reason to act. *The Marrow Thieves* depicts a world without hope and yet Frenchie and his family do not give up; they live despite their lack of hope. They are scared and sad, but they find love and hold onto their culture. By attempting to rescue Minerva, they start taking action in the present against the Recruiters. The only way forward in *The Marrow Thieves* is to choose to act (revolt) no matter how bad the situation. The new Residential schools and bone marrow harvesting program can be seen as an admonition to remember that we can do anything in an absurd world, but that does not mean we should (freedom). Despite their tortuous existence, Frenchie and his family never give up; they embrace their negative reality while remaining open to the possibility of change (passion).

3.5 Conclusion

Reading *Blackfish City* and *The Marrow Thieves* through Camus' absurd illustrated that the worlds in these cli-fi novels exhibit the absurdity of the universe. The characters in these novels are beset with insurmountable odds and there is no outside force that can help them. They can only rely on one another. In each novel, there is a moment that breaks the characters out of their everyday existence (the arrival of Masaraaq and the capture of Minerva) and this moment of disruption leads the characters to embrace the absurdity of the lives. They realize they can no longer be bystanders. In order for change to occur, they need to act, as we must also learn how to act to mitigate further suffering due to climate change.

Psychologist Per Epsen Stoknes has proposed that "the most fundamental obstacles to averting dangerous climate disruption are not mainly physical or technological or even institutional; they have to do with how we align our thinking and doing with our being" (227). In other words, the biggest

obstacles to action on climate change could be ourselves and how we think about climate change as intractable. McMurry has similarly contended that hoping for a better future stymies action in the present; it is only when we embrace our own futility that we can consider what actions to take. Thus, we should follow Camus' advice and accept the absurdity of our situation, one defined by disastrous climatic change – but not allow that absurdity to paralyze us into inaction (suicide).

With increasingly grim climate change forecasts and shorter timeframes for meaningful action (Harvey), this revisiting of Camus' absurd is beneficial. Camus' chosen hero of the absurd was Sisyphus – a man condemned to an eternity of futility. Although Camus does not provide tangible actions one can take to alleviate climate change – thought by some to be necessary to motivate action on climate change (Baden) – the absurd does grapple with how to live when living seems hopeless. Living in a world lacking in hope, for Camus, did not mean giving into despair and nihilism; it meant embracing "the purest of joys, which is feeling, and feeling on this earth" (Camus, *Myth* 63). Human geographer Leslie Head has contended that Western society shies away from negative emotions and negative visions of the future – to our detriment. The future is uncertain and how exactly climate change will alter our world is unknown, but it is becoming clear that surviving these changes means radical social changes (Constantino & Weber) – perhaps even revolt. Head believes that Western society's focus on progress and optimism holds us back from considering all possibilities for our future as we learn how to navigate climate change (89). Both Miller and Dimaline recognized this and wrote novels that explored how life can be lived despite their worst fears for the future.

Blackfish City and *The Marrow Thieves* depict futures that readers want to reject, and yet, do not give in to pessimism. Knowing that their situations are unlikely to improve, all characters choose life (revolt), they choose to act. Their actions are not characterized by selfish wanting. Exercising their freedom, they seek to help their families and the broader community. Each novel also presents an array of emotions exemplifying Camus' third consequence – passion. Miller's characters may be worried about retaliation from the shareholders, but they also feel uplifted as they realize they are not alone. Despite the dreary setting of *The Marrow Thieves*, Miig is reunited with his long-lost husband showing the reader that the end of the world does not mean the end of joy. These two cli-fi novels portray both-and futures; they allow readers to consider how we might live after the worst has happened. *Blackfish City* and *The Marrow Thieves* may remind readers that even when climate change looms on the horizon as the end of life as we know it, we can choose to live (revolt) and that our actions should be defined by our responsibility to others (freedom). They remind us that we

should embrace our affective responses to an uncertain climate changed future (passion). These cli-fi novels show readers that in an absurd world action, even futile action, is necessary.

Chapter 4

Reading Fiction for (a) Change: Observing Virtual Cli-Fi Book Clubs

4.1 Chapter Summary

This final manuscript is an analysis of my book club observation study of Canadian cli-fi readers that took place from January 2022 – June 2022. Cli-fi are novels that present different aspects of the socioenvironmental problems stemming from climate change. Scholars from a multitude of disciplines believe that these novels have the capacity to influence readers' minds and behaviours, but the evidence for this capacity has been largely based on classroom observation or traditional humanistic argumentation. In the last five years, a group of interdisciplinary scholars have developed a new way of measuring cli-fi novels' influence through a combination of ecocritical theory and social science methodologies. They call this method empirical ecocriticism. Through a book club observation study, I expanded scholarly understandings of non-scholarly cli-fi readers.

The study began from the premise that reading is a social practice that involves readers interacting with one another. I gathered participants from across Canada and conducted four virtual book clubs that each met monthly over four months to discuss the following novels: *Weather* (Offill), *Blaze Island* (Bush), *Blackfish City* (Miller), and *The Marrow Thieves* (Dimaline). In addition to recording the book clubs' discussions, each participant completed a pre-survey to determine demographic information, including their level of climate change concern (based on the YPCCC's SASSY). Through a post-survey, I measured how participants felt about the future after reading these novels and how they felt about the book club itself.

Results revealed that participants were younger than the average Canadian population (65% ≤44), liberal, and concerned about climate change. Three key themes emerged from my thematic analyses of recorded book club meetings and surveys: (1) the more *relatable* the cli-fi novel, the more believable the story and climate change was to participants; (2) *hope's presence or absence* was linked to whether novels included individual actions to mitigate climate change; and, (3) participants expressed *anxiety* when they empathized with the characters and scenarios. These results suggest that these readers do make use of cli-fi novels to understand current climate issues. Further, despite the open endings in all cli-fi novels in this study, participants' negative reactions revealed that they

envisioned a closed, dark future. Cli-fi novels need to move beyond catastrophic climate dystopias to aide readers in imagining multiple possible futures. Fostering an open-ended view of the future could help readers overcome fatalism. This chapter highlights the importance of considering reading as a social practice rather than an individual action when gauging these novels' impact on readers' climate change behaviours and perceptions.

4.2 Introduction

4.2.1 Climate Change Communication

Research on how best to communicate climate change to motivate transformation abounds (Moser, "Reflections"; Hansen and Cox; Markowitz and Guckian; Verfuerth et al.). Climate change communication, a growing sub-field of environmental communication, endeavours to critique how climate change is presented in the media and how audiences react to these messages. The Yale Program on Climate Change Communication (YPCCC) has surveyed Americans' - and other nations' - perceptions of global warming amongst various demographics. Through this research they identified six reactions that audiences have to information about global warming, which range on a spectrum from least concerned (Dismissive) to most concerned (Alarmed) (Maibach, Leiserowitz, et al.). The 2024 survey shows that audiences from around the world are more likely to be Alarmed about this issue (Carman et al.) and yet, there is still a gap between concern about this problem and action (Ballew et al.). With increasingly dire climate change reports from the Intergovernmental Panel on Climate Change (IPCC) (Masson-Delmotte, Zhai, Pörtner, et al.; Leitzell), overcoming this well-recognized gap between attitude and behaviour is essential (Kollmuss and Agyeman).

To overcome this gap, climate change communication researchers are exploring the effects of different communication formats (such as visual art). However, many of these studies focused on artists and their art rather than audience responses to these works (Burke et al. 96). Notable exceptions include some audience response studies on the films *The Age of Stupid* (Howell) and *The Day After Tomorrow* (Leiserowitz; Lowe et al.; Reusswig et al.) as well as an interview study on audience responses to visual depictions of climate change (O'Neill and Nicholson-Cole). These studies were some of the first descriptions of audience responses to visual interpretations of climate change and they also pointed towards a new approach for climate change communication research, looking at *fictional* representations of climate change.

Interest in fictional representations of climate change has led to curiosity about the insights humanities researchers, and, specifically, those who deal with different forms of communication (such as theatre, film, etc.), might offer to climate communication (Hulme, *Weathered*; Moser, "Reflections"). More specifically, the past two decades have seen an increase in studies of climate fiction novels. Climate fiction, cli-fi, characterized by its attention to anthropogenic climate change, has stirred scholars' interest in its capacity to influence readers' minds and behaviours. Ecocritic Antonia Mehnert remarked that "literature, seemingly, is seen as the last resort to communicate the urgency of environmental crisis and prompt action" (228). Cli-fi is thought to be able to appeal to readers' emotions and, in contrast to films about climate change, presents a myriad of futures (Brady, "Confronting"; Svoboda). But claims about these novels' influence are often based on traditional humanistic inquiry (Milner et al.; Schneider-Mayerson, Mossner, et al.). That is, ecocritics have largely relied on thought provoking arguments about the effects of certain "formal, thematic, intertextual, cultural, and ideological factors" without also testing these claims through "the copious empirical data on the psychological and social work of stories" (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 7). And this gap goes both ways, scholars in the environmental sciences might be interested in the effects of these stories (Veland et al.) or note the importance of narratives in influencing audiences (Dahlstrom, "Using"), but they rarely take note of the more formal aspects of texts (such as genre, style, and other narrative choices) (James, *Narrative*; Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction"). So, what do we know about the influence of cli-fi novels?

In response to this question, an interdisciplinary group of scholars have developed a new methodology, empirical ecocriticism, which tests questions posed by environmental humanities through social science methods and vice versa (Schneider-Mayerson, Mossner, et al., "Introduction"). The first study that utilized this methodology was a cli-fi reader survey (Schneider-Mayerson, "Influence"). The results of this and subsequent surveys illustrated that reading any one cli-fi novel did not lead directly to the desired behaviour change (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "'Just as in the Book'?"; Schneider-Mayerson, Gustafson, et al.). However, perhaps gauging cli-fi's effectiveness by looking for reader action on climate change misses the point. As Schneider-Mayerson ("'Just as in the Book'?") acknowledges, there are multiple steps from awareness to action. Ecocritics often claim that cli-fi can open up discussions about how this crisis

makes us think and feel (Caracciolo, *Contemporary Fiction*). Providing this space to reflect on the emotional toll of climate change may be critical in addressing our inaction on this issue.

Climate change communication researchers note that emotions are an integral part of how people react to climate change and fostering emotional awareness may help lead to behaviour change (Chapman et al.; Moser, "More Bad News"; Salama and Aboukoura). Rather than asking whether cli-fi novels can alter reader perceptions of and behaviour towards climate change, perhaps we should be asking whether cli-fi novels can help readers accept the uncertainty of the future. Further, reading may be a solitary action, but it can also be social. Below I present a brief background of social reading, book club, and cli-fi novel research, before describing my present study and its implications on our understanding of social readings of these novels.

4.2.2 Book Clubs and the Social Nature of Reading

Reading is typically thought of as a solitary act, but this ignores how reading can also be thought of as a social practice. For example, sociologist Elizabeth Long is well-known for her study of Texas women's book clubs and theorization of reading's social nature. She provides evidence that reading is inherently social in terms of how different novels or books are listed and promoted by publishers, literary critics, or institutional processes (i.e., standardized testing, censorship, reading group guides in novels). Long further asserts that thinking of reading as a solitary activity "suppresses recognition of the infrastructure of literacy and the social or institutional determinants of what is available to read, what is 'worth reading,' and how to read it" (Long 11). Contemporary reading cultural is also being influenced by the digital sphere and there is new scholarship that is focusing on the effects that social media has on readers and what they choose to read (Reddan et al.; Roberts). Literary receptionist Janice Radway's seminal book club study of romance readers suggested that these readers were not simply reading to escape they were imagining new ways of living.

How might the individual act of reading lead to social change? Social psychologist Zazie Todd claims that although reading a novel is an individual act, readers will often discuss what they read with friends and family, get recommendations on what to read from their wider community, and in this way, the act of reading becomes a social activity. Political scientist Manjana Milkoreit takes this one step further arguing that the conversations inspired (specifically by cli-fi novels) help the public explore "questions of possibility, morality, risk tolerance [and the] scientific uncertainty" of climate change ("Imaginary Politics" 6). She contends that readers of these novels talk with friends and

family about them and that these fictions may be influencing political decisions. In her review of literature on empathy in novels, literary scholar Suzanne Keen concluded that reading alone – that is, without discussion – is unlikely to affect readers. To Keen, if a novel is to impact readers, readers may need to interpret and discuss it.

As mentioned above, the impact of cli-fi novels remains understudied, with existing research mostly limited to classroom observations and traditional humanistic inquiry among post-secondary readers (with exceptions, such as the studies by Schneider-Mayerson and others being published with more frequency. See *Empirical Ecocriticism* for an overview of this emerging field). This problem is also not limited to cli-fi, and there are scholars working to find ways to understand how general readers read novels. English literary scholar Joan Swann and cultural studies scholar Daniel Allington divide research on readers into two settings: "experimental" and "naturalistic." They believe that researchers adopting experimental settings strive to control too much, expecting participants to read a text while they are present, and limiting discussions of the text to be between researchers and participant. Additionally, these studies often take place at the researchers' institutions, regularly using students as their subjects. These students have often been trained to read like academic scholars conducting research. To overcome some of these limitations, Swann and Allington argue instead for a naturalistic approach, where the researcher observes or interacts with groups of readers (e.g., a book club), as this resembles how reading occurs in the real world.

There are at least two studies of book clubs reading cli-fi novels. One was completed by Sonja Fücker and Uwe Schimank as an observation study of three English language reading groups as they discussed *Flight Behaviour* (Kingsolver) and *Solar* (McEwan) in Germany. Through analysing their readers' discussions Fücker and Schimank suggested that novels with realistic plotlines are more likely to help readers accept the characters as real and thus learn about or relate to the characters. However, the focus of their study was on readers' perceptions of science and scientists. My book clubs also read two realistic cli-fi novels, *Blaze Island* by Catherine Bush and *Weather* by Jenny Offill, but my guiding question was "How, if at all, do non-scholarly readers use cli-fi novels to negotiate issues related to climate change?" As such, my study provides more detail about non-scholarly readers' understanding of climate change rather than climate science per se. Another book club study of a cli-fi novel was conducted by social scientists Miranda Iossifidis and Lisa Garforth, who sought to determine how general readers engaged with Jeff VanderMeer's *Annihilation*. Unlike my study, which gathered readers to meet synchronously on Zoom, Iossifidis and Garforth looked at

data gathered from two online discussion forums on Goodreads and io9. They argue these forums show how by discussing *Annihilation* in a group these readers were able to find ways to "negotiate living-with altered climate futures" (Iossifidis and Garforth 255). While asynchronous studies on reader discussion forums can be useful for gathering data on a large group of readers and cannot be influenced by the researcher's questions (Caracciolo, "Narrative Space"), I chose to conduct my book clubs synchronously as that is similar to how real-world interaction occurs[5] (Abrams and Gaiser; Liamputtong). Additionally, by creating my own virtual book clubs I was able to verify participants' demographic information, something that is difficult to establish from forum posts. This demographic information provides an initial glimpse of the typical Canadian cli-fi reader, which could be useful for future studies.

4.2.3 A Brief History of Cli-fi Research

The study of cli-fi novels began with ecocritical scholars, but interest in the potential of these novels to inspire change or action in readers has spread beyond literary and cultural scholars (see for example, the work of political scientist Manjana Milkoreit ("Promise"; "Imaginary Politics") and has inspired several interdisciplinary studies (Jordan et al.; Nikoleris et al.; Schneider-Mayerson, Gustafson, et al.)). From the growing body of research on cli-fi, both within and beyond literary studies, the consensus appears to be that these novels are didactic or at the very least that their worth is measured solely by what they can do to their readers' minds. To that end, there are scholarly debates about what type of cli-fi narratives are useful to inspire readers. Milkoreit ("Imaginary Politics") argued that both utopian and dystopian narratives could inspire different audiences to talk about and eventually take action on climate change. Combining research from communication studies and ecocriticism, Schneider-Mayerson's second survey of cli-fi readers ("'Just as in the Book'?") found that certain dystopian narratives (such as Paolo Bacigalupi's *The Water Knife*) led audiences to become fearful and insular about the future. Schneider-Mayerson cautioned that this conclusion needed wider testing as it could be an American trait. Author and researcher Briohny Doyle contended that literary representations of climate change need not always be hopeful in an optimistic sense and instead, novels should help stretch our understanding of hope to include loss and grief. In short, like climate change communication debates about optimistic or pessimistic messaging (see

[5] The driving force for having online groups was the continued uncertainty of COVID-19.

review in Baden), researchers are divided about whether hopeful or dystopian cli-fi can inspire readers to act on climate change.

4.3 Materials and Methods

4.3.1 The Novels

The four novels chosen for this study were *Weather* by Jenny Offill, *Blaze Island* by Catherine Bush, *Blackfish City* by Sam J. Miller, and *The Marrow Thieves* by Cherie Dimaline. Although little is known about general readers' emotional reactions to cli-fi novels - and even less about how book club readers discuss these novels - there were several considerations that guided my choice of novels: (1) alignment with prior research, (2) author and character diversity, and (3) novel length.

4.3.1.1 Alignment with prior research

My study seeks to add to our understanding of cli-fi readers and as such, I followed the three criteria Schneider-Mayerson laid out in his original survey study: "the works most often cited in articles on climate fiction in magazines and websites, the number of reviews on the book review–aggregating website Goodreads, and recommendations from scholars and critics of environmental literature" ("Influence" 477). All of the novels have been named cli-fi by various magazines or websites (Brady, "Q&A"; CBC News; Jensen; Lu). All the novels have been the subject of academic papers (Ball, "Gun Island and Blaze Island"; De Cristofaro; Fachinger; Fisher; Ingwersen; Iyer; Lambert; Leavenworth and Leavenworth; Murray, "Women"; Murray, "Options"; Tidwell; Xausa; Zanella) see Chapters 2 and 3 in this dissertation for more information on those papers. All were listed on Goodreads as climate fiction or cli-fi novels and had more than 100 reviews as of May 2021.

In an attempt to avoid my readers becoming survivalist oriented like those in Schneider-Mayerson's survey ("'Just as in the Book'?"), I chose two critical dystopias, *Blackfish City* and *The Marrow Thieves.* Each has multiple main characters working together to solve problems and open endings that do not end in resignation or unproblematized utopias (Moylan); instead, they force readers to reflect on the relation between reality and text. Critical dystopias, like these two novels, show that forward momentum will require collective action "even in and after whatever it is that passes for the revolutionary moment or era" (Moylan 276).

In contrast, *Weather* and *Blaze Island* are ambivalent cli-fi, novels that seek to understand how it feels to live now in a climate crisis while also living our daily lives (for more information see Chapter 2 in this dissertation). Literary research suggests that readers approach and read genres in prescribed ways (Bergthaller; Bruner; Phelan). *Blackfish City* and *The Marrow Thieves* are two speculative novels, while *Weather* and *Blaze Island* are more likely to be labelled as literary fiction. I adhere to Goodbody and Johns-Putra's expansive definition of cli-fi (as explained above), which can encompass novels from all generic backgrounds. As such the choice of these markedly different novels was deliberate to see if the readers responded differently to each type of novel (e.g., do they identify more readily with the realist or future novels, do they take the literary fiction more seriously?).

4.3.1.2 Diversity of Authors and Perspectives

Since 2020, there have been calls for more cli-fi narratives and authors who are not white, men, or heterosexual as can be seen from the online magazine Grist's annual Imagine 2200 call for stories (Grist Magazine Inc.) as well as submission guidelines from indie publishing companies such as Stelliform Press (Stelliform Press). *Weather* and *Blaze Island* are written by female authors, but deal with western, white protagonists. *Blackfish City* and *The Marrow Thieves* are written by a queer male author and a female Métis author respectively and have queer and non-white main characters. I sought to include cli-fi novels written by diversely identifying authors along with diverse characters because climate change does not affect just one social group or one part of the planet. It affects everyone and to effectively mitigate or adapt to climate change we need multiple perspectives (Hochachka), knowledges (Orlove et al.), and stories (Veland et al.). Some criticisms of these authors are noted in section 4.6 Recommendations for Future Studies.

4.3.1.3 Novel Length

My final consideration was that the novels would not be onerous for readers to finish within the month timeline. The average length of a novel is anywhere between 50,000 – 110,000 words (Yang), the average reading speed is 260 words per minute (Curcic). It is estimated that the average Canadian reader reads about six hours a week (S. Simpson). In order to ensure that participating in my study was not onerous I chose novels that did not exceed 8 hours of reading time. Table 1 shows the characteristics of each novel as well as their length.

Table 1: Cli-Fi Novels in this Study

	The Marrow Thieves	***Blackfish City***	***Weather***	***Blaze Island***
Temporal Setting	Near Future	Distant Future	Near Past	Near Present
Primary Geographical Setting(s)	Ontario	Ocean near Greenland	New York	North America
One or more main characters	Multiple Main Characters	Multiple Main Characters	One	Two
Non-Human Characters	No	Yes	No	No
Listed on Good Reads (GR) as Climate Fiction	Y	Y	Y	Y
GR Rating (out of 5)	4.05	3.59	3.62	3.62
Academic Review Y/N (as of May 2021)	Y	Y	Y	N
Word Count	65,000	84,000	31,069	109,135
Est. time to read	3hrs 48 mins	6hrs 10mins	2hrs 23 mins	7hrs 19mins

4.3.2 Study Design

The study ran from December 2021 – July 2022 and recruitment occurred through a snowball method in December 2021 – January 2022. I posted advertisements on Facebook and allowed sharing through friends and community. Interested participants were encouraged to ask their friends and family to join the study. Additionally, I sent advertisements to the Hamilton Public Library who put the advertisement on their website and sent the information to partner libraries across Canada. The study was approved by the Office of Research and Ethics at the University of Waterloo (ORE # 43787**)**. In accordance with ethics requirements, I gave prospective participants an information letter that outlined the study and consent was recorded for the two components of the study: book club meetings (online via Zoom) and two online surveys (administered via Qualtrics).

Participants received the pre-survey prior to the study and the post-survey after all groups finished their meetings, end of June – early July 2022. The pre-survey recorded participants' demographic information (e.g., age, gender, political party), asked participants to define climate change in their own words, collected information on their reading habits (e.g., what genres they read, participation in previous book clubs, had they read any cli-fi previously), and collected logistic information (e.g., availability for book clubs). It also measured their climate views via the Six Americas Super Short Survey (SASSY)[6], which was developed by the YPCCC (Chryst et al.). SASSY is a condensed version of the original Six Americas Survey, which uses audience segmentation to uncover perceptions about global warming on a scale of six audience types from Alarmed to Dismissive. The post-survey re-measured climate views (via SASSY) and asked participants to define climate change. Additionally, participants were asked how they felt about the book club and books. Full surveys are available in Appendix A.

53 participants from across Canada responded to advertisements and 42 completed the pre-survey. These 42 participants were placed into four book clubs comprised of ~10 people based on their availability (e.g., Mondays 8:00pm EST – 9:30pm EST). Two participants dropped out due to time constraints. In total, 40 participants met once a month from January 2022 – June 2022. 36 completed

[6] At the time of study design, there was no Canadian equivalent to SASSY; however, in 2015 Cross et al. posited that Canadian audiences were broadly similar to the categories laid out by the YPCCC. In 2022, Martel-Morin and Lachapelle published their study of Canadian audiences with data gathered in 2017 showcasing five audiences in Canada (Alarmed, Concerned, Disengaged, Doubtful, and Dismissive). As discussed below, most of my participants fell into the Alarmed segment with a few Concerned and Cautious.

the post-survey. Six participants missed at least one meeting. See Appendix B for a full list of participants' demographic information.

Although book club observation studies often range from five – eight participants (Carson and Archer-Lean; Todd; Willis), I overrecruited in accordance with studies that found significant drop out rates for online studies (Daniels et al.). Drop out may have been minimized due to the fact book club members were gifted the books for the club, or the timing of the study. Early 2022 was still a time of significant concern about in-person gatherings in Ontario due to COVID-19 (Jabakhanji), where the majority of participants were based. Additionally, participants may have been accustomed to online activities due to two years of prior COVID-19 restrictions.

Each book club session ran online via Zoom. As mentioned above, the choice to run the book clubs online versus in-person was made from a desire to minimize study disruptions. Following other book club studies, I took a naturalistic, semi-structured approach where I presented questions about each novel but otherwise did not lead the group discussions (Carson and Archer-Lean; Swann and Allington; Todd; Willis). Meetings lasted approximately 90 minutes. The protocol for each meeting was: a land acknowledgement; summary of the novel for discussion; and then I would ask anywhere from three - ten questions depending on time (See Appendix C). I recorded and transcribed each meeting and conducted a thematic analysis of these recordings and the survey results using a qualitative and mixed methods data analysis software, Dedoose.[7]

4.3.3 Data analysis

There is no singular way to analyze book club discussions: researchers have utilized discourse analysis (Allington; Swann and Allington), grounded theory (Willis), reception theory (Fücker and Schimank), and thematic analysis (Clarke and Nolan). I chose thematic analysis as it is "an accessible and theoretically flexible approach to analyzing qualitative data" (Braun and Clarke 77). It is also based on a constructivist approach (Neuendorf), which means it seeks to find meaning from the interactions between people and their experiences, and things; it is subjective. (Cresswell). This is useful when looking at book club discussions as book clubs are spaces where social meaning is created (Clarke and Nolan; Iossifidis; Long; Swann and Allington; Todd).

[7] See www.dedoose.com for more information.

My study is intended to provide an exploratory look at groups of Canadian readers discussing cli-fi novels. In alignment with this goal, I adopted an inductive approach, refraining from seeking specific themes and instead, remained open to the themes as they emerged. I examined the data across all four book clubs to capture a sense of how these non-scholarly readers discussed these novels. After my first read I had over 200 codes, during my second read-through I consolidated to 146 codes and then found themes within those codes. I disregarded codes such as "Book Specifics," "Style," and "Being in a Book Club," as the contents of those codes ended up having little to do with my guiding question. Through multiple read-throughs I uncovered three themes discussed below.

4.4 Results

4.4.1 Survey Results and Discussion

4.4.1.1 Demographics

Participants ranged in age between 18-65+ and there were four male identifying participants and 36 female identifying participants. The age range is fairly similar to Canadian readers, but is a bit younger than the general Canadian population (BookNet Canada; Statistics Canada). Having more female identifying participants is similar to the gender distribution of other Canadian book clubs (Sparkes). Figure 4.1 shows a breakdown of participants' gender identities by age category.

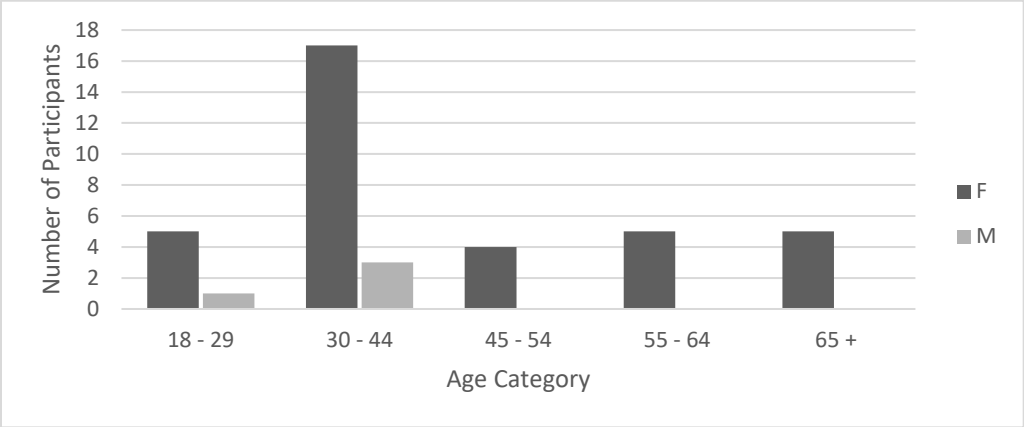


Figure 4.1 Participant gender by age category.

Most participants listed their political affiliation as Liberal Party of Canada (18 – 45%), followed by the New Democratic Party of Canada (15 – 37%). Figure 4.2 below shows the full breakdown of

political party associations.

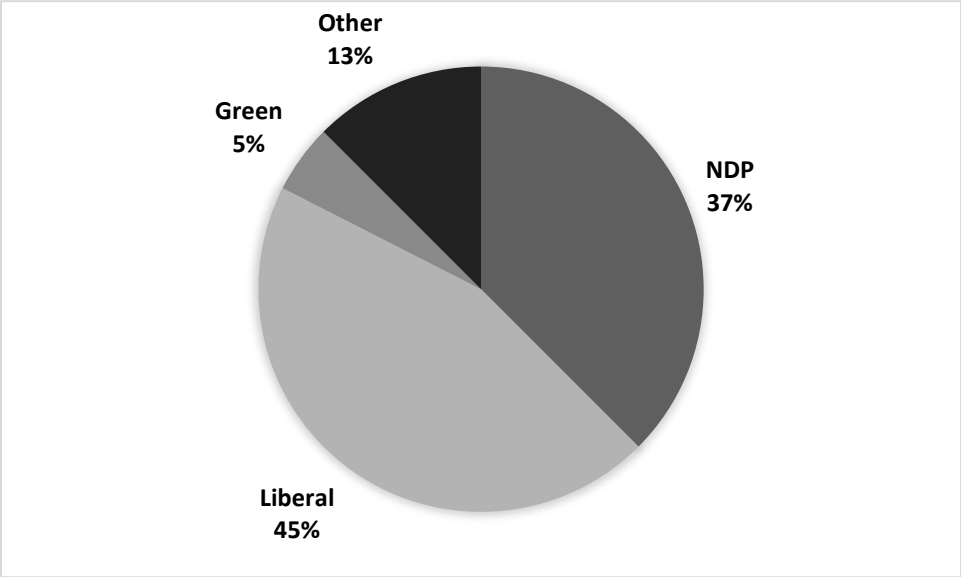


Figure 4.2 Percentages of participants who identified with Canada's major political parties.

4.4.1.2 SASSY Survey Results

Analysis of the SASSY pre-survey revealed 31 participants were Alarmed, seven were Concerned, and two were Cautious regarding climate change.

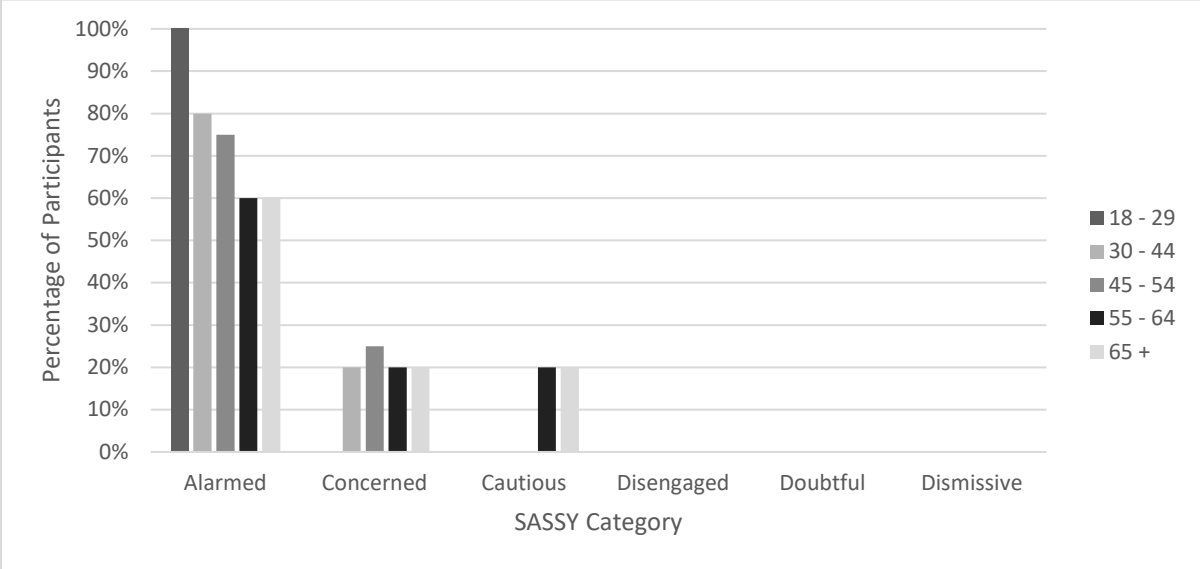


Figure 4.3 Participants by age and SASSY category.

4.4.1.3 Survey Discussion

According to Statistics Canada, the group most likely to be concerned about environmental issues, like climate change, are Canadian youth (aged 18-30) (Arrigada and Pinault). Similarly, 26 of my 40 participants were between the ages of 18-44 and 19 of those fell into the Alarmed category. However, the older participants were equally concerned with nine of the fourteen remaining participants (aged 44 - 65+) also identifying as Alarmed. Additionally, none of my participants identified with a political party on the right side of the spectrum. These results show that my study aligns with other work on cli-fi readers that found they tend to be younger, concerned about climate change, and liberal (Schneider-Mayerson, "Influence").

4.5 Thematic Analysis Results and Discussion

My thematic analysis identified three major themes in the book clubs' discussions: (1) the more *relatable* the cli-fi novel, the more believable the story and climate change was to participants; (2) *hope's presence or absence* was related to whether the novels included actions individuals could take to alleviate climate change; and, similarly, (3) participants expressed *anxiety* when they related to the characters and scenarios. All participant quotations have been edited for readability (e.g., verbatim repetition and grammatical errors have been corrected) and omitted data is represented '[…].' To differentiate quotations from the main narrative they are in quotations, and generally, single spaced, and centered. Participant quotations are also identified by their participant number and the name of the book they were discussing (e.g., P01 *Blaze Island*) and following Schneider-Mayerson's first study of cli-fi readers ("Influence"), there is a footnote containing their demographic information.

4.5.1 Relatable

Participants would often relate the plot of the novels to their lives and their experience of climate change:

> *"*Caleb took [Miranda] on the boat to look at the icebergs and then right after that she said they were watching the disappearance of the icebergs and then he wanted to go for dinner. And to her, it was like she was looking at the death of something and then he wanted to go for dinner, and she could not wrap her head around that and I feel like that. I have felt like that. People don't always wrap their heads around it and it's like, how can we go for dinner when this is happening like I don't get it, so I understand what she was thinking." (P11, *Blaze Island*) [8]

[8] Female, Communications Coordinator, 45-54, Liberal Party of Canada, Alarmed

Similarly, descriptions of climate changed landscapes in *Blaze Island* and *The Marrow Thieves* prompted discussions of climate changes that participants had observed in Canada and for one participant in Nigeria. These discussions often related to the believability of the novel and the reality of climate change in general:

> "I think I feel like something like this was gonna happen, but I'm just scared of what will happen. Here in BC, I am in the east … and like we've had really bad fires over the last few years and then right now it's kind of we had plus 40 degrees last year, around this time we've never seen that. Now it hasn't stopped raining since March really so it's kind of weird." (P06 *The Marrow Thieves*) [9]

> "My folks live in Nigeria and say things like 'oh yeah we've seen this' and 'we normally don't see at this time.' So anyway. It was just making this whole climate change, then come alive to me. […] I guess yeah it. It made it feel more real I mean I already know that this is a very real problem, but it made it come alive to me more." (P37, *Blaze Island)*[10]

4.5.1.1 It feels like the author is "writing a book of my thoughts"

Long contended that reading groups (or book clubs) straddle the line between public and private spaces where "people use culture to find the deliberative spaces, the companions, and the resources with which to creatively remake themselves and their world" (222–23). Several book club studies have found that readers often related the content of a novel to their own experiences or used novels to make sense of their own lives (Clarke and Nolan; Iossifidis and Garforth; Long; Swann and Allington; Todd; Willis). My study was no exception. Only one participant's words, P02, were never coded as "relatable."

In group discussions regarding *Weather,* P15 stated: "When I first started reading [*Weather*], I just was astounded that somebody is writing a book of my thoughts all day."[11] In general, participants felt that the novels reflected how they felt about climate change and the pressure they felt living their daily lives with the knowledge of climate change. This may be unsurprising due to the novels' genre (cli-fi) and participants' concern about climate change, which ranged from moderate (cautious) to high (alarmed):

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[9] Female, Clinical Pharmacist, 18-29, New Democratic Party of Canada, Alarmed
[10] Female, Engineer, 18-29, Liberal Party of Canada, Alarmed
[11] Female, Retired, 65+, Liberal Party of Canada, Cautious

> "For me what struck me the most about it was watching like the adaptability and all the different ways that people dealt with the changing weather. Because to me that's a lot of my daily life honestly of dealing with climate change. Yes, there's all these big grand problems but it's also like shoot do I need to buy new raincoat […] Just [the characters] all think they're doing the right thing; I also like to think I'm doing the right thing and hoping that it is so." (P52, *Blaze Island*)[12]

> "You know we're living with it [climate change] right now, but a lot of us are kind of just busy with everything that we're doing, and so, for me [*Weather*] made me think about it [climate change], like you know we are living in the climate crisis at this point, many crises, but that's one and people are just busy with everything else that's going on, and maybe not paying enough attention to it […] for me it felt like she [*Weather* main character] was that's kind of me. Like I'm living this life right now and I'm too busy I don't even pay that much attention." (P37, *Weather*)

Additionally, when talking about *Weather,* P37 mentioned that the novel provided her opportunities to bring up climate change to other people outside of the book club. She stated that it was easy to do so with *Weather* because it was about everyday interactions. Although some critics have argued that Offill's novel reduced climate change down to the anxiety of one white woman (Ramamurthy), *Weather* enabled this particular participant to talk about climate change in her social circle, using the novel as a springboard into the discussion. This could be where cli-fi's potential lies: readers could use these novels to bring up climate change in their daily lives and normalize discussing climate futures with others, rather than harbouring their worries alone (Milkoreit,"Promise"; Schneider-Mayerson, "Influence"). *Weather* does not depict climate disasters, instead, it is about one woman's climate anxiety, which provided this reader with an opening to talk about her own climate fears. Talking about climate change and our associated anxieties may help prevent feelings of isolation (Norgaard; Verlie, *Learning*). In turn, sharing our fears and worries about climate change may help us to build a sense of community and capacity to work towards making individual lifestyle and political changes to help us survive in a climate altered world (Ballew et al.; Norgaard; Wray).

4.5.1.2 Fictional Disasters as Reminders of Real-World Disasters

Empirical literary studies demonstrate that readers often draw on their own memories and experiences to describe or relate to narratives (Kutsch). My participants often related the fictional disasters in the cli-fi novels to real world experiences of adverse weather:

[12] Female, Library Technician, 18-29, New Democratic Party of Canada, Alarmed

> "I feel that's what's happening for us right now there's so many little signs out there, like the wildfires are worse than we've ever seen them. Flooding and like, especially where P06 lives in BC that was devastating like Lytton fire all the fires around the flooding the constant rain." (P36, *The Marrow Thieves)*[13]

> "Part of what made the world building so realistic for me, like everything that's being described in the book is happening right now in the real world." (P52, *Blackfish City)*[14]

Or they used these fictional scenarios to help them picture how they might play out in the real world. Using phrases like "it made it feel more real" (P37 *Blaze Island*) or saying that they needed descriptions of adverse weather "because if you asked me about my experience of storms […] I haven't felt any on my own, but in the book, it came alive for me like I could feel the sensations" (P33 *Blaze Island*).[15] One barrier that is often mentioned for motivating action on climate change is that of distance (Stoknes, "Rethinking Climate Communications and the 'Psychological Climate Paradox'"). This can be in terms of timing (future), geographical (happening somewhere else), or simply the capacity to "see" changes (e.g., what do different levels of carbon in the atmosphere actually look like). One participant, P12 an environmental engineer, described how he thought *The Marrow Thieves* did a good job portraying the "slow onset" and "insidiousness" of climate change.[16] He believed this is often difficult for the general populace to notice. If cli-fi novels are able to help readers better see this "insidiousness" of climate change, then more research should focus on whether this can help lead to behaviour changes (Schneider-Mayerson, "Influence" 495; Weik von Mossner, *Imagining*).

Not every participant found every story relatable. P08 found *Blaze Island* to be surreal, calling into question the believability of solar blocking technology and island life:

> "in *Weather* I'm like oh yeah these are normal people. Fairly normal life and their response to climate change is recognizable to my mind, whereas this weird world where there's sun blocking technology and we're living on an island, like that was just so unrelatable to me. That, even though the narrative of climate change is more like ours. I felt less."[17]

P08 may be unaware of the geoengineering efforts being considered to mitigate climate change (Buck) and so felt that it was too unrealistic. Similarly, readers, such as P08, may more readily accept narratives set in geographic regions that they recognize (Schneider-Mayerson, "Influence" 487).

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[13] Female, Retired, 65+, Liberal Party of Canada, Concerned
[14] Female, Library Technician, 18-29, New Democratic Party of Canada, Alarmed
[15] Female, Educational Assistant, 45-54, Other, Alarmed
[16] Male, Environmental Engineer, 30-44, Liberal Party of Canada, Alarmed
[17] Female, Project Manager, 30-44, New Democratic Party of Canada, Alarmed

Further, her stated inability to connect with the characters in *Blaze Island* reminds us that although novels tell stories, without readers, they are inert (Weik von Mossner, "Why"). Not every reader will react the same to every story. Research on readers must be aware of the tension between expanding a reader's capacity to notice and care about different issues, like climate change, and the possibility that readers will not connect with a text for numerous individual or social reasons (Goldstein and Machor; Kuiken et al.; Phelan).

Finally, although many of the readers found the narratives and characters in the study to be relatable, these experiences did not seem to prompt social action or behaviour change. Relating to the stories in cli-fi novels might be a step in the process towards bridging the gap between climate concern and action as they make the effects of climate change more tangible (Schneider-Mayerson, "Influence"; Weik von Mossner, *Imagining*), but more research is needed to determine whether different narratives can illicit more than just feelings of empathy (Keen).

4.5.2 Hope

At each book club meeting I explicitly asked participants to reflect on how the novel in question made them feel about the future. In general, participants reported feeling hopeful if they felt the novel had showed actions they or society could take to alleviate climate change:

> "But I thought the book did a good slightly optimistic [job]. Looking at all of these people [who] wanted to do something, and they were going to try doing different things and that's what we need right, we need we need everyone to rise up and take different approaches to make a difference." (P48, *Blaze Island*)[18]

Conversely, if participants felt overwhelmed by how the novel presented climate change, they often felt hopeless and as if there were no actions that could be taken on this crisis:

> "You know I at times I kind of felt the hopelessness of like 'oh my God we're having such like big changes' and how do we possibly stop this without having to shoot particles you know, such an extreme solution kind of thing." (P30, *Blaze Island*)[19]

> "You know corporations really being the drivers of this and how we got to where we are now. I definitely didn't feel hopeful I could do something as an individual from this. And, not to say that I'm not doing things as an individual, but I definitely did not feel empowered after this book [that] me as an individual that I could do a lot." (P50, *Blaze Island*)[20]

[18] Female, Policy – Provincial Government, 55-64, Liberal Party of Canada, Alarmed
[19] Female, Finance and IP Administration, 30-44, Liberal Party of Canada, Alarmed
[20] Female, Dietitian, 45-54, Liberal Party of Canada, Alarmed

4.5.2.1 Finding Hope

There are numerous definitions of hope. As this chapter is focused on the effects of reading cli-fi novels and this section on how the participants discussed hope in these novels, I will utilize human geographer Leslie Head's definition of hope. Her work is useful as she focuses on the problem of hope and grief in a time of planetary crisis. Consulting geographer Ben Anderson's ("Becoming"; "'Transcending'") work on hope, Head defines it according to four principles: (1) hope is a process that creates possibility and potential; (2) hope carries both melancholy and grief; (3) hope risks disappointment and has no guarantees; and (4) hope is "everyday"- it seeks to find new ways to imagine life "otherwise"(89). Head's definition aligns with other researchers whose work intersects on hope and climate change, such as environmental educational psychologist Maria Ojala ("Hope and Climate Change"; "Hope and Anticipation"), who asserts that hope holds both positive and negative emotions, needs to be cultivated, and is a requirement for imagining and acting to bring about new sustainable ways of living.

When participants commented on what they took from reading the study's cli-fi novels, it was often tied to whether they perceived the novels as presenting a hopeful outlook for the future as evidenced by these reflections on *Blaze Island*:

> "I think we have to be hopeful; I think we have to act more I would say, at least provincially if not nationally on a lot of these things now and kind of build from the ground up because I think if you just do it one at a time it's going to take too long, unfortunately." (P12)

These comments from P48 above and P12 reflect hope as defined by Head. Each participant sees the possibility for change, while acknowledging that there are no guarantees. P48 stated that she sees hope in the attempt and desire to act. She was not confident that the characters' actions would help, but she found it important that they tried. She also quickly transitioned from talking about the book to the real world and how she felt "that's what we need right, we need everyone to rise up and take different approaches to make a difference." Similarly, P12 was unsure that we will be able to act quickly enough to make a difference. But he thought "we have to be hopeful." His uncertainty about our capacity to act quickly enough, along with his certainty that we need hope to move forward reflect common debates in climate change communications research regarding optimistic and pessimistic messaging.

Although there is research that suggests doom-and-gloom messaging will cause audiences to become fatalistic about climate change (Feinberg and Willer; O'Neill and Nicholson-Cole; Schneider-

Mayerson, "'Just as in the Book'?"), a 2020 review of effects of optimistic and pessimistic messaging to motivate action revealed that this research is inconclusive (Hornsey and Fielding, "Understanding"). Rather than continuing to rely on binary messaging, what may be needed are more balanced messages. Ones that include hope, but also acknowledge the dangers of climate change (Hall; Hornsey and Fielding, "Understanding"). This kind of messaging may help people accept that the future is unknown and uncertain, and from that acceptance recognize that there is hope (Lertzman). When discussing *Blaze Island*, P11 stated

> "I liked the ending of this book because it didn't say the world's ending. It said the world's going to be different, you will live differently so you can't judge their future lives [children] by what we do now, because it'll be different. Doesn't mean it's bad or good just different." [21]

When P11 looks at the future she sees it not as "bad or good just different." Interpreting the ending of *Blaze Island* as open, P11 finds hope as the author did not point towards either fully positive or negative future. Anderson believes that hope is "marked by an enduring indeterminacy" ("Becoming" 750). Both P11 and P12's comments highlight that, at least for these two participants, *Blaze Island* left them feeling hopeful that there was possibility for change.

4.5.2.2 Losing Hope

On the other side, other participants found the open-ending and realistic portrayal of climate change induced a sense of hopelessness. Both P30 and P50 found the portrayal of climate change overwhelming. As P50 mentions, Bush is very explicit in her novel naming some of the drivers of climate change (e.g., capitalism, fossil fuel usage). The novel revolves around a disgraced climate scientist who attempts to convince a business mogul to invest in new geoengineering technology that will shoot aerosol particles into the atmosphere to block the sun and hopefully, cool the Earth. However, at the end of the novel the scientist then reveals that his technology will not work and the only option to save the planet is social change. The solar geoengineering technology referenced in *Blaze Island* has been discussed since at least the early 2010's (Klein) but has yet to be implemented for a variety of reasons. One of which is that further changes to our environment are risky, we do not yet understand how ecosystems will respond to intervention (Buck). Further, sociologist Holly Jean Buck argues that "we need creativity, both technologically and socially" (251). Although *Blaze Island* reflects this worry, these two participants did not find any comfort in that knowledge. Instead, P30's

[21] Female, Communications Coordinator, 45-54, Liberal Party of Canada, Alarmed

interpretation is that climate change is so bad that we will have to contemplate drastic measures and P50 "did not feel empowered." Neither of these readers felt there was hope that they as individuals could make a difference.

In his 2018 survey of cli-fi readers, Schneider-Mayerson found that some readers were incited by these novels to act on climate change. One woman in his study said that after reading Barbara Kingsolver's *Flight Behavior* she would bring her reusable bags with her to the grocery store. Schneider-Mayerson finds this a telling anecdote as although the reader felt she needed to do something about climate change, her actions are likely to have little effect. Communications researcher Lorraine Whitmarsh calls this reaction an "asymmetry of intentions and impacts" (19). The survey respondent is unaware what actions would be most effective and thus chooses something she perceived would help. One of the main characters in *Blaze Island* is a climate scientist who has enough money to move with his family to an island, start an off-grid farm and, at least in theory, develop climate altering technology. P30 and P50's comments reflect that this novel did not provide them with information on what to do about climate change as individuals and that made them feel powerless and hopeless. Powerlessness is a high predictor of climate inaction even if an individual is worried about climate change (Lorenzoni et al.; Pickering and Dale). If climate communicators, whether in the news media or novels, want to empower their audiences, it may be best to include both warnings and solutions (Brosch; Hornsey and Fielding, "Understanding"; Petrescu-Mag et al.). Emphasizing both solutions that are already in place as well as actions that individuals and collectives can take is likely to be more effective than warnings about climate change (Baden; Brosch).

Although some readers found hope through the open endings and the possibilities presented in the novels, there were others that found the realistic portrayals of climate change to be overwhelming and caused them to lose hope. The next section discusses the anxiety that readers expressed during meetings and how the meetings helped them to engage with that anxiety.

4.5.3 Anxiety

Like hope, anxiety and how it manifests in relation to climate, has many definitions. Sociologist Blanche Verlie defines climate anxiety as "more than the short-term concern or worry that can arise when people are confronted with information about climate change. Rather, it is a medium- to long-term sense that their world – their relationships, assumptions, dreams, security and identity – is in the process of ending" (*Learning* 50). For Verlie, climate anxiety is not merely an internal reaction to

environmental issues, but it is also political. Climate change undermines Western society's notion of stability and progress (Head) as its "cascading disruptions" can be predicted, but not assured (Verlie, *Learning* 51). According to Verlie this "'guaranteed uncertainty' can generate feelings of confusion, worry and anxiety" (*Learning* 51). Each cli-fi novel in this study explored different experiences of this phenomenon and many readers reacted with anxiety to these climate change narratives.

When discussing *Weather*, participants described how they felt the same climate anxiety that the main character did or that her worry increased their own:

> "For me, I was like kind of [relieved] that wow someone else is overthinking things all the time, in the same way, I am. And I felt bad it's a terrible feeling I don't want anyone else be feeling that feeling." (P52)
>
> "I might be highly suggestible but as I was reading, and she was expressing her concerns, I was like oh I've never thought about that now I'm worried about that too." (P38)[22]

For *Blaze Island,* participants expressed anxiety and frustration that they did not perceive any tangible actions they could take from the novel:

> "And I'm reminded of it [climate change] and then I'm at that high anxiety point again and these books, whether they're nonfiction or fiction I find I go into them hoping, like maybe this is going to be the one that has some answers in it that can like definitively tell me what I can do to make a difference." (P29)[23]

Additionally, when asked to reflect on the book club 20 of the 36 participants who responded to the post-survey, stated that the book club was a positive space for them: "The chance to chat out our stresses really helped" (P25[24]) and when asked how they felt about the future after the book club, 22 participants responded negatively. They used words like "doom," "worry," "inevitable," "depressing," and P49 wrote "I've been wondering if there is really anything that we can do that will bring a change."

4.5.3.1 Relating to Climate Anxiety

P52 and P38 were empathizing with, relating to, and feeling validated by Lizzie and her climate anxiety. Reporting on research of student readers Keen found that they were often able to identify more readily with characters experiencing "negative feeling states" (72). She hypothesizes that

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[22] Female, Retail, 30-44, New Democratic Party of Canada, Alarmed
[23] Female, Educational Developer, 30-44, New Democratic Party of Canada, Alarmed
[24] Female, PhD Student, 18-29, Green Party of Canada, Alarmed

"perhaps the circumstance of fictionality enable exploration of negative feeling states that might otherwise be avoided or repressed for personal or social reasons" (ibid.). Several studies have pointed out that, at least in the Western world, there is a tendency to ignore emotional responses to climate change (Dennis and Stock; Head and Harada; Norgaard; Verlie, *Learning*), which can lead to either feelings of hopelessness or apathy (Hickman et al.; Pihkala, "Eco-Anxiety"). Sociologist Kari Marie Norgaard has argued that to move beyond these feelings of apathy the first step is to talk with others about climate change and come to recognize that others feel as you do. P52 "felt relief" reading about Lizzie's climate anxiety in *Weather*, but that recognition did not lead her to express any new motivation to act on climate change. Jenny Offill, the author of *Weather*, hoped her novel would help readers move beyond feelings of fatalism to become empowered to act collectively on climate change (K. F. Williams). However, many of my participants stated the opposite. P38 expressed that she felt even more worried about climate change after reading Offill's accurate descriptions of current climate science.

After the last sentence in Weather, there is a link - ObligatoryNoteofHope.com. The landing page displays a response to the question "How can we imagine and create a future we want to live in?" Offill created this page to help her readers feel the hope that she began to feel while researching *Weather.* In addition to her initial question and answer, Offill also included a link entitled "Tips for Trying Times" and information on three climate activist groups (Sunrise Movement, Extinction Rebellion, and Transition Towns). The Tips for Trying Times link leads to quotes about survival and hope from various writers, philosophers, and scientists (e.g., Marcus Aurelias, Robin Wall Kimmerer, Albert Camus, among others). Of the 40 book club participants, only six said they noticed the link and visited the website. Of those six only four found the website hopeful - the other two reported their anxiety persisted. That some participants still felt anxiety after reviewing the website may indicate that if cli-fi authors want to provide hope to readers, they should embed practical advice within their narratives (De Meyer et al.).

For one participant, P05, the main character's climate anxiety in *Weather* was not only relatable but it made her reflect on the role that climate anxiety was playing in her own life:

> "I think my takeaway was I probably need to manage my climate anxiety a little bit better, to be able to leverage it in a positive and impactful way, because I think at the moment it's very much just like this book. It's just kind of like I indulge in the anxiety, perhaps too much."[25]

Weather helped P05 to note that her climate anxiety is not leading her to any effective action on climate change. However, from her post-survey answers, which she provided about five months after the *Weather* meeting, in answer to the question "How do you feel about climate change and the future after discussing these novels" she replied, "I feel largely the same as I did before – more justified perhaps." Reading these novels did not help her find ways to "leverage" her anxiety. Again, this supports research from various social scientists who argue that to help audiences take action on climate change, messaging needs to not only normalize talking about climate change, but to also provide explicit and tangible examples that reinforce perceptions of collective efficacy (Ballew et al.; De Meyer et al.; Whitmarsh).

Participants related to the anxiety in *Weather*, seeing their own worries mirrored by the main character. However, simply reading about another's climate anxiety did not alleviate their own worry. Below I examine some more key responses about *Blaze Island* that display how participants utilized the book club meetings to engage with their anxiety.

4.5.3.2 Talking about Climate Anxiety and Normalizing an Uncertain Future

While the book club meetings allowed participants to talk about climate change and their emotional responses, these novels did not provide readers with explicit instruction about what to do with these feelings. This is evidenced via P29's comments that she hoped this book would have some answers and P08's *Blaze Island* observations about the "problem with climate change":

> "I think part of the problem with climate change is also it's hard to find a singular action that we're willing to take up on ourselves. It's not like COVID […]. Like 'oh go get vaccinated' 'wear your mask everything will be fine.' Those are two very clear, easy steps that you can take to make things better, but with climate change it's all so messy and a lot of the responsibility isn't something we as individuals, can bear right […] So it's frustrating, because we do feel attacked, because people are telling us oh stop using straws, stop driving your gas car, but really all the changes that we're making are not going to change the fact that there's like 4000 rerouting flights, a day for empty airplanes. So, me driving to work, compared to flying an empty plane I don't know."

[25] Female, Information Technician, 18-29, New Democratic Party of Canada, Alarmed

Verlie claims that in "high-carbon societies" (*Learning* 50) climate anxiety and guilt go hand in hand. P08's words reflect guilt, powerlessness, and anxiety. She is frustrated due to the tension between what she knows would be the correct way to live "stop driving your gas car" and the reality of living in a fossil-fuel society. This also leads to her frustration and feelings of powerlessness, she knows she could try to change her actions, but without government intervention for the bigger polluters there is no incentive for her to take those actions (Pickering and Dale). All of this leads to feelings of anxiety.

Looking at both P29 and P08 post-survey responses revealed that the book club format gave them comfort. They felt reassured hearing that others felt the same about climate change and discussing the cli-fi novels with others allowed them to explore this topic in more depth than in their daily lives. Specifically, P08 remarked that reading these novels made her reflect on different future impacts and "it was interesting to think about how I felt about each of them. I don't feel more hopeful about the future, but I don't feel doomed either." Her survey answers in comparison to her meeting commentary reflected curiosity and openness towards the future despite being aware of possible negative changes. Researchers have noted that to help those of us in affluent Western countries to engage with climate change, we first need to find ways to foster our capacity to accept negative emotions and become comfortable with uncertainty (Lertzman; Ray; Verlie, *Learning*).

After interviewing Australian climate scientists, human geographers Lesile Head and Theresa Harada state that the "heart is kept a long way from the brain" (39) to allow these scientists to do their work. The interviewees tended to downplay their emotional responses to their work, especially the negative ones, which Head and Harada argued affected their research. Instead of giving equal attention to negative or positive outcomes, Head and Harada claimed that by suppressing their negative emotions, the scientists were then downplaying the negative consequences of their research. Head and Harada suggested a new skill set is required for dealing with our negative climate emotions. We need to find ways to engage and manage these emotions that do not simply suppress or deny them. Similarly, cognitive narratologist Marco Caracciolo has emphasized the potential for narratives to help us deal with the uncertainty of the future and our negative emotions that surround said uncertainty. Caracciolo contends that to become more open to uncertainty, we require a diversity of perspectives and interpretations of narratives. In order to obtain these perspectives, Caracciolo believes new collective practices of reading are required. These can be either in formal academic settings or informal social scenarios, such as book clubs (Caracciolo, *Contemporary Fiction* 185).

No novel in this study had a definitive ending, rather the authors left it open to interpretation what actions the characters will take next and what happens next. Many participants expressed frustration with these endings and hoped for more closure to ease their anxiety. However, 50% of participants were positive about the book club meetings:

> "it was helpful to hear different perspectives from others that provided some reason for hope, and to know others out there are interested in taking action to make a change." (P35)[26]

Responses like those from P35 and P25 ("the chance to chat out our stresses really helped") indicate that reading and discussing cli-fi novels in a group provided a sense of community and a comforting space to discuss the challenging topic of climate change. Although half of the participants expressed feeling positively about the book club, when asked how they felt about the future after the book club just over half (55%) still felt negatively about the future. The tension between how they felt about the book club discussions and their anxieties for the future may be part of what Verlie calls "learning to live with climate change" (*Learning* 59). That is, not to be fatalistic and give up hope, but instead being able to mourn what has been lost due to climate change. According to Verlie, in order to act collectively on climate change those of us who live in Western society must be able to accept both our emotional responses to climate change and to let go of the notion that we can control the future. We have to learn how to live with the uncertainty of the future.

My participants reflecting on how the discussions helped them feel less anxious while still reporting anxiety about the future could be part of learning how to accept uncertainty. In order to live with climate change, Verlie claims we need to witness climate through multiple viewpoints, and we need to share our own climate stories. The cli-fi novels in this study provided multiple perspectives on climate change. Additionally, participants were able to reflect on their own climate change experiences and anxieties with others. Although no one reported being transformed by the readings and discussions, the majority did feel that talking about these issues was helpful. These responses suggest that the book clubs allowed the readers to engage with their climate anxiety.

4.6 Recommendations for Future Research

During the completion of this research, several recommendations for future study became apparent. First, although my study included 40 participants from across Canada, the majority were

[26] Female, Physiotherapist, 30-44, Liberal Party of Canada, Alarmed

highly concerned about climate change (either Alarmed or Concerned). This could be due in part to the advertising of the study as "Book Clubs for Climate Change" so it may not have been of interest to those unconcerned or in denial about climate change. Schneider-Mayerson ("Influence") found that cli-fi readers tend to read these novels because they *already* are concerned about climate change. Future cli-fi book club studies could explore the effects these novels might have on climate skeptics or those on the lower end of the SASSY scale (Cautious, Disengaged, Doubtful, or Dismissive), and should utilize other ways to advertise their book clubs to appeal to these groups. Researchers could partner with other community groups or institutions (such as libraries or bookstores) and choose a name that does not expressly link it to climate change. Finding outlets for diverse climate audiences to discuss this is issue is important as research shows that talking about climate change strengthens belief in climate science (Goldberg, Linden, et al.) and may lead to climate action (Milkoreit, "Imaginary Politics").

Ideally, qualitative data should be coded by more than one researcher (Liamputtong; Krueger and Casey). Due to time and funding constraints, one researcher coded the data in this study. To minimize bias from one researcher's codes, two rounds of coding occurred one year apart. A larger sample size and additional or delayed post-surveys could make results more generalizable and informative. Other book club studies have included participant samples of N= 12- 24, compared to the N=40 of the present study. Larger sample sizes could be helpful to more confidently reflect the thoughts of those concerned about climate change or of those with more diverse climate opinions. While this study is similar to other book club research and engagement that finds these groups tend to be dominated by women, it is not reflective of the general population. It may be worthwhile for future studies to develop book clubs that can entice other gender identities to take part and explore the intersections of their identities and climate concern.

Additionally, each novel in this study was chosen for its distinct perspective on climate change (i.e., they were not written by white heterosexual men), however, Sam J. Miller's *Blackfish City* has faced some backlash from users of the public forum site Reddit for cultural appropriation. Although the mysticism and animal bonding in the novel cannot be directly related to any one Indigenous culture, the main characters are said to be Inuit descendants and Miller is not Indigenous. At study onset, this critique had not been made in scholarly work regarding *Blackfish City* and has yet to be addressed. I included this novel despite this valid criticism as it seemed important and worthwhile to gather readers' reflections on the work. Another book club study faced a similar situation, with the

controversial Australian novel *The Secret River* (Clarke and Nolan). Clarke and Nolan reported that this novel had great public appeal, but was also thought by literary critiques to be "complicit" with the very nationalism it sought to interrogate (122). To understand what general readers were doing with this text, they observed book clubs as they read this novel. Clarke and Nolan concluded that novels like *The Secret River*, questioned by the academic community for not being rigorous enough, may still, in the cultural space of a book club, be useful for general readers to approach difficult topics. Similarly, I wanted to see if my readers would reflect on Miller's character choice. However, this only occurred in one group, which contained a participant who worked closely with an Indigenous group on the West coast of Canada. I did not include a discussion of the novel's cultural appropriation in this dissertation as the discussion only emerged in one club by one reader, and I am neither Indigenous nor an Indigenous scholar, thus not well-suited to tackle this aspect. However, future cli-fi book studies should take particular care to highlight issues of climate justice as this has been argued a central component of climate action ("About - Climate Justice Alliance"; Nixon; Porter et al.; Raworth).

After the book club sessions, participants still reported feeling anxiety about the future. This could be due to the cli-fi novels chosen for this study. None could be considered utopian or optimistic. Although climate anxiety is a reasonable response to climate change, if media continue to sensationalize and focus solely on negative futures then audiences will be less likely to take action on this problem (Maduneme). A 2024 Master's Thesis interview study noted that readers of Becky Chambers' solarpunk novella, *A Psalm for the Wild Built,* reported feeling slightly more hopeful about the capacity for community to act on climate change as well as marginally improving their climate anxiety (McWilliams). Solarpunk stories focus on futures where humans not only survive climate change but are thriving (R. Williams, "Solarpunk"). Future book club studies could focus on narratives of hope and action to test how these narratives affect readers (e.g., are readers of solarpunk more likely than cli-fi readers to report feeling emboldened to act on climate change?).

4.7 Conclusion

Overall, my results are consistent with Schneider-Mayerson's initial survey of cli-fi readers: reading these cli-fi novels did not lead my participants to act on climate change nor were they transformed by their readings. Although *Blackfish City* and *The Marrow Thieves* did not lead participants to become survivalist oriented like those in Schneider-Mayerson's second survey, they

still did not find much reason for hope in these critical dystopias. Participants reported that the novels showcased the same injustices and environmental problems that exist in our world now without providing solutions. Similarly, participants found the realistic cli-fi novels relatable but felt frustrated that there were no tangible lessons or solutions to take from the novels.

My results also suggest that the book clubs provided opportunities for participants to reflect on how climate change made them feel. This could be an important avenue to open up discussions about climate change and help readers come to terms with their emotional responses to this problem - which in turn could lead to more engagement and action on climate change (Ballew et al.; Verlie, *Learning*). Although eliciting an emotional reaction (either positive or negative) from someone cannot then directly predict whether they will take a certain action, climate change communicators are convinced that emotions play a pivotal role in how people engage with climate change (Chapman et al.; Moser, "More Bad News"; Salama and Aboukoura). Further, repeatedly evoking negative emotions (such as anxiety and fear) without providing audiences with avenues to do something about climate change leads to feelings of fatalism and inaction (Hickman et al.; Maduneme).

Participants found the open endings of the cli-fi novels in this study dissatisfying. Rather than viewing the openness as an opportunity to imagine a future characterized by losses and gains, as I hoped, participants often became convinced that the negative projections in the novels were determined. Although the future has never been certain (Hulme, *Why We Disagree about Climate Change*), the enormity and uncertainty of climate change and its consequences are often emphasized in the media (De Meyer et al.) and cli-fi novels (Milner and Burgmann), which could have contributed to the negative responses in the book clubs' discussions.

Predictions and projections about climate change are dire, but the future is not set in stone. Reading a variety of cli-fi novels in *social* settings (such as book clubs) could help readers come to terms with that knowledge, as shown by the readers' enthusiastic responses to the group discussions. This study should be seen as a call to publishers, authors, and other climate communication practitioners that simply evoking climate anxiety is no longer necessary. Audiences are increasingly worried about climate change (Goldberg, Gustafson, et al.), what they need now are opportunities to reflect on stories of futures that encompass both losses and gains. Futures that may not be utopian but are livable. We need to help readers move beyond catastrophic visions of climate dystopias and foster their capacity to imagine a multitude of ways to create new futures. Gathering readers in groups to

talk about their climate fears and worries may be the first step in helping them learn how to envision a world they want to live in.

Chapter 5
Conclusions

5.1 Chapter Summary

This chapter summarizes and unifies all major findings and knowledge contributions of my dissertation. I begin by reviewing my research purpose and identifying which research question each chapter answers, before discussing the overall contribution of this dissertation to academia and beyond. I conclude by articulating my dissertation's limitations and outline my recommendations for future research.

5.2 Research Purpose

The purpose of my research was to investigate cli-fi novels' influence on non-scholarly readers' understanding of climate change. The questions that guided this dissertation were as follows:

Q1: How might cli-fi novels contribute to our cultural understanding of climate change?

Q2: How, if at all, do non-scholarly readers use cli-fi novels to negotiate issues related to climate change?

Q2.1: How do non-scholarly readers discuss climate change in a cli-fi book club setting?

Chapter 1 provided a theoretical background and literature review to identify a gap in our knowledge about the influence of cli-fi novels on non-scholarly reader's perceptions of climate change. Chapters 2 and 3 are ecocrticial analyses of four cli-fi novels published in the last decade and respond to Q1. Each chapter provided an argument for how these novels present climate change as more than a scientific issue and how reading these novels might enable readers to engage emotionally with the problem of climate change. Chapter 4 presented findings from my virtual book club observation study and responds to Q2 and Q2.1. Additionally, Chapter 4 is the first empirical study of Canadian cli-fi readers and to my knowledge, one of the first book club observation studies focused on non-scholarly cli-fi readers.

My dissertation was guided by two research objectives (1) to examine how cli-fi novels present climate change information to their readers and which aspects of this issue these novels emphasize to readers and (2) to contribute to the emerging field of empirical ecocriticism to report on how groups

of readers discussed cli-fi novels in a book club setting. Major findings are relayed below before presenting research implications for the academy and beyond.

5.3 Major Findings

Each manuscript in this dissertation is related but Chapter 4 differs from the methods in Chapters 2 and 3 (as outlined above). My third research task was to compare and synthesize the information on the potential impact of four cli-fi novels on general readers from each manuscript. As such, a summary of each chapter is presented separately before comparing the arguments from Chapters 2 and 3 with the findings from Chapter 4.

In Chapter 2, I introduced a new term *ambivalent cli-fi* to highlight a possible development in realist cli-fi novels towards engaging with feelings of uncertainty about the present moment and the future. Ambivalent cli-fi are narratives that situate themselves within the real world (e.g., *Weather* takes place just before and after Donald Trump's first presidential election; *Blaze Island* references the 2009 Climategate email scandal) and seek to help readers engage with how it feels to live with the possibility of catastrophe. Although they mention or describe pro-environmental behaviours, they do not push readers to specific climate actions. Their endings remain open, providing space for readers to consider what might yet be possible. To develop my term, I turned to sociologist Blanche Verlie's concept of living-with climate change. Verlie's work seeks to encourage engagement with the messy emotions of climate change as well as the sharing of these emotions with one another. My interpretations of the two cli-fi novels, *Weather* and *Blaze Island*, relied on her work to posit how readers could be inspired by these novels to share their climate emotions and to become transformed by this sharing to imagine other ways of being in the world.

In Chapter 3, I focused on two speculative cli-fi novels, *Blackfish City* and *The Marrow Thieves*, that could be labelled as dystopian despite their authors' intention to provide hope to their readers. I analyzed these novels through the lens of Albert Camus' notion of the absurd by first identifying how our current predicament could be categorized as both existential and futile. Existential because climate change threatens Western society and human life as we know it. Futile due to how large and intractable this issue seems in comparison to any action an individual might take. Camus' absurd answers what to do when life seems pointless and futile – take action for others and do not allow yourself to become numb. Additionally, this chapter examined debates in climate change communication that vacillate between framing climate messages as either hopeful or despairing in

order to motivate audiences to take pro-environmental action. Analyzing the two novels in this context alongside Camus' absurd Chapter 3 contended that what might be necessary now are narratives that can help readers learn how to embrace futures that are neither apocalyptic nor utopic, but somewhere in between. It is this liminal space that might prove a better motivator of action in a time of climate uncertainty.

In Chapter 4, I presented the findings of my virtual cli-fi book club observation study. To interpret my participant's discussions and reactions I utilized research findings from empirical ecocriticism, climate change communication, human geography, environmental psychology, and sociology. Three key themes emerged from thematic analyses of the recorded book club meetings and surveys: (1) the more *relatable* the cli-fi novels, the more believable the story and climate change was to participants; (2) *hope's presence or absence* was linked to whether novels included individual actions to mitigate climate change; and (3) participants expressed *anxiety* when they empathized with the characters and scenarios. These results suggest that non-academic readers do make use of cli-fi novels to understand current climate issues. Further, despite open endings in all cli-fi novels in this study, participants' negative reactions revealed that they envisioned a closed, dark future. This study contributed to empirical ecocriticism and highlighted the importance of considering reading as both an individual and social practice when gauging the impact of these novels on readers' climate change perceptions and behaviours.

My book club results were consistent with Schneider-Mayerson's first two American cli-fi reader survey results: none of my readers felt transformed by these novels ("Influence"; "'Just as in the Book'?"). My participants may have felt unmoved by these novels due to their high levels of concern about climate change (on the YPCCC's scale 77.5% were Alarmed). Although participants did not report any specific behaviour changes, they did say that the book clubs provided opportunities for them to reflect on how climate change made them feel. This study should be seen as a call to publishers, authors, and other climate communication practitioners that simply evoking climate anxiety is no longer necessary. Audiences are increasingly worried about climate change (Goldberg, Gustafson, et al.), what they need now are opportunities to reflect together on what can be achieved (Hall; Lertzman; Moser, "Work").

Comparing participants' reactions to my own interpretations and arguments about the four cli-fi novels in this study, revealed that the way I have been trained to approach novels differed from what

general readers attend to in novels. I argued that the two realistic novels, *Weather* and *Blaze Island*, could help readers emotionally connect with what it means to live now with the uncertainty of climate change. For some of my participants, this was correct. Many were able to relate with the main character in *Weather* and felt that her worries reflected their own, as P15 stated:

> "When I first started reading it, I just was astounded that somebody is writing a book of my thoughts all day."[27]

Another liked the open ending in *Blaze Island* because

> "it didn't say the world's ending. It said the world's going to be different, you will live differently so you can't judge their future lives [children] by what we do now, because it'll be different. Doesn't mean it's bad or good just different."[28]

However, others reported feeling more anxiety after reading these novels and frustration that there were no tangible actions or neat solutions (closed endings) to the problem of climate change. These conflicting results remind us that interpretation is a personal matter and support researcher findings that suggest cli-fi novels should provide readers with examples of pro-environmental actions (Baden; De Meyer et al.)

In my interpretation, I mentioned a potential connection between Ruth Padel's poem *Slices of Toast* and Jenny Offill's *Weather*; none of my readers brought up the poem or other potentially related texts. Catherine Bush has been quite vocal that *Blaze Island* is a reinterpretation of William Shakespeare's *The Tempest* and only two of the four book clubs discussed that connection. In one book club when a participant brought up that it was a reinterpretation of *The Tempest*, others stated they were unaware of that connection. These interactions demonstrate that general readers approach a text differently than someone conducting an academic or literary reading of a novel. In contrast to how I approached these texts, if my readers reported doing anything in terms of preparation for the novels, it was simply to read book reviews. There was one exception in the discussions of both *Weather* and *Blaze Island,* where one participant felt the need to look up how much climate science each author was "exaggerating" (P14[29]).

I deliberately chose the two speculative novels, *Blackfish City* and *The Marrow Thieves*, as although they are quite bleak the authors both claimed they wanted to inspire their readers. In

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[27] Female, Retired, 65+, Liberal Party of Canada, Cautious
[28] Female, Communications Coordinator, 45-54, Liberal Party of Canada, Alarmed
[29] Female, Heath Research Director, 30-44, New Democratic Party of Canada, Alarmed

Schneider-Mayerson's second study of American cli-fi readers he reported that both liberal and conservative readers of Paolo Bacigalupi's *The Water Knife* become convinced of humanity's inherent selfishness. He posits that this could be due to his participant's nationality (American) or to the narrative itself. My interpretation of the two novels revolved around the application of Albert Camus' notion of the absurd to our current climate predicament. The characters in the two cli-fi novels from Chapter 3 live in climate-ravaged worlds where social inequality runs rampant. I argued that the characters' perseverance in the face of these large-scale problems is a lesson we need today. Climate change is not something any one individual or country can resolve on their own and it will be a long time before we can see the effects of our actions (Head; Moser, "Work"). However, this does not mean we should give up. The characters in these novels do not become numb to the suffering around them nor do they disengage. Although my participants did say that these novels were very pessimistic and bleak, they did not express the same insular and conservative reactions reported by Schneider-Mayerson's study. Instead, participants reflected on how talking about these frightening future scenarios in a group was relieving and cathartic (e.g., P25 noted: "the chance to chat out our stresses really helped"[30]). These results put emphasis on the importance for future studies of cli-fi readers to also incorporate intercultural or comparative studies of different audiences from around the globe. Canadian and American audiences are often treated as similar (Cross et al.), but even in my small study there was an observable difference in the ways these readers reacted to the pessimistic stories. Moving forward researchers should seek out more disparate audiences to find out where there is overlap and future divergences in reader reactions to dystopian narratives.

Comparing the arguments from Chapters 2 and 3 with the results of Chapter 4 demonstrates that non-scholarly readers do utilize cli-fi novels to engage with their everyday lives, but they may concentrate on different aspects of novels than the parts that academic readers pay attention to. In section 5.4, I provide an overview of my project's academic contributions, which touches on this tension between trained and non-scholarly readers as well as the effects of cli-fi novels on these general readers.

5.4 Academic and Community Contributions

Following the goals of the School of Environment, Resources and Sustainability doctoral program ("About"), my research set out to contribute original contributions to both the research and broader

[30] Female, PhD Student, 18-29, Green Party of Canada, Alarmed

community. I address the academic contributions first and then include thoughts for how this work could be used beyond the university.

5.4.1 Contributions to the Research Community

The major disciplines that frame my dissertation are climate change communication and ecocriticism; this section will discuss the contributions of my work to these fields.

Two contributions emerged from my preliminary study of Canadian cli-fi readers. First, book club participants used the novels to think through and engage with climate change. Participants compared the scenarios and the characters' reactions to those scenarios with how they would react or feel in those instances. Sometimes their interpretations aligned with literary criticisms of the novels, sometimes they did not. This provides insights for both climate change communication and ecocriticism as it bolsters arguments that cultural works, even fictional ones like cli-fi novels, are useful for engaging audiences about this issue (Arnold; Dahlstrom, "Using"; De Meyer et al.; Milkoreit, "Promise"; Moser, "Reflections"). Further, the differences in non-scholarly readers' interpretations from those of ecocritics or other academics reminds researchers that in order to know how readers/viewers/listeners will engage with media we need to interact with them, preferably outside of the walls of the university (Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*). Second, participants' demographics supported that cli-fi readers are likely to already be concerned about climate change and liberal (Schneider-Mayerson, "Influence"). Meaning that if authors and researchers want to get these works out of the echo-chamber of concerned citizens more work is necessary to engage with different audiences (I have provided suggestions in Chapter 4 about how that might occur).

Comparing my arguments in Chapter 2 and 3 with Chapter 4 results suggests that non-scholarly readers engage emotionally with the novels and that this could be part of Verlie's practice of living-with climate change. This is in spite of Verlie's contention that

> "Both climate change communication and climate fiction typically enact a monologue with their audience, whereby clever experts carefully develop a story to be distributed to relatively passive audiences. But part of the problem that we face in climate change engagement is not that most people do not hear about climate change, it is that most people do not talk about climate change. Most of us are consumers, not creators, of climate stories, with scientists, politicians, deniers and the media offering competing monologues for the docile consumption of the public." (*Learning* 92–93)

In contrast, my research revealed that readers were likely to use these novels to talk about climate change with their friends and family. Verlie's claim that many people "do not talk about climate change" is warranted as many participants reported feeling relief in the book club discussions as they described being unable to talk about their worries and fears in their everyday lives. However, I believe that the way participants utilized these novels and interpreted them together as a group adds to research that contends reading is not, as Verlie suggests, a solitary act (Clarke and Nolan; Iossifidis; Iossifidis and Garforth; Long; Milkoreit, "Imaginary Politics"; Swann and Allington; Todd).

Empirical ecocritical studies of cli-fi novels to date have focused on surveys of individual readers (Schneider-Mayerson, "Influence"; Schneider-Mayerson, "'Just as in the Book'?"; Schneider-Mayerson, Gustafson, et al.) with the exception of a handful of interview studies by Masters and Bachelor students of Dr. Heidi Toivonen at the University of Twente ("Tutors"). My research adds to our knowledge of how readers talk about these novels in groups and not just how they report on their reading through surveys or how they answer interview questions with a researcher directly. Participants in my study often remarked that they came to new and deeper understandings of the novels through their discussions. Additionally, as mentioned above, they felt relief and acceptance not only that there were novels about how they felt about climate change, but also talking about their feelings with others provided an outlet for those emotions. Chapter 4 underscored the necessity for empirical ecocritical studies to also study readers in social settings (e.g., the directions that their conversations take and how they come to interpret the novel with one another). Researchers of book clubs claim that it is this social aspect of reading, its discussion, where change can occur (Carson and Archer-Lean; Clarke and Nolan; Iossifidis and Garforth; Keen; Long; Radway; Willis). Further, the digital sphere influences contemporary reading culture, and scholars are focusing on how social media trends like 'BookTok' (a category of video on TikTok focused entirely on books and reading) affect reader choices and book sales (Reddan et al.; Roberts). To continue thinking about reading as an isolated and solitary activity will yield only part of the story and risks missing the ways that readers influence one another and come together to create their interpretations of novels. I continue this thread below with suggestions for future research.

5.4.2 Contributions to the Broader Community

My dissertation has applications beyond academia, specifically regarding the book club project in Chapter 4. Each author in this study was motivated to write their novels, at least in part, by their

worry and concern for a future radically altered by climate change (Brady, "Q&A"; Conroy; Fachinger; Iyer). Although some readers took heart from these novels, most reported feeling despair about the future and that there was nothing they could do. Authors and publishers alike need to recognize that simply evoking climate anxiety is no longer necessary or enough. Audiences are increasingly worried about climate change (Goldberg, Gustafson, et al.); what they need now are opportunities to reflect on stories of futures that encompass both losses and gains.

Participants also reported frustration when novels did not provide solutions or tangible actions they could take to make a change. Those writing, publishing, or using cli-fi novels for research should seek out stories that not only appeal to readers emotionally, but that also mirror actions readers could take to help move society towards solutions (Baden; Baden and Brown; Brosch; Hornsey and Fielding, "Understanding"). This does not mean that novels need to become some sort of self-help book. Rather, it points to the importance of helping readers find agency in climate action. Aligning with the evolutionary literary studies mentioned in my Introduction (Boyd; Gottschall), cli-fi novels and other climate change storytelling should "support" readers "in discovering how to act" (De Meyer et al. 11).

Finally, community activist groups should look to these novels as a place to start difficult conversations about climate change. Research from sociology and climate change communications suggest that one of the biggest barriers to motivating action on climate change is the "silence" that surrounds it (Ballew et al.; Milkoreit, "Imaginary Politics"; Norgaard; Pihkala, "Eco-Anxiety"; Wray). It can be difficult – especially in Western society – to talk about climate change's emotional toll (Head; Verlie, *Learning*; Weintrobe, "Problem"). Participants in this study repeatedly reported how they felt that the book clubs were a safe space to explore negative emotions they felt about climate change. Their reactions are similar to what organizers of 'climate cafés' aspire to for their attendees ("Climate Cafe"; "Climate Cafes"; "Climate Cafe Network Hub"). These cafes have been offered around the globe by different groups since 2015 and the principles of the groups are similar to those of 'death cafes'(Gribkoff). Organizers want activists and others to come together to discuss how they feel about the climate crisis rather than talk about any pro-environmental or protest actions they are taking ("Climate Cafe"). Instead of running a climate café, community activist groups could use cli-fi novels as an entry point conversation starter to discuss various aspects of climate change.

Overall, my participants' discussions highlight the growing tension between engaging readers emotionally – something cli-fi novels are well documented at achieving (Gaard; Goodbody and

Johns-Putra, “Rise”; LeMenager; Mackey; Weik von Mossner, *Affective Ecologies*; Weik von Mossner, “Affect”) – and finding ways to also embed practical actions that readers can take. Further, these results underscore the importance of bringing these readers together to discuss the difficult emotions brought up by these novels.

5.5 Dissertation Limitations and Future Research

Chapter 4 concluded by outlining limitations and directions for future research specific to the book club study. This section focuses more generally on limitations of the entire dissertation project. It ends with a reiteration of this dissertation’s conclusions and presents avenues for further research based on the work contained within this document.

5.5.1 Dissertation Limitations

5.5.1.1 Study Design of Book Club Project

As mentioned in Chapter 4, the book club project had several limitations. First, due to lingering COVID-19 uncertainty in Ontario during the project’s inception (2021), I chose to conduct the book clubs virtually. This decision was not entirely without merit as I was able to gather participants from across Canada and participants were able to attend meetings from the comfort of their homes (e.g., parents of young children found attendance easier; weather was not an issue during winter months). Although some research has suggested that data collected from virtual focus groups is just as rich as in-person (Abrams et al.; Abrams and Gaiser; Flynn et al.; Halliday et al.; Liamputtong), this was based mostly in health studies and more research is required to see whether in-person or virtual book clubs yield similar results.

Second, I gathered participants for my study through a snowball method (e.g., asking friends and family to share within their circles and asking participants to ask their friends and family) and a call for participants was sent out by the Hamilton Public Library to libraries across Canada. For the first method of participant collection, as most of my peers work in environmental research and/or are concerned about climate change, it is possible that my sample was more highly concerned about climate change than a truly random sample of Canadians. Of the 40 participants, 31 were Alarmed (77.5%), seven were Concerned (17.5%), and two were Cautious (5%) regarding climate change. Schneider-Mayerson’s first survey of American cli-fi readers revealed that cli-fi readers tend to be more concerned about climate change than the general public (“Influence”), but it is possible that my

demographic results were slightly skewed. Comparing my results to the data from Marjolaine Martel-Morin and Erick Lachapelle's audience segmentation study of Canadians where they found that only 25% of their respondents were Alarmed and 45% were Concerned, my participants were likely more concerned than the average Canadian. Although Schneider-Mayerson's studies of cli-fi readers indicate that they often report high levels of concern, future studies should seek to incorporate more diverse audiences and compare findings across levels of climate concern.

Third, despite efforts to choose cli-fi novels in an academically informed way (e.g., by replicating the method of Schneider-Mayerson's first cli-fi study ("Influence")), the novels themselves may have influenced my results. I hoped each novel in this study would help readers engage with their emotional reactions to climate change and maybe find a way to feel motivated to engage with this problem. However, none of these novels provided easy solutions or actions readers could take to address climate problems (Baden). The novels' focus on climate anxiety and catastrophic effects of climate change may have led to participants' pessimistic feelings about the future. These reactions could also have been connected to the high levels of climate concern from participants or the lingering effects of COVID-19 restrictions at the time the first two novels were discussed (February 2022-March 2022) ("Coronavirus"; Jabakhanji).

Finally, my analysis of my results did not look at how my project might fit within a model of systemic change, which is thought to be a key component of social change related to climate change (Meadows et al.; Rockström et al.; Steffen et al.; Voulvoulis et al.).While I believe that could be a worthwhile dimension to pursue for future research, from the beginning my research set out to look at how individual non-scholarly readers reacted to cli-fi novels and what these novels were saying to these readers. This is important because systemic change requires individuals to want to change their behaviour. A 2024 report by The Centre for Climate Change and Social Transformations (CAST) at Cardiff University stated that "people are essential in the fight against climate change. We will not achieve rapid emissions reductions without the support and cooperation of individuals across diverse contexts and roles" (Zanin and Verfuerth, Caroline, para.6). The YPCCC has reported increased levels of climate concern over the past ten years (A. Leiserowitz et al.) and yet the big societal changes necessary to alleviate climate change remain elusive. My research may not inspire large scale political change, but cli-fi novels' capacity to inspire readers to reflect on their own emotional reactions to climate change could be an important step towards these readers taking action on climate change (Davidson and Kecinski; Head; Norgaard; Pickering and Dale; Verlie, *Learning*).

Additionally, the potential for cli-fi book clubs to be a place a where community is built and sustained around climate change conversations could be an important component to systemic change (Ballew et al.). As one example of how this might be achieved, the book clubs attracted people from a variety of ages (18 – 65+) and this could a useful way to create spaces where intergenerational community can be built and knowledge could be shared (Dennis and Stock). Future studies could also combine research from a 2024 study on the role that social capital plays in building community to see if book clubs could be an avenue to increase community resilience in the face of climate change (Carmen et al.).

5.5.1.2 Interdisciplinary Research

As mentioned in the Introduction, I designed my project with interdisciplinary goals set out by SERS in mind. Climate change has been described as a "wicked problem" requiring complex knowledge that transcends disciplinary boundaries (Sakao and Brambila-Macias 1399). However, accomplishing this task is fraught with methodological pitfalls and frustration for researchers and institutions alike (Pohl; Stock and Burton). One of the biggest difficulties of interdisciplinary research is finding ways to combine and synthesize methodologies from diverse disciplines. Empirical ecocriticism works at the boundaries of environmental communications and ecocritical studies, two disciplines that share significant ideological background (Slovic et al.). Even still, designing an empirical ecocritical study for a doctoral dissertation was challenging.

When I began my study design, empirical ecocriticism and its proponents were still defining the field. The original study of American cli-fi readers relied heavily on reader-response theory ("Influence"). In 2023, *Empirical Ecocriticism*, a handbook for designing and understanding the purpose of this new methodology, was published. In its introduction, the editors noted that empirical ecocriticism should combine research from ecocriticism, communications studies, and empirical literary studies – gone are the connections to reader-response theory.

Additionally, although I attempted to conduct an ecocritical survey of the four novels before conducting the book club study (and thus avoid being influenced by participants' discussions), Chapters 2 and 3 were not finished until after Chapter 4. As such, coding and writing the results of Chapter 4 influenced my interpretations of the four cli-fi novels. This means that Chapters 2 and 3 are not the traditional ecocritical studies of these novels that I set out to create for this dissertation.

5.5.2 Future Research – (Empirical) Ecocriticism: What is it Good for in the Face of Climate Uncertainty?

In the last two decades, there has been movement within ecocriticism to reassess the purpose of literary criticism in a time of socioenvironmental problems such as climate change (Hamilton et al.; Major and McMurry; Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*). This dissertation sought to add to this discussion through two ecocritical chapters (2 and 3) and one chapter using empirical ecocritical methods (4). Below I consider future directions for both empirical ecocriticism and ecocriticism (or literary criticism) more generally.

5.5.2.1 Empirical Ecocriticism Needs Book Club Studies

Susanne Moser has asked that we find a way to live in the "uncomfortable space of denying neither endings nor possibilities" ("Work" 2). Climate science points towards the inevitability of drastic climate changes (Masson-Delmotte, Zhai, Pörtner, et al.). Rather than giving into apocalyptic visions of the future or clinging to some form of salvation, Moser wondered what it might be like to sit with the realization that the climate is changing – and not for the better. Several other scholars have argued that contemporary Western culture is uncomfortable with negative feelings that climate change brings up (Head; Head and Harada; Norgaard; Pihkala, "Eco-Anxiety"; Verlie, *Learning*; Weintrobe, "Problem"; Wolfe and Tubi; Wray). One way forward, according to Moser, is to accept that we may not be able to stop global climate change and to sit in this "uncomfortable space" so that we can finally transform our culture and learn how to survive the coming changes.

In order to come to this acceptance, researchers suggest that we need new climate narratives that do not focus solely on dystopic and pessimistic futures (De Meyer et al.; Leviston et al.; Milkoreit, "Imaginary Politics"; Veland et al.). Like Moser, Marco Caracciolo has contended that what is needed now is "an acceptance of uncertainty on a society-wide scale" (*Contemporary Fiction* 184). He argues that achieving this goal will require not only new narratives but also "sophisticated reading strategies and audiences that can value ambiguity and open-endedness rather than dismissing them as frustrating or problematically unsettling" (184). He suggests bringing readers together and, although he alludes to book clubs, he focuses mostly on institutional group reading sessions. The results of my book club study indicate that gathering readers in social settings like community book clubs could be similarly helpful. Additionally, the age range of the book club participants (18 to 65+ years), presents an opportunity to help those concerned about climate change connect with those who have been acting

on environmental problems from different perspectives. This has the potential to create cross-generational knowledge exchange and increase pro-environmental action (Dennis and Stock).

To date, empirical ecocritical studies have focused on reader surveys or interviews to determine the possible impacts of cli-fi novels on their audiences (Malecki et al.; Schneider-Mayerson, "Influence"; Schneider-Mayerson, "'Just as in the Book'?"). This project demonstrated that bringing readers together in a group provides a richer and more varied understanding of what exactly non-scholarly readers *do* with cli-fi novels. If we take the premise that reading, and its attendant process of interpretation, is not simply an individual matter but instead a "relational practice" where meaning is produced through constant reading, rereading, and engagement (Hamilton et al. 18; Keen), then to develop a better understanding of this process we need to observe readers participating in this process together.

Finally, I gathered data from my participants regarding their demographics (gender, age, political leaning, and level of climate concern), but I rarely used this information in my formal analysis of my participants. This was mostly due to following the study design of Schneider-Mayerson's initial study of cli-fi readers and because my survey revealed my readers were fairly homogenous (see section 4.4.1 for details). In turn, this led to treating the readers as simply objects of study rather than people. Ecocritic Greg Garrard ("Two Cheers for Empirical Ecocriticism" 326) notes that empirical studies often have a difficulty capturing who exactly they are studying: "readers can obviously be recruited as research subjects, but can such subjects remain *readers*, in a humanistic sense?" To attempt to capture readers as subjects it might be worthwhile to create reader profiles when doing a book club study. A zooming in on individual participants and then zooming out to all the readers in the book club (as I have done here); through this method a better image of who is reading these novels could be developed.

5.5.2.2 Literary Criticism in a time of Uncertainty

Given all that has been discussed within this dissertation, what, then, is the role of literary criticism and ecocriticism more specifically? My training as a humanities scholar makes me cringe to even ask the question, but: what is the utility of a discipline that questions its own "real world relevance" (Major and McMurry 2)? Before beginning my doctoral studies, I would have argued simply that knowledge for the sake of knowledge was enough. But there is growing evidence that addressing environmental problems, like climate change, requires science, technology, and policy changes, all of

which are shaped by the values, stories, desires, and priorities of "average people" (Schneider-Mayerson, Weik von Mossner, Malecki, et al., "Introduction" 4). Thus, I have two concluding points: (1) there is a role for the humanities (and ecocritics) to play in responding to this crisis, and (2) future ecocritical studies need to continue to take the question of their "real world relevance" seriously.

In response to both of these points, I have a few suggestions for what that means for future research. There are many impassioned calls for bringing scholars from the humanities into discussion with researchers in the social and natural sciences or simply to remind other disciplines that a humanistic approach to climate change is necessary and useful (Garrard, "Never Too Soon, Always Too Late"; Moser, "Wither"; Neimanis et al.; Rose et al.; Ryan; Sörlin). My dissertation and findings add to these calls as I demonstrated how combining insights from ecocriticism (namely that cli-fi novels effect readers' emotionally) with social science methods (focus groups adapted to book club observations) provided evidence that non-scholarly readers use cli-fi novels to interpret climate change in their daily lives. Further, this dissertation has raised questions important for ecocriticism and climate change communications researchers. For example, Chapter 2 argued that the open-endedness of the two realistic novels and their focus on the uncertainty of climate change action would enable their readers to become more comfortable engaging and discussing emotional reactions to climate change. Although readers reported the book clubs were effective outlets to discuss their emotions, they also reported feeling more anxiety and frustration that there were no direct actions provided in the novels that they could take to resolve climate change. Future researchers of cli-fi readers may need not only to observe readers in book clubs, but also to take a more active role in facilitating the discussion (i.e., providing external reading material).

Chapter 3 argued that the two speculative cli-fi novels (*Blackfish City* and *The Marrow Thieves*) contained both hope and despair and showed how even when action seems futile, we should choose to act. Some participants found these novels provided a hopeful outlook, but many reported still feeling despondent about the futures portrayed. Raising the question, should we encourage readers to read more hopeful and solution-based cli-fi novels? Or, as I contended in Chapter 3, should we push readers to engage with these uncomfortable both-and futures, that are neither fully hopeful nor fully despairing? Some preliminary research has emerged on "ambitopian climate fiction," that is novels which combine both dystopian and utopian themes. Perhaps "climate fiction that induces both hope and fear may have a small impact on willingness to take climate action" (Malecki et al. 8). This new

research is of particular interest as it compared audiences in India and America providing a broader cultural exploration of cli-fi readers, something that is missing from current empirical cli-fi research.

Finally, my dissertation supports Caracciolo's suggestion of new reading strategies to deal with a future defined by climate uncertainty. Literary critics, and, specifically, ecocritics, have a role to play in developing these strategies. In Chapter 2, I argued that cli-fi was a mode rather than a genre and that the two novels studied there (*Weather* and *Blaze Island*) were ambivalent cli-fi. These novels are representative of an aspect of life during climate change, one defined by feelings of uncertainty and ambivalence towards climate action. As Houser has noted, rather than trying to argue that cli-fi novels are powerful motivators for behaviour change, maybe critics should view these novels as barometers for how society is reacting to climate change. Conversations about the effects of climate change and its emotional toll are important and necessary (Milkoreit, "Imaginary Politics"; Norgaard; Pihkala, "Eco-Anxiety"; Stoknes, *What We Think About*; Verlie, *Learning*; Wray). Future studies should include not only book club observation studies but also studies where the researcher takes a more active role in the book club. Ecocritics are trained to read and find answers about why a certain text moves a reader and then share these findings with one another, their students, and the academic community (Siperstein et al.). When engaging in research on cli-fi novels, and especially book club observation studies of these novels, researchers may need to find ways to integrate ecocritical interpretations of these novels and research from climate change communications about how to implement solutions. Ecocriticism can provide another view of what these novels are saying about climate change – another way to read the social barometer of climate change.

I believe this kind of integration between ecocritics, climate change communicators, and non-scholarly readers will yield fruitful results. Not only will it provide new lines of questioning for ecocriticism and climate change communication (Estok; Hamilton et al.; Schneider-Mayerson, Weik von Mossner, Malecki, et al., *Empirical Ecocriticism*), but as Greta Gaard reminds us, the domain of humanities research like ecocriticism is the "frailty and finitude of the human person" ("Never Too Soon, Always Too Late" 5). If our tasks as human individuals are, as Moser and Verlie ask us, to learn how to sit in this uncomfortable space and live-with climate change, then ecocritics can help us to do so. In Chapter 3, I examined Camus' philosophical writings on the absurd and how to live a life without hope. In the final lines of my work, I return to his work because I believe it is an important message in a time filled with dire climate reports (Masson-Delmotte, Zhai, Pirani, et al.) and unstable democracies. The most important thing that we as researchers can do is to find ways to help others

engage with the uncertainty of climate change and not shy away from it. To find ways to come together in revolt (choosing life and not passive acceptance), freedom (choosing to help one another in community), and passion (refusing to disengage from our emotions).

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Appendix A

Pre- and Post-Survey Questions for Book Club Participants

Pre-Survey - Climate Change Beliefs and Reading Habits Survey

By giving your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

Demographic Information

The following information is necessary to situate my research on Canadian readers in the context of the previous studies of American cli-fi readers. All data collected will be summarized, and no individual could be identified from these summarized results. Identifying information will be deleted after I defend my thesis (expected April 2023):

- Gender _____
- Occupation_____

1. Are you a resident of Canada and currently residing in Canada?

- Yes.
- No.

2. Age
   - 18 - 29 years
   - 30 - 44 years
   - 45 – 54 years
   - 55 - 64 years
   - 65 + years

3. Political Affiliation

- Conservative Party of Canada (1)
- Bloc Quebecois (2)
- Green Party of Canada (3)
- Liberal Party of Canada (5)
- New Democratic Party of Canada (6)
- Other (7)

Climate Change Beliefs Survey:

1. How important is the issue of climate change to you personally?

   - Extremely important (1)
   - Very important (2)
   - Somewhat important (3)
   - Not too important (4)
   - Not at all important (5)

2. How worried are you about climate change?

- Very worried (1)
- Somewhat worried (2)
- Not very worried (3)
- Not at all worried (4)

3. How much do you think climate change will harm you personally?

- A great deal (1)
- A moderate amount (2)
- Only a little (3)
- Not at all (4)
- Don't know (5)

4. How much do you think climate change will harm future generations of people?

- A great deal (1)
- A moderate amount (2)
- Only a little (3)
- Not at all (4)
- Don't know (5)

5. Briefly and in your own words, how would you define climate change?

_____

6. When you think about climate change and the future how do you feel?

_____

Reading Habits Survey

1. How many books do you typically read in a year?

- 1 - 5 books per year
- 6 - 11 books per year
- 12 - 49 books per year
- 50+ books per year

2. What types of books do you read? (select all that apply)

- Mystery or Thriller (4)
- Chick Lit (6)
- Historical Fiction (7)
- Fantasy (8)
- Sci Fi (9)
- Romance (10)
- Literary Fiction (11)
- Shorty Story (12)
- Cli-Fi (13)
- Other (14)

---

3. Have you participated in a book club before?

○ Yes

○ No

---

4. Cli-fi are novels about human caused climate change. Have you ever read cli-fi before? If yes, please list the titles below. If no, leave blank.:

_____

Book Club Availability

There will be four monthly book club meetings lasting approximately 90mins each (Date Range). Please indicate which days of the week and times would work for you. All times are listed in **Toronto time**. You can select all, if you are available for all times. Once enough participants have answered our survey, Misty will send you an email with exact dates and times.

- Mondays 7:00 pm – 8:30 pm
- Mondays 7:30 pm – 9:00pm
- Mondays 8:00 pm – 9:30pm
- Tuesdays 7:00 pm – 8:30 pm
- Tuesdays 7:30 pm – 9:00pm
- Tuesdays 8:00 pm – 9:30pm
- Wednesdays 7:00 pm – 8:30 pm
- Wednesdays 7:30 pm – 9:00pm
- Wednesdays 8:00 pm – 9:30pm
- Thursdays 7:00 pm – 8:30 pm
- Thursdays 7:30 pm – 9:00pm
- Fridays 7:00 pm – 8:30 pm
- Fridays 7:30 pm – 9:00pm
- Fridays 8:00 pm – 9:30pm
- Saturdays 1:00 pm – 2:30 pm
- Saturdays 1:30 pm – 3:00 pm

- Saturdays 2:00 pm – 3:30 pm
- Saturdays 3:00 – 4:30 pm
- All

Getting the books:

We'll be reading four recent novels that take a look at climate change from various perspectives:

1) *Weather* (2020) by Jenny Offill
2) *Blaze Island* (2020) by Catherine Bush
3) *Blackfish City* (2018) by Sam J. Miller
4) *The Marrow Thieves* (2017) by Cherie Dimaline

After submitting this survey, Misty will reach out with details on receiving your FREE copies of the books. For example, if you would prefer paper books, she will send an email to get your shipping address information. You will be provided each book approximately **4 weeks** before each meeting. If you do not need copies of certain books, you may also indicate that below.

If you already have access to some or all these books, please let us know by typing the titles you have (leave blank if you want copies of all required books): _____

Please Indicate if you would prefer paper or e-books:

- Paper
- E-Books

If you would prefer e-books, please indicate the type (KOBO, Kindle, etc.): _____

Thank you for completing this survey, Misty will be in touch shortly!

Post-Survey Questions

Climate Change Beliefs and Book Club Debrief

1. How important is the issue of climate change to you personally?

- ○ Extremely important (1)
- ○ Very important (2)
- ○ Somewhat important (3)
- ○ Not too important (4)
- ○ Not at all important (5)

2. How worried are you about climate change?

- ○ Very worried (1)
- ○ Somewhat worried (2)
- ○ Not very worried (3)
- ○ Not at all worried (4)

3. How much do you think climate change will harm you personally?

○ A great deal (1)

○ A moderate amount (2)

○ Only a little (3)

○ Not at all (4)

○ Don't know (5)

4. How much do you think climate change will harm future generations of people?

○ A great deal (1)

○ A moderate amount (2)

○ Only a little (3)

○ Not at all (4)

○ Don't know (5)

5. Briefly and in your own words, how would you define climate change?

_____

6. How do you feel about climate change and the future after discussing these four novels?

_____

7. Do you have any further thoughts about the book club that you would like to share?

_____

8. Do you have any further thoughts about the novels that you would like to share?

_____

9. Finally, of the four novels, which was your favourite and why?

_____

Appendix B

Full Demographic Information for Book Club Participants

Code	Gender	Occupation	Age	Political Affiliation	SASSY Segment
P2	F	Librarian	30 - 44	Liberal Party of Canada	Alarmed
P1	M	Teacher	30 - 44	Liberal Party of Canada	Concerned
P5	F	Information Technician	18 - 29	New Democratic Party of Canada	Alarmed
P6	F	Clinical Pharmacist	18 - 29	Liberal Party of Canada	Alarmed
P9	F	Communications Public Relations	55 - 64	New Democratic Party of Canada	Alarmed
P10	F	Retired	55 - 64	Other	Cautious
P12	M	Environmental Engineer	30 - 44	Liberal Party of Canada	Alarmed
P11	F	Communications Coordinator	45 - 54	Liberal Party of Canada	Alarmed
P8	F	Project Manager	30 - 44	New Democratic Party of Canada	Alarmed
P14	F	Health Research Director	30 - 44	New Democratic Party of Canada	Alarmed
P4	F	Contracts Specialist	30 - 44	Liberal Party of Canada	Alarmed
P13	F	Student and Consultant	30 - 44	New Democratic Party of Canada	Alarmed
P15	F	Retired	65 +	Liberal Party of Canada	Cautious
P19	F	Writer	30 - 44	New Democratic	Alarmed

				Party of Canada	
P21	F	Retired	55 - 64	New Democratic Party of Canada	Alarmed
P18	F	Public Health employee	30 - 44	New Democratic Party of Canada	Alarmed
P20	F	Retired university nursing professor	65 +	New Democratic Party of Canada	Alarmed
P23	F	Lawyer turned Executive	30 - 44	Liberal Party of Canada	Concerned
P22	F	Retired from Administration	65 +	Liberal Party of Canada	Alarmed
P16	F	Retired Nurse	65 +	New Democratic Party of Canada	Alarmed
P24	M	University Lecturer in Mathematics	18 - 29	Green Party of Canada	Alarmed
P29	F	Educational developer	30 - 44	New Democratic Party of Canada	Alarmed
P33	F	Educational Assistant	45 - 54	Other	Alarmed
P25	F	PhD student	18 - 29	Green Party of Canada	Alarmed
P26	F	Psychiatrist	30 - 44	Liberal Party of Canada	Alarmed
P37	F	Engineer	18 - 29	Liberal Party of Canada	Alarmed
P36	F	Retired	65 +	Liberal Party of Canada	Concerned
P30	F	Finance and IP Administration	30 - 44	Liberal Party of Canada	Alarmed
P35	F	Physiotherapist	30 - 44	Liberal Party of Canada	Alarmed
P38	F	Retail	30 - 44	New Democratic Party of Canada	Alarmed

P40	M	Teacher	30 - 44	Other	Alarmed
P34	F	Program Officer for international development granting body	30 - 44	New Democratic Party of Canada	Alarmed
P42	F	Engineer	30 - 44	Other	Concerned
P47	F	Environmental Specialist	30 - 44	New Democratic Party of Canada	Alarmed
P48	F	Policy - Provincial Government	55 - 64	Liberal Party of Canada	Alarmed
P49	F	Educational Assistant	45 - 54	Liberal Party of Canada	Concerned
P51	F	Retired	55 - 64	Liberal Party of Canada	Concerned
P52	F	Library technician	18 - 29	New Democratic Party of Canada	Alarmed
P50	F	Dietitian	45 - 54	Liberal Party of Canada	Alarmed
P45	F	Marketing Consultant	30 - 44	Other	Concerned

Appendix C

Questions for Book Clubs

Questions Asked at Every Meeting

1. What is the main message or lesson you took from this book?
2. How did this book make you feel?
3. After reading the novel, how do you feel about climate change?
4. After reading the novel, how do you feel about the future?

Novel Specific Questions Asked at Every Meeting

Weather (2020) by Jenny Offill

Topic	Question
Novel's style	*Weather* is written in micro-moments. Lizzie's narrative is comprised of sentence and sometimes paragraph-long segments that build into a larger story. How did it feel to read a novel written like this?
What does the end of the novel mean (is there hope)?	Think about the end of the novel, would you say that *Weather* ends with a sense of hope, pessimism, or a mix? Explain why you feel this way.
Main Character	How does Lizzie change over the course of the story? What specific examples did you see of her changing, or not? What do you think this means?
Climate Change in the Novel	Jenny Offill has said she wanted to write a novel exploring how it is to live our daily lives with the knowledge of climate change. Do you

	think she succeeded with *Weather*? And can you explain why?

Blaze Island (2020) by Catherine Bush

Topic	Question
Novel's style	A large part of *Blaze Island* jumps forwards and backwards in time between Miranda's childhood and the present, how did this style affect your reading of the novel?
What does the end of the novel mean (is there hope)?	*Blaze Island* ends unresolved, what do you think Miranda will do now that she knows the truth about life beyond the island and Alan's experiments?
Main Character(s)	What do you think about Miranda and Caleb? Were they relatable characters? How do you feel about their plans for the future and how they live their lives?
Climate Change in the Novel	1. There are several climate change related themes running through *Blaze Island*, for example, climate denial. Alan says "We're not at war but sometimes things feel like a war, there's so much money and power arrayed against people like us, and those people are swaying other people to not believe that humans have anything to do with the warming weather" (p.72). Do you agree with Alan? Does it feel like there is a war against both climate change and those who deny it? Why do you think people are in denial about climate change?

	2. Another theme is resolving climate change through technology, what do you think about Alan's secret project? Do you think it is a good idea to solve climate change issues with unproven methods? Do we have a responsibility to save the planet, no matter the methods used? Why or why not?

Blackfish City (2018) by Sam J. Miller

Topic	Question
Novel's style/Main Characters	Each chapter follows the story of a different main character, how did this style of writing influence your reading of the novel? Were you able to connect with the characters?
What does the end of the novel mean (is there hope)?	1) What kind of a future does *Blackfish City* paint for us, and does this change during the novel? 2) On page 224 part of the City Without a Map says: "Stories are where we find ourselves, where we find the others who are like us. Gather enough stories and soon you're not alone; you are an army." The novel also ends with Ora telling a story, what do you think the author was trying to say about stories?
Climate Change in the Novel	*Blackfish City* covers a wide range of topics and many of them are anxieties about the future including: the dangers of climate change, technology, and even patriotism. How did you feel about these topics, do they fit together? Why or why not?

The Marrow Thieves (2017) by Cherie Dimaline

Topic	Question
Novel's style	Although most of the plot focuses on Frenchie, we meet several other characters and are given insight into their stories, how did this style affect your reading of the book?
What does the end of the novel mean (is there hope)?	1) Reflecting on the novel, would you say it is hopeful? Why or why not? 2) Miig states that a 'man without dreams is just a meaty machine with a broken gauge' (page 88). Why do you think dreams are so important? What would it be like to live without dreams?
Climate Change in the Novel/ Main Characters	1) How has climate change and severe weather impacted the landscape in *The Marrow Thieves* navigates? How has it affected the main characters' daily lives? What impact has it had on the non-Indigenous population? 2) The author, Cherie Dimaline stated, "I wanted people to come away saying, 'I would never let that happen,' or, more correctly, 'I would never let that happen again.'" Compare and contrast this novel to real historical events (e.g., residential schools). How do these events relate to each other as well as to the book? Why is this topic important in a novel that is also concerned with climate change?

Additional Novel Specific Questions

These questions were only asked if the above questions did not take 90 mins to answer.

Weather (Offill, 2020)

1) Why do you think Offill named her book Weather? What role, if any, does weather play in the story?

2) Throughout the novel there are several quotes, did any of them stand out to you?

    (a) Follow-up: Before the novel begins, Offill includes a quotation as an epigraph: Voted, that the earth is the Lord's and the fullness thereof; voted, that the earth is given to the Saints; voted, that we are the Saints. NOTES FROM A TOWN MEETING IN MILFORD, CONNECTICUT, 1640 How do these notes from a town meeting in Milford, Connecticut, in 1640, more than 350 years old, connect to themes in Weather? Would Lizzie consider herself to be a "Saint"? Would you?

3) Did you visit the website Obligatory note of hope? If yes, what did you think about it?

4) Although Lizzie does not often directly identify herself as anxious, Weather undeniably incorporates anxiety as a theme. Can you think of some ways that Lizzie grapples with, overcomes, or surrenders to anxiety? How did this novel make you feel?

5) At the beginning of the fifth and final chapter, spiritualist / yoga teacher / group therapist Margot asks her class a question: "What is the core delusion?" Margot asks the class, but nobody knows the right answer, and she doesn't bother to tell us. Jenny Offill, Weather, p. 193 The final sentence of Weather seems to be Lizzie's answer to Margot's question: The core delusion is that I am here and you are there. Jenny Offill, Weather, p. 201 What do you make of Lizzie's answer? How is her view supported by her actions, emotions, and thoughts? Do you agree with her answer, that "the core delusion is that I am here and you are there"?

6) Lizzie's husband is a Classicist. Ben has a PhD in Classics, but he takes a stable, paying job creating educational games rather than deal with the stresses of academia. Still, the Classics show up again and again, and it's clear that Ben has a passion for them as he is often reading about ancient life. How does his passion for Classics mirror Lizzie's interest in the future? Does Offill suggest there is common ground between the past and future?

Blaze Island (Bush, 2020)

1) With recent climate disasters in the news -- forest fires in California and Australia, floods in Australia, a snowstorm in Texas -- do you think climate change will continue to create disasters?

2) Alan had to start a new life with his daughter in hiding because of death threats and danger to their lives from his views on climate change. Why does climate change evoke such strong emotions in people?

3) Sylvia says rain and wind are not the same, that weather has changed from what it was many years ago. Has weather changed from what you remember as a child? Have you noticed changes in our climate?

4) Agnes says "We are entering times of dangerous weather and that weather is inside us as well as outside" (p.23). What do you think she means by this statement?

5) Several characters in the novel live "close to the land," for example, Sylvia makes her own medicine, teas, and preserves, Miranda learns to grow vegetables, and Agnes shows Alan and Miranda how to use every part of the seal. Do you think it is important to learn these skills? Do you think you could learn to live this way?

6) On p.156 it says that Alan wanted above all to teach Miranda kindness "to be kind to all things." Do Alan and Miranda value connections to animals and nature more than their connections to people? Do they differ?

Blackfish City (Miller, 2018)

1) The main plot takes place in Qaanaaq, a floating city near Greenland, in a time after what is only referred to as the Climate Wars. How realistic of a future do you think this is?

2) There are very few instances of animal or non-human life in Qaanaaq. The nano-bonders with their animals being an exception. How do you feel about a future with little non-human life and/or with the idea of nano-bonding with animals?

3) Is the future portrayed a utopian or dystopic future? Why or why not?

4) A number of characters are killed for their crimes (Podlove's grandson Fil, Fil's killer, and Go, the crime lord), were these killings justified? Did you feel that justice was served? What do you think the author is trying to say about justice?

5) The breaks are both a sickness and, in the end, are also used by Ora as a cure, why do you think the author did this?

6) The city of Qaanaaq, floats and is ruled by A.I. so that it will be more democratic, how do you feel about this idea?

The Marrow Thieves (Dimaline, 2017)

1) How has climate change impacted you? Do you think the future Dimaline envisions is possible? Why or why not?

2) Around the world, youth have been leading the charge on climate action. In indigenous communities, Elders hold an honored place. Reflect on how Frenchie's family band is structured, everyone regardless of age is able to bring their strengths to the group. What do you think the author intended with this? What does this say about communities/or people who want to engage with the climate movement? Who are the people in your communities engaging with the climate movement?

3) Discuss the role of story-telling in the novel. How do stories help define the concept of home?

4) Cherie Dimaline speaks to the need for humor and joy in stories about survival. Where do you see joy and laughter in Frenchie's story? What role does it play?

5) When Rose teaches Frenchie the word 'nishin,' good, he 'turn[s] the word over in [his] throat like a stone; a prayer [he] couldn't add breath to, a world [he] wasn't willing to release' (page 39). What role does language play in culture? How does the loss of language affect a culture and its people? Examine why Frenchie and the others are so hungry for bits of 'the language'