Alternative Food Practices for Climate Futures: Listening to the Voices of Young Adults in the Canadian Southeastern Prairie Region

By

Laurence Ammann-Lanthier

A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfillment of the degree of

MASTER OF NATURAL RESOURCES MANAGEMENT

Clayton H. Riddell Faculty of Environment, Earth, and Resources

Natural Resources Institute

University of Manitoba

Winnipeg

Abstract

For decades, climate scientists and activists have warned us of the ever-growing threat of global warming and the urgent need for climate commitments from elected representatives. In response to the constant exposure to environmental catastrophes, experiences of distress and concern for the environment are rising, particularly among young adults. Meanwhile, industrial agricultural systems are increasingly understood as contributing to environmental degradation, inciting many to explore alternative food systems for their potential to secure the food supply while contributing to ecological health. My research is situated at the intersection of food and climate distress, where I explore why and how alternative food practices are adopted by young adults, and how these practices interact with their climate distress. I conducted interviews with 20 young adults in cities in the Southeastern Prairie Region of Canada who have an alternative food practice (e.g. gardening, canning, foraging, dumpster diving, participating in local food organizations, etc.) that is influenced by their climate distress. I found that for participants, the food domain constitutes a critical and accessible area of climate action. Negotiated using personal and relational enablers, and against systemic barriers, participants' food practice is reconfigured by the incorporation of alternative materials, meanings, and competencies. The main motivations for alternative food practices identified by participants include contributing to socio-ecological well-being and transformation towards climate futures and reaping benefits to personal well-being. In turn, the ability to contribute to ecological health, paired with a conscientious framing of their individual agency, allows participants to manage their climate distress and sustain their alternative food practices over time. A practice-theoretical approach reveals the ways in which alternative food practices embody meanings and food realities distinct from conventional food systems, while sometimes remaining entangled within them. This research provides insight into the experiences in alternative food practices of young adults with climate distress, which are poorly understood, and identifies pathways for further research on examining and easing climate distress.

Acknowledgments

Firstly, I would like to express my deepest appreciation to Iain Davidson-Hunt, my supervisor and mentor throughout this process. I am extremely grateful for your deep insight, invaluable knowledge, and for your guidance, support and generosity over the past few years. Thank you!! To my committee members Katie Hayes and Annette Desmarais, thank you for your invaluable expertise and contributions, and for your support and encouragement. I would also like to extend my thanks to all the professors and staff at the Natural Resources Institute who have made this learning experience possible. I am thankful for the financial and academic source of support that has supported this work: the Social Sciences and Humanities Research Council (SSHRC).

To the participants of this research, my thesis project would not have been possible without you, your passion, and your willingness to share. I feel deeply humbled, grateful, and fortunate to have had the opportunity to discuss with and listen to each of you as you shared your experiences, insights, lessons, and wisdom. Thank you! Our conversations were both greatly insightful and fun, and will continue to inspire me to pursue all the fantastic practices you generously described.

Thank you to the numerous people forming my support system during this process. To Matthew Robinson, thank you for your steady presence and support in every stage of this master's, and for your unwavering belief in me. Merci à mes parents d'être restés à l'affût, et pour vos check-ins et vos encouragements réguliers. To my fellow NRI peers, thank you for your presence, intelligence and joy on Zoom throughout these odd years of remote courses. I am grateful for the many friends who have supported me with their interest in my thesis topic, their encouragements, and their thoughtful ear. You know who you are! Gratitude should also be expressed for the natural environments and all that they hold, and that simultaneously embody the muse, subject, issue, and foundational support system of this project.

Finally, this endeavour would not have been possible without a couple of dear friends with whom to cultivate mutual support as we progressed in our respective master's. Thank you to Claire Brandenbarg for weaving an indispensable shared space breaking the seclusion of thesis work during a pandemic. Our regular Zoom sessions were (unfiltered) pathways to joy, perseverance, and intellectual inquiry. To Lizeth Ardila, thank you for our pomodoro sessions and discussions across five time zones. Our hangouts were vital to the progress of my thesis, contributed to my self-development as a researcher, and were simply life-giving.

Table of Contents

List of Tables

Glossary

Alternative food networks emerge as a series of food practices that seek to challenge or provide an alternative to conventional food systems. They are often tied to values and goals for sustainability and social justice (Lowitt et al., 2016).

Alternative food practices are activities that are part of alternative food networks. They are intentionally undertaken by individuals to have a better socio-ecological impact compared to practices associated with conventional food systems. In this research, I let participants self-identify their practice as 'alternative', given the subjective understanding of alterity. Based on my research findings, participants' alternative food practices are characterized by 1) common meanings of sustainability, social responsibility, and food systems transformation, 2) specific foodstuffs and materials for positive ecological and social impacts, and 3) the acquisition of competencies in sourcing, processing and/or producing alternative foodstuff.

Climate action is individual or organizational action undertaken with the intention to reduce greenhouse gas emissions and/or to build resilience to climate change and its impacts (UNDP, n.d.)

Climate change adaptation is the adaptation to the changes in the climate that have already occurred (e.g. climate hazards, food insecurity, sea-level rise), or to those that are expected to occur in the future. Climate change adaptation seeks to minimise the damage associated with these changes and take advantage of the potential opportunities they create. Both climate change adaptation and mitigation are required to respond to climate change (NASA, n.d.).

Climate anxiety or Eco-anxiety is comprised of an “apprehension and stress about anticipated threats to salient ecosystems" (Cunsolo et al., 2020, p. e261), can include rumination and worry, and can be experienced at different levels (e.g. strong climate anxiety) (Pihkala, 2022).

Climate change mitigation targets the causes of climate change through interventions to prevent or reduce greenhouse gases in the atmosphere. Both climate change adaptation and mitigation are required to respond to climate change (NASA, n.d.).

Climate distress is the experience of emotional and behavioural responses to climate change and environmental degradation. When these responses do not impair daily functioning, they are considered non-pathological and normal responses to the severity of the eco-crisis (Hayes, 2020). Emotions arising include anxiety, worry, anger, guilt, solastalgia, and grief.

Climate grief or ecological grief is an experience of sadness and/or grief in response to the losses of the eco-crisis, including current and anticipatory losses (Pihkala, 2022).

Climate guilt is an experience of guilt about environmental issues due to the feeling that one should or is unable to do more to respond to the demands of the eco-crisis (Pihkala, 2022).

Climate trauma encompasses experiences of psychological distress in response to direct and/or indirect experiences of the traumatic impacts of climate change (e.g. rising sea levels, crop failures, and the dissolution of human-nature connection) (Pihkala, 2022).

Communities of practice are social networks within which practitioners partake in their shared practice by exchanging and creating embodied experiences, enthusiasm, meaning, skills, knowledge and materials (Wenger & Snyder, 2000).

Conventional food systems are generally understood as being characterized by industrial and large-scale agricultural practices employed by large agri-businesses to maximize profit in the form of exported yields in a competitive global market (Qualman et al., 2018).

Eco-compassion/Eco-empathy proposes a different perspective of eco-anxiety based on the understanding that emotional responses to the eco-crisis are founded on the care for other beings and environments (Wray, 2022).

Ecological regeneration encompasses efforts that seek to improve the condition of an ecosystem by ensuring human activity aligns with and enhances natural regeneration (Gomes, n.d.)

Emotion-focused coping is a way of coping with a stressor where an individual addresses their emotional responses to the stressor, often resulting in behaviours minimizing the stressor (Ojala, 2013).

Food insecurity is defined as “the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so” (Canada, 2020).

Food sovereignty describes a heterogenous grassroots movement and political project centered on the voices of peasants, Indigenous peoples, and farmers, and advocating for “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (Nyéléni, 2007).

Food systems encompass "a web of activities that includes growing and harvesting, processing and distribution, marketing and selling, and the consumption, disposal, and recirculation of nutrients” (Cadieux et al., 2016, p. 24).

Intersectional environmentalism refers to an intersectional understanding of environmental issues, whereby environmental actions should be undertaken for environmental *and* social well-being, and in recognition of how multiple systems of oppression intersect and compound in exacerbating social injustices (Earthday.org, 2021).

Practical eco-anxiety defines experiences of generative or positive eco-anxiety, where one's emotional distress in response to the eco-crisis becomes a productive force for the individual, for instance in motivating meaningful climate actions (Kurth & Pihkala, 2022).

Problem-focused coping is a way to cope with a stressor by responding to it with an action that targets the cause of the stress (Ojala, 2013).

Meaning-focused coping is a way of coping with a stressful situation by exploring and renewing the meaning of that situation, for instance through positive re-appraisal, acknowledging and confronting negative emotions and enhancing positive emotions (Ojala, 2012).

Metabolic rift. In the context of food sovereignty and as applied by García-Sempere et al. (2018), the metabolic rift refers to the rural-urban reorganization caused by neoliberal economic development, where cities became places of consumption and accumulation, and rural areas became places of production and impoverishment.

Resilience is described by the American Psychological Association as "the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioural flexibility and adjustment to external and internal demands" (APA, n.d.). This capacity to adapt to change depends on several factors, notably: one's view of the world and how one engages with it, one's access to social resources and one's coping strategies (ibid).

Reskilling. Within the historical context of the industrialization of household skills (e.g. gardening, canning, foraging), reskilling refers to the relearning of these culturally 'lost' skills. Reskilling can also be seen as a political action to re-empower oneself in the movement towards sustainable, localized and deindustrialized lifestyles or economies (Hopkins, 2010).

Solastagia describes emotional experiences of disturbance, sadness and the loss of sense of place that emerge in response to place-based environmental changes caused by the eco-crisis (Pihkala, 2022).

The Southeastern Prairie region includes Southern Manitoba and Southeastern Ontario, and the cities of Winnipeg, Brandon, Winkler, Steinbach, and Kenora that have followed a similar historical trajectory.

Theories of practice are a group of theories that conceptualize social phenomena as generated and structured by practices, which are themselves shaped and coordinated through the interaction of material and social structures, agency, assets, conventions and values (see pages 9-13).

Urban agriculture includes activities of food provision in urban centers, including gardening, community food activities, and urban farms (Bowness & Wittman, 2020).

Young adult. Due to the variety in the age ranges used for the term 'young adult' across different studies, I chose to let the participants of this research self-identify as young adults. I sought to capture younger millennials (up to 32-35 years old), and individuals with more experience concerning independent decision-making (e.g., selecting adults rather than teenagers). Participants' age varied between 22 and 37, with 11 participants in the 26-29 age range, 6 participants in the 30-33 age range, one in the 22-25 range, and one in the 34-37 age range.

Chapter 1 Introduction

1.1 Introduction

For many individuals concerned by the climate crisis, agricultural systems are considered critical to mitigating climate change and regenerating ecosystems (Pant, 2020). Indeed, conventional food systems are increasingly understood as causing the loss of ecosystems and habitats, contributing to a large portion of global greenhouse gas emissions, and producing significant food waste (Aubrey & Hersher, 2019). These concerns have been raised by many advocates and scholars, pressing for changes in our agricultural practices globally, both to ensure food security for a growing global population, and to tap into the potential of sustainable farming practices able to regenerate ecosystems (Marsden & Morley, 2014). The understanding that we are part of a moment in history where human activity is causing profound changes in our natural environment is growing (Carrington, 2016). Coincidently, feelings of distress and concern caused by climate change are increasingly common around the world (Lawrance et al., 2022), particularly among young people (Hickman et al., 2021, Ray, 2020). Constituting an emerging area of study, experiences of climate distress are understood as reasonable responses to the climate emergency (Clayton et al., 2017). While these experiences can be pathological (i.e. the emotions interfere with daily functioning), in this study I consider the perhaps more common experiences of climate distress that are non-pathological (Pihkala, 2020). Combined with the ever-increasing urgency for climate action and the need to ensure food security, many individuals have chosen to engage in alternative food networks (AFNs) (Goodman et al., 2012; Lowitt et al., 2016). This study seeks to examine the practices arising from the interaction of food and non-pathological climate distress, to understand why and how alternative food practices emerge as an accessible area of climate-informed action for young adults in cities in the Southeastern Prairie region in Canada.

1.2 Research purpose and objectives

The purpose of this research is to gain an understanding of the motivations for and experiences of young adults' alternative food practices and examine the relationship between young adults' climate distress and their alternative food practices.

The objectives of the research are threefold:

1. to understand the motivations of young adults in undertaking alternative food practices;
2. to identify the enablers and obstacles of young adults' alternative food practices; and

3. to examine the relationship between young adults' alternative food practices and their climate distress.

1.3 Summary of methods

To explore my objectives, I employed a constructivist and qualitative research approach, using a dialogical approach to case study research design. In dialogical case study research, the case studied is understood as a complex open-ended process through which meaning-making and decision-taking are produced through self-other relations and are shaped by interactions and meaning generated at several scales and in different time-space situations (Markovà et al., 2020). The case I examine is that of the alternative food practices of young adults who are urban dwellers in cities in or around Winnipeg, Manitoba, and whose practices are in part motivated by their emotional and behavioural responses to climate change or environmental degradation (climate distress). As the alternative food practices of young adults are generally poorly understood, particularly those informed by climate distress, a dialogical approach to case study research was pertinent because it facilitated a rich understanding of the context wherein these practices are generated. I invited participants by asking relevant local organizations active in the areas of food practices and climate action to circulate a recruitment email among their members. Using purposive sampling, I selected participants who correspond to my selection criteria (Cassell, 2015) ensuring a diversity in gender, age, culture, and alternative food practices. As the age ranges for 'young adult' vary considerably across different studies, and as experiences of young adulthood are not bounded by specific ages, I chose to recruit participants who self-identify as young adults. In addition to purposive sampling, I utilized a snowballing sampling technique, which asked participants to pass on a poster to an individual who met the selection criteria and may be interested in participating in the research (ibid). In addition, I used convenience sampling as I selected participants for ease of access (ibid). This included inviting friends from my personal circles who contributed to their experience as alternative food practitioners. After participants signed an informed consent form, I conducted one-on-one semi-structured interviews ranging from 45-120 minutes in length with 20 participants. Lastly, as part of a dialogical approach to case study research, I used reflexivity during all phases of the research, recognizing myself as an actor engaging authentically in the field, and through journaling, I documented my impact on the research and meaning-making process.

1.4 Contributions to research

In the field of food studies, this research addresses a gap in the literature on young adults' adoption of alternative food practices, with a focus on the experience of individuals involved in alternative food systems motivated by climate distress. This research does this through a case study with young adults situated in cities in the Southeastern Prairie region in Canada that considers their experiences with undertaking alternative urban food practices and the factors that enable or hinder them from doing so. This research also contributes to the emerging literature on experiences of climate distress, by considering whether alternative food practices are providing a meaningful application of their climate distress in young adults' daily lives. While young adults represent a decreasing number of farmers in Canada (Qualman et al., 2018), their concerns about the climate and desire to consume sustainably are rising (see Mullins et al., 2021; Corteva agriscience, 2020; Larson et al, 2019 for research in Canada, internationally and in the United States, respectively). In the current context of the urgent need to act for planetary health and redesign our food systems within planetary boundaries, understanding what motivates young adults' adoption of alternative food practices can also contribute to a better understanding of how these practices may be incited and supported by local governments. Finally, this research examines an under-studied intersection between climate distress and food practices.

1.5 Organization of the thesis

In this first chapter, I introduced my thesis topic, methods, and contributions to research. In Chapter 2, I dive into a review of the literature on climate distress, theories of practice, and food studies, considering the intersection between climate distress and food, as well as the potential impacts of the COVID-19 pandemic on the thesis topic. Chapter 3 includes a description and explanation of the research approach, strategy of inquiry, data collection, and analysis procedures, as well as reflections on my positionality, the validity and reliability of the research, and its ethical considerations. Chapters 4, 5, and 6 contain my research results, each concluding with their respective discussion section. In chapter 4, I examine the pathways that lead to alternative food practices, including participants' experiences of climate distress, their identification of food as an area of action, and the specific environmental, personal, and social motivations for alternative food practices. In Chapter 5, I turn to the emerging themes on the relationship and interaction between climate distress and alternative food practices. Drawing from a practice-theoretical lens, in Chapter 6 I examine the barriers and enablers to alternative

food practices and the subsequent opportunities for agency in alternative food practice. Finally, Chapter 7 concludes the document with a summary of findings, a discussion on connections to the literature and the climate distress-food practice nexus, considerations for reducing climate distress, reflections on the methodology, further research opportunities, and concluding comments.

Chapter 2 Literature review

My conceptual framing for this project was interdisciplinary, drawing from the emerging concept of climate distress mostly documented within the disciplines of psychology and public health, as well as social theories of practice and food studies.

2.1 Climate distress

More than ever, the world seems to be in a state of ongoing crises. Perhaps the most threatening crisis is that of climate change, the urgency of which is highlighted by the work of scientists and climate activists, and by exposure to media reports of climate change disasters occurring around the world. Indeed, a recent survey conducted in Canada found that 73% of respondents believe that we are experiencing a climate emergency, with 50% feeling that climate change is causing mental health issues or worsening these issues (Schwartzberg et al., 2022). Similarly, more than half of adults in the United States have said that climate change is the most important issue we are facing today, with over two-thirds of adults in the United States saying they experience at least a little eco-anxiety (APA, 2020). Eco-anxiety has recently become an increasingly prevalent concept in pop culture (McGinn, 2019; Pihkala, 2020), and is defined as an "apprehension and stress about anticipated threats to salient ecosystems" (Cunsolo et al., 2020, p. e261). Importantly, emotions of anxiety and distress are understood as normal responses to the severity of the climate crisis (Clayton & Karazsia, 2020; Verplanken & Roy, 2013; Macy & Johnstone, 2012), and are increasingly studied in the fields of psychology and public health. Several overlapping concepts have recently been formulated to understand these emotions, including eco-anxiety (Pihkala, 2020), climate trauma (Woodbury, 2019), ecological grief (Cunsolo & Ellis, 2018), solastalgia (Albrecht et al., 2007), and climate distress (Hayes, 2020). In this research, I use Hayes's (2020) concept of climate distress to encompass a broad range of emotional responses to climate change, including eco-anxiety, eco-grief, eco-guilt, climate trauma, and a loss of sense of place due to climate change (solastalgia). The term climate distress includes emotions arising from environmental degradation and from the climate crisis specifically. Importantly, in this research climate distress exclusively refers to non-pathological manifestations of distress, whereby individuals' abilities to function are not impaired. Non-pathological responses to climate change may include "worry, grief, fear, hopelessness, sadness and general distress related to exposures to climate change hazards and/or knowledge of the climate change problem" (ibid, p. 30). As Hayes describes it, climate distress can be experienced

solely by the knowledge of the climate crisis, without the direct experience of a climate change hazard (Clayton & Karazsia, 2020; Pihkala, 2019). As the Southeastern Prairie Region (Manitoba and Southeastern Ontario) is largely isolated from climate change hazards, I expected that the climate distress experienced by the participants would generally be from indirect experiences with environmental degradation and climate change.

2.1.1 Climate distress in young adults

Anxiety caused by climate change is increasingly common among young people, particularly among those whom Ray (2020) names the climate generation born between the early 1990s and 2000s. Indeed, recent studies found that younger people are more negatively affected emotionally by climate change compared to other age groups (Clayton & Karazsia, 2020) and that 47% of young adults in the United States (aged 18-34) said their daily lives are affected by the stress caused by climate change (APA, 2020). There is a lack of research examining young adults' experiences with climate distress in the Canadian context. One very recent survey conducted across Canadian youth aged 16-25 documents similar findings as those found by the APA in the United States, with respondents reporting a diversity of climate emotions and at least 56% feeling afraid, sad, anxious, and powerless (Galway & Field, 2023). Alarmingly, 78% of young adults surveyed said that climate change impacts their overall mental health (ibid). After all, young people are those who will experience the most direct impacts of climate change, such as future disasters, refugee crises, and food shortages, and who will face the greatest adaptational challenge as radical transformations will be required (Sanson et al., 2019). Therefore, it is possible that within climate distress are intertwined concerns for the intersectional crises, challenges, and transformations that are compounding because of climate change. Of interest in this research, global food systems are increasingly recognized for their ecological impacts (Marsden & Morley, 2014). As fears of food insecurity have increased in the wake of climate change (Cunsolo et al., 2020) and COVID-19 (Durrani, 2020), food practices become increasingly understood as relevant spaces for climate-informed action (Puckett, 2022). Indeed, a dimension of young adults' climate distress is rooted in the lack of trust in the conventional food system, which has resulted in action to increase their food practice competency from production through to consumption (Willow, 2020).

2.1.2 Practical eco-anxiety

Prevalent in experiences of climate distress is the dissociation from the threat of climate change (Woodbury, 2019; Clayton et al., 2017) that can manifest as paralysis or denial (Macy & Johnstone, 2012). However, scholars have found that non-pathological manifestations of climate distress have the potential for being a productive force, particularly through the exercise of meaningful actions (Pihkala, 2020; Cunsolo et al., 2020; Woodbury, 2019; Ojala, 2013; Verplanken & Roy 2013; Macy & Johnstone, 2012). Understanding instances of generative climate distress, or 'practical eco-anxiety' (Kurth & Pihkala, 2022), among young people is critical. Cunsolo et al. contend that eco-anxiety "might be alleviated through work to reduce the underlying threat and through social prescribing of activities that support and enhance environmental, physical, and mental health" (2020, p. e262). A question that informed my research was: Are alternative food practices emerging as such an activity described by Cunsolo et al. (2020), allowing young adults to cope with climate distress?

2.1.2.1 Coping

Recent studies have examined coping within the experience of eco-anxiety, drawing from previous theoretical developments on coping approaches. A well-known model of coping strategies was developed by Lazarus & Folkman (1984) who defined emotion-focused and problem-focused coping strategies (in Ojala, 2013). In emotion-focused coping, the individual addresses their emotional response associated with a stressor (Folkman & Moskowitz, 2004), often leading to behaviours that minimize the stressor, such as distancing and avoiding (Ojala, 2013). In the context of coping with climate change, emotion-focused coping does not tend to generate pro-environmental behaviour (Hayes, 2020). In problem-focused coping, the individual responds to a stressor with an action that targets the cause of the stress (Ojala, 2013). Utilizing problem-solving coping to respond to chronic, uncontrollable, and large-scale stressors such as climate change may not be effective because the causes are complex and often out of reach (ibid; Hayes, 2020). Ojala (2012) notes that coping with climate change-related stressors encompasses coping with threats to oneself *and* others, including feeling anxiety and concern for the well-being of future generations, animals, and individuals unknown to us: stressors with causes well beyond our control. Meaning-focused coping, a third coping strategy later developed by Park & Folkman (1997) is better suited to target such issues (in Folkman & Moscowitz, 2004) and can be effective in addressing climate distress (Ojala, 2013; Hayes, 2020). With meaning-focused

coping, an individual explores and renews the meaning of a stressful situation (Hayes, 2020) with "strategies such as positive re-appraisal (acknowledging the stressor but still being able to reverse one's perspective), finding meaning and benefits in a difficult situation, revising goals, and turning to spiritual beliefs" (Ojala, 2013, p. 2193). Negative emotions are thus acknowledged and confronted, while positive emotions are enhanced (ibid). In the context of coping strategies to respond to the climate crisis, Ojala (2012) found that meaning-focused coping can contribute to well-being and generate hope-motivated pro-environmental behaviours.

It should be noted that the stressors of climate change are varied and numerous and that individuals have different ways of coping with them (Mah et al., 2020). As there is no single or right way to cope with climate change, a variety of coping approaches should be supported (e.g. emotional-, problem- and meaning-focused coping). Mah et al. (2020) provide an additional important reminder that individual resilience and well-being are not isolated from community resilience and well-being. Indeed, community and individual resilience can support each other, and coping within one's community should also be emphasized (ibid). Especially for individuals lacking the resources to cope, drawing from the resources and strength of the community, where possible, can improve resilience and coping at the individual level (ibid). Thus, while coping with climate distress may require individual self-reflection, coping is not solely a personal practice, and discussions should not result in burdening individuals with the responsibility to cope.

2.1.2.2 Hope

The overwhelming complexity of the climate crisis can leave individuals feeling unable to bring contributions to climate solutions (Hayes, 2020; Macy & Johnstone, 2012) and can evoke difficult existential questions (Pihkala, 2018). In the face of these overwhelming challenges, a constructive sense of hope is critical to navigating emotions related to climate change and important to increase well-being and enable and sustain pro-environmental behaviours (Hayes, 2020; Pihkala, 2018; Macy & Johnstone, 2012; Ojala, 2012). Macy and Johnstone (2012) propose 'active hope' to meaningfully respond to these significant challenges, which Hayes (2020) describes as follows:

> in acknowledging and reckoning with this suffering we may lessen its grip and pursue more meaningful climate actions in a sustained way predicated on self-awareness,

> connectedness to all beings and the environment, and compassion that allows for emotional growth and planetary healing. (p. 33)

Thus, the acknowledgment of feelings of climate distress, paired with a sense of active hope, can generate and motivate meaningful actions that contribute not only to alleviating climate distress and increasing well-being, but also sustain actions for greater planetary health (Cunsolo et al., 2020). Regarding coping strategies, meaning-focused coping was found to promote hope, increase well-being and motivate action (Ojala, 2012).

While it is possible that engagement in alternative food practices facilitates coping with climate distress, it is also possible that practices that bring further connection to nature and/or a deeper understanding of environmental degradation exacerbate climate distress. Indeed, media exposure as well as searching for information on climate change and climate-informed actions can increase worry about climate change (Ojala, 2013). Thus, this present research set out to explore the impact of alternative food practices on young adults' climate distress, whether these are positive, negative, or both.

To summarize, by studying practices potentially motivated by climate distress, this study seeks to shed light on the constructive ways in which young adults are coping with this experience. The recent literature on experiences of climate distress and the concepts of coping strategies and hope provide important context to explore if and how alternative food practices are facilitating coping with climate distress.

2.2 Theories of practice

To understand the elements that enable and obstruct the adoption and continuation of alternative food practices, and to situate alternative food practices within broader food systems, I drew from the theoretical framework of theories of practice.

Theories of practice provide an approach to consider how competencies in practices are shaped and organized through the interaction of agency, values, assets, modes of coordination, conventions, and social structures in everyday life (Neuman, 2018; Paddock, 2017; Halkier, 2017). Drawing from the work of Pierre Bourdieu, theories of practice understand that "the social is a field of embodied, materially interwoven practices" (Schatzki, 2001, p. 12). Thus, it is through practices that social relations, the social order, and the individual interact and shape one another (Watson, 2017). Dissolving the dualism between structure and agency, the social order is

understood as constraining agency by predisposing individuals to specific thoughts and behaviours, without however removing the possibility for dissensus or actions challenging the social order (Power, 1999). Within this dynamic social order, it is as "the carriers of routines and practices that [individuals] become figured in transformations of social and technical orders as we know them" (Paddock, 2017, p. 134). As such, theories of practice provide a framework to understand "the shaping of (the possibilities for) human action" occurring through practices (Watson, 2017, p. 172). In this research, I draw from Shove et al.'s (2012) theoretical framework, which condenses the components of practices into three categories: materials, competences, and meanings (henceforth referred to as MCM). The MCM can be understood as a practice's order: its 'what' (which objects, infrastructures, time and spaces, other humans), 'how' (which skill, embodied know-how, practical and general understandings), and 'why' (which values, beliefs, cultural conventions, significance of the practice), respectively (Nelson et al., 2017; Maller, 2015). Using the MCM triad as a theoretical framework captures the dynamic but stable socio-material embodiment of a practice: tying together the physical materials, actions, and routines of the practice, the social order within which it exists and negotiates possibilities, and the meanings, values, and emotional experiences embedded in it. Through the framework, Shove et al. (2012) demonstrate how the existence of a practice depends on the linkage, or the 'integration' of the relevant material, competence, and meaning. The "concept of practice inherently combines a capacity to account for both reproduction and innovation" (Warde, 2005, p. 140), as a contextualized performance of a practice can reproduce its MCM and innovate alternative arrangements. What kind of change, if any, are young adults seeking to bring through alternative food practices?

2.2.1 Materials, competence, and meaning in alternative food practices

In utilizing the MCM theoretical framework to explore alternative food practices, my purpose is to understand the specific MCM that need to be linked and integrated for a practice to be performed and sustained, as well as understand how the configuration of MCM in young adults' alternative food practices motivate, enable and obstruct the practice. What are the materials young adults are sourcing for their alternative food practices, how are they developing the skills needed to integrate these materials into practice, and what meanings are embodied in these routinized practices?

Shove et al. (2012) explain that practices are in dynamic relation with one another, with MCM often creating bridges between practices. Some practices compete for elements, for example as the use of materials required by one practice can be prioritized for the performance of another, as technological innovations can marginalize and render traditional know-how obsolete, and as meanings can shift or be renewed in ways where one practice is no longer wanted (ibid). A relevant dynamic to consider for this study is the relationship between conventional food practices and alternative food practices. With the industrialization and globalization of food systems, our contemporary and conventional food systems have been characterized by the loss of food competencies and traditions as technological advancements have replaced small-scale and self-provisioning food practices with industrial agricultural practices (Jaffe & Gertler, 2006; Schupp & Sharp, 2012). While some know-how and traditions in food practices have been lost, the elements of other alternative food practices remain accessible. For example, gardening in pots, making bread, and canning can be done at home with relatively little material adjustments, and the materials (soil, seeds, pots, jars) are generally accessible to those who can afford the expense. Additional factors may complicate alternative food practices, such as finding and accessing alternative materials (e.g. local, organic, homegrown) and making adjustments in daily routines to allow for the time and space required to learn the competencies and conduct the practice.

Identifying and examining enablers and barriers within alternative food practices using the MCM framework provides insights on the order of alternative food practices and their relation to conventional food practice. Moreover, the concepts of capital developed by Bourdieu can be useful to explain opportunities for practitioners' adoption of alternative food practice. Economic capital refers to money and wealth, cultural capital accrues from social assets such as embodied dispositions, material cultural goods, and institutionalized aptitudes, social capital is drawn from relationships, and symbolic capital is held when others perceive one's economic, social or cultural capital as legitimate (Power, 1999). These forms of capital structure ability and access in a socio-material world, and can provide insights into the agency of young adults within the field of food.

2.2.2 Theories of practice and food studies

Theories of practice have recently and increasingly been applied to the food domain, particularly to what is known as the study of 'consumption', defined by Neuman (2018) as "a social process of appropriating, using, transforming and disposing of objects or activities, such as food or foodwork; as well as attaching meanings to them" (p. 82). Neuman calls for the increased application of theories of practice in consumption studies as they provide analytical tools to understand food practices both as ordinary routines serving a function that is primarily material (eating) and as communicating cultural meanings and symbols. Theories of practice have increasingly been applied to understand food practices, including in examining the practices of 'locavore' chefs in Alberta (Nelson et al., 2017), the food waste in a lunch service in Finland (Laakso, 2017), the access to sustainable food for French students (Brons & Oosterveer, 2017), the concerns driving food provisioning in the UK (Foden et al., 2022), the material reconfigurations of plant-based food practices (Fuentes & Fuentes, 2022), in demonstrating the use of social constructivist practice theory in food consumption (Halkier & Jensen, 2011), and in centering embodied practical understanding within the sociology of food consumption (Jacobsen & Hansen, 2021).

An analysis of local food systems with a practice theoretical framework can help tackle issues articulated by Sprague and Kennedy (2016): firstly, that "discourses and civic practices that structure AFNs seem to preclude any critical examination of power relations" which, secondly, fosters "a belief that the individual consumer is the most appropriate location for social change, and assume that shifting intransigent eating practices is a matter of awareness" (p. 216). Regarding the second point, theories of practice problematize the behavioural change approach to social change. In the context of climate change policies, Shove et al. (2012) contend that by foregrounding practices as the location of social change, theories of practice demonstrate that responses to climate change must become embedded in individuals' behaviour changes *and* must address the structural factors shaping practices and daily routines. Theories of practice can therefore generate more holistic accounts of social change (ibid) and in the context of food practices, are equipped to situate action within broader social enablers and barriers. Similarly, theories of practice can contribute to addressing Sprague and Kennedy's concern for the apolitical nature of discussions on AFNs as they account for matters of power and inequality (Neuman, 2018). Theories of practice conceive of local food systems as arising "out of particular

political, social, economic, and historical contexts" (Lowitt et al., 2016, p. 140). As such, they can utilize the concept of 'reflexive localism' proposed by Goodman et al. (2012), which engages with the political in the local, in rejection of the "normative, values-based localism [which] leads to an elitist, undemocratic politics of perfection" (p. 13). Accordingly, theories of practice allow for the contextualization of opportunities in alternative food practices within the structures shaping food systems.

To summarize, applying theories of practice provides an approach to identifying the web of possibilities and constraints shaping the adoption and performance of young adults' alternative food practices, as well as an approach to situate the motivations for adopting alternative food practices within their MCM, and in relation to (and rejection of) the MCM of conventional food practices.

2.3 Food studies

2.3.1 Food systems

The concept of food systems "invokes a web of activities that includes growing and harvesting, processing and distribution, marketing and selling, and the consumption, disposal, and recirculation of nutrients" (Cadieux et al., 2016, p. 24). AFNs in particular emerge as a series of practices that are generally understood as challenging conventional food systems and tied to values and goals for sustainability and social justice (Lowitt et al., 2016; Goodman et al., 2012). In the face of the socio-ecological impacts of conventional agriculture, research in food studies documents the urgent need for change in food systems worldwide (see Mbow et al., 2019 for the 2019 report by the Intergovernmental Panel on Climate Change), while disruptions in food systems due to COVID-19 has raised concern for an alternative and localized food system (Loker & Francis, 2020). The need for sustainable food systems is also seen in the growing grassroots movement for AFN worldwide (Renting et al., 2012), including in organizations' activity (e.g. La Via Campesina), in the increase in consumer preference for alternative foodstuff and the growing interest in food practices of self-provision.

In Canada, the conventional food system is constituted of a large agricultural sector that is export-oriented and yield-maximizing (Qualman et al., 2018). Recent statistics show the total number of farms has decreased as agricultural operations have become bigger, and that the number of farm operators is falling as well (Statistics Canada, 2017b), indicating an increase in corporate consolidation and power among agricultural actors, which can be ascribed to the

deregulation of the sector and its integration into a competitive global market (Qualman et al., 2018). Foodstuff is largely purchased from the five main food retailers that dominate the market and mediate food consumption (Loblaws, Sobeys/Safeway, Costco, Metro, and Walmart) (USDA, 2019). In Manitoba, the province's large agricultural sector is similarly characterized, as larger players are the main producers, with the major crop production in canola, wheat, soybeans, hay, and oats (Manitoba, 2019). Only 6.1% of farms sell directly to consumers (Statistics Canada, 2017a) and as such, economically, the province has a relatively small local food system (Small Scale Food Manitoba working group, 2015). Interest in local, sustainable or alternative food is growing across the country (Goodman, 2019), although recent academic literature documenting this trend is limited. A study by Greenbelt Farmers Market Network (2015) conducted in Ontario found a growth in farmers' markets as the demand for small-scale and local has grown. In Manitoba, Direct Farm Manitoba (2021) reported 41 farmers' markets in the province, and many organizations working towards strengthening the local food system (Laforge et al., 2016). These include Direct Farm Manitoba, Fireweed Food Coop, Food Matters Manitoba, Harvest Moon Society, Farmers' Markets Association of Manitoba Co-op Inc, among others, with the Winnipeg Food Council formed in 2017 as a response to community demands (Winnipeg, 2020).

While alternative food practices are distinct from more large-scale and commercialized farming practices, it proves insightful to discuss trends in alternative food practices in relation to those of Canadian agriculture, where the number of young farmers has been steadily decreasing. Recent Canadian research undertaken by Qualman et al. (2018) discusses the aging population of farmers within the context of Canadian agriculture:

> The post-1989 period has belied the idea that rising food exports will benefit all. Over that period, as exports tripled, farmer's net incomes stagnated, the number of Canadian farmers fell by a third, the number of young farmers was reduced by two-thirds, farm debt quadrupled, many Canadian-owned processing companies disappeared, and our agricultural and food systems became increasingly controlled by foreign corporations. (p. 118)

The loss of young farmers, a 'generational crisis', is largely attributed to the rising costs of farming in Canada's agricultural sector due to the growing price of farmland, machinery and technology, and farmers' low net income resulting from their weak market power (ibid). Farming

in Canada's agricultural system is generally unaffordable and risky (ibid) while, importantly, conventional agriculture continues to have negative impacts on the environment (Palomo-Campesino et al., 2018; FAO, 2018; Hathaway, 2016). For young adults concerned by climate change and interested in food practices, we may presume they are likely to be deterred from participating in the conventional agricultural sector. This may particularly be the case if they are aware of the corporate power and the economic vulnerabilities of farmers in the agricultural sector.

2.3.2 Young adults in alternative food systems

Young adults' experiences in alternative food systems are not well documented. Where it is documented, studies focus on young people either as farmers/producers or as consumers of products, creating a divide that obscures agential spaces in between, and wherein practices like baking one's bread products are difficult to categorize. Of the few studies examining self-provisioning alternative food practices, a recent Canadian study explored the increase in home food gardening since the COVID-19 pandemic (Mullins et al., 2021). Its authors found that most of the new gardeners during the pandemic were millennials (aged 24-38) and that more than half of respondents said they grow food at home to have a lower environmental impact (ibid). These results correspond to those of a 2012 study conducted on home gardening that found that among practitioners of all ages, home gardening has a positive relationship with respondents' adoption of additional environmental behaviours, as well as with respondents' participation in local food systems (Schupp & Sharp, 2012). Regarding young people as consumers and farmers, similar environmental motivations are found in a 2020 study of Gen Z (aged 16-22) and millennials (aged 23-38) farmers and consumers across Brazil, China, France, Russia, and the United States (Corteva agriscience, 2020). In this study, respondents reported a strong concern for food security, climate change and its impacts on food supply, and a willingness to take personal responsibility in addressing challenges in food and agriculture (ibid). Thus, recent studies indicate an existing and perhaps growing interest in food practices and sustainable agriculture among young people.

In another area of study, consumer behaviour research has found that a significant portion of young adults are drawn to alternative food purchases and distrust conventional food systems. A recent study in the United States found that more than half of young adults surveyed had sustainable food practices, whereby they valued two or more practices among those of organic,

not processed, locally grown, and non-genetically modified (Larson et al., 2019). Similarly, a survey conducted by the Organic Trade Association (2017) found that millennials (aged 18-35) in the United States are increasingly purchasing organic, which accounts for a large part of the growth in organic sales. Meanwhile, 42% of millennials in the United States are found to distrust large food companies (Taparia & Koch, 2015), and college-age millennials are found to be willing to pay more for local foods (Printezis & Grebitus, 2020). In Canada, a study found that 14% of young adults have vegetarian dietary practices and compared to those without these practices, reported undertaking more efforts to consume locally, sustainably, ethically, and organically, as well as purchasing fair trade and non-genetically modified foods (Vergeer, 2020).

While these studies have shed light on the preferences of young adults, particularly as it pertains to sustainable consumption, there is a gap in the literature regarding young adults' participation in alternative food systems and their experiences in and motivations for adopting alternative food practices. Importantly, there is a gap in the literature regarding the experiences of young adults who are not farmers and who have adopted daily practices that are potentially more meaningful than those related to adjusting food purchases. Thus, the present research aimed to explore how food practices with configurations of MCM different than those of conventional agriculture are undertaken by young adults and are negotiating change within the food domain in the Southeastern Prairie region in Canada.

2.3.3 Food sovereignty in urban spaces

Popularized through the work of La Via Campesina, the term food sovereignty describes a movement and political project centered on the voices of peasants, Indigenous peoples, and farmers, and advocating for "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Nyéléni, 2007). While this movement is heterogenous, community initiatives generally share the goals of "strengthening community, livelihoods and social and environmental sustainability in the production, consumption and distribution of nutritious and culturally appropriate food" (Desmarais & Wittman, 2014, p. 1155). In Canada, food sovereignty discourse has emerged in response to the combination of issues in Canadian agriculture, including farmers' loss of economic and political power, the growing influence of corporate entities, and concerns about the socio-environmental impacts of conventional agriculture (ibid).

Turning to urban agriculture, it is understood in the food literature as encompassing activities of provision in urban centers, including gardening, community food activities, urban farms (Bowness & Wittman, 2020), and the keeping of hens, rabbits, and bees (Martin & Vold, 2018). Urban agriculture and food systems are linked to rural and global places, and issues of food sovereignty. Indeed, urban food systems take place in the historical context of urbanization and capitalist accumulation, and in the resulting restructuring of territory that has divided spaces of food production and consumption (García-Sempere et al., 2018). This rural-urban divide is characterized by capital accumulation and rural impoverishment and calls for alternatives to the dominant global food systems. García-Sempere et al. (2018) contend that food sovereignty and agroecological practices can generate alternative human-nature relationships because they center the socio-environmental and political transformation of food systems. For city dwellers, they can contribute to food sovereignty by centering action on a regional understanding of local food systems, to "overcome the disconnection – as well as the social and ecological consequences thereof – between countryside and city" (ibid, p. 395). Doing so, urban food practices can contribute to building a democratized and equitable food system embedded into the region's culture and the biophysical limits of its ecosystem (ibid). Bowness and Wittman add that activities in urban agriculture can contribute to the movement towards food sovereignty through agrarian citizenship: that is, the right to access land for survival, "the *right* to dignified food provider livelihoods [and] the collective *responsibility* to contribute to the human right to food by growing and/or harvesting food in a way that is ecologically and socially just" (2020, p. 2). Similarly, through 'urban agrarianism', urban dwellers can be critically engaged with issues in food systems and potential solutions, and act based on an ethic of care, a responsibility for socio-ecological well-being in food systems, and solidarity with food chain workers (ibid). The actions that result from urban agrarianism can be atomized (sustainable purchases), or collective (participating in community food provisioning or political organizing) (ibid). In addition to these pathways of action for urban dwellers, the historical context of urbanization, capitalism, and colonization raises questions regarding the responsibilities of privileged urban agrarians in contributing to food justice, decolonizing and Indigenizing food spaces, and contributing to the food movement beyond urban boundaries (Bowness & Wittman, 2020).

These reflections provide insight into the context wherein individual and collective urban food practices occur, and their potential links and implications for food system transformation and food sovereignty movements.

2.3.4 Reskilling

I suggested previously that alternative food practices may be emerging as a way for young adults to find autonomy from conventional agricultural systems. When participation in conventional agriculture is perceived as environmentally unsustainable, young adults turn to alternative food practices to exercise greater control over their environmental impact. Exercising this autonomy requires competencies in conducting these practices. As such, the concept of reskilling is useful to situate young adults' alternative food practices within the context of a collective loss of food skills. This loss occurred as the emergence and dominance of industrial agriculture resulted in the commodification of practices previously held in the domestic domain (preserving food, baking, gardening), with the impacts of replacing homemade foods with convenient, processed, and purchased foods from a globalizing food system that anonymizes the faces and places contributing to food production (Blay-Palmer & Donald, 2008). The industrialization of agricultural practices caused a change and deskilling in farmers' practices as they adopted standardized industrial practices (Coolsaet, 2016), and led to the loss of food skills among the broader population (Jaffe & Gertler, 2006). As autonomous and self-provisioning food practices were subverted, or no longer seen as necessary or desired, and as the passing down of food skills became less frequent, generations have now grown up 'deskilled' in food practices (ibid). Indeed, nowadays most people in Canada interact with food as products purchased from supermarkets, rather than as living matter grown and tended in a particular way, and harvested to cook meals from scratch.

Resisting the corporate capture of agriculture and the subsequent disempowerment of small and local farmers, one of the six pillars of food sovereignty is the building of knowledge and skill (Nyéléni, 2007). The concept of reskilling also appears in activist organizations, in particular within the global movement of Transition Towns where the term was used and popularized by Rob Hopkins. In that context, 'The Great Reskilling', or the relearning of skills lost, constitutes a key element in the transition towards localized and deindustrialized economies (Hopkins, 2010). Recently, the term was used by the Slow Food University of Wisconsin, a student organization that centers the reskilling of food practices as essential to the transformation

of the food system (Zepeda & Reznickova, 2017). Reskilling is therefore depicted as a concrete step individuals and communities can take towards the transformation of food systems, to facilitate greater autonomy from conventional food systems and the market economy more generally.

Parallel to processes of reskilling, literature within agroecology has explored processes of learning and knowledge-building in agroecological practices among rural farmers (Lutz & Schachinger, 2013). A recent study conducted in Manitoba and Ontario found that for new farmers, the most important learning resources for agroecological practices were social and independent learning resources (Laforge & McLachlan, 2018). Less is known about the processes enabling the reskilling of alternative food practices among young adults who are urban dwellers. Shedding light on food education writ large, a 2016 study identified three main areas for education on food systems in cities: university courses on food systems, educational activities organized by community food justice organizations, and education programs in K-12 schools (Meek & Tarlau, 2016). These learning areas are useful in identifying resources and networks by which young adults in my study may be acquiring the materials, competences, and meaning supporting their alternative food practices.

Situating the acquisition of competencies in alternative food practices within the broader context of the social and institutionalized loss of food skills allows a deeper understanding of young adults' experiences and the enablers and obstacles they encounter.

2.4 Climate distress and food practice

This research includes a focus on the relationship between alternative food practices and climate distress. The intersection is raised in the grey literature in news articles (e.g. Puckett, 2022; Popkin, 2022), blogs (e.g. Atkinson, 2020; Willow, 2020; Gunn, 2020; Edmonson, 2020), and podcast episodes (e.g. Force of Nature; Outrage + Optimism), where alternative food practices are identified or proposed as relevant and meaningful actions that can help one manage climate distress. In academic research, to my knowledge little has been written about the intersection of climate distress and food practice. Research in food studies has identified the environmental concerns or sustainability values guiding participation in alternative food practices (e.g. Renting et al., 2012 Fourat et al., 2020; Goodman et al., 2010; Paddock, 2017), with some research considering the obstacles and enablers in negotiating these (Foden et al., 2022; Fuentes

& Fuentes 2022; Brons & Oosterveer 2017; Spijker et al., 2020). Some studies in the climate distress literature that examine its links to pro-environmental behaviour have included sustainable food choices as one such behaviour, finding they represent one active step individuals experiencing climate distress have taken to mitigate climate change (Sitra, 2019; Verplanken & Roy, 2013; Woodbury, 2019). In Zawadzki et al.'s (2020) study, food choices as a pro-environmental behaviour were found to contribute to well-being. More pertinent to my study, Ojala & Anniko recently examined emerging adults' ability to cope with ambivalence in sustainable food: that is "a tension felt in relation to having mixed attitudes about, for instance, sustainability issues" and what to do about them (2020, p. 19). In their pilot study, the authors found that the higher the feeling of ambivalence about sustainable food choices, and the higher the use of negative thinking strategies, the less these young adults were inclined to make climate-friendly food choices. On the other hand, positive thinking patterns were associated with an inclination to make climate-friendly food choices. This study offers valuable insight into the experiences of young adults experiencing climate distress who choose food as a valuable area of climate action. From what I could find, the literature is silent on issues of why and how climate distress motivates the adoption of alternative food practice, the subsequent character of alterity in sustainable food practice, the experiences and challenges in adopting and upholding these practices as climate actions and how they impact climate distress, including whether they contribute to self-efficacy, coping and well-being.

2.5 COVID-19: A context

The COVID-19 pandemic has without a doubt brought enormous changes both at the individual and societal level and has implications for alternative food practices and reskilling, as well as for climate distress.

For those concerned with climate change, the pandemic may have exacerbated climate distress, not only by causing additional stresses compounding with climate distress to impede well-being, but also as stress may arise from the perceived political inaction on climate concerns, particularly in the context of post-pandemic economic recovery (Morris, 2020). However, it appears that discourse around mental health has increasingly been destigmatized and normalized during the pandemic. For instance, a recent New York Times article popularized the term 'languishing' as the dominant emotion of the pandemic (Grant, 2021), a state where one is neither feeling good about life nor "functioning well in life" (Keyes et al., 2010, p. 2366). Moreover, a

recent news article directly addresses the intersection of food practices and coping during the pandemic, suggesting that individuals have turned to gardening to cope with COVID-19 (Roffel, 2021). Thus, I considered the context of the global pandemic as I explored young adults' ability to conduct alternative food practices and their experience with climate distress.

Moreover, public health regulations and lockdowns during the pandemic have caused significant market disruptions in the global food systems (Loker & Francis, 2020). In Canada, market disruptions included meat packing plants slowing or stopping operations, products being wasted, and crops not being harvested (Holland, 2020; Orden, 2020). These market disruptions have highlighted the need to strengthen shorter supply chains by increasing local food systems' contributions to food economies (Gunther, 2020; IPES-Food, 2020). Indeed, local food purchases increased following the pandemic, for instance as community-supported agriculture schemes became more popular (Helmer, 2020), including in Manitoba (CBC, 2020). Within these changes in awareness and consumer behaviour, Loker and Francis (2020) contend that the pandemic presents an opportunity for urbanites in particular to "reclaim and politicize" the food system, addressing its inequities to improve environmental and social justice (p. 1122).

As lockdown orders often reduced people's working hours and limited their ability to engage in social activities, COVID-19 had the impact of freeing more leisure time. Therefore, in addition to a shift in consumer behaviour towards local foods, the pandemic also provided the opportunity for individuals to learn new practices or develop their existing practices, facilitating reskilling. Since the beginning of the pandemic, individuals have increasingly explored and practiced hobbies, including an increase in cooking and artisanal food practices (Bakalis et al., 2020). More Manitobans have been baking bread and canning (DePatie, 2020), and have begun gardening (Durrani, 2020) with a similar gardening trend found across Canada (Mullins et al., 2021) and around the world (Walljasper & Polansek, 2020). A Canadian study on home food gardening during the pandemic found that most new gardeners said that COVID-19 impacted their decision to grow food (Mullins et al., 2021). Moreover, 54% of respondents who have gardened for more than a year and 96.3% of new gardeners said that "they grow food at home to gain new skills for themselves" (ibid, p. 7). In addition to canning and baking bread previously mentioned, other activities increasingly practiced during the pandemic include cooking and knitting (Dinges, 2020). Thus, considering this context is important as COVID-19 has facilitated

a variety of practices, particularly food-related practices as the pandemic also intersects with food security concerns (Mullins et al., 2021), creating an opportunity for reskilling among larger numbers of people.

Chapter 3 Methods

3.1 Research approach

My research was guided by a social constructivist worldview as I sought to understand the subjective experiences of young adults with alternative food practices (Creswell, 2014). I used a qualitative approach to allow the participants in my research to share their experiences from their perspectives and in their own words (ibid; Hatch, 2002). Taking a qualitative and constructivist approach allowed me to gather in-depth data to understand the meanings participants ascribe to practices while utilizing reflexivity to understand my role in the research to provide a trustworthy, holistic and complex picture of the case studied (Creswell, 2014).

3.2 Situating the researcher

Recognizing that researchers influence their study as the primary research instrument, it is important that I am explicit about my positionality within the research (Hatch, 2002). I am a middle-class, young, white cis-gendered woman with a cultural background in French-speaking Manitoba and with family roots in Québec. Outside of being a linguistic minority, I have lived from a position of privilege and as such, I certainly have blind spots as I have been able to navigate life with ease, especially when compared to marginalized folks. Moreover, in my past experiences I have volunteered with small-scale food system organizations and businesses, I have worked for local food businesses, and have informally discussed alternative food practices with several young adult practitioners. Through these experiences, I have come to better understand my own evolving beliefs and biases, those of some practitioners as well as fragments of their experiences. Similarly, I have participated in events organized by the Club Té-Vert, and as project officer of muvmãte, an organization working to develop opportunities for French-speaking young adults in the province, I have organized pro-environmental reskilling events on home composting, gardening, and a discussion on Earth Day. I am therefore familiar with some experiences with alternative food practices and with climate distress through my involvement in the Franco-Manitoban community. These experiences, the knowledge I have acquired, and my own concern for socio-ecological health form a bias that positions me in favor of small-scale agroecological food practices. I acknowledge that my life experiences and worldview generate assumptions and biases that influence my research, and I therefore maintained an ongoing awareness and reflexivity to understand and discuss their influence on my research. In doing so, I aim to be transparent to ensure the trustworthiness of my research.

3.3 Strategy of inquiry

With the purpose of exploring the experiences of young adults' food practices, I employed a dialogical approach to case study (DCS) research. Case study research is an approach used in multiple disciplines that has the purpose of exploring a particular phenomenon in its natural context while providing a rich and detailed understanding which accounts for the case's complexity (Crowe et al., 2011; Yazan, 2015). A case is generally understood as a bounded phenomenon where the delineating factors could include activities, time, and place (Luck et al., 2006). DCS propose a unique approach to case study research by centering the co-construction of meaning and sense-making (Marková et al., 2020). In brief, a dialogical approach to case study research defines a case as a dynamic and open-ended process where meaning and decision-making are generated through self-other relations occurring within particular macro and micro-historical contexts (Cornish, 2020), at several scales and in different time-space situations (Marková et al., 2020). As there is little literature documenting my particular area of study, employing DCS was pertinent because it prompted the collection of in-depth qualitative data exploring a variety of experiences with alternative food practices, and detailed information on the context shaping these practices and how alternative food practices are generated through the interaction of the elements of the case.

Recent literature on DCS highlights four key dimensions of this research approach. Firstly, the principal assumption of a dialogical approach is that the individual (the self) and the external entity (the other) are understood as interdependent. As such, it is through self-other relations and intersubjectivities, and in particular through interaction, communication, and dialogue between inseparable self-other units, that meanings are made and realities are generated (Marková et al., 2020). This principle was useful in identifying the units and relations that co-create experiences in climate distress and AFP, in combination with the practice-theoretical framework. Further, this principle prompted ongoing reflexivity on my role in meaning-making, discussed in section 3.5.4.

The second dimension of DCS highlights the importance of dynamism and temporality in situating and understanding the case (Cornish, 2020). As self-other interactions are always changing, the case is understood as dynamic and open-ended (ibid). Temporality highlights the importance of contextualizing the case studied within the macro and micro-historical (temporal) contexts shaping the case (ibid). Literature on DCS provides useful analytical tools to

contextualize a case study and understand the interaction of its elements. In particular, the three notions of sociogenesis, ontogenesis, and microgenesis are analytical tools allowing the researcher to understand the numerous and interconnected time-space scales of social phenomena. Sociogenesis considers the role played by cultural, political, and historical trends in institutionalizing behaviours and communication styles; ontogenesis examines the development of the individual and the negotiation of agency; and microgenesis considers the spaces and concrete interactions where these elements are experienced by an individual (Marková et al., 2020). These concepts can be useful to contextualize a specific experience and better conceptualize the self-other interdependencies at play. Meanwhile, the MCM framework as well as the differentiation between practice-as-entity (socially defined) and practice-as-performance (individually embodied) will be useful in identifying the different actors and units involved in generating a practice's MCM. Table 1, on the following page, illustrates how alternative food practices and young adults' experiences may be conceptualized using a combination of the MCM framework and the triad of microgenesis, ontogenesis, and sociogenesis. This table was used in my analysis to map out the life of alternative food practices, to understand the context in its complexity, and to examine the interactions and interdependencies between practices, practitioners, and social units.

The third dimension of DCS highlights ethical considerations that emerge from the centering of self-other interdependencies as a primary ontological unit (Cornish, 2020). In DCS, researchers must respect individuals and their perspectives, must aim to account for the entirety and complexity of a case, and must acknowledge and engage themselves as authentic individuals (ibid). Cornish highlights that in DCS the researcher must engage in an 'I-Thou' relationship with the participant, rather than an 'I-It' relation where the participant is viewed as an object of study (ibid). As a researcher I respected "the uniqueness and alterity of participants", which necessarily involved that I engaged myself authentically in my interaction with them (ibid, p. 144). The additional ethical considerations of this dimension overlap with those of qualitative research and will be discussed in greater depth in the section Ethical Considerations (3.9).

Table 2. A Dialogical approach to the integration of elements in practice

		Material, competencies and meaning generating alternative food practices (Shove et al., 2012)		
		Material	**Competencies**	**Meaning**
Dialogical scales where alternative food practices are generated (Marková el al, 2020)	**Microgenesis** *The concrete situations (interactions and spaces) where individual and social change occur*	Which interactions/spaces provide the materials needed for alternative food practices?	Which interactions/spaces enable the learning of skills needed for alternative food practices?	Which interactions/spaces contribute to generating meaning and motivation to undertake alternative food practices?
	Ontogenesis *Agency negotiation; Identity formation; Individual development/life-story*	Which materials enabled participants' adoption of alternative food practices?	Which competencies contributed to participants' choice to conduct alternative food practices? How have these competencies impacted participants?	Which meanings enables participants' alternative food practices? How have participants interacted with dominant meanings associated to food practices?
	Sociogenesis *Social, ideological, political, historical, or cultural influences and transformations*	What are the institutionalized systems, behaviours and communication styles enabling/obstructing access to materials?	What is the historical and cultural context of participants' food competencies? What food competencies are institutionalized?	What are the institutionalized values tied to food practices which have influenced participants? Which social contexts generate the motivation and meaning to undertake alternative food practices? How are ideologies and/or institutionalized meanings reproduced or challenged in alternative food practices?

The fourth and last dimension of DCS encompasses several elements tied to the researcher and writing style: as a researcher, I must situate myself as an actor in the field; the case must be contextualized in time and space; the knowledge must be founded in empirical and detailed data; and finally, uncertainties and complexities must be accepted as such (Cornish, 2020). In applying this dimension to my study, I drew on the literature on food systems in Canada, recent trends in food practices and climate distress among young adults, and on the impact of the COVID-19 pandemic to help contextualize young adults' experiences. Moreover, I gathered detailed data on participants' experiences and accept the contradictions and ambiguities that emerged. Lastly, as described in the section Situating the Researcher (3.2), I engaged authentically and consciously, acknowledging and discussing my impact on the research and the meaning-making processes.

3.3.1 Application of dialogical concepts

Rather than prescribing a set of procedures as a methodology, a dialogical approach to case study research provides theoretical tools (Gillespie & Cornish, 2014), in addition to the four dimensions outlined previously (Cornish, 2020). I applied three dimensions, namely: mode of writing, ethical considerations, and recognizing the dynamism, temporality and complexity of the case (Cornish, 2020). I utilized the dimension of centering self-other interdependencies primarily by being reflexive of my role in meaning-making through the data gathering and analysis processes. I also drew upon the practice-theoretical framework by considering the interdependent social entities that shape AFP: the social relations, communities of practice, and the informal and institutionalized material arrangements. The concept of self-other interdependency was useful in highlighting the dialogical character of climate distress, as participants' eco-emotions and sense of responsibility were described as co-produced through their interactions with other living beings and environments. Further, I found that self-other interdependencies merged well with the practice-theoretical view of the co-production of meaning through practitioner-material interaction/interdependence in AFP.

Combining the micro/onto/sociogenesis framework with a practice-theoretical framework was useful in identifying and mapping the socio-material units at play in AFP and the time-space scales at which they interact, and thus in providing insights as to how AFPs emerge and are sustained within the social order wherein they exist (see Appendix X). In exploring young adults' AFP, I acquired information on the spaces and interactions where AFP and climate distress are experienced (microgenesis), on participants' negotiation of agency through AFP (ontogenesis),

and on participants' experience of institutionalized/conventionalized food behaviours and of socio-cultural, political, and economic forces therein (sociogenesis). However, after writing the results sections, I found that I lacked space for a deep engagement with the analytical concepts of micro/onto/sociogenesis; for instance, in examining the individual development and identity formation of participants (ontogenesis), the institutionalized communication styles and its manifestation in young adults' experience (sociogenesis), and in foregrounding a dialogical analysis of the reproduction of meaning in AFP. I concluded that within the scope of this document, my research objectives were best met and explained by drawing from the literature on food studies, climate distress, and theories of practice. For this reason, I chose to exclude the conceptual tools of micro-, onto- and sociogenesis in my analysis. Thus, the dialogical approach to case study provided the foundation for conceptualizing my case as dynamic, open-ended, situated and composed of interacting and co-constituting elements, for highlighting this dynamic within the tools of theories of practice, and for guiding my role as researcher contributing to meaning making.

3.4 Data collection procedures

3.4.1 Sampling and selection criteria

A purposive sampling method is frequently used in case study research and will facilitate an in-depth understanding of my case by allowing me to identify and select participants with characteristics that correspond to the research questions I seek to answer (Fletcher & Plakoyiannaki, 2010). Two-tiered sampling is often employed for case studies because it allows, firstly, for the selection of the case through the identification of its criteria and boundaries, and secondly, for the selection of "people, events, sites, and so on within the case" (Merriam & Tisdell, 2016, p. 100). The case I studied is the alternative food practices of young adults who are concerned for planetary health and are situated in cities in the Southeastern Prairie region in Canada. The second step of two-tiered sampling is the identification of the selection criteria. I selected participants with the following characteristics: 1) they self-identify as young adults, 2) they self-identify as experiencing a concern for planetary health that informs their alternative food practices, 3) they undertake alternative food practices routinely, and 4) they are urban dwellers located in Southern Manitoba or surrounding cities.

3.4.1.1 Geographical location

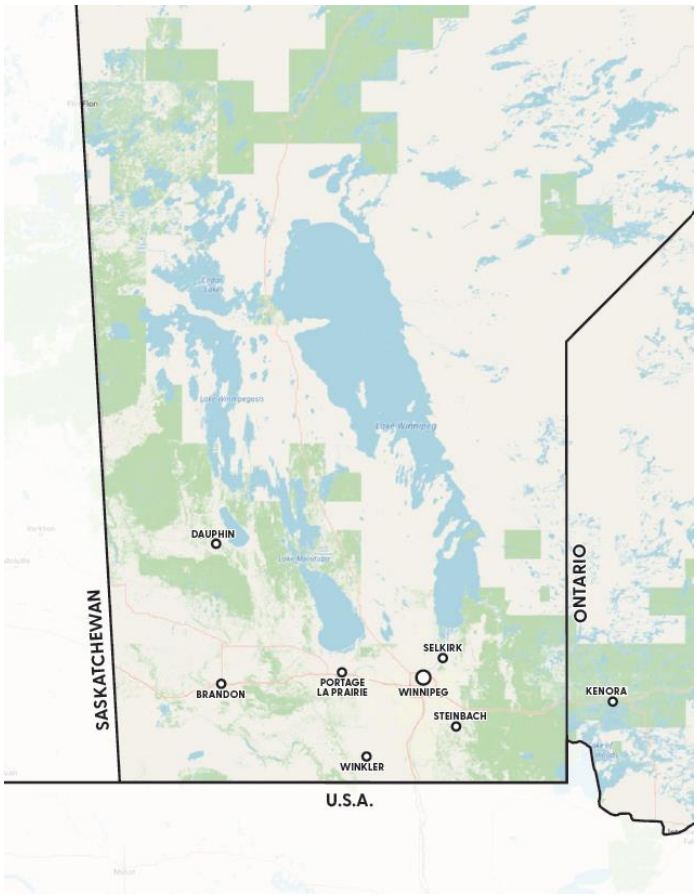

Figure 1. Southeastern Prairie Region (Robinson, 2023).

In this research, the region of the Southeastern Prairies was delimited to cities in or surrounding Southern Manitoba, including Winnipeg, Brandon, Winkler, Steinbach, and Kenora, which have followed a similar historical trajectory (Figure 1). The selection and delimitation of this region are partly opportunistic as some individuals and organizations are known to my supervisor and correspond to the selection criteria, which facilitates recruitment. Recent research shows that residents of the Prairie provinces (Manitoba, Saskatchewan, and Alberta) and British Columbia have among the highest percentage of gardeners versus non-gardeners in Canada and that 87.2% of residents of the Prairies who grow food at home have done so for more than a year (Mullins et al., 2021). Therefore, as it pertains to choosing a region where individuals are conducting alternative food practices, focusing on the urban dwellers of Southern Manitoba and surrounding cities emerged as a pertinent region to explore. Moreover, while I focus on alternative food practices occurring in urban spaces and performed by urban dwellers, I broadened the geographical scope to include individuals who may conduct their food practices outside of cities (e.g. foraging, participating in local food organizations, renting rural land for gardening).

3.4.1.2 Participant recruitment

For participant recruitment, I contacted local food organizations and climate-oriented organizations by email and asked them to circulate a recruitment poster with information on my research among their members to reach the target population (see Appendix IV for the email, and Appendix VI for the recruitment poster). The organizations I contacted are Fireweed Food Coop,

the Club Té-Vert, Manitoba Eco-Network, Manitoba Energy Justice Coalition, Food Matters Manitoba, Green Action Centre, Harvest Kenora, and IRCOM. I also made a Facebook post that described my research and invited individuals to respond if they were interested to participate and/or to 'share' my post to help the recruitment process (see Appendix VII for the Facebook Post). I employed a snowballing sampling method by asking my participants to forward my recruitment email to other individuals who correspond to the selection criteria and who may be interested in participating (Cassell, 2015). Finally, I utilized convenience sampling whereby participants were chosen both because they met the demands of the research and because they were conveniently accessible (ibid). With this sampling technique, I invited two individuals from within my extended friend group, whom I knew correspond to the research topic, to see if they self-identified with the criteria (see Appendix V). When interested individuals reached out to me by email, I proceeded to set up a time convenient to them for a phone call. In turn, that phone call allowed me to confirm the selection criteria and allowed the interested individuals to obtain more information on the participation process (see Appendix VIII for the phone call script). Through purposive sampling, I recruited and interviewed a total of 20 participants, seeking a diversity of experiences in gender, age, culture, and practices. In the consent form, participants were offered an honorarium of 50$ for their participation, to compensate them for the time set aside for the interview and their computer and internet usage (see Appendix II).

I did not provide an age range in the recruitment of young adults for this research. The intent was to capture younger millennials (up to 32-35 years old), and individuals with more experience concerning independent decision-making (e.g., selecting adults rather than teenagers). However, recognizing that experiences of young adulthood vary from one person to another, and because of the varying age ranges associated with the term, I chose to allow participants to self-identify as young adults. The intent was to prevent the exclusion of participants who may be outside of a fixed age range but who have relevant experiences to contribute to this research. Participants' age varied between 22 and 37, with 11 participants in the 26-29 age range, 6 participants in the 30-33 age range, one in the 22-25 range, and one in the 34-37 age range.

3.4.1.3 Recruiting for alternative food practices

The food studies literature discusses the challenges in identifying the boundary between alternative and conventional food systems (Forssell & Lankoski, 2015; Goodman et al., 2012; Tregear, 2011;). For this reason, and because I intend to understand the *subjective* experience and

motivations to negotiate alternative food practices, I let participants self-identify their practices as 'alternative'. Therefore, in this research I consider alterity to be fluid depending on one's understanding of conventional food systems and one's unique socio-material context. To select alternative food practices in my recruitment materials (Appendices IV, V, VI and VII), I provided a broad description of the alternative with examples of such food practices, to invite and include a wide variety of practices relevant to my research. Participants' self-identified alternative food practices included: the self-provisioning practices of gardening, canning, preserving, baking bread products, foraging, beekeeping, and food reclaiming (dumpster diving and purchasing discounted foods); guerilla gardening, having a mindful diet including being vegan, pescatarian, having a regenerative diet and sourcing from community-supported agriculture; as well as the community-based practice of volunteering/taking a leadership role with a community food organization. Most participants had a combination of these practices. As Fuentes & Fuentes (2022) do in their study of food consumption using a practice-theoretical lens, I conceptualize participants' alternative food practices as a bundle of practices. Based on the research findings, this bundle of alternative food practices is characterized by common 1) meanings of sustainability, social responsibility, and food systems transformation, 2) specific foodstuffs and materials for positive ecological and social impacts, and 3) the acquisition of competencies in sourcing, processing and/or producing alternative foodstuff.

3.4.2 Semi-structured interviews

The principal data collection tool of this research was 20 one-on-one semi-structured interviews which varied in length from 45 minutes to 2 hours, averaging at 75 minutes. Interviews are a central tool of qualitative research, enabling participants to describe their experiences in their own words (Dunn, 2005) and therefore are well suited to obtain rich subjective data (Adams, 2015). Using a semi-structured approach ensured that participants addressed previously identified themes related to my research objectives, while also allowing sufficient flexibility to discuss unanticipated and relevant topics (Dunn, 2005). I created research questions for each research objective and drew upon these to develop questions for the interview guide. The research questions are listed below:

1. Objective 1: Understand the motivations of young adults in undertaking alternative food practices.
    a. Why do participants adopt alternative food practices?

   b. What kind of change, if any, are young adults seeking to bring through alternative food practices?
   c. What concepts, meanings and motivations are linked to or embedded in alternative food practices?
   d. Are participants rejecting conventional food practices?

2. Objective 2: Identify the enablers and obstacles of young adults' alternative food practices.
   a. What are the materials sourced by participants to conduct alternative food practices? How are they developing the skills needed to integrate these materials into practice?
   b. How does the configuration of meaning, competencies and materials motivate, enable, and hinder alternative food practices?
   c. How are alternative food practices negotiated within systems facilitating conventional food practices?
3. Objective 3: Examine the relationship between young adults' alternative food practices and their climate distress.
   a. Why and how may climate distress motivate participants to adopt alternative food practices?
   b. What, if any, is the impact of having and performing alternative food practices on participants' climate distress? Are alternative food practices helping participants to cope with climate distress?
   c. Why is food chosen as an action in response to climate distress?

I settled on 16 questions in the semi-structured interview guide, covering my three research objectives (see Appendix 1 for the interview guide).

Participants were given the choice to remain anonymous or to withdraw confidentiality, a choice that was presented to them in the consent form (Appendix II). In the consent form, participants were also offered the choice to decide how they wanted to be referred to in the thesis document. Among those who chose to withdraw confidentiality, most chose to give me their first and last names, while others chose to give me only their first names. I refer to participants according to their preferences in the thesis. For participants who chose to remain anonymous, they were given the option of choosing their pseudonym: some did, while others let me choose a pseudonym for them. When the participants provided informed consent, the interviews were

audio recorded for transcription and analysis purposes, using Zoom's 'local recording' feature. A video recording is automatically downloaded in this function, which was immediately deleted after the interview. During the interviews, I took a few notes when thoughts emerged about participants' experiences, as well as observations of participants' non-verbal communication and behaviour (Creswell, 2014). These were typed and added to my research diary. The information I gathered from the first interviews allowed me to evaluate my course of action as a study with an emerging design (Creswell, 2014). Indeed, I modified the interview guide after having conducted two interviews, adding Question 12 "Why would you say your practice is alternative?" When participants in the first two interviews offered their views on this topic, I realized that I wanted to understand every participant's understanding of the alterity of their practice, because it communicates valuable information on their views of conventional food systems/practices, the nature of their alternative food practices and how these are situated and negotiated against conventional food practices.

3.4.2.1 Conducting the interviews

The interviews took place between October 2021 and February 2022 and were held on Zoom due to the health and safety COVID-19 requirements of the University of Manitoba. Many participants seemed busy with additional commitments, including caring for children, with some participants located outside of Winnipeg. It is possible that overall, online interviews increased the approachability of the participative process as fewer logistical details needed to be arranged to identify and travel to a location, while still allowing me to see visual communicative cues which are important to understand nuances in interactions (Cassell, 2015). Participants seemed at ease with and knowledgeable of Zoom and, combined with our mutual interest in alternative food practices and acceptance of the physical isolation measures of the pandemic, building rapport and engaging in the conversation went smoothly. Internet connection issues occurred in the middle of one interview, after which the participant and I switched off our cameras to maintain the audio connection. Despite the benefits of virtual interviews, I recognize that they cannot capture the experience of embodied practices. By asking specific questions about the materials and competencies participants employed, I sought to obtain a better understanding of the embodied tasks and routines involved and of the socio-material context of alternative food practices.

I began the interviews by inquiring about the actions involved in participants' alternative food practices. I wanted to understand the type of routines participants had adopted for their

alternative food practices, and how their daily life and these practices were organized and moulded around each other. The questions that followed examined the types of materials and skills involved in alternative food practices and elicited sometimes 'drier' answers where participants listed and explained the tools and processes needed. I found these questions important because they provided a practical understanding of the material infrastructure and embodied know-how involved in the practice, which was otherwise difficult to do in virtual interviews. The details participants provided were subsequently drawn upon in questions that followed those drier questions, which examined enablers and obstacles to alternative food practices. I found that participants were eager to answer the question 'What are the things that motivate you to do your practice?' and to elaborate on the multifunctionality of their alternative food practice(s). Similarly, the question 'Why are you concerned for the environment?' tended to elicit strong responses regarding the state of environmental degradation around the world and the urgent need for climate action. To understand their concern for the environment and their experiences with climate distress, I asked participants to discuss their concern for the environment, its impact on their daily life, and I asked them to identify their eco-emotions. Finally, the question 'What is the relation between your concern for the environment and your alternative food practice?' provided the opportunity to discuss how these two phenomena intersect in participants' experiences. Though this was the structure written in the semi-structured interview guide, each interview had slight variations in how it unfolded as participants' unique train of thoughts sometimes raised topics in a different order.

3.5 Data analysis and dissemination

3.5.1 Coding

The interviews were transcribed and added to the NVivo software that I used for analysis and coding. In coding the interview data, I used both a deductive and inductive approach. With a deductive approach, I drew from the literature review to identify theoretical codes stemming from the research context (Silver & Lewins, 2014). Documenting theoretical codes served to make explicit the knowledge emerging from the literature review and the biases or expectations I may have formed in tandem. This helped me be reflexive as I turned to understand the experiences emerging from the data. Deductive coding was also useful in allowing me to easily find information needed to answer my research objectives: for instance, 'Emotions', 'Enablers' and 'Obstacles' were codes I assigned at the onset. With an inductive approach, I identified codes

emerging from the data during the analysis process (ibid). This included in vivo codes, where codes were chosen from the words participants used during the interviews, and emergent codes, where I determined the name of codes that emerge from the data. Table 2 shows the list of anticipated codes, and Table 3 shows the final codebook that I developed as I proceeded with my research, and where I tracked the addition of theoretical, in vivo, and emergent codes to provide transparency to the coding process. To facilitate the comprehension of this lengthy list of codes, the final codebook (Table 3) is categorized into the major themes associated with my research objectives: those of climate distress, motivations to alternative food practice, alternative food practice and climate distress interaction, barriers and enablers to alternative food practice, and additional codes.

Table 3. Codebook: Anticipated codes

Theoretical Codes (Deductive coding)
Autonomy
Resisting conventional food systems
Reskilling
Food justice
A sense of responsibility
Coping
Uncertainty of the future
Existential questions
Finding meaning
Eco-grief
Eco-anxiety
Eco-guilt
Hope
Climate distress
Climate change
Environmental destruction
Enablers to practice
Obstacles to practice
Pro-environmental behaviour
Hands-on/DIY
Connection to nature
Sociogenesis
Microgenesis
Ontogenesis
Bringing change
Community of practice
Political inaction

Table 3. Final Codebook: Theoretical, in vivo, and emergent codes

Codebook		
Understanding participants' climate distress		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)
Climate distress	Always there	A responsibility to act
Direct experience		Care, altruism
Indirect experience		
Impact on daily life		
Emotions of climate distress (see Table 4, Emotional experiences of climate distress)		
Participants' motivations for alternative food practices		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)
Environmental motivations	Eat local	Envisioning just futures
Personal motivations	Reduce waste	Sharing the benefits
Social motivations	Right livelihood	Food is a solution to the eco-crisis
Intersectional environmentalism	Eat healthy food	Food as a tangible area of action
Withdraw from conventional food systems	Saving money	Consuming eco-responsibly
Views of conventional food systems	Free food	Ethical consumption of animal products
Views of conventional food practices	Rewarding, gratifying or satisfying	Reciprocal well-being
	Meditative, therapeutic	Eating locally year-round
	Meaning, purpose	Meaningful connection to nature
	Sharing/gifting	Meaningful connection to food
	Sharing knowledge or teaching others	Building community
	Inspire others	Fun time with others
	Trading	Right relationships
	Living more with less	Wanting others to experience the joy they experience
	I love food	Food skills for collective self-sufficiency
	Communal skill building	Support food chain workers
	Provide for myself (individual self-sufficiency)	Not participating in conventional food systems
	What do we do now	Abundance/the joy of sharing

	I am privileged	
	AFP as a lost art	
Alternative food practices and climate distress: Impact and interactions		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)
	Relief, destress, therapeutic	Contributing to environmental health lessens climate distress
	Empowering	Seeing others' climate actions
	Prevents paralysis	Taking action generates hope
	Take control	Knowledge of environmental impacts increases climate distress
	Doing *something*	Finding balance (see Table 8, Finding balance)
	It's work	Prioritizing happiness
	No large-scale impact	Mixed Impacts (See Table 7, Alternative food practices can strain well-being)
	Not doing enough	
	Act in your sphere of influence	
	My practice is not perfect	
	Small steps matter/Slow motion is better than no motion	
Barriers to alternative food practices		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)
	Lack of knowledge	Financial limitations
	Lack of time	Institutional/Systemic barriers
	Lack of space	Inaccessibility of materials
	Work	Climate-related barriers
	Distance	Climate distress
	Mental energy/motivation	
	Physical health	
	Moving	
	Having kids	
	Danger/Risk	
	Neighbours	
	Working with others	
Enablers of alternative food practices		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)

The COVID-19 pandemic	Other people: Emotional support	Other people: Sharing materials
Communities of practice	Other people: Sharing knowledge	Family's food background and practices
	The Internet	Institutional enablers
	Other people: Helping with tasks	Enjoying the activity
	Having enough money	
	Privilege	
	Local culture	
	Other people: Supporting financially	
	Community organizations	
	Making it a habit	
Additional codes		
Theoretical Codes (Deductive coding)	In Vivo Codes (Inductive coding)	Emergent Codes (Inductive coding)
Competencies		Exercise of agency
Materials		Existential reflections

I conducted two rounds of coding. In the first, I coded for experiences of climate distress (emotions and impacts), motivations, enablers and barriers to alternative food practices, and participants' views of conventional food systems. Doing so allowed me to categorize and access the information needed to examine my research questions and objectives. During this first round of coding, I also coded for inductive codes that stood out. In the second round of coding, I set aside my interview questions to explore participants' experiences without the rigid frames of climate distress, motivations, enablers and barriers. In doing so, the themes and patterns of responsibility to act, right livelihood, finding balance, and climate futures emerged, among others. In addition to these two rounds of coding, I went back as needed to code for newly created codes, as I kept track of which interview prompted the creation of each code (e.g. code 'Right Relationship' created at interview #7, therefore I need to code interviews 1-6 for this code).

3.5.2 Data analysis

I transcribed, read, reviewed and analyzed the interview data to obtain a rich understanding of the context of the case, an important step in case study analysis (Creswell, 2014). Drawing from the interview data and the literature, I undertook a thematic analysis of interview data, and codes emerged both within and without my three research objectives. When coding the interview transcripts, I was centering the questions 'what is the participant saying?' and 'what does the participant want me to know?' As per a qualitative approach with an

emerging design, the data analysis process was ongoing during the research (Silver & Lewins, 2014) as I conducted interviews, coded these interviews, analyzed and recategorized codes on NVivo, and over the course of the writing process. In particular, I found that the activities of conceptualizing and embedding codes and structuring my results chapters were significant analytical processes, through which I often had to take steps back to return to my data and research objectives. The question 'what is the story that has to be told?' was useful as a guiding tool during the examination of existing codes and the reorganization of code hierarchies, while I continuously reflected 'does this reflect the experiences of participants?' My participation in meaning-making became evident in this process, as I chose to center particular codes and themes based on my research objectives and the commitment to authentically communicate participants' experiences. Moreover, I found that the more I wrote, the more I was willing to 'let go' of parts of the data that are less relevant to the research objectives and that are not within the scope of this document to explore. Surprised by the high density of data yielded in the interviews, this again prompted a deeper reflection on 'the story that has to be told' and allowed me to be more comfortable setting aside minor themes and codes.

Under a dialogical approach to case study, the analysis included examining the processes of microgenesis, ontogenesis, and sociogenesis in young adults' experiences. While I do not describe my research findings and analysis in these terms, these concepts, combined with the practice-theoretical framework of MCM, were useful in providing a deeper understanding of the case, its context, and the interaction of its elements. I used Table 1 to draw from this framework, which can be found in Appendix X.

3.5.3 Dissemination

I shared the findings of my research in a short report that I sent to the participants. This research was presented at academic conferences, namely the Environmental Studies Association of Canada (ESAC) and the Twelfth International Conference on Food Studies, and possible additional conferences after publication of the thesis.

3.5.4 Reflexivity: My influence on the research

In accordance with my social constructivist worldview and the dialogical understanding of self-other interdependencies, I have contributed to the meaning-making process over the many steps of this research. I kept a diary during this research to prompt self-reflection and document my thoughts, reactions, and assumptions, and whether and how they may have impacted the

research process. To provide a truthful and reliable account of participants' experiences, I would like to share a few thoughts on the reflexive process.

In this research, I gathered and analyzed data to understand individual experiences and extract key trends among these experiences to understand the case studied. I sought to do this while preserving the integrity of each experience, without generalizing or obscuring the complexity in the data, and without straying from my research purpose. When I started the coding process, I quickly realized that with twenty participants, it would not be in the scope of this study to fully and adequately represent the story of each of these participants and the multiple and unique ways in which their life experiences shape their alternative food practices, their climate distress, and how they talked about these. Indeed, during the analysis process, I questioned how 'little' information I had acquired on the multifaceted and dynamic factors shaping each participant's practice and climate distress. Moreover, having spent on average 75 minutes with each participant, I find it important to highlight that the findings I share in this research are contextual to the information that emerged from those interviews in particular, and are tailored to my research objectives. I do not claim to wholly represent each participant's alternative food practices and climate distress. Yet, even as I 'only' spent one to two hours with each participant, I found myself with an abundance of data. As mentioned, foregrounding my research objectives and identifying main and nesting themes were essential to frame the scope of this paper. Highlighting this research as one that is exploratory gave me confidence in proceeding with the coding, analysis, and writing within the confines of my research purpose and those of a master's thesis document.

During the interview, I was attentive to the ways in which I influenced participants' participation. I used my intuition and emotional intelligence to ensure each participant felt comfortable to share, and to encourage, validate, and demonstrate an authentic interest in their experiences. As each participant engaged differently, my own engagement varied from one interview to the next. Some participants were quick to share their experiences at length, and in these cases, I found prompts unnecessary and instead listened and redirected participants to the interview questions when needed. Other participants were more attentive to my reactions and sought to ensure they understood what I wanted to know before they shared. In such instances, I used more prompts, clarified questions, and/or encouraged participants to share whatever the

question evoked for them, in the case where no specific answer was sought (e.g. “How do you experience your concern for the environment?”). With this flexible and reflexive approach, I ensured that each participant was able to share their experience about each research question. I found my skills as interviewer improved as I performed the interviews and became more comfortable with the role of interviewer, the use of the interview guide, the time management, the holding of space for participants’ experiences, and the ability to identify and piece together prompts and questions according to participants’ own flow.

3.6 Validity and reliability of the study

Creswell (2014) outlines several strategies that can be used to ensure the validity and reliability of qualitative research. With the ‘member checking’ strategy, I communicated with participants to confirm my interpretation and/or request they expand on an unclear or interesting comment they made during the interview when necessary. Secondly, using a ‘rich, thick description’ of participants’ stories, I sought to provide detailed and contextualized accounts of their experiences (ibid) and, as per the dialogical case study approach, I accepted any complexity and ambiguity in the data as is (Cornish, 2020). Thirdly, I included any ‘discrepant information’ arising from the data collection or analysis (Creswell, 2014). Fourthly, as it pertains to the strategy of ‘peer debriefing’, my supervisor and committee members reviewed and examined the data analysis providing additional perspectives that add validity to my research (ibid). Lastly, by being transparent about my biases and committing to ongoing reflexivity, I hope to have provided a trustworthy account of the experiences I interpreted.

3.7 Ethical considerations

My priority during the research process was to ensure the rights and well-being of participants were respected and supported. As this study has a component examining participants’ concerns and hopes for planetary health and exploring whether practices serve as coping mechanisms, there was a risk that the research topic and data collection evoke sensitive and difficult emotions. I took several steps to ensure a low risk of harm in this research and to ensure that participants’ well-being was maintained and supported. Participants were provided in advance with information on the research topic to enable them to make an informed decision regarding their participation in the research and to inform their reflection on the experiences they were comfortable sharing. Moreover, as participants are the owners of their stories, they were informed that they could choose to stop participating, refuse or stop the recording of the

interview, and/or have sections of the interview withdrawn from the analysis. I proposed to participants that their contributions be anonymized such that readers of the research will not be able to link an experience or comment to their person. During the interview, as the interviewer and researcher in the position of power, I reminded participants that they were encouraged to speak within the boundaries of what they were comfortable with, and I ensured to demonstrate authentic empathy and validate their experiences, drawing where appropriate from my own experience as a young adult with climate distress who uses coping strategies. Importantly, I began collecting data only once my research was approved by the University of Manitoba's Research Ethics Board. My hope is that this research also benefitted participants in enabling them to explore their experiences and perhaps also provide an opportunity for reflection that they found enriching.

3.8 Structure of the following chapters

In the following chapters, I dive into my research findings. The structure of these three chapters is based on the key areas of inquiry outlined by my three research objectives, interwoven with emerging themes, and reordered to best communicate the story of the case studied. The first, Chapter 4, begins by examining the pathways towards alternative food practices, including understanding participants' climate distress, the identification of food as a chosen area of action, and the motivations for alternative food practice, followed by a discussion. In Chapter 5, I focus on the interaction between experiences of climate distress and alternative food practices, and discuss participants' experience in negotiating positive contributions to both the environment and their personal well-being. In Chapter 6, I identify the enablers and barriers to alternative food practices. Drawing from theories of practice, I discuss opportunities in alternative food practice and their negotiation within and without conventional food systems. Finally, I conclude the thesis with Chapter 7, where I provide a final discussion and concluding comments.

Chapter 4
Pathways to alternative food practice

Many experiences and motivations combine to lead to the adoption of alternative food practice (AFP). In this chapter, I describe these pathways, starting by examining participants' experiences with climate distress to understand how food comes to be figured as a climate-relevant area of action. Then, I turn to participants' motivations in undertaking AFPs categorized as environmental, personal, and social motivations.

4.1 Experiencing climate distress

Participants experience an array of emotional responses to the degradation of the natural world. As previously mentioned, these emotions are considered healthy and reasonable responses to the eco-crisis, its environmental losses, and the anticipated losses of the future. In this section, I detail the main themes that emerged as participants described their climate distress.

When I asked them how they experience their climate distress, participants described their direct and/or indirect exposure to climate change and climate hazards. Half of the participants described their direct experience of the physical degradation of the environment due to the eco-crisis, including noticing changes in the seasons, temperatures, and ecosystems in their surroundings. For example, Anna described the decline in biodiversity she witnessed over the course of her life:

> […] in my lifetime I've seen the decline of insect life, animals, bees. Especially summers outside now feel very different than when I was a kid, and I'm not even 30. Pesticides of course are one of the main problems with that. I love insects, I just grew up turning over stones and looking for them. And you can't really do that anymore (Anna).

While not being on the frontline of climate hazards himself, Sam experiences them personally because he has family who lives in areas severely impacted by them. He explained:

> I would say a lot of anxiety and worrying about the future. I mean, I've read the IPCC reports, I have family in […], so the impacts of climate change are felt very heavily there. (Sam).

Fourteen participants described indirect experiences of climate change and environmental degradation. In these instances, climate hazards and environmental losses are experienced through climate-related media, documentaries, social media, and scientific reports. Paul describes this experience well:

> I think just learning more about the loss of biodiversity, and I'm reading all these books that talk about the intelligence of a forest and the intelligence of these old growth systems, even prairie landscapes, and I'm just mesmerized by that kind of stuff and I just think it's so sad that it would be destroyed. And also, I think the poor people are going to get screwed the most, right, by climate change. So for me, I don't think that the lifestyle I was raised in is very affected by climate change, or I haven't felt the impacts myself, but just more intellectually, I feel for those who will be affected (Paul).

Some participants experienced a catalytic experience through documentaries, where the knowledge and medium of the film shifted their understanding of foodstuff, diet, or food practice and accelerated action. Whether experienced directly or indirectly, the emotions of climate distress are bodily experiences that can be disruptive (Wray, 2022).

When I asked them about the emotions that are tied to their concern for the environment, each participant identified multiple emotions, detailed in Table 4.

Table 4. Emotional experiences of climate distress

Emotional experiences identified as part of climate distress	Number of participants who said they experience the emotion(s)
Frustration/Distress because of authorities' inaction	13
Anxiety/Worry	11
Fear	10
Excited/Motivated about actions that can be taken for a sustainable future	9
Anger	7
Sadness	7
Climate distress emerges when thinking of the next generation/kids	7
Despair/Discouraged/Depressed	6
Frustration/Distress because of others' inaction	6
Stress	5
Grief	5
Guilt	4
Feels very real	4
Dread	3
Terrified	3
Exhausted	3
Desensitized/Apathy	2
Panic	2
Cynicism	2
Painful	2

Disgust	1
Disappointment	1
Discomfort	1

Participants worry about the socio-ecological impacts of the eco-crisis, the future, and the decreasing amount of time remaining to bring adequate change. They expressed a combination of backward-looking emotions (e.g. sadness, anger, and guilt for environmental harm that has occurred), and forward-looking emotions (e.g. anticipatory grief, anxiety about the future) in varying intensity, temporality and embodied experience (Kurth & Pihkala, 2022). A main experience of participants' climate distress is distress caused by governments' failure to act for planetary health and/or governments' impediment of progress towards better futures. Andre DeBattista communicates the intensity of this frustration:

> When I see the impact that's being had but then I see a very half-committed, or not very committed response from our governments and governing bodies that have the power to make legislative changes, or from individuals that deny that it is a real problem, frustration is the biggest emotion that I feel (Andre DeBattista).

These findings suggest that participants' climate distress is aggravated by the lack of appropriate response by elected representatives who are perceived as holding decision-making power, echoing the findings within the climate distress literature (Lawrance et al., 2022; Hickman et al., 2021; Marczak et al., 2021). The inadequacy of government (in)action was also found to be part of young peoples' (aged 16-25) experiences of climate distress in a recent survey conducted across Canada (Galway & Field, 2023). Likewise, Schwartzberg et al. (2022) found that only 17% of Canadian surveyed think the government is doing a good job in addressing climate change.

As Andre does, a smaller number of participants (6) also expressed their frustration or distress caused by the denial, ignorance, and/or inaction of other people. Cheyenne Fafard and Max state this clearly:

> I have a lot of concern and anger towards the people who are not concerned, you know, who say, "Oh, I can just go get it at the store". Like sure you could, or you have this huge backyard that you're not gardening, that you could literally just do anything with, try even a little bit. But people have their own dedications to whatever their own life has them going towards (Cheyenne Fafard).

> I get frustrated often with other people that just don't seem to care, don't seem to get it. (Max)

These participants perceive that others should care for environmental health and should act in response.

Most participants (15) identified a combination of 'positive' and 'negative' climate emotions. Lex explains this well:

> I mean, anxiety, fear even, grief, I think is a piece of it. That's a common response when I'm reading and learning about what impacts humans are having. Certainly anger, frustration. And then I guess the other side of it is I do see the resistance work that is happening, the people who are leading efforts to protect pieces of land, to protect water, to try to transition whole countries, parts of the world off of dependence on fossil fuels. All of that is *really* inspiring. So then, being engaged with the information around climate change gives me that mix of emotions (Lex).

As Lex does, some participants (9) said they are motivated or excited about the actions that can be taken for a sustainable future. These participants identified the challenging emotions they experience, then proceeded to highlight that they also feel excited and motivated to contribute to change by undertaking climate actions. For example, Lee Hrenchuk and Jake Boutwell explain:

> […] there's always more to learn and […] there's always more to integrate into our lives and that's really exciting; that you can continue to uncover new aspects of this type of lifestyle. […] it's nice to have something that has so much depth: there are *so* many things that you can learn about gardening or about local food systems, or ways to get involved (Lee Hrenchuk).

> I just more so feel like purpose, like this is what I want, to have a positive impact on the environment and my community. And so, what are the emotions for my concern for the environment? I mean purpose isn't an emotion, but it's more of like 'Yeah! I'm gonna do this!' (Jake Boutwell).

For participants with mixed emotions, they demonstrate it is possible to feel grief/anger/worry for environmental losses at the same time as motivation and excitement for the transformative changes required.

Indeed, when I asked them about the impact of their concern for the environment on their daily lives, participants described in detail how their concern causes them to modify their life choices. Sam and Mathew Scammell demonstrate this well:

> Well, I guess it causes me to think: what are the viable and practical ways that I can feed myself and live in a way that [is better for the environment?] What are my options, currently? I think about the IPCC report, and those are *massive* global changes that need to happen. But at a smaller scale, I think about: what are my *immediate* options to reduce my ecological footprint? Or to think more consciously about how I eat, or travel, or dress.

> I like to look around and say ‘Okay, I can purchase a CSA, that's something practical that I can do right now’ (Sam).

> I do as much as I can in terms of being involved with this organization, I don't have a car, I bike as much as possible. And then I go to Bulk Barn with reusable containers just to cut down on plastic packaging because – I don’t know if you’ve ever been to the Brady landfill? [laughs] It’s *pretty* big, and there's like plastic blown *all* over the place, it's a horrible way to deal with waste. So, I am trying to do my best as an individual in a lot of these different things, but I realized a while ago that it's not going to be enough. I have to get involved with other organizations and essentially, social movements and stuff like that, to really deal with this stuff (Mathew Scammell).

Participants make adjustments to their lifestyles and daily routines to reduce their environmental impact. These changes include: reducing waste, reusing, using active transportation, not traveling by plane, being conscious of their use of non-renewable and renewable resources (water, energy, oil), and getting involved in social movements.

Further, when describing the impact of their climate distress on their daily lives, seven participants described it as being constant, or always there:

> It impacts most of my decisions. I feel like it's always there in almost any decision I make. And often if I'm talking to other people or friends, or like planning anything, it's in the back of my mind even if I don't say it, because I know that I just have to let some things go, I guess, to be able to enjoy things and also to let other people enjoy things (Max).

Tyrell Benton, who works with Compost Winnipeg, explained how his climate distress is impacted by his work:

> I definitely noticed that I've been desensitized a little bit just because I take trips to the landfill every single week, and deal with contamination in the compost every single day, basically. So I see how *regular* the problems are and how widespread they are. […] anytime there’s any kind of garbage on the ground, it does not fly over my conscience […] the concern is still always there. Yeah, everywhere, always just gnawing – but also relief, you know, I take the compost bin home, take a bucket home at the end of the day and fill my compost up at home and bring it back to work (Tyrell Benton).

Marczak et al. (2021) document similar experiences of constant climate distress in their study of climate change concerns among Norwegian people. That a third of my participants identified such experiences signals to the gravity of both the eco-crisis and the associated mental health impacts of climate distress.

4.1.2 A responsibility to act

Participants' experiences of the eco-crisis cause them to make significant changes in their daily life as they search for alternatives to unsustainable conventional practices to reduce their environmental impact. Accordingly, a theme that emerged is that participants feel they have a personal responsibility to act for environmental health. This finding echoes those of a 2020 study of Gen Z and millennials farmers and consumers across Brazil, China, France, Russia, and the United States, that found respondents willing to take personal responsibility for the climate crisis (Corteva agriscience, 2020). Participants in my research understand the need for urgent change towards ecological restoration/regeneration and climate change mitigation/adaptation, and they feel a personal responsibility to contribute to this change. This responsibility to act was described differently, as Evelyn Rose and Lee Hrenchuk demonstrate:

> So, why spend my time gardening? I think it's very much rooted in: I *need* to make a positive impact [on the environment], and to feel that we're doing *everything* we can, which is hard (Evelyn Rose).

> [I feel] frustration with the lack of action and the lack of willingness to do anything, *even* when you know [about climate change]. Like I think okay, ignorance? Fine. […] But I think once you have that information, you got to *do something* about it, you have to change your actions in a *small* way, even (Lee Hrenchuk).

Some participants described a joint responsibility to act, as Lee does when she explains that aware individuals should act for environmental health. Indeed, the frustration and distress some participants expressed towards societal apathy/inaction communicates their belief that once a person gains knowledge of the eco-crisis, they have a responsibility to adopt climate actions. Other participants described their personal responsibility to act without raising that of others, as Evelyn Rose does when she says she feels she needs to act for environmental health. Two participants formulated the concept of a responsibility to act as that of 'doing your part', which evokes the inherent individual responsibility to contribute to planetary well-being, and the collective nature of this endeavour. For Max and Carly, they feel personally responsible to act in part because they feel they need to compensate for others' environmentally harmful (in)actions. Carly explains this well:

> I guess my intention is to just… it's kind of like social responsibility. I feel like a responsibility to do what I can because so many people aren't. It's a social responsibility (Carly).

Significantly, half of the participants specified that they feel they are doing everything they can for the environment. Highlighting this communicates the high level of responsibility they feel to act for environmental change. For these participants, eco-responsibility is not a consideration made on occasion, but a fundamental organizing principle of their lifestyles and choices.

As part of their responsibility to act, 13 participants described their care for and/or sense of altruism towards other humans, living beings, and nature. For example, Bronwyn Green describes:

> […] just caring for plants and trees and animals, you don't want to see them suffer, you don't want to see their ecosystems get destroyed. It just feels wrong, there's something about seeing garbage on the ground or seeing a lake that's acidified, or when it's completely dead, it hurts inside. It's pretty obvious that we're connected to the environment, and so it is just an extension of us, and we're a part of it, so that's why I'm concerned about its well-being, because I'm concerned about my own well-being (Bronwyn Green).

When I asked him to identify the main emotions related to his concern for the environment, Nate identified altruism.

> I think that's a driving thing to experience, to have a bodily experience of care for other peoples, maybe that's empathy for even animals, etc. […] to feel that care and empathy for people in such a way that you realize, Okay, if that is to continue as long as possible, hopefully indefinitely, life out of balance could come into balance, which would be nice. Then it's not so much that I have to be *guilty* for failing, but that I could be part of that continuation. It is possible for me to participate in a correction line (Nate).

Care for other beings and natural environments is woven into participants' experiences of climate distress. As I will demonstrate, participants exert efforts to negotiate life practices that enable them to uphold the well-being of natural environments and living beings. In the next section, I examine why the domain of food emerges as a chosen area to exercise their responsibility to act for socio-ecological health.

4.2 Centering on food

Participants demonstrated a critical engagement with conventional food systems and its impacts. They are understood as a significant contributor to environmental degradation and/or climate change, as Mathew Scammell, Paul and Bronwyn Green explain:

> I think the industrial agricultural system that we've created in Canada [and in] a lot of the industrialized nations is very unsustainable and counterproductive to a lot of efforts on climate change and reducing emissions (Mathew Scammell).

> I think there is this long food chain, right, where it's a 30-step process as opposed to someone going into nature and eating it, that's a one step process. So along that process there's so much cost, damage, harm, being done to the environment. And the capitalist system doesn't account for those costs, those are externalized costs, and I think that is a *dirty deed*, is what I think (Paul).

> […] the more I've been researching about food systems, I think that it's one of the top things that's negatively affecting the earth and the climate and life as we all know it, is our food practices, and the way we grow, the agriculture system. (Bronwyn Green).

Several environmentally harmful characteristics of conventional food systems were identified, including their devastating impact on species, biodiversity, and soils, their high usage of water and non-renewable resources, the high carbon emissions of production, transportation and waste, the teardown of natural spaces for agricultural lands, and their wasteful nature. Regarding the latter, participants who practice food reclamation practices have an intimate experience of the high volume of waste generated in conventional food systems. Nate describes his experience with dumpster diving:

> […] Canada wastes 58% of its food. […] I think 32% of that is considered reclaimable. So if you think about the total quantity of food being grown, it's massive. Then, almost 60% of that ends up in the garbage. And that includes institutional waste, catering, all that kind of stuff that oftentimes you don't have access to. […] So those systems all need to be set up better. But if 32% of that isn't actually real waste… trying to reduce waste is a sweet goal, but individuals going out and getting it out of the garbage *isn't actually* the long-term solution, it's just being frustrated that for some reason the store owner won't just hand it to you (Nate).

As Nate does, participants criticized the governmental and/or institutional policies that institutionalize conventional food systems because they systematize unsustainable practices, and/or because they pose barriers to climate solutions.

> […] the governments that are overseeing the corporations [in food systems] – *how* can the rules that are currently in place, be the rules that are in place? Like we know conventional agriculture just wrecks the soil and that's not a good way to farm and yet, that's just the way that people continue to do it (Lee Hrenchuk).

> I think that the mainstream way that things are going, […] the "conventional" practices are the way that most farmers have been pressured to evolve in their farming practices, is disruptive and it is causing a lot of environmental devastation… It's a huge contributor to climate change and it's a huge contributor to all of these things that induce fear in my heart (Lori).

Lori and Lee explain that public policies encourage farmers' adoption of unsustainable and exploitative agricultural practices. Similarly, some participants identified urban planning issues that facilitate unsustainable food systems:

> I'm quite critical of our city's infrastructure, planting grass, slapping down concrete everywhere. […] This last summer I was really into guerilla gardening, that was my experiment. As I'm cutting through the back trails of the city, I'm like 'there is *no food* anywhere', you know, as a certain insight. Why don't we change that, why don't we put trees and fruit-bearing things? (Paul)

> […] those new suburbs that are popping up […] I think it's actually *the most* unsustainable part of our city because it's *so* far. It's essentially a food desert in a lot of areas, like they are *not* close to grocery store, you *can't* walk very easily […] so you're almost forced to drive a car. The transit is not even accessible like it maybe comes once an hour? (Mathew Scammell)

Participants criticized societal actors for their irresponsible actions, namely institutions for not composting, cities for mismanaging waste, governments for funding and supporting unsustainable and/or colonial food systems, grocery stores for enabling food waste and implementing barriers to food reclamation. Participants understand conventional food systems as designed to cause grave environmental harm, emit greenhouse gas emissions, exploit natural spaces, foods, and workers, and to prioritize profit at the expense of social and environmental well-being. Accordingly, *not participating* in conventional food systems emerged as a central characteristic of participants' AFPs, with 16 participants stating their intention to withdraw participation from conventional food systems.

Likewise, for participants, conventional food practices cause environmental harm because they reproduce the unsustainability of conventional food systems. Additionally, participants view conventional food practices as deskilled and easy to perform, because food can be conveniently purchased among the options presented at the grocery store without investigating the associated environmental and ethical impacts. Growing (gardening, beekeeping), making (canning, preserving, baking, composting), or sourcing (purchasing environmentally, foraging, food reclaiming) foodstuff yourself are seen as additional competencies that are not part of conventional food practices. Andre DeBattista's explanation represents this well:

> I definitely consider [gardening] to be alternative, because of the sort of disconnection between food and its source in Western society. I think most people lack the skills and knowledge to garden. And just because of the way we're taught about food is mostly from

> a nutritional perspective and not a ground-up perspective of gardening and producing food. Most people shop at a supermarket, not at a farmers' market where they can sort of see, to some degree, where their food is coming from by buying whole foods. And so, I think it is alternative in that respect, there aren't that many people that have the exposure to even grasp that they can produce most of their own food themselves (Andre DeBattista).

As Andre does, participants spoke of the disconnection between individuals and their food in conventional food practices. In their eyes, many practitioners of conventional food practices lack an understanding of the origin, ecological processes, and human labour involved in growing and distributing food. Because conventional food systems are designed towards convenience for its consumers, and because of the collective loss of food skill and the subsequent effort required to learn AFPs, participants believe that most people do not acquire AFPs.

In the face of compounding socio-ecological issues caused by conventional food systems, all participants understand alternative food systems and AFPs as part of the solution to climate change, food insecurity, and additional interconnected issues of social justice. For example, in discussing his hopes for agroecology to contribute to regenerating the earth, Jérémy Baudet explained:

> I think, I am convinced, that if we transform each large farm in many small farms and we regenerate the ecosystems, we will in fact heal the earth. […] That is what motivates me from the ecological perspective (Jérémy Baudet).

Knowing there are alternative ways to organize food systems that contribute to ecological health, participants feel a responsibility to withdraw participation from conventional food system, and/or to contribute to create these alternatives.

> [conventional food practices are] a huge contributor to climate change and it's a huge contributor to all of these things that induce fear in my heart, [and] that sense of despair. So I can't, I can't in good conscience participate in that. I feel that it's imperative that an alternative path is carved out and that we find a different way to do things, so that we don't just kind of crash and burn as a civilization (Lori).

By modifying their food consumption habits through AFPs, participants intend to reduce their negative environmental impacts and contribute to food systems that offer solutions to the problems of conventional food systems and climate change. Accordingly, a significant theme that emerged from the data is that participants view food as a practical and tangible area of climate

action. The quotes below from Jake Boutwell, Tyrell Benton, Max and Carly represent well this experience:

> I also feel, just with the general concern for the environment, or society in general, food is really at the base of human activity. You know, food, water, shelter, warmth, that's all humans really need. So addressing sort of this base need of ours. And in the question of how can we be sustainable as a human species […] we're always going to need to eat. And so if we can address *that* question of how do we feed ourselves sustainably, I think that's a pretty good place to start, and then we can hopefully figure out some of the other stuff (Jake Boutwell).

> Both when I was just an observer and just reading, and then also being frontline to everything on the compost side of things and being involved with gardeners and understanding typical gardener practices […] It all really just led me to the soil and the fact that that's the most accessible, tangible way for any of us to do something about anything, because there's always soil around that we can either help regenerate or we can produce food from, or try to work it to a point that it can produce food, or make it a stronger substrate for reducing toxins or for helping with runoff (Tyrell Benton).

When I asked them why they choose a food-related practice, Max said:

> I guess because it's very central, like we all need to eat to live, so it's something that we have to do anyway so might as well do it well and ethically as possible (Max).

Carly described the impact of watching the documentary Cowspiracy:

> […] it was quite an eye opener for me, and I figured that my diet was going to be the biggest impact that I personally would be able to have on the environment (Carly).

As these quotes demonstrate, AFPs are eco-responsible and ethical practices that are accessible to participants and that enable them to have a practical, meaningful, and tangible environmental impact. By exploring the motivations and the enablers and barriers they have encountered in their AFP, I will examine why and how the domain of food emerges as a central area of climate action for participants of my research.

4.3 Environmental, personal, and social motivations for alternative food practices

All participants identified multiple motivations for their AFPs. I categorized them as environmental, personal, and social motivations, and detail them in this section.

Table 5. Motivations to alternative food practices

Motivations for alternative food practices	Number of participants who mentioned the motivation
Environmental motivations	
Food is a solution to environmental problems	20
Consuming eco-responsibly	20
Eating locally	17
Food is a practical and tangible area of climate action	12
Ethical consumption of animal products	12
Reduce food waste	11
Reciprocal well-being	9
Eating locally year-round	8
Personal motivations	
Enjoying the activity: it contributes to overall personal well-being	20
Right livelihood	15
Eat healthy food	15
Enjoying the activity: meaningful connection to nature	13
Enjoying the activity: rewarding, gratifying or satisfying	12
The love of good food and cooking	11
Enjoying the activity: time spent with others	9
Enjoying the activity: meaningful connection to food	9
Building community	9
Enjoying the activity: enjoying the meditative character of the practice	8
Enjoying the activity: enjoying the physical benefits	8
Enjoying the activity: gaining a sense of meaning or purpose	8
Individual self-sufficiency	8
Reskilling together	7
Right relationships	5
Joy of learning	3
Financial motivation (saving money)	3
Free food	2
Motivations for social change	
Sharing the benefits of AFPs	20

Reckoning with intersectional environmentalism	14
Gifting the produce or product	13
Sharing knowledge or teaching others	13
Inspiring others to do AFPs	12
Acquiring food skills for collective self-sufficiency	11
Cultivating a trading economy	6
Living more with less (non consumerism)	6
Wanting others to experience the joy they experience in their AFP	5
Reskilling together for collective self-sufficiency	5
Wanting children to experience the benefits of AFPs	5

4.3.1 Environmental motivations

As introduced through the themes of responsibility to act and choosing food as a strategic area of climate action, a major motivation across all participants is their desire to contribute to ecological well-being. In this section, I describe the sub-themes of this environmental motivation and how participants adjust their life practices to adopt AFPs.

All participants described their commitment to sourcing, growing, or consuming foodstuff that has a reduced or positive environmental impact. For participants, this was a main characteristic differentiating AFPs from their conventional counterparts. There are multiple and differing ways in which participants ensure and negotiate a different environmental impact through their AFPs.

> We definitely spend very little time in the grocery store. […] if we're over getting low on this, okay I'm going to look into this. Or even just being able to think about alternative sources so that it's not “Oh [not] grocery stores, oh maybe I should consider something else”: it's automatically “Okay I'm gonna look into where I might be able to get this” or “ Hey, we just ran out of this thing maybe we should see if we could get it from somewhere else instead of just going to Superstore”. I recognize that that's not always possible for everything and that takes a lot, it can take more planning and it's certainly not a one stop thing (Lee Hrenchuk).

> […] if I'm buying things that are discounted, I feel like it's a good way to not have to think about [all the ethical considerations] because it’s already here and I'm not really funding it. But, I like to get things locally if I can. I feel like if I source enough of my food from discounted food, it gets cheap enough that I can afford to get things that are bit more

> expensive that are local and organic, because often the price is a little bit higher so I feel like it kind of offsets that. So I will try to source things locally and in season if possible (Max).
>
> There is also zero waste in our kitchen. Our food waste goes into the compost, we keep chicken fat, pork fat, bacon fat, for cooking. I filter it and then I put it into containers and I use that instead of using olive oil or butter that I would have bought. Every time I make a meal, I make a broth with the leftovers of that meal. […] All of our grains are bought at a local CSA. […] We do mostly everything from scratch. If we need cornmeal, I will grind the corn that we've dried, etc, etc. These are a lot of practices, kitchen skills, that allow you to not produce waste, that instead valorise that waste, all the time and always. […] At the beginning it's annoying to think about how you are going to do everything, but once you've done it, then it becomes automatic (Jérémy Baudet).
>
> [my baking practice is] just very low impact, I think is what it is. We've got a pretty efficient gas oven and that's just nice to use that and you know, not drive to the store when we need bread […] I'll just like "Oh we need bread? It'll be ready in three hours". It's different (Anna).
>
> I don't want to be causing environmental harm somewhere that I have never been. This is a small example of that, I really tried to stop buying so many things with palm oil because it's usually grown in tropical areas, they cut down jungle to put in these plantations. […] I reduce my carbon footprint by growing locally, without any synthetic pesticides – fertilizers I think are actually a pretty big source of emissions (Mathew Scammell).
>
> And the nerd in me as an engineer [laughs] did a life cycle analysis and did the energy analysis of how much electricity your freezer uses, and I would hugely advocate for anyone getting a chest freezer if you're able to buy in season and buy in bulk. Like right now everyone's giving away free tomatoes on Facebook. You can have so much food and if you could freeze it, you can have that all winter long (Marika).
>
> […] in terms of CSA, we buy it because it comes from here, it comes from Manitoba. They are people that live in the same province that we do. We know that we are giving profits back to people who live in our city, in our province, people that care for the environment. And when I'm out grocery shopping, I try to buy items that are also made here in Canada. And I think I do that for two reasons. One, I know that it doesn't have a large carbon footprint by needing to travel a longer distance, and also, two, similarly, they are people who live in Canada, and hopefully people who run the businesses live in Canada and are able to circulate their money back into our country (Jan).

These quotes provide a glimpse into the variety of ways participants reconfigure their food practices to reflect their environmental standards. Many participants specifically formulated their motivation to *reduce* their negative environmental impact or avoid environmental baggage through AFPs, as Jan, Anna and Mathew Scammell do in the quotes above. Reducing food waste was an important motivation for 11 participants, and intercepting waste and reducing emissions

from decomposing foods in the landfill was particularly important for participants with practices of food reclamation (dumpster diving or purchasing from discount shelves). Purchasing locally or directly from farms emerged as a critical way participants can consume foodstuff with fewer emissions and/or support smallholders rather than large industrial farms. Some participants further specified that they aim to eat locally year-round, through practices enabling them to preserve local and seasonal food for consumption over the winter months. For Lee Hrenchuk and her partner, this commitment extends to not consuming non-local foods:

> […] we've really switched to focusing on getting as much of our food as possible directly from farms, or through a farmers' market or something like that. […] And also just *not eating things* in the winter, if we've run out of tomatoes in the freezer, we're just not going to have tomatoes until the markets have them or they're available from greenhouses (Lee Hrenchuk).

Finally, participants (12) also said they were committed to ethical consumption of animal products, which varied from not consuming animal products, reducing this consumption, sourcing locally, and/or sourcing from sustainable/regenerative farms. Participants' calculated and researched consumption of eco-responsible foodstuff is akin to what Paddock names "ethical and political consumerism", where one's political participation occurs in practice-based purchasing patterns (2017, p. 123). However, almost all of participants' AFPs go beyond purchasing choices as they entail a reorganization of their daily life around alternative foodstuff and the acquisition of skillsets and embodied practices to engender different food systems.

Interestingly, almost half of the participants (9) raised the idea that their or human well-being is interconnected to the well-being of nature. The quotes by Paul, Nate, and Anna represent the different ways in which this concept emerged:

> I think we need to live into the narrative that humans can have a regenerative impact on the world, rather than, you know, as I teach kids, almost all of them think that humans are *bad* for the environment, inherently. That humans plus the environment, we just take, you know – when it's totally not the case. There's so many things that can be mutual and beneficial to both partners in a relationship, so I'm really into… yeah, I'm excited about that sort of story, and want to get my hands dirty with that (Paul).

> I care *a lot* about the planet. I care a lot about the people around me and the environment that they're in, the air that we breathe, the water we drink. And I think that those things, if we protect them, also take care of us. This is not a new idea (Nate).

> Also health [is a motivation], but I feel like it all kind of ties in together, treat ourselves well, treat the environment well (Anna).

Participants' explanations of the reciprocal well-being between humans and nature evoke a holistic understanding of health and well-being, with human beings as one piece of the larger interconnected web of life, and where harm or healing occurring to one part also impact the interconnected whole. This reciprocal view of well-being breaks from the traditional Western understanding of human-nature relation, which positions nature as an object for anthropocentric exploitation with little (but growing) recognition of the adverse impacts on both ecological and human health (Alberro, 2019). AFPs arise as a pathway for shared benefits to ecological health and participants' personal health through their physical, psychological, and nutritional benefits.

4.3.2 Personal motivations

Participants identified what I named 'personal motivations' to their alternative food practices: these are motivations to do AFPs because they enhance participants' personal life.

As a larger theme encompassing participants' commitment to eco-responsible actions, most participants (15) referred to an overarching moral code that informs their life choices and practices. I name this motivation as that of striving for a 'right livelihood', as it was formulated by Jake Boutwell:

> I was interested in this concept of right livelihood, just living the life that feels aligned with my values. I feel like all of those [practices] contribute to me feeling like, yeah, I feel *good* about the life I'm living (Jake Boutwell).

As Jake describes, a right livelihood is understood as a life where one's actions correspond to one's ethics, values, or moral code. The concept originates from Buddhist traditions where right livelihood is one principle of Buddha's Noble Eightfold Path and can be understood as a life that causes no harm and has ethical integrity (The Buddhist Centre, n.d.; O'Brien, 2017). In different ways, participants explained that their AFPs are motivated by the simple desire to align their actions to their ethics, highlighting both the moral character of climate distress (Pihkala, 2022) and the moralization of food (Goodman et al., 2010). For example, Cheyenne Fafard spoke of striving to "be the change you wish to see in the world", Paul spoke of making his decisions based on his "beliefs about the environment and how change occurs", and Evelyn Rose said it is important to be "able to live in alignment with our values". Similarly, some participants (5)

specifically described their cultivation of right/ethical relationships with natural environments and living beings through their AFP. Evelyn Rose and Nate explain this well:

> With permaculture, there's the ethic around thinking about the land and thinking about the human interaction with the land, and thinking about human interaction with each other. And so, in that way, it's not just about planting a seed and eating a tomato, it's very much about the relationships that I built around the garden, with nature, and among my family. I'm very focused on trying to make it as ethical or as earth-conscious as possible (Evelyn Rose).

For Nate, right relationships are central to the endeavour of creating a just and ecologically healthy future. When I asked him if he had anything to add at the end of our conversation, Nate said:

> I think one of the *most* important things – this is my concern for the environment – I feel *and* think that the most important part of our success, as humans trying to live in balance, is understanding and truly believing the things that, you know for no better way of saying it [laughs], things that we learned in kindergarten: like *share, don't take more than you need*. […] this is the single greatest communal act of the human species. […] If I keep focusing on that, you know what if we *don't die*, we will have pulled off the greatest cooperative act of human history (Nate).

Thus, cultivating ethical and meaningful relationships of care emerged as an important value that shapes and motivates these participants' AFPs.

Moreover, participants described their enjoyment of the activities and benefits of their AFPs, which constitutes a motivation in itself. Multiple different sub-themes emerged as reasons why participants enjoy their AFP. Half of the participants highlighted their love of good food and the love of cooking. For example, Marika explains:

> I love food. I love feeding people, even before having this involvement in [food] preservation, I would have house parties in the city and have all my friends over and cook a big meal and that's always something I've really enjoyed. So being able to put some sustainability into what was already a hobby for me, which is cooking, is a lot of fun and it makes it a lot more meaningful and has some purpose and also feels good, other than just like baking. It adds more pride to the activity (Marika).

The appreciation for the quality, taste, and nutrient content of the food, also found in other studies of gardeners (Pourias et al., 2016), is intertwined with participants' love of cooking and sharing that food with others. Further, almost half of the participants (9) highlighted that while conventional food practices disconnect humans from food, they value the connection to food they

acquire through their AFP. Participants described this as gaining a further appreciation for and connection to their food through a heightened awareness of or engagement with its origin, a trend often found within local food initiatives (Diekmann et al, 2020). A larger number of participants (13) said they appreciate the meaningful connection to nature they experience through their food practice. Some participants described this beautifully:

> I love the way that foraging draws my attention *down*. Like I tend to wander on a hike and […] mostly I'm looking up, I'm looking at birds in the sky and trees and larger fixtures of the natural world. Foraging draws me into the really small stuff so I'm noticing a tiny patch of mushrooms or just the way a cluster of leaves sits on the ground and what that might indicate is underneath it, or you know the really gorgeous shades of red on the different fruiting bushes (Lex).

Further, participants said that overall, their AFP contributes to their well-being. This finding aligns with the results of a meta-analytic study that found that engaging in intentionally pro-environmental behaviours increases subjective well-being (Zawadzki et al., 2020). Lori and Tyrell Benton explain the multiple benefits they experience:

> My well-being practice in life is to grow my own food, and to do it in community, because it not only nourishes my body in a concrete way in providing nutrients, but it's also very much a balm to the soul, it nourishes my mind, body, soul in a holistic way. And so, it's what I do to feel connected to the earth, it's what I do to feel connected to the greater community of soil microbes and air microbes and the birds and the bees and butterflies and just to take time, every day and over the course of every season to just be in touch with the natural world. I do it through gardening. And then, because of how we set ourselves up with [the community garden organization], that's also how I'm in touch with my community and how I grow my sense of community and belonging (Lori).

> Oh, nothing makes me feel better than working with soil in the garden, especially. […] once it's warm out and once I can get in there bare feet and get out there under the sun and just listen to the sounds of nature and just be part of things, yeah there's nothing that makes me feel better. It's very rewarding, it's very calming, it's very fulfilling. It takes away any type of negative emotions, it clears the mind, it gives you something to focus on meaningfully, it produces results and rewards (Tyrell Benton).

The tasks and rewards of AFPs deeply contribute to participants' well-being. They enjoy their practices for a variety of reasons: for the feelings of joy, peace, and/or satisfaction they feel when performing it, for the connection to nature and food it generates, for the enjoyable time spent with others during its performance, and for the overall mental (meditative or therapeutic) and physical benefits that contribute to their well-being. Further, in line with a right livelihood, aligning one's

actions to one's values has been found to generate a positive emotional response (Lawrance et al., 2022; Wray 2022). This positive experience forms a personal motivation to sustain their AFP.

Furthermore, 9 participants said they find it meaningful and enjoyable to build community through their AFP. Building community around sustainable foods and collective food security was mentioned as an important part of all participants involved in local food organizations. Participants with self-provisioning practices mentioned they find it meaningful to develop relationships and spend time with other practitioners, to get to know their local farmers and to build connections with friends, family, neighbours, or interested individuals through their AFPs. Some participants highlighted that they value and enjoy the process of acquiring food skills in community. In particular, all practitioners of dumpster diving described the inherent and meaningful community-oriented undertaking and reskilling process of dumpster diving.

> There's this communal skill building that develops, because no one knows how to eat this food, so how do you make a dish out of it? For example, when we find cream sometimes, we turn it into butter because we like butter more than 30 bottles of cream. Or actually, just last week we got a *big* tub of avocados which we're going to die pretty soon, so my friends' house they're going to turn it into avocado oil. So I thought that was genius (Paul).

Collective reskilling was also highlighted by participants of local food-oriented organizations:

> […] the garden serves a kind of a skill-share venue where beginner and experienced gardeners alike can come and interact and create community and, you know, pass knowledge onto one another and then we all grow in our skills in growing food together (Lori).

The role of social relationships will be further discussed in Section 6.2 (Enablers).

While some participants described community-building, others highlighted their motivation to be more self-sufficient in securing their own food supply. These participants (8) explained that doing so is important because food skills increase their food security in the context of unreliable global food systems and oncoming climate disruptions, and because it allows them to gain greater control of their environmental impacts. Lee Hrenchuk's and Andre DeBattista's quotes communicate well this motivation:

> […] both from an environmental and social perspective, I think being able to provide food for yourself is an important skill that people should have at a sort of basic level, I think. I'm always thinking about, if we didn't have all of the connectivity and supermarkets and

> giant mega-farms and stuff that there are in the world, what kind of skills can you contribute, what kind of things can you do to support yourself? (Lee Hrenchuk)

> What do I like about gardening? I like being able to provide for myself, and not have to rely on factory farms for my food. […] not having to rely on large-scale farming and being able to bring it down to my own level is quite rewarding to me (Andre DeBattista).

The desire to be self-sufficient is both a personal motivation linked to feelings of satisfaction and a motivation to contribute to planetary health. Some participants (8) likened AFPs to "a lost art" and/or to skills that are unusual to perform in the 21st century. For example, Anna says:

> In terms of the wanting to learn new things, canning was the big one. This year, I was like, I'm gonna take this on, I'm going to add to my old lady skill set, and I'm going to learn canning. I would like to learn how to pressure can, next year maybe, because then you can preserve meats, so you can preserve a lot of things that you can't with just a water bath canner (Anna).

Participants enjoy and see value in investing time to learn lost food skills. Critical of conventional food systems and the larger systems of capitalism and industrialization wherein food systems operate, participants turn towards pre-industrialization food practices for pathways to change these systems or to live outside of them.

Also linked to a distrust in conventional farming practices, the desire to have more control over the health quality of their food was a motivation for most participants (15). Participants expressed concern for the health quality of conventional foods for one or more of the following reasons: the use of chemicals (toxins, pesticides, glyphosates, RoundUp, and nitrates were mentioned), the low nutrient content, the lack of biodiversity in conventional agricultural fields, the high level of processing, and the lack of freshness. For some participants, the quality of foods conventionally grown is a serious concern and a driving motivator to acquire AFPs. When discussing his distrust of the chemical industry in food systems, Jérémy Baudet explains this:

> For example, there is another scandal that almost everyone is aware of, but no one really changed their practice: the fact that Monsanto pollutes our foods with neurological toxins. […] It was proved, it made it to the Supreme Court in the United States. Except, well, Monsanto is still putting their glyphosate in fields of wheat around the world. It's these types of things that make me think "Well, if no one will try to protect me, I will just start to protect myself" (Jérémy Baudet).

Jérémy's concern to take his health into his own hands by gardening allows him to control the quality and nutrient content of his food. This level of concern was shared by four other

participants. Concerned that conventional foods harm rather than contribute to their physical health, AFPs are chosen by most participants because of the health quality of the foods it produces.

4.3.3 Social motivations: Prefiguring food futures

Participants' AFPs are nested in visions and actions for sustainable and just food systems. Indeed, in different ways and to different extents, all participants shared their thoughts on the world, their understanding of systemic challenges, and pathways toward solutions. I consider these as motivations to contribute to social change.

In discussing their concern for the environment and their visions for the future, participants demonstrated their understanding of the multiplicity of issues folded into the eco-crisis. For example, Lex and Sam raised issues of equity:

> I really worry about the impact of a country like Canada with our comparatively *massive* access to resources and our comparatively *massive* footprint per capita and, you know, I see it on that small scale and then I also see it on this large scale. So I think about [climate change] in these personal practices and then I *also* think about it in terms of large-scale resistance to fossil fuel expansion and encroachment on Indigenous lands and support for movements in the global South to try to pressure wealthier global North countries to address our impacts more fully and faster (Lex).

> So food waste, and just waste in general, is something that is always on my mind, and at the backdrop of Western consumerist societies, and how that pressure is put on Indigenous communities, and how things such as food sovereignty ties into them having to accept transnational corporations, such as the Northern Store, and then have to deal with all this waste that is brought into their communities (Sam).

The socio-environmental issues participants mentioned include geopolitical issues and the disproportionate impact of climate hazards on populations who contribute the least to climate change, on the lower class, and on racialized populations; neo-colonialism and threats to Indigenous sovereignty; the corporatization of food, and issues of food justice and inequitable food access. By reckoning with the social injustices entangled in environmental exploitation and degradation, most participants (14) communicated their intersectional understanding of environmental issues, whereby environmental actions should be undertaken for environmental *and* social well-being, and in recognition of how multiple systems of oppression intersect and compound in exacerbating social injustices (Earthday.org, 2021). To address the eco-crisis and its environmental and social impacts, fourteen participants raised the question of 'what do we do

now' in the current climate emergency, and how alternative food systems/practices can contribute to cultivating climate futures. The explanations below by Tyrell Benton, Lex, and Mathew Scammell demonstrate this well:

> […] it comes back to what I said with all the empires collapsing usually due to their soil or their agriculture. If that's not our priority, we don't really have one because the economy is not a priority, the economy is an arbitrary thing, just like currency for the most part, so if we get back to some *real things* like food and soil and community and each other, then I think we can kind of navigate through all this and hopefully come to a decent place for everybody (Tyrell Benton).

> […] feeling really connected to natural communities of living things, plants, mushrooms, etc.: that really heightened my concern about the environment and my desire to be engaged with the question of what do we do now, and how do we resist the worst impacts of industry and support the people on the ground doing good work that is having positive impacts. And so that has become a more central part of my life; certainly, I think it's picking up some of these food practices, they drove some of that for me (Lex).

> Like in huge food-producing areas like California, […] if they're not able to keep up all that production [due to climate hazards], it's going to have to shift somewhere, and if southern Manitoba is having a drought, I think we need to shift […] Even just sustainable forms of agriculture, not just urban, but keeping in mind the health of the soil: what's best for water retention and [what] is drought resistant, stuff like that. I guess I'm interested in future-proofing our food systems (Mathew Scammell).

For participants, the eco-crisis is very much understood as a social crisis. Accordingly, their climate distress and AFPs are intrinsically tied to concerns, ethics, ideas, and commitments to act for sustainable and just food futures. Several sub-themes emerged as participants described their social motivations, demonstrating how AFPs become pathways to sustainable and just food futures. Firstly, half of the participants recognized their privilege and the role it plays in their AFP. Paul and Lex communicate this experience well:

> And honestly, I feel really privileged that I have the opportunity, ability, freedom, to do crazy and practical things because I have such a safety net underneath me, that even the conscious decision to be hungry, is a radical thing, right (Paul).

> I feel like I'm very lucky to be able to have access to this practice as well. I think in part it's alternative because yes, on the one hand, it does maybe save me some money sometimes, but I'm only able to access [foraging] because I have access to a vehicle, and I had the money to buy a dehydrator to start with, and I have a big enough house that I can store these things in it. [these things] contribute to it being a less accessible thing for people, and keeps it more alternative than it might be if it had less barriers to entry (Lex).

Sam explains how the privilege of being isolated from climate hazards interacts with his climate distress:

> Something that I should have mentioned is I don't like feeling discouraged by the climate crisis, I feel that feeling hopeless is a privilege, in a way. I think that not many people have that option. I think about First Nations communities, you know, if you're hopeless, if you feel frozen and paralyzed by it, you're going to die or you're not going to be able to sustain or secure a future for your community. So I try to learn from that and to think, "Okay, this is overwhelming, but what are the immediate practical ways that I can address the biggest impacts that I have?" (Sam)

As climate hazards and climate distress are disproportionally experienced by racialized populations and those in lower economic classes, Wray (2022) highlights that those of us that are most privileged do have an additional responsibility to "harness [our] feelings for positive change" (p. 35). Similarly, by identifying their privilege, these participants are situating their responsibility to act in relation to the experiences and injustices others endure.

As part of their concern for social welfare within food systems, eight participants said that they strive to consume foodstuff that supports workers in the food chain. Thus, they ensure that foodstuff is produced in workplaces with labour rights, and/or they support people or local smallholders instead of large multinational corporations.

> Being aware of the social implications of food growing [is important]. So like bananas that are coming from Mexico, normally are coming from a farm where farmers are not being given a living wage, where they're not being given breaks, where there might be child labor, not knowing that this is like a fair trade, an empowering workplace for the farmers. I'm very aware of that, that the food that I'm buying, comes with the *baggage* of social exploitation (Evelyn Rose).

Nate expressed a unique concern for food chain workers. When discussing how he feels about food waste, he explained:

> Someone worked really hard for the plant things: to plant them, to grow them, to package them, move them. All those people are disrespected when you throw that away (Nate).

Concerned for social welfare within food systems, participants are mindful of their sourcing and consumption of foodstuff. Moreover, contributing to wider social change by inspiring others to adopt AFPs was mentioned by more than half of the participants (12). For example, when asked about her motivations for her AFPs, Evelyn Rose said the following:

> I think challenging the status quo might be one. Showing people that there are other ways of keeping the land. Maybe being an example for people, if they think they can't do it, but then they see us doing it, and they think 'Oh maybe I *can* do it', even if it's on a smaller scale. Making gardening more of the mainstream. That's one thing I like about our top garden, it's right next to the road, so anyone walking by or driving by will absolutely see us, and we got some nice comments about the flowers that were trellising there. (Evelyn Rose)

Nate described the process of influencing and exposing others to the meaning of dumpster diving. He explained:

> I've been at a dumpster and [the police has] been called, and they're like, "Oh, we've been called over here because they said someone was making a mess". And I said, "Nope, this is an organized thing we're doing, and all this goes back in. Would you like a banana?" [laughs] I peel a banana, eat it, you know like I'm serious, they're good. I go "Do you want a whole bunch? How about a box? How much do you want?" And they always kindly decline, but I've gotten some pretty… thinking faces, not 'You're crazy' faces, but 'Oh wait, this person is a well reasoned human digging in the garbage. Why is this happening and why are they so happy to offer me food?' […] So the police are *not* an obstacle. Neither are regular employees, it's managers that are an obstacle, they're the people who seem to get very very angry. But again, that's just a conversation away from not an obstacle (Nate).

In conducting his AFP while cultivating positive relationships with store employees and police officers, Nate invites them to challenge conventional norms and laws around food, waste, and private property. His last sentence is particularly significant in that he believes disapproving individuals can come to understand the meanings of dumpster diving through a conversation. Similarly, and as Evelyn Rose explains, participants seek to engender wider social change on the conventions of food practices by showing by example, hoping to inspire others to adopt AFPs.

Additionally, rather than being a practice they perform for self-interest or economic gain, participants find it meaningful and joyful to teach/share the knowledge of their AFP, and/or to gift the foodstuff produced through their AFP. As part of this, some participants (13) described the abundance that naturally engenders experiences of joyful sharing, for instance of harvests, breads, and preserved foods, with their family, friends, neighbours, or colleagues.

> [It was] a joy getting to know my own neighbors in this very duplex, because often in the fall time, I would come home with a sack of beets, or a huge sack of tomatoes, and I would just need to give them away to the neighbors because there was no possible way – we didn't have a basement, nor the cans to do canning by Grandma, we didn't have a chest freezer, we didn't have the space. It was a really fun experience to know firsthand that

> when there is a harvest, there's plenty, and you can't really hoard it. [laughs] You kind of just have to give it away (Jan).

Lex, Sarah, and Evelyn Rose said they donate some of the foodstuffs generated in their AFPs to those in need. Further, some participants said that they want others to experience the joy they experience in AFPs. Sarah and Jan explain this beautifully:

> It's a different feeling when you can make something yourself and feel a little bit less like a part of this system that we're in. I feel like it's very hard for some people, whether it can be financial, or some people struggle with mental health, and some people don't have a lot of people present in their life. I think it's really accomplishing and feels good to know that you're doing something good for yourself and making something, and then you can share that with other people (Sarah).

> I have had the joy and the privilege of eating good food, and I know that food and nature are just one and the same. They're tied together. I would hope for others to experience the same kind of joy and privilege that I've had, in eating good, nutritious, tasty food. And I know that if the environment is not something that we're mindful of or looking after, then that experience is at stake and could be lost for people around us and people to come after us. My concern for the environment isn't just motivated by my love of food, but also […] by a concern, and I might even say, a love for others (Jan).

The importance of sharing is also found in other research on home and community gardening, where gardeners find it meaningful to both give and receive shared foodstuff, knowledge, and work (Diekmann et al., 2020; Pourias et al., 2016; Porter, 2018). Participants are generous with the skills, knowledge, materials, and foodstuff they use or reap through their AFPs, and find it meaningful that others can partake in the benefits of their efforts.

Interestingly, for 11 participants, the skills and foodstuffs they are eager to share are important because they are part of the competencies required to reach community-based self-sufficiency. Jérémy Baudet's explanation represents this well:

> What do you need in life: you need a cave to keep warm, and food to eat. So, if you have a house or an apartment or a home, whichever, but you have things to produce your food locally, that is pretty powerful. It's the power of the people, in fact. Are our people powerful, and can they meet their own needs? (Jérémy Baudet).

Having critically engaged with the issues of the eco-crisis and the incumbent threats to life and food security, these participants understand that reaching collective self-sufficiency by reskilling in the competencies required for basic survival is necessary and desirable to be resilient in the face of multiplying climate hazards. Further, participating in and developing an economy of trade

was mentioned by some participants (6) as an important part of their AFPs and of climate futures. Sam, Sarah and Tyrell Benton explain this well. In discussing why he enjoys his AFPs, Sam explained:

> […] it goes back to that rootedness, it keeps me connected to these different people, and it helps me to think that there *are*, and there have been ways, thousands of years ago, there was Indigenous people trading, trading meat and trading all these things that we couldn't grow here or that you couldn't make here, and it helps me to think that there's alternative economic systems out there. There are alternative ways of growing food and that it *is* possible to do that. There just needs to be political will, I think, and more people being brought into that sort of world, because not everybody knows somebody that's grown chickens in their backyards. But if you *knew* someone, then you could maybe trade something. Like, if you're good at knitting stuff, and you can say I can knit your kid a sweater and I can trade you for some eggs for a month, or something like that. And I think that that sort of economy *is* alive and well, and can continue growing. So that keeps me excited and encouraged (Sam).

Sarah described how she trades her sourdough products for kombucha, cider, beer, or fermented vegetables made by people in her neighbourhood. She adds:

> I want to be able to do more trading in the future. I just want that to be a reality, and I believe that it will be, and I need to learn now, and I think that bread making is and always has been such an art, and it's beautiful and it's valuable (Sarah).

Similarly, Tyrell describes:

> I just want to basically reiterate that it just comes back to the soil and to diversity, and then people needing to realize their personal power and also the power of community, whether that's everybody growing things together, or whether that's people trading, or whether that's people supporting businesses, trying to do things that are more responsible or a little bit better in general (Tyrell Benton).

In the face of the eco-crisis, there is hope and power in community self-sufficiency. Trading foodstuffs, moreover, is a possible, desirable, and important practice in developing collective self-sufficiency amidst climate hazards disrupting the global food chain.

4.4 Pathways to alternative food practices: Discussion

The range and combination of emotions participants described as part of their climate distress correspond to the complex and multifaceted character of eco-anxiety found in the literature. Indeed, Pihkala (2022) recently categorized the climate emotions that are found in the literature, illustrating their range from fear- and anxiety-related emotions, sadness-related emotions, emotions of guilt and inadequacy, moral outrage and disgust, anger and hostility, to

positive emotions including motivation, joy, hope, empowerment and care. Studies also find experiences of multiple negative/challenging climate emotions, and combined with positive emotions (ibid; Galway & Field, 2023; Marczak et al., 2021), as was found in my research. Importantly, all participants experience a responsibility to act and adopted multiple habitual climate actions, in line with Bouman et al.'s findings that a personal responsibility to act "may be key in translating abstract worries into concrete and personal climate mitigation behaviours" (2020, p. 8). Accordingly, my findings suggest that participants' climate distress can be described as what Pihkala (2020) names 'practical eco-anxiety', where distress occurs in response to the eco-crisis and generates both a greater affinity to the incumbent issues and a motivation to contribute to positive change (Kurth & Pihkala, 2022). As put by Pihkala, "the so-called negative emotions have their role in the process of adjusting to the ecological crisis and in trying to build more meaningful futures" (2022, p. 93). A recent survey conducted across young people in Canada aged 16-25 found that a little over 20% of respondents identified feeling optimistic in relation to climate change (Galway & Field, 2023). While feeling excited and motivated to act differs from 'feeling optimistic' about climate change, it may be significant that almost half of participants (9) to my research identified these positive feelings of motivation/excitement to contribute to socio-ecological solutions. In the context of an understudied area in the literature, this calls for more research examining whether AFPs may play a role in facilitating young adults' positive climate emotions.

Further, Wray highlights that some researchers call eco-anxiety 'eco-compassion' or 'eco-empathy' because it is founded on the care for other beings and because it emerges as "an antidote to the culture of uncare" (2022, p. 53). Referencing psychoanalyst Sally Weintrobe's analysis, she explains that social welfare has been replaced by a culture that "promulgates the social acceptance of selfish impulses and short-sightedness" (ibid, p. 48). In this culture, the systemic neoliberal policies "invites and permits people to disconnect from parts of themselves that take responsibility in life" (ibid, p. 49). Contrastingly, AFPs are characterized by meanings of abundance and joyful sharing, and much like the concept of eco-compassion, by affects of care for nature and living beings that foster a sense of responsibility and solidarity towards these, challenging the neoliberal norm of self-interested individualism (Read, 2009). Indeed, individuals who care for others and nature and who wish to contribute to society tend to be more impacted by climate distress (Lawrance et al., 2022), while caring for the environment motivates the adoption

of climate mitigation behaviour (Bouman et al., 2020). From a dialogical perspective, participants' care for living beings and environments, their frustration towards societal inaction, and their sense of social responsibility reveals the interplay of self-other interdependencies. More than solely seeking to reduce their quantitative impact on the environment, participants cultivate meaningful and healing human-to-nature connections and right relationships through their AFPs. The view of reciprocal well-being expressed by some participants seem to communicate a deeper interconnectedness experienced with nature, where the divide blurs between self-interested and altruistic motivations, as harm or healing is understood as being experienced mutually.

Participants identified multiple issues and injustices inherent to conventional food systems and practices, echoing findings in the literature that maintaining environmental values within supermarket purchases is difficult (Brons & Oosterveer 2017; Foden et al, 2022). Part of the meaning weaved within AFP is to be critically engaged with conventional food systems and to reconfigure one's food practice to contribute to socio-ecologically just food systems. As such, imagining and undertaking AFPs can be a way for individuals to challenge "seemingly insurmountable odds and resist powerlessness" in global food systems (Spijker et al., 2020, p. 822). Further, by reskilling in food competencies, participants gain more resilience and food security at the individual and/or community scale, an adaptation that is viewed as critical in the face of global supply chains vulnerable to climate disruptions. Indeed, a significant idea communicated by 11 participants was that AFPs enable the cultivation of community self-sufficiency and resilience to climate futures by reappropriating the food skills necessary to decentralize and localize food systems. In doing so, participants challenge the individualized and deskilled consumerism that characterizes participation in conventional food systems. As Mathew Scammell puts it, these participants are concerned with 'future-proofing' food systems through AFPs. This includes acting for social welfare within food systems: caring for the earth and living beings, cultivating right relationships, and ultimately striving to contribute to just climate futures based on an intersectional understanding of environmentalism and an acknowledgment of their privileges. As such, the practices of sharing/trading foods and knowledge, non-consumerism, waste upcycling/reduction, environmentally sustainable and localized self-and/or community-sufficiency, and seeking out businesses with labor rights practices, are ways AFPs negotiate social change towards ethical and sustainable food systems. The food futures participants

described are akin to what Clendenning et al (2016) name the ‘new fair food paradigm’ cultivated in urban food movements, with a vision also encompassing environmental stewardship.

In sum, participants’ experiences correspond to the perceptions and motivations common in AFN: distrust in the sustainability, quality, and safety of conventional foodstuff and agricultural policy (Renting et al., 2012; Taparia & Koch, 2015), an understanding of the sustainable nature of alternative foodstuff and production practices (e.g. non-industrial, organic farming, diversified crops, localized production and distribution), and their subsequent contributions to health, relationship-building with community and smallholders, to culture, connection to food (Forssell & Lankoski, 2015; Martin & Vold, 2018; Pourias et al., 2018), knowledge-sharing, and solidarity with oppressed groups in the food chain (Fourat et al., 2020; Renting et al., 2012). In turn, AFP “enables the expression of alternative values about society, environment and economy” (Fourat et al., 2020, p. 51), and the prefiguration thereof. Finally, participants’ AFPs are also motivated by their tangible and mundane function of providing nutritious foods to sustain their bodies. Thus, in the meanings of AFPs, we find a convergence of the symbolic and embodied motivations for socio-environmental change and the material need for food (Power, 1999), revealing the multifunctionality of AFPs.

Chapter 5
Alternative food practices and climate distress: Interactions

The third objective of my thesis is to understand participants' experience of climate distress and how climate distress interacts with AFP. In section 4.2, *Centering on food*, I explained that my findings suggest that climate distress motivates participants to adopt AFPs because these are accessible and meaningful actions that allow participants to contribute to the solutions to the eco-crisis. I now turn to examine how AFPs impact participants' climate distress.

5.1 Contributing to environmental health lessens climate distress

The literature on climate distress shows that pro-environmental behaviour, or climate actions, has the potential to contribute to both ecological *and* mental health (Galway & Field, 2023; Lawrance et al., 2022; Zawadzki et al., 2020; Sitra, 2019). Clayton et al. specify that "Connecting climate impacts to practical solutions encourages action while building emotional resiliency" (2017, p. 18). Indeed, identifying AFPs as meaningful solutions to the eco-crisis engenders action, as well as positive emotional benefits as all participants said that their AFPs contribute to their well-being. A major theme that emerged from the interviews is that by allowing participants to contribute to environmental health, AFPs lessen their climate distress. Cheyenne Fafard and Bronwyn Green explain this well:

> [Gardening] makes me feel better about our concern for the environment, it has put me at ease. You know it's hard work, but I feel like I'm doing all I can right now, and that makes me feel better about it. Knowing that every day, my family eats something that *we* grew, that my children put the seeds for in the ground and helped water every day, and we get to see the fruits of our labor. That makes me feel a lot better. Being the kind of person who understands our food systems, I feel like I would be incredibly depressed if I wasn't gardening (Cheyenne Fafard).

When I asked her how gardening impacts her concern for the environment, Bronwyn Green said:

> I guess it makes my concern less. I feel a little bit better because you see how quickly those species come back, […] like oh my god you can have so many bees and you can have so many butterflies and birds. They are out there, they're not gone, we just have to provide them a space to live in. And so, I think that before I started gardening and I was just reading about all this stuff, my concern was detrimental to my health. And then when I started gardening and being more involved in nature and growing things, and seeing some of those species come back, it made me less hopeless… like I'm still concerned, it's still a constant thing, it just wasn't detrimental to my mental health and my overall daily mood (Bronwyn Green).

Participants see the physical impacts of their practices, whether changes in the ecosystem, foods withdrawn from landfills, foods created from scratch with ethical ingredients and without plastic use, etc. The ability to practically contribute to addressing the problem causing distress (the eco-crisis), as well as the tangibility of the materials and the impacts, have the effect of easing climate distress. Within this larger theme, several sub-themes emerged as specific and interconnected ways in which contributing to environmental health lessens climate distress.

Table 6. Impacts of alternative food practices on climate distress

Impact of alternative food practices on climate distress	Number of participants who mentioned the impact
Taking action generates hope	14
Relief, destress, therapeutic	10
Seeing other's climate actions lessens climate distress	7
Empowering	7
Preventing paralysis	6
Taking control	6
Doing *something*	5

The motivation and excitement that many participants expressed, described in Section 1.2, *Emotion of climate distress*, indicate that their responsibility to act is linked to positive emotions and a belief that their actions can contribute to creating a sustainable future. As part of this, a theme that emerged from the data is the connection between hope and action, where fourteen participants described that their hope is generated by taking action. For example, Jan and Marika explain:

> I think my coping mechanism is to feel hopeful about a lot, to feel empowered like I'm doing something, to focus on all of the things I *can* control in the situation, rather than what I can't (Marika).

> I also have a lot of family and friends who have little ones, I am painfully aware that there are many more generations to come after us. […] I long for them to experience nature, the same way that I have. In fact, *even more* because I don't really consider myself to be all that in touch with nature. So, when I think of the generation that's to come after us, I do feel concern… but not concern with negative connotations, but a hopeful kind of concern, or a motivated and encouraged kind of concern, to take action (Jan).

Some participants shared how their climate distress evolved, and how climate-minded action generated hope. Jake Boutwell describes this journey:

> I just came to accept not having hope, and I was like I don't *need* hope to do the work I want to do. […] But then once I started working with Climate Action Kenora, and Harvest Kenora […] I can see that there's totally hope in our community, that we can learn these skills and become resilient and, you know, take things as they come and work together and live really beautiful lives that are taking into account catastrophe and trying to do something about it. So through getting involved in the community on a smaller scale where I could see that there was possibilities, then hope came back. And so, I would say I have hope now, it's not hope for a global thing, I mean I guess I still do have hope… I at least acknowledge the possibility that on a global scale maybe things could go really well. I don't anticipate things to go that way, *but* I have lots of hope for what can happen in my community (Jake Boutwell).

The eco-crisis brings into question the viability of the future and one's responsibility within it. Indeed, even as hope was not part of my interview questions, most participants raised their hope for the future when discussing their climate distress and/or their motivations for prefiguring social change. For these participants, knowing that there *are* climate actions to be taken, choosing to enact them, and seeing their impact generates hope for climate futures. In other words, choosing to participate in transformative change generates hope that that change is possible.

In addition to self-efficacy, affects of calm and relief emerge through intimate interactions with foodstuff and nature, and weave meanings of ecological and personal wellbeing within AFPs. Indeed, half of the participants said that doing their AFP(s) is therapeutic: it reduces stress and/or provides relief from climate distress. Jérémy Baudet, Cheyenne Fafard, and Lex explain this well:

> I like to go out with my coffee, listening to the birds, feeling the wind, looking at drops of water on the leaves. […] There is a lot of resilience. I like that nature shows me things like that, resilience, perseverance. It calmed me, also, gardening. […] It's a daily therapy, I do about 2-8 hours per day (Jérémy Baudet).

> [Gardening] gives me a sense of stability and security, and you know, accomplishment and pride, and relief and de-stressing. (Cheyenne Fafard)

> It's sort of an antidote to some of the climate and environmental anxiety that comes from facing some of the reality of where we're at, and just how off track we are in some ways (Lex).

Across practices of gardening, food preservation, baking, foraging and composting, participants find their practice provides therapeutic benefits: they are calmed and grounded, which lessens distress.

Moreover, participants (7) described feeling empowered by their competencies and ability to have an environmental impact through their AFP.

> […] because of the things that I'm doing, it leads me to feel a bit more empowered that I'm able to garden and I'm having some positive impact (Andre DeBattista).

> […] with feeling concerned about water, fresh water, then being able to collect rainwater: that, it's having a response. Having a response to the crisis, and having a response to the concern, so it just doesn't have to fester. I mean it's still there, absolutely, but at least it… hmm, what is the feeling? I think it's empowering, yeah (Evelyn Rose).

In a similar vein, some participants (6) formulated this as 'taking control' or 'having some control' over one's ecological impact through food provisioning. For example, when I asked her how she feels when she performs her food preservation practices, Marika said:

> Definitely empowered, like I'm doing something to help the situation, it feels very empowering to be contributing and focusing on what you can control. So it puts something within my control, which otherwise is not as much (Marika).

When I asked her about the overall positive or constructive things that gardening, baking and sourcing ethically contribute to her life, Anna said:

> So overall, it's the health, it's the mental well being, it's feeling better in *ourselves* because we're eating *very* healthy […] but it's also, again, the taking control of what we can do for the environment. And you know there's still some plastic we throw out and I still drive the car when sometimes I could bike, but I feel like we do offset that largely in what we do (Anna).

The complexity of the eco-crisis, the inaccessibility of systemic climate solutions and the barriers to individual ethical and environmental actions, all hinder participants' self-efficacy in climate actions. AFPs provide competencies and meaning that enable them to have greater agency over the environmental impacts of their actions, which lessens their climate distress. Lee Hrenchuk summarizes this well when she says it is satisfying to "know that you're having that *say* in what you think is important".

While participants described their sense of empowerment, some also wrestled with powerlessness. Feeling paralyzed or disassociated by the daunting enormity of the eco-crisis is a normal response because the problems are of such complexity that meaningful actions can seem inaccessible to the individual (Macy & Johnstone, 2012). Lertzman (2015) explains paralysis and apathy as a 'shutting down' response to conflicting feelings of wanting to act for planetary health

while being overwhelmed by climate change and the ways we contribute to it (in Wray, 2022). Identifying meaningful actions that do contribute to ecological health can mitigate paralysis. Indeed, some participants (6) said that they have experienced paralysis in the past and that their AFP prevents them from being paralyzed again. They explained how AFPs generate feedback of positive emotion that lessens climate distress and prevents paralysis. Lee Hrenchuk describes this process:

> I think that doing as much as *I can* under *my* control, through gardening and through how I purchase things, it definitely gives me a feeling of not doing nothing, which is very satisfying and helpful. And probably partly contributes to my lack of existential dread about how things might go down eventually, on top of me not having a personality that really gets very anxious, *feeling* like I'm doing something and not just sitting paralyzed in my house (Lee Hrenchuk).

Similarly, some participants said that simply the possibility of being paralyzed generates feedback of emotion that pushes them to action:

> I feel that concern [for the environment] in a very real way, in my body. But the thing is that it would really, if I let it, it will paralyze me until I feel that I have to act. I have to, it's an imperative, you know I have to do something to feel like I'm on the right side of the equation (Lori).

For Paul, being motivated by joy to undertake climate actions, rather than by guilt or anger, prevents him from being paralyzed. He says:

> I would just say that for me, doing these things because they're fun, because they're whimsical, not because I feel guilted into them, or mad. That has been the key to be actually doing something rather than just not doing anything (Paul).

These participants have a self-awareness of their range of emotional responses to climate change and know how to avoid paralysis. Similarly, some participants (5) also highlighted the importance of doing *something*, as opposed to doing nothing. Carly, Tyrell Benton, and Jake Boutwell explain this well:

> It makes me feel like I'm doing something. It makes me feel slightly better about the situation. It makes me feel slightly better about climate change. Yeah, I guess it's kind of a conscious guilt thing, like it just makes me feel like I'm doing something (Carly).

Tyrell describes his process of wrestling with apathy and the simple solution of doing *something* to overcome paralysis and apathy:

> I think even though [my climate distress has] gotten tougher because I've been desensitized, it's also gotten easier because I feel so much more informed and aware of what the problems are and what some of the solutions are, and where the priorities should be. I think a lot of people just don't even know what to do, where to go, how to even approach anything: basically where I was before, with the observing and the reading and like, how do I get to a point where I can do something? And is that something enough? And I mean, technically, something is better than nothing. So it's kind of just, start (Tyrell Benton).

Jake describes how getting involved in a local food organization and meeting like-minded people who also want to adopt climate actions has helped prevent paralysis and quelled some of his climate anxiety:

> […] rather than spending time not knowing what to do, I had *plenty* of stuff to do. […] I think I felt a lot of anxiety about like, I'm not doing enough, there's all these problems and I'm not doing enough. And I'm sure that was warranted in some ways, I was also influenced by people I met who felt that very strongly. So yeah, this practice, it doesn't alleviate my concern, but it alleviates my anxiety. And then once the anxiety is gone from the concern, it's just I'm concerned about it, but I'm taking the best action I can, and then as long as I'm taking action on the concern, I'm satisfied (Jake Boutwell).

Research has found that climate distress includes distress caused by the uncertainty or confusion around what individuals can feasibly contribute to mitigating climate change (Marczak et al., 2021). My findings suggest that identifying AFPs as such meaningful individual contributions enables participants to overcome the paralysis induced by not knowing what to do, or by the belief that one's actions do not matter. In turn, having self-efficacy in actively contributing to environmental well-being lessens climate distress.

Finally, I reported previously that most participants expressed their frustration towards climate inaction: whether towards governmental/corporate inaction or individual inaction. Inversely, some participants (7) shared that seeing other people aware of environmental issues and concerned enough to act, lessens their climate distress.

> It sometimes is very discouraging to think that there isn't too much that I can do, but sometimes it's also very hopeful to see either Indigenous communities or different people that I know in [the city] who participate in different ways of reducing their ecological footprint, or engaging with their community and finding ways that they can encourage people to think about climate change and how they can begin to tackle that and think about that effectively (Sam).

> […] we're lucky to live in a community that is very beautiful in the surrounding area, so most of the people I know actually do get out, and fish or hunt, which kind of definitely

> gives me a sense of relaxation, knowing that they do care about where their food comes from (Cheyenne Fafard).

Seeing that we are not alone facing the eco-crisis and enacting our responsibility to act provides relief (Schwartz et al., 2022). These participants shared instances where positive emotions including hope, relief and feeling encouraged, emerge when they see other individuals engaged in AFPs and/or climate actions.

5.2 Alternative food practices: Mixed impacts on well-being

While AFPs contribute to participants' overall well-being and mitigate their climate distress, participants also described how their practices have mixed impacts on their lives. The ways in which these practices can strain participants' well-being are listed below in Table 7:

Table 7. Alternative food practices can strain well-being

Alternative food practices can strain well-being	Number of participants who mentioned the experience
It's work	14
Knowledge of environmental impacts increases climate distress	11
My practice has no large-scale impact	11
Not doing enough	5

While contributing to environmental health through AFPs lessens participants' climate distress, most participants (14) highlighted that their AFP(s) is work: it is not always easy, nor is it always fun.

> [My regenerative diet is] not based on convenience and abundance – you have to plan what you're going to eat months before you eat it. It's a lot of prep work. I'm not gonna say I never go to a restaurant, but it's a conscious decision not to go with the status quo and where everybody else is, or eat conveniently like everybody else's. So you have to consciously make those decisions every single day to be like, "No, I don't think I'm going to eat there" because it doesn't fit into my moral way of eating that I think is important, that is going to impact the world (Bronwyn Green).

> There are the odd times when it's stressful. For example, I've got five buckets full of root veggies in the basement that I have to deal with. So that's slightly stressful, but when I make the food from them, that's going to be very rewarding (Anna).

When describing their commitment to sourcing sustainable foods, Max describes how it can be exhausting:

> […] it would be almost easier if it was just really black and white. But it's not, so it's just an obstacle of having to think about it all the time, it can be kind of exhausting. […] If you're looking at it too closely sometimes, it's easy to get hung up on everything that you're eating and then it can turn into an unhealthy habit too (Max).

As these participants describe, the tasks of AFPs can be overwhelming, tedious, and time-consuming, particularly relative to convenient food practices participants described as convenient and easy (see section 2.1.1). Acquiring AFPs requires participants to adapt their shopping routines, the spatial arrangement of their homes, their mode of cooking, and their domestic routines and practices to allow for the temporality of AFPs, and can require similar adaptation on the part of household members also participating in food consumption and production. Participants explained the need to make orders from local farms ahead of time, the specific temporality of practices of gardening (e.g. watering, harvesting, processing), baking (e.g. letting the dough rise), freezing, dumpster diving (e.g. best performed at night), and so on. Moreover, because these practices are part of participants' lifestyles, and because they pertain to a basic need (food), it can be difficult to 'take a break' from them, especially for practices involving living things that depend on regular maintenance (plants, starter, bees, etc). The effort and long-term commitment these practices require can strain participants' well-being.

Further, because participants care about the environment and the losses of the eco-crisis, they keep informed of the impacts of climate change. This knowledge shapes the pathways they choose as climate actions, and how they choose to perform their AFPs. However, the increased understanding of the eco-crisis and/or the heightened proximity to its impacts, which are part of AFPs, cause climate distress. Eleven participants explained feeling guilt, overwhelm and/or despair when acquiring knowledge on the eco-crisis. Marika and Lex describe these experiences, while Lori explains the intense worry she feels when engaging with information on climate change:

> I think that the more you learn, the more kind of dread you feel, and a lot of powerlessness, like it's a lot of corporations, it's not a lot of individual consumer power that we feel like we have (Marika).

> I do find it really stressful to think about, with all of the information that keeps coming out, new studies, new reports showing the impacts that are coming from climate change, the impacts that exist already (Lex).

> […] it's like the whole expression 'ignorance is bliss'. Well yeah, it is. And it's also ignorance is getting us into this whole friggin' mess so… I feel like we all kind of

> collectively need to wake up. […] the more I inform myself on any of these sorts of things, the more a kind of panic sets in, you know. I think everything, all of our systems are just crumbling under our feet (Lori).

Lori described blissful ignorance as a problem and highlights the need for urgent collective action based on the information provided by scientists and activists. Likewise, participants remain committed to informed climate action and negotiate ways to use that disturbing information. Similarly, Sarah and Sam specified that they value the difficult emotions that arise from their AFPs:

> Yes, sometimes I do feel satisfaction from [the AFPs] and in a good healthy way […]. But sometimes I wish I could do more, and that's the struggle I think, is just being hard on myself because I'm young and I feel like I should do better. But I think that it does help me because it makes me aware that I need to keep trying to do more, so, it's healthy (Sarah).

> […] participating in these food practices reminds me of why is it that I continue to do this, and why is it that, even if it's a bit more difficult, a bit more labor intensive, why I should keep participating in these things rather than just slide into a bit more of a comfortable place (Sam).

Sam and Sarah understand their heightened climate distress as a valid emotional response that maintains their connection to the eco-crisis and their commitment to act. This process echoes the negative feedback loop described by Macy & Johnstone, where the emotions generated as part of our pain for the world "help us notice what's going on; they are also what rouses our response" (2012, p. 68). By framing them as useful feedback and as a symptom of their connection to nature, it seems Sam and Sarah are potentially disabling emotions and using them in generative ways.

Studies have found that engagement with climate-related media can cause climate distress (Clayton et al., 2017; Ojala, 2013). However, it is by gaining a more sophisticated knowledge of the eco-crisis that participants learned about how conventional food systems contribute to environmental degradation and that AFPs are pathways for climate action. Accordingly, and much as the findings of Maran & Begotti (2021), I interpret from this that participants' exposure to climate-related media also enables a sense of self-efficacy in contributing to climate solutions through AFPs, which leads to empowerment and self-efficacy, lessening climate distress.

Through their AFPs, participants seek to negotiate both the ability to lead a life of their choice, and to influence social change. Schatzki (2017) differentiates three ways of understanding agency: the ability to act, the ability to choose, and the ability to effect change in the social world. While participants can exercise the first and negotiate the second, the third is experienced as less discernable. Indeed, participants (11) highlighted that they do not believe their practice has any large-scale impact on the eco-crisis. For instance, in our conversation Carly explained:

> LAURENCE: So how does being vegan impact your concern for the environment?
>
> CARLY: How does it impact my concern is… It makes me feel like I'm doing something. It makes me feel slightly better about the situation. It makes me feel slightly better about climate change. Yeah, I guess it's kind of a conscious guilt thing, like it just makes me feel like I'm doing something.
>
> LAURENCE: Yeah, okay. But it doesn't alleviate it entirely?
>
> CARLY: *No*, because I know it's impacting, but it's not impacting to enough of a level where it's making a visible difference. So, I would just feel bad if I was contributing towards it, so at least I'm not doing that.

Similarly, Jan explains his mixed feelings regarding his climate actions:

> There are some days when I feel like I'm doing my part. Which is well and good. And then there are other days when I feel that same way, like I feel like I'm doing my part, but also I view it with a bit more skepticism and… I wonder if what we're doing in our household really changes things. That's just a reality that I have with myself, often (Jan).

Carly and Jan share they feel positive emotional feedback from being able to change their environmental impact, while simultaneously believing their actions have a minimal impact on the world. The feeling that one's actions are having an insignificant impact on the eco-crisis is part of experiences of climate distress (Macy & Johnstone, 2012; Jones & Davison, 2021), and was echoed across 11 participants. Jérémy Baudet wondered "what's the point of gardening?" when seeing distressing news such as another incident of shipping containers spilling tons of oil, Nate affirmed that his actions have at most "a negligible effect on the environment", and Paul stated that his actions "don't really make much of a difference in the world". Similarly, a smaller number of participants (5) said that they feel the actions they are taking in response to the eco-crisis are 'not enough' to address this crisis, leaving them with feelings of powerlessness and vulnerability. For example, when I asked her what were the main emotions tied to her concern for the environment, Anna explained:

> I think dread would be the main one. Dread for what's going to happen, like what more can I do? I feel like I do more than the average person reasonably can, but it's not enough, right. It's dread and helplessness, I guess because, what am I supposed to do? (Anna)

This experience of not being able to do enough echoes feelings of inadequacy found in the literature, where individuals feel inadequate in the face of the wicked and vast character of climate issues because of their inability to respond at the necessary scale (Pihkala, 2022). Participants' experiences in their AFPs are nuanced: questioning the value of their efforts can be tiring and disheartening, and contributes to climate distress. In different ways, AFPs strain participants' well-being. With the mixed impacts AFPs have on participants' well-being, a theme that emerged in the interviews is the need to find a balance between one's responsibility to act for planetary health and one's own well-being. I examine this in the following section.

5.3 Finding balance

In discussing the interaction between their AFPs and their climate distress, almost all participants (17) raised ways in which they ensure their AFPs and their responsibility to act remain manageable, balancing them with their own well-being. Multiple sub-themes emerged as approaches participants named to ensure their responsibility to act does not cause overwhelm, burn out and/or the abandonment of their practice. These sub-themes can also be understood as pathways to manage climate distress and its external stressors. I explore the themes in more details below.

Table 8. Finding balance

Finding balance	Number of participants who mentioned the experience
Act in your sphere of influence	11
My practice is not perfect	11
Small steps matter/Slow motion is better than no motion	11
Prioritizing happiness	6

In the face of the complex, intersectional and global problem that is the eco-crisis, participants (11) highlight the importance of acting in one's sphere of influence, no matter what scale that may be. Tyrell Benton articulates this well:

> Anytime that you're dwelling on that sense of hopelessness or feeling powerless about what to do or how to approach everything that's going on – you know there's a lot of operations and undertakings that are *so* far beyond our comprehension in terms of the impacts that they're having. But at the end of the day, you can only do what you can do, in

> your sphere of influence. So whatever your sphere is, whether that's two people, or 200 or 2000, whatever you got, whoever will listen to you in a meaningful way, try and grow that sphere. Try and keep it about real things, tangible things (Tyrell Benton).

Similarly, Evelyn Rose describes how her exercise of a right livelihood changed over time, and how focusing on the aspects she can influence prevents her from being overwhelmed. She says:

> I had a lot of wonderings about what could be my impact, and how I could make the world a better place and protect the environment. That journey took me to activism and protesting large projects, and then eventually it just brought me back to the hyper-local level of impact. After feeling really overwhelmed, focusing on the very local impact I *can* have – and gardening just seemed to check so many boxes in that way, to put it simply. We can divest from the large system of food production that is not only degrading our soil but polluting our water and using pesticides that aren't helping our health. And so then we get to grow our own food (Evelyn Rose).

The food domain is within the sphere of influence of participants. As Sarah describes below, within it are 'resources' available to participants to withdraw their participation from problematic conventional food systems:

> […] some of the really good things that I've taken out of [my AFPs] is just, again, that freedom of feeling a lot less a part of something that I don't believe in, and then taking this control in my own life and being able to say, I have these resources here, I want to make better choices for myself, this is how I can do it (Sarah).

Similarly, a theme that emerged in the interviews is that taking small steps towards environmental goals is important and meaningful, even if they do not have significant impacts on the eco-crisis.

> Just trying to do as much as feels realistic for me and feels manageable, helps me to feel like I'm engaging at my capacity there, and that is a very satisfying thing, it quells some of the sense of anxiety about the climate to at least know that I'm doing as much as I personally can in my individual life (Lex).

> I think it makes a big difference when you do a little bit every day and you just try and be more conscious and mindful of it – because we can't overdo it, you'll just make yourself upset. If you care, if you really care, you'll just care too much and poop yourself out. So I think just trying to do a little bit here and there, where we can (Sarah).

Referring to her knowledge and competencies in AFPs as climate actions, Marika explains:

> I have that knowledge now. I think for me a big thing is educating people. […] bringing that knowledge with me when I go places, and make it seem more accessible: you don't have to do this extreme thing, but you can do little steps in your life (Marika).

What is important is to take action, however small that action may be. As Tyrell Benton says, "do what you can do". By valuing the actions that *are* accessible to them, participants frame their individual impact as an important and meaningful exercise of agency, without dismissing the complex systemic nature of the eco-crisis, *and* without compromising their personal well-being. Choosing and valuing climate actions where self-efficacy is possible (small steps in one's sphere of influence) is a helpful approach that increases well-being (Gunasiri et al., 2022; Ojala et al., 2021), prevents overwhelm, discouragement or abandonment of the practice that can accompany the perception that only large-scale actions are worth undertaking to address climate change (Macy & Johnstone, 2012).

Additionally, participants leave behind an all-or-nothing perspective on climate action. More than half of the participants (11) highlighted and described how their AFPs and/or their eco-conscious lifestyles are not perfect. They mentioned they still shop at the grocery store occasionally and/or for specific ingredients, there is still plastic/waste in their home, they still use their car when they could bike, and so on. Bronwyn Green described this well:

> […] having to loosen up the grip a little bit and know that it's not going to be perfect, so that it doesn't affect your daily life in a negative way, and just know that you're doing the best that you can. […] let's say you do make a mistake and you go eat at this place and it's not necessarily what you liked, it's not beating yourself up about it. It's about learning from it and adapting to the future. It's just like next time, I'm going to plan so I don't leave the house hungry so that I don't need to go do this. And then you kind of learn from those mistakes as opposed to feel stressed out about them (Bronwyn Green).

Carly described a different experience, sharing that she feels very guilty when she does her practice imperfectly:

> If I wasn't vegan, I would feel guilty. Even if I do small, tiny cheats where I eat something that has a milk product in it, I feel really guilty about it, even though I know it's not having a direct impact. It's just the conscious choice of not supporting those industries (Carly).

Carly's experience stands out from the other participants who highlighted their imperfect practice. For them, imperfections and exceptions are human and do not detract from the overall satisfaction or relief they feel by contributing to environmental health through their food practices.

Moreover, some participants (6) raised the fact that they deserve to lead happy lives despite the eco-crisis and the weight of the incumbent responsibilities to do what they can to

mitigate environmental degradation. Bronwyn Green's and Jake Boutwell's explanations describe this well:

> […] change might not happen immediately and I might not even see this positive change in my lifetime, […] but I definitely have a feeling the people are changing, which means that it will inevitably snowball and things will start going in a different direction. And if it doesn't… [laughs] then that's the way it is. There's no point to me going through this life unhappy, miserable, and guilty. I think that the only thing I can do is be hopeful and have faith, and give out love and positivity that it is going to go that way –that it will be better (Bronwyn Green).

> […] for many years, there was […] grief, guilt, sadness, and fear, especially because *I just didn't know what to do*. But I feel like having gone through all the learning that I have, and picked up all the skills that I have, and having come to conclusions of having known all this, this is how I want to live, I've now moved into a point where I just accept all those things and I don't feel guilty, and I don't feel scared. I just feel like yeah! this is the life I want to live in the times, and yeah, probably the planet can't be saved, but whatever, that's just the way it's gone, humans came and did all this stuff, and there's nothing that I could do about it! What I *can* do is try to do a little bit of change here and enjoy my life and enjoy the pursuit of positive change with other people (Jake Boutwell).

When remembering the range of emotions that participants experience as part of their climate distress and the extent to which they impact their lifestyles, I believe it is significant that a quarter of participants highlight that they prioritize joy and ease even as they negotiate their responsibility to act.

5.4 Discussion: Negotiating a right livelihood in an unethical social world

My findings suggest that AFPs contribute to participants' well-being, which echoes findings in the climate distress literature that climate action contributes to well-being (Cunsolo et al., 2020; Zawadzki et al., 2020), and particularly when combined with hope (Pihkala, 2018; Ojala, 2012; Macy & Johnstone, 2012). In a recent study undertaken with young adults in Australia, climate action was found to increase optimistic feelings, have calming benefits, and provide a sense of being in control and being able to make a difference (Gunasiri et al., 2022), corresponding to my findings. However, while all participants said that their AFP contributes to their overall well-being and that they enjoy its many benefits, my findings also suggest AFPs pose psychosocial challenges. The increased connection to nature and the competencies participants acquire come with a deeper understanding of ecological losses, which causes climate distress. Further, participants shared that AFPs can be tiring and tedious and that they feel inadequate because these practices make no large-scale change in the world. Similarly, in their

study, Thompson et al. (2022) found that adolescents experience both positive and challenging climate emotions, including wanting to contribute to environmental health while feeling powerless and worried about the future. The mixed impacts of AFPs on climate distress and well-being are reflective of the complex world in which these practices are operating, and of the subsequent tensions generated by conflicting experiences, responsibilities and needs. Some of the tensions that emerged from the interviews include:

- valuing one's agency vs. its negligible impact on the eco-crisis;
- valuing positive change at the local level vs. its relative insignificance in the face of entrenched systemic issues, inertia, and/or the many grave climate hazards that continue to occur elsewhere;
- limiting one's climate actions to maintain personal well-being vs. feeling the urgent need for radical actions to mitigate social and ecological loss;
- investing efforts to fulfill one's personal responsibility to act vs. seeing governments/others choose inaction; and
- wanting a right livelihood vs. the inaccessibility of this right livelihood and the subsequent need to exercise actions causing socio-environmental harm.

Navigating these tensions provokes challenging questions as to one's place and responsibility on the planet, how one can lead a meaningful life despite ongoing systemic violence occurring globally, the extent to which one has agency, and how to best exercise this free will to make a difference. Part of participants' climate distress is the experience of these tensions. In *Active Hope, How to Face the Mess We're in without Going Crazy*, Macy & Johnstone (2012) provide a helpful analogy to make sense of this. The authors identify three stories that describe the world: in 'Business As Usual' the current status quo of our modern times is understood as a desirable success story; in the 'Great Unraveling' the world is seen as undergoing a devastating decline, and in the 'Great Turning', the decline of the Great Unraveling is reckoned with and efforts are undertaken towards a transformation "to a life-sustaining society committed to the recovery of our world" (ibid, p. 26). The authors contend that all three stories are unfolding and that it is possible to exist in more than one at the same time. What matters, they highlight, is which story one chooses to participate in. Further, the authors state that whether we see individual contributions "as significant enough to be worth taking seriously" is a choice and that valuing these individual actions is crucial to their effectiveness (ibid, p. 202). Likewise, in the face of world suffering, participants experience conflicting truths, demonstrate an ability for dialectic thinking and choose to negotiate and value conscientious action for planetary health –

participating in the Great Unraveling. Participants value their own well-being and have the emotional self-awareness to know what they need to adjust their perspectives and/or their practices to ensure their AFP continues to contribute to their well-being and can thus be sustainable in the long term.

In addition, knowing they are operating in an imperfect system, participants make choices as to when they commit to environmentally-friendly practices, and when they resort to conventional practices that are more environmentally harmful. What matters is to *try* to negotiate a different way of being that aligns with their value, to the best of their ability. This commitment to try, however imperfect, is also an "ability to live with ambivalence, so that there is a kind of balance between action and rest", allowing for well-being, and dissolving feelings of inadequacy (Pihkala, 2019, p.14). My findings differ from those of Marczak et al.'s (2021), where their participants' high standards of climate-informed action often led to considerable guilt among their interviewees. In my study, while climate distress and a responsibility to act shape the organization of participants' lives, most did not say they experience guilt. Rather, my findings suggest they accept and value climate action within the boundaries of their well-being. Perhaps the relatively low experience of guilt amongst participants can be ascribed to their understanding of the causes of the eco-crisis as systemic, rather than individual (and thus personal). As Ray contends about climate distress, "[the] wisdom to know the difference between problems we can control and those we cannot is essential for healing dis-ease" (2020, p. 141). Moreover, it is significant to note that participants' commitment to climate action (and the resulting balance with their well-being) looks different for each participant. In the interviews, some participants expressed frustration towards other people's inaction, and some expressed surprise and discouragement at others' wasteful practices (e.g. plastic use, food waste). However, participants did not prescribe a standard course of action that others should take. For example, they did not say that other people need to garden, compost, stop eating meat, etc. Rather, participants who were frustrated with others' inaction stated that others should *try* in whatever way they can. Accordingly, in participants' perception of their own and others' responsibility to act, climate actions are to be tailored to one's needs, capacities and well-being, thus allowing for practices that can be sustained over the long term.

Chapter 6
Understanding alternative food practices: Barriers and enablers

6.1 Barriers

The second objective of my research is to identify the barriers and enablers to young adults' AFPs. Table 9 shows the barriers identified by participants, after which I provide an overview of those most common among participants.

Table 9. Barriers to alternative food practices

Barriers to alternative food practices	Number of participants who mentioned the barrier
Financial limitations	14
Lack of knowledge	13
Lack of time	12
Lack of space	10
Institutional/Systemic barriers	9
Working hours	8
Inaccessibility of materials	8
Distance	6
Climate-related barriers	6
Mental energy/motivation	5
Working with others	2
Moving	2
Having children	2
Danger/Risk	2
Neighbours	2
Physical health	1

6.1.1 Lack of time & work schedule

Time was a barrier that participants (12) were quick to identify. As mentioned, AFPs are time-consuming, especially when compared to the convenience and accessibility of purchasing foods at the grocery store. Regarding her baking and gardening practices, Anna explained:

> And again, the time [is an obstacle]; when I'm really really busy I just don't have the energy or the motivation, mental energy, to plan out what I'm going to make, or even just meal plan in general [laughs] (Anna).

Almost half of the participants (8) also identified their jobs or working hours as a barrier parallel to the lack of time.

> If I'm working a nine to five job and then come home and engage with the kids, my free time in a week boils down to eight hours or something. And that's for all of the things I want to do, not just [the community garden] (Lori).

Participants have the will and ability to learn and undertake AFPs but lack the time to commit to the extent they would like to. These barriers reveal how accommodating the temporal organization of AFP and its tasks requires a reconfiguration of practices of work, parenting, cohabitating, and domestic work, with which AFPs compete for time.

6.1.2 Financial limitations

Most participants (14) identified financial limitations as a barrier to undertaking and/or developing their AFPs in the way they would prefer. In particular, participants mentioned the prohibitive cost of the desired alternative materials (e.g. organic, vegan, or local ingredients), the upfront cost of tools (e.g. more sophisticated gardening tools, beekeeping tools), and the prohibitive cost of equipment, training or space that would allow them to be more efficient or to develop their practice (e.g. affording grow lights, beekeeping equipment, a chest freezer, permaculture training, a vehicle; and affording to own land or a bigger home).

> An obstacle we have had was not having a truck or trailer. So having to borrow that, it just put an extra barrier on being able to get materials like soil, compost and woodchips (Evelyn Rose).

> Finding and affording the local organic flour and butter [is an obstacle]. The flour, it is accessible, but I only found it in like one or two-kilogram bags, and it's so expensive in that format, whereas I prefer to buy 50 pounds at a time, and I *will* go through that. So that's been an obstacle, the price of ingredients (Anna).

Thus, AFPs are comprised of specific materials that are more expensive than their conventional counterpart, which poses a barrier to participants.

6.1.3 Lack of knowledge

Thirteen participants identified their lack of knowledge and competencies in AFPs as a barrier. Paul describes this well:

> Knowledge was a huge barrier, like we don't teach this in schools, right. I am just thirsty for things on the internet but it's kind of hard to research, and plants are hard to identify, and mushrooms are even harder to identify. I didn't learn any of this stuff you know, so knowledge was a huge stumbling block. I've since met an Indigenous elder who says she forages almost all of her foods so, it can be done, I guess (Paul).

As Paul does, some participants highlighted that they did not acquire competencies in AFPs as part of society's common knowledge, in schools, or in their families. This lack of knowledge illustrates the collective deskilling in food practice that has occurred in Western society as food practices have become industrialized, specialized, and commercialized. Gardening (and in particular gardening organically or regeneratively), canning, preserving, foraging, dumpster diving, and working with foods that are close to being spoiled, are not part of "collectively coordinated know-how" in food practices (Neuman, 2019, p. 83). Further, by distancing people from food, the industrialization of food systems has disconnected individuals from knowledge of the ethical, environmental and nutritional impacts of farming practices. Bronwyn Green explains how this constitutes a barrier:

> I struggled with feeding myself because of a lack of education and understanding of what type of food my body needed to thrive. Confusion about nutrition and what foods were good for me, what foods were sustainable and not contributing to the agriculture crisis by depleting the earth's resources (Bronwyn Green).

The lack of knowledge and competencies constitutes a barrier because participants must devote additional effort and time to acquire these alternative skills and knowledge on their own.

6.1.4 Institutional barriers

9 participants described institutional policies or practices that create barriers to their AFP. For Bronwyn Green, the lack of insurance for regenerative farms is understood as an obstacle to her own practice:

> And financial support for the farms that are doing this practice, because we don't have as many policies that cover regenerative farming. […] There's Adagio Acres, they do organic and somewhat regeneratively farmed grains and oats and things like that. They had such a bad drought this year […] all of their crops were killed and they don't have insurance, there's no insurance for regenerative farming. So they literally just lost all that money, all that product. […] financially not having that support from the government, it puts them at risk to not do well, and they might not be around next year for you to be able to get that thing for your diet that you need (Bronwyn Green).

As a volunteer with a local food organization, Lori discussed how grant criteria have made it nearly impossible for the organization to acquire adequate financial support, in particular to fund a salaried position to remove pressure on volunteers. This echoes the funding challenges experienced by non-profit organizations in urban agriculture in the United States (Cohen & Reynolds, 2015). Lori explains:

> […] having access to funds and being able to create a structure that's financially sustainable is a *real* challenge, and I mean that's not unique to [our non-profit organization], that's very much part of the course of agriculture in general. We are trying to employ an alternative model, and so I feel like it's maybe even more challenging for us, especially when we really struggle to put prices on things that then may make our produce inaccessible to local people, which we feel is a firm part of our value system as an organization (Lori).

Further, dumpster diving is a unique AFP because it requires accessing private property (dumpsters) and is therefore subject to additional institutional obstacles. Its practitioners identified problematic policies associated with it.

> […] the city has sort of cracked down on dumpster diving, if you will. They're putting locks onto their dumpsters in the back. […] the bigger groceries will have a compactor, which means that you don't have any access to that. So the spots are few and far in between, and sometimes people will feel protective over those spots because they think that if a new diver shows up and they make a mess, or if they just go there at a time where the store might still be closing, and then there's a staff that walks out on people – they're scared that that spot is gonna get shut down (Sam).

Additional institutional barriers include: Cheyenne Fafard described the high value of land in Kenora that make it difficult for her to purchase land to farm, and Jérémy Baudet and Evelyn Rose deplored municipalities' ban on raising chickens as an example of institutional barriers. These are barriers upon which participants have limited immediate influence: those of the market economy, property rights, and governmental policies upholding conventional food/farming practices.

6.1.5 Inaccessibility of materials

Participants (8) said that difficulty in finding alternative foodstuff constitutes a barrier to their AFP. Examples participants provided include: having difficulty finding alternative foods in restaurants (e.g. vegan, local, or regeneratively grown foods), having difficulty finding alternative foods in grocery stores (e.g. local flour, local sugar; experiencing the tofu shortage of 2021, and the shortage of grocery stores participating in food reclaiming initiatives such as the Flash Foods app), having difficulty foraging foods in the city and the lack of community gardens in certain neighbourhoods of the city. For these individuals, the specific type of ingredient/food is a central part of their AFP. The inaccessibility of these materials is an additional systemic barrier out of participants' control that sheds light on the limited supply chains of alternative food materials. Conventional foods including non-organic, non-regenerative and non-local products generally

remain consistently available, while vegan, local/direct-from-the-farmer and/or organic/regenerative products require more work to find and are not always available. Consequently, participants said they supplement their AFP with foodstuff obtained through conventional channels of provisions (stores/supermarket).

6.1.6 Lack of space

Half of the participants identified the lack of space as a barrier, explaining that both performing AFPs and storing its materials require more space than conventional food practices. For example, Marika describes how she has had to adapt as she moved to a smaller apartment in the city:

> And obstacles, like having the space to store everything, having a freezer space. Moving around a lot if you are preserving food and you're a student and you move every year, every term even, it's a lot to move a bunch of frozen meal prep and frozen meat or canned things like that just adds to your moving (Marika).

AFPs require materials that take up space: canned, jarred, or frozen products, and bulk product bought in large quantities, need to be stored on shelves or freezers. The equipment required such as chest freezers, dehydrators, canning tools, compost and gardens also demands space. Factors like affordability, moving often, and the size of kitchens, yards and storage areas in homes or apartments contribute to creating space barriers that limit the type of practice available to participants, the type of equipment that they can use, and/or the volume of foods that they can grow/process and store. The issue of space reveals how materials such as domestic technologies become figured as organisers of daily life and practices (Paddock, 2017), for instance as chest freezers enable some participants to store a much larger volume of foodstuff in a relatively simple manner. The barrier of space may be more significant because participants are urban dwellers, as rural residences generally tend to have more space, both indoors and outdoors. Accessing more space in the city, whether through a larger apartment/home or one with a yard, generally comes with higher expenses.

6.2 Enablers

Participants identified several enablers to their AFPs, listed in Table 10. I examine them in greater detail below.

Table 10. Enablers of alternative food practices

Enablers to alternative food practices	Number of participants who mentioned the enabler
Social relations: Emotional support	20
Social relations: Sharing knowledge	20
The Internet	20
Enjoying the activity	20
The COVID-19 pandemic	19
Communities of practice	15
Social relations: Sharing materials	13
Social relations: Helping with tasks	10
Having enough money	10
Privilege	10
Family's food background and practices	9
A lifestyle/Making it a habit	9
Institutional enablers	3
Local culture	2
Social relations: Supporting financially	1

6.2.1 Social relations

Relationships with other people play a critical role in facilitating and supporting participants' practices.

All participants said that family, friends and/or individuals in their community of practice provide emotional support, by way of encouraging and/or motivating their AFP.

> Having friends to be like "Wow that's a cool thing you're doing!" Having the emotional support from peers I think is a really big thing, having Facebook groups and people that are also interested in having that online community where so many people that think it's important and choose to do that as well. Those are all really useful in me doing and continuing [the practice] (Marika).

Having emotional/social support may be particularly important for practices that stand out from conventional food practices. Paul described this experience with dumpster diving, finding it helpful that his friends are supportive and do not find it "*that* weird". Some participants described how their AFP is influenced by others, for instance as Max says that having friends with similar dietary preferences is inspiring and makes it "a lot easier to be around those people and to not break your own moral code". Other participants said that their AFP creates a sense of belonging with other like-minded people. This came up for all participants who volunteer with a local food community organization. Mathew Scammell describes:

> It was *really* refreshing actually, meeting new people who were like-minded, kind of interested in environmental kind of issues, same as me (Mathew Scammell).

AFPs are not practices performed in isolation. Even if the physical tasks are undertaken alone most of the time, as some participants described, the encouragement and interest provided by other practitioners or by friends/family are important because they give meaning to the practice and motivate its continuity.

In addition to emotional support, most participants (13) were helped by other practitioners in their circle who shared their materials with them (e.g. gardening tools like wheelbarrows, seeds and soil; vehicles, levain, etc) and/or who shared the foodstuff produced by their own practice (harvests, canned goods). For example:

> […] my friend went to take a [sourdough baking] class here in the city in Winnipeg and came home with, I believe it was like a 50 something year old jar of starter this person had had previously. 50 something years going on in there, which is *amazing*. Oh my gosh. And then my friend shared it, and the journey began from there (Sarah).

The sharing of materials was especially important in the earlier stages of participants' AFPs, as they were learning and were working with a limited budget and/or availability of tools.

Similarly, all participants said that they were helped by other practitioners who shared their knowledge and competencies in AFPs and that this was important to their practice. Andre DeBattista and Jan demonstrate this well:

> Initially I asked a couple of friends who had been vegetarian and […] one of my aunts has been vegetarian as long as I can remember before I was born. I asked them for some advice on how to get started and what to eat to get the nutrition I needed. My biggest concern at first was not getting enough protein, or other things like that. And having those people around that had already been on some vegetarian or vegan diet helped reassure me and give me some pointers to start by cutting things out slowly and then be able to better adjust (Andre DeBattista).

> [Grandma] taught us a few more things about growing produce and what's in season, what's not; how to prepare x y z produce; how to can stuff, that was fun. And it wasn't just teaching, but it was also sharing. She shared *so* much food with us (Jan).

It is important to the development of their AFP to have other practitioners take the time to share their knowledge and skills with participants. These individuals are family members, friends and/or individuals in participants' communities of practice. This peer-to-peer knowledge transfer

complements the autonomous learning participants undertake through books and the Internet, and allows them to acquire skills in an accessible and enjoyable way. In addition to sharing knowledge, half of the participants added that others occasionally help them do the tasks of their AFP. In most cases, these helpers were partners or roommates living with the participants.

Representing perhaps deeper social connections to AFP, in their description of their practices and how they acquire and exchange competencies, materials and meanings, most participants (15) described characteristics of communities of practice. Communities of practice are social networks where practitioners can partake in their shared practice by exchanging and creating embodied experiences, enthusiasm, meaning, skills, knowledge and materials (Wenger & Snyder, 2000). Exchanging knowledge, skills and meaning are ways in which participants participate in their community of practice, whether in group chats or online groups with friends or strangers, or in in-person meetings.

> So we have a group chat channel on the family chat that's all dedicated to gardening, so people will show pictures of things or show "Oh, read this, I think you guys should listen" […] that sort of knowledge exchange is a kind of thing that you don't necessarily think about being a practical input into your garden, but it's certainly has *really* expanded our knowledge and our goals, just seeing what they're inspired to do and to see what's possible. So having an exchange of garden-specific ideas and practical tips, but also just like, "Hey look at the flowers that I managed to grow!" or "Hey look at all the deer in my garden like my fence totally failed" (Lee Hrenchuk).

> I think getting excited with other people [is an enabler]. In the middle of Winter to be like, "Oh it's pomegranate season like you can buy so many pomegranates", and talking to people like "Yeah they actually keep for weeks in your fridge." That was one last winter, getting to talk to people about, and someone was making pomegranate juice and said you could just freeze the pomegranate juice to make kombucha with, and everyone talking about what to do with these fruits and abundance *while* they're in season and recognizing that it will be another year until we have so many pomegranates in stores (Marika).

Lee Hrenchuk's and Marika's examples represent well the role and importance of communities of practice. Community organizations were mentioned by a third of participants as an important facet of their practice, by connecting them to materials, workshops, knowledge, and other practitioners.

> I'm a member of the Red River Apiarist Association, which is a really helpful group of folks. *Really really* experienced beekeepers are part of that. There's lots of us who are newer or smaller scale as well. But there's some folks who've been doing this for a long

> time who share a lot of knowledge very generously in that space, and as someone who's very new to this still, it's really helpful (Lex).

For practitioners of dumpster diving and those involved in local food organizations, they described their AFP as a community practice, one that builds and is performed in community. Paul and Lori describe this well, for dumpster diving and operating a community garden, respectively:

> Especially the dumpster diving community, I want to say that it is a beautiful community endeavor, because it is something where you go and you're like, “Oh shit, I have 100 of this one particular thing, I can’t eat this all, I don’t know what to do with this”. So it’s inherently community-focused. […] there's this communal skill building that develops, because no one knows how to eat this food, so how do you make a dish out of it, or for example, when we find cream sometimes, we turn it into butter because we like butter more than 30 bottles of cream (Paul).

> [the community garden is] one large garden so it's not a plot style, where everyone kind of maintains their own thing, it's one big garden that everyone who walks through the gates and shows up to our [events] collectively maintains the space together. […] in doing things that way the garden serves a kind of a skill-share venue where a beginner and experienced gardeners alike can come and interact and create community and pass knowledge onto one another, and then we all grow in our skills in growing food together (Lori).

The communities of practice participants described were often comprised of more than one AFP. This was particularly true for gardeners, dumpster divers and foragers, as these generate a harvest of foods that require processing. To do so, participants use other AFPs: canning, fermenting, pressure canning, freezing, dehydrating, etc.

Some participants added that they found it meaningful and enjoyable to trade the products of their AFP in their community of practice.

> […] it's a good interchange of experience with other folks too, because there are other folks in this area who make kombucha, who make amazing kombucha, who have scobies for days, who are willing to share and do trades like that. Or, friends who make amazing cider and beers, whatever your likes are, fermenting cabbage, fermenting all sorts of vegetables. It’s nice, it's a nice community where you can find some people who are willing to do trades with you like that (Sarah).

Participants partake in an exchange of homemade alternative foodstuff, where canned goods, bread products, meats, honey, and harvests were mentioned as foodstuffs that are exchanged.

The Internet is an important source of knowledge and an enabler for all participants: participants mentioned looking things up on Google, YouTube, Reddit, Facebook, and/or Instagram. As part of this, a third of participants said they participate in online groups of practitioners of AFPs, whether locally based (e.g., the Facebook group of Winnipeg Gardening) or not (e.g., the Facebook group of Plant Identification), as well as Reddit groups focused on AFPs (i.e., No Scrap Left Behind). I consider these to be communities of practice as they are spaces allowing practitioners to connect with one another on the topic of their AFPs, and where knowledge, competencies and meaning are exchanged, built, and discussed. However, seven participants said they do not spend much time online and would rather consult books or reach out to someone they know to exchange knowledge, competencies or meaning in AFP.

Relationships with others, whether friends, family or practitioners and communities of practice are central enablers to participants' AFPs. They provide the emotional support, knowledge, materials and meaning necessary to sustain AFP.

6.2.2 Enjoying the activity

Enjoying the AFP and experiencing its many benefits supports all participants in their continuation of the practice. As such, the multiple ways in which participants enjoy their AFP, as detailed in section 4.3.2.3, constitutes an enabler in itself.

6.2.3 Having enough money

When asked about enablers to their AFPs, half of the participants mentioned that having enough money to afford the necessary materials helps them in their practice. Jérémy Baudet's explanation describes well this experience:

> In the last 5 years, since I work as a nurse and have a salary that allows me to have disposable income to invest in [gardening], that certainly helps me because now I have the luxury of having modern agricultural tools and products that allow me to overcome several barriers that other people don't necessarily have the ability to overcome. For example, last year I bought $600 of industrial lamps, lamps that are of such good quality – right now I am doing tests, but I can grow vegetables indoors without any issue. […] not everyone has the chance to pass to the next step [in their AFP] (Jérémy Baudet).

Highlighting how money makes alternative food practices available further sheds light on the economic barriers of these practices. Lex and Sam said that beekeeping in particular requires a high up-front investment. For Lee Hrenchuk, Jérémy Baudet and Tyrell Benton, having enough money allows them to acquire materials that increase the efficiency and sophistication of their

practice. As mentioned previously, the inability to afford the materials, training programs, space or time required for AFPs limits participants' capacity to develop these practices.

6.2.4 A lifestyle/Making it a habit

AFPs call for different routines and habits. When describing their AFP, almost half of the participants (9) described it as part of their lifestyle and/or said that they have made the practice a habit. Lex articulates this well:

> [these AFPs] just feel very natural to me to do. I'm able to integrate them into my regular life, they just end up becoming part of my routines, the things that I'm doing around my house. My kitchen is set up now so that I have space to do these kinds of projects. There's always something going in my kitchen (Lex).

For these participants, food figures as what Paddock calls a "core organising principle" in their lives (2017, p. 122), as AFPs become routinized and incorporated into daily rhythms and routines (Shove et al., 2012). The examples of eco-responsible consumption of foodstuff in section 4.3.1 illustrate the adjustments participants have made to their routines to accommodate AFPs. Macy & Johnstone define a practice as "a habit we have chosen" and contend that habits "develop momentum because the more we repeat them, the more ingrained they become" (2012, p. 203-204). As practices have higher chances of being sustained, I add habituation/routinization as an enabler.

6.2.5 The COVID-19 pandemic

For all participants but one, the pandemic provided them with more time to devote to their AFP. Indeed, the pandemic revealed how jobs leave us with little time and/or energy for other activities, including time to learn and undertake AFPs. Working from home, not working, or having a more flexible schedule during the pandemic gave participants more time to undertake and develop competencies in AFPs. Indeed, Jérémy Baudet was the only participant who said that the pandemic had a negative impact on his AFPs, and this was because he works at a hospital where he had to work longer shifts during the pandemic.

6.3 Obstacles & enablers: Discussion

6.3.1 Alternative food practices: Meanings, competencies and materials

In this section, I use a practice-theoretical lens to better conceptualize AFPs and understand how they are negotiated within and without conventional food systems. Drawing from Shove et al.'s (2012) theoretical framework, I consider the characteristics of the order of

participants' AFPs: the meaning (values, beliefs, intentions, significance), the material arrangement (objects, infrastructures, time and space, humans), and competencies (shortened as MCM). I examine participants' performances of AFPs to understand the MCM that reproduce AFPs, and I draw from the obstacles and enablers to shed light on the order of AFP and the opportunities for agency within the food domain.

To understand AFPs, it should be said that the reasons for participating and the type of engagement in AFN vary (Veen & D'Amino, 2019). Accordingly, the order of AFPs and the character of alterity varied across practices and practitioners, relative to practitioners' understanding of food and sustainability, and relative to their personal abilities and desires. For example, three participants offered distinct descriptions of the alterity of gardening: it is alternative because it is not commonly practiced, because of the scale at which it is practiced, or because of the organic approach to it. The variations in alterity signal the multitude and sometimes contested values and understandings ascribed to food practices as climate or ethical actions. Acknowledging these variations, I can nonetheless identify main threads common across participants' experiences of the alternative. Described generally, AFPs are food practices reconfigured to increase the sustainability of otherwise harmful conventional food practices. Thus, while the order of AFPs varies across practices and practitioners, for the purpose of this analysis and within the scope of my study, I consider the MCM common across participants' AFPs.

From the discussion in Chapter 4, I can extract and summarize the meanings that constitute and organise participants' AFPs. These are the values, intentions and actions toward: caring for and contributing to environmental well-being (climate change mitigation, adaptation and/or ecological regeneration), prefiguring climate futures (envisioning and contributing to creating ecologically and socially just food futures, and striving to prepare oneself or one's community for self-sufficiency in an uncertain climate future), exercising one's responsibility to act, negotiating a right livelihood, and/or seeking benefits to health and well-being. Meaning emerges through practitioner-material interdependencies as participants interact with foodstuffs, gardens, forests, cooking/processing materials, etc.; and through relationships with others as AFP are valued and celebrated by participants' friends, family and communities of practice.

The specific habits and competencies of AFPs varied depending on the chosen practice. The competencies generally shared across AFPs are the following:

- Researching and scrutinizing the origins and socio-ecological impacts of foodstuff and practices.
- Finding local and/or organic/regenerative alternatives (researching online, finding the appropriate local farms or stores; tracking down where materials come from).
- Adjusting lifestyles and food practices to plan and anticipate food needs to avoid needing to purchase conventional foodstuff .
- Acquiring budget management skills to afford alternative foodstuffs.
- Acquiring specific kitchen skills such as cooking from scratch, cooking with alternative foodstuff, reducing, and reusing food waste, and processing and storing bulk quantities (freezing, dehydrating, canning and/or fermenting).
- Acquiring specific skill sets based on the practice: e.g., finding equivalent local plants to forage, learning how to compost (vermicomposting, bokachi and backyard composting were mentioned) to provide one's own compost and/or limit food waste, learning beekeeping to produce one's own sugar for baking and to generate a product to trade, gardening skills, and so on.

In accordance with these competencies, participants described how they purchase ethical and sustainable materials: directly from farmers, at farmer's markets or grocery stores with careful evaluation of the origin of the product, in the organic section or from discount shelves, from dumpsters and/or foraged in urban and/or rural spaces. The infrastructure, space and people of participants' practices include their kitchens and/or yards, community gardens, dumpsters, their personal tools or those shared by other practitioners, their bicycles and/or vehicles, friends/family supporting or helping perform the practice, communities of practice, and online spaces. For participants involved in local food organizations, the material arrangement included: the organizations' and/or volunteers' tools, indoor and/or outdoor spaces (including rented city space), volunteers, leadership, and communities of practice. Often, AFPs require coordination with the routines, values and/or competencies of participants' partners and/or family members. Further, while some materials used in conventional food practice can be reconfigured for use in AFP (e.g. kitchen space, mason jars, freezer), others cannot (e.g. chemical fertilizer, inorganic

foodstuff) (Fuentes & Fuentes, 2022) and need to be introduced (pressure canning, dehydrator, beekeeping equipment, additional freezer space, etc.). In turn, the material arrangement of practices reproduces and is shaped by the wider economic infrastructure of AFPs. This economic infrastructure is constituted of actors in the supply chain of alternative food systems where alternative foodstuffs are purchased from small, local, sustainable and/or independent producers, and/or stores and supply chains of the conventional food systems. Government policies, the global neoliberal market economy and ideology form the institutionalized infrastructure of alternative food systems. In turn, this material arrangement shapes and constrains practitioners' agency.

6.3.2 Reconfiguring food materialities

Participants' AFPs are constituted of MCM that together intend to reconfigure material arrangements in food systems to negotiate socio-ecological well-being. To understand how the integration of MCM occurs, I now turn to examine the barriers and enablers to participants' AFPs.

6.3.2.1 Systemic obstacles, grassroots enablers

My findings suggest that AFPs occur in response to the environmental exploitation and social injustices normalized in conventional food systems, to the industrialization and commodification of food, and/or to the perceived poor quality of conventional foods. The principal barriers to AFP participants identified are of systemic nature and are beyond the control of individual participants. Participants identified institutional and societal barriers such as prohibitive policies, the cost and inaccessibility of the necessary materials, the lack of space required to use these materials, the normalized deskilling in food practice and the shortage of time and energy in a labour economy. While conventional food practices are made available by mainstream policies and supply chains (they can be practiced within the time constraints of working hours, within the space constraints of an apartment, and draw from collectively-held knowledge and skills), AFPs require a greater commitment in time, energy and skill acquisition. Indeed, previous case-based research has raised the economic constraints to the access of alternative foods (Brons & Osterveer, 2017) and the greater engagement required on the part of practitioners to source and prepare these foods (Tregear, 2011; Little et al., 2009). Under a practice-theoretical lens, the material conditions of the social order predispose the adoption of conventional food practices and complicate the acquisition, development, and long-term

sustainability of AFPs. In their study of plant-based consumption practices, Fuentes & Fuentes (2022) come to a similar conclusion where these alternative food practices occur within infrastructures and systems pre-configured for meat-based practices. Unlike the systemic nature of obstacles to AFPs, the majority of enablers participants identified are individual or relational. Indeed, aside from participants' personal resources (money, motivations, and enjoyment of the practice), my findings suggest that AFPs are facilitated by the meaning, support, skills, and materials voluntarily shared by other practitioners and communities of practice, and by the emotional support of friends and family.

6.3.2.2. Using enablers, overcoming obstacles

Participants are resourceful and will utilize what is accessible to them to adapt to the barriers they encounter. Indeed, many participants highlighted that most obstacles can be overturned, provided they have the time and motivation to learn, budget, be resourceful and/or develop their practice incrementally. For example, at the same time as they identified financial barriers, participants described how they overcame them by budgeting to be able to invest in the desired materials over time. Lee Hrenchuk explained how her partner and herself have worked with their time restraints and work schedules to develop their AFPs over time:

> […] because we've been slowly expanding over the years, that time will be available. As we want to slowly grow things or adapt things, that time is there because we're not trying to do it all at once, like "the whole yard is going to be a garden this year". That's crazy, that's too much work (Lee Hrenchuk).

Additional examples include: Bronwyn Green says she worked "six days a week for years" to be able to afford a house with a backyard to garden. Tyrell Benton figured out how to combine two materials purchased separately in order to have good quality grow light at a more affordable price. Sam walks a couple of blocs to drop off his compost, after moving in an apartment where he is not able to compost locally. Marika leaves her bulkier equipment at her parents' place as she moved to an apartment in the city. Jérémy Baudet gardens in one plot as opposed to two to adapt to the demands of increased working hours during the pandemic. Lex adapted to their small space by installing shelves in their kitchen to store the equipment and foodstuff of their foraging and gardening practices. Living with a parent was mentioned by a few participants as a way to save money to afford AFPs. Similar findings are found in recent studies, as Brons & Oosterveer (2017) found that French students maintained their sustainable food practices by overcoming and

adapting to financial limitations through resourcefulness and trade-offs. Likewise, Foden et al. (2022) found that in the plant-based practices of English households, concerns and motivations are weighed and negotiated, sometimes resulting in trade-offs to allow for the continuation of the practice. Thus, AFPs require the cultivation and use of enablers to adapt to barriers and negotiate an alternative way of sustaining oneself.

Key to the integration of MCM is the meanings of AFPs, forming a symbolic capital that is powerful for its imagining of alternative food realities where ecological health, social justice and nutritious foods can thrive. Further, in the absence of alternative food knowledge and competencies, other practitioners and communities of practice are a critical locus of cultural capital located in the margin of conventional food systems, and where MCM can be exchanged, taught, and integrated. The relationships that form within communities of practice, as well as supportive friends and family, create the social capital that strengthens participants' motivations and makes practices enjoyable. The relatively low cost of basic tools required for AFPs, and the small space required to perform AFPs at a small scale, are material enablers facilitating the integration of materials with meanings and competencies. Finally, these socio-material components are integrated within the bodies of practitioners, and AFPs are made possible through the enactment and routinization of their tasks. A co-evolution occurs between material arrangements, practitioners' agency, and practices (Fuentes & Fuentes, 2022) as participants adapt AFPs to their unique contexts and capacities. In doing so, they have self-efficacy in shaping the MCM of AFPs and by extension, the socio-material arrangements of wider food systems.

6.3.2.3. Negotiating alternative food practices

Considering practices as reproductive processes, as per a practice-theoretical lens, AFPs reproduce social orders and material arrangements distinct from conventional food systems. The acquisition of foodstuff from the source (foraging, gardening, beekeeping, direct-from-farm purchases) or the purchase of alternative foodstuff (organic, local, dumpster food, vegetarian/vegan) reconfigures food materialities. In particular, practices of individual/community self-sufficiency, withdrawal from conventional food systems economies, ethical consumption, dumpster diving, trading, sharing and inspiring others to partake in AFPs, and community-building around AFPs, reproduce alternative food economies that challenge the social order. The competencies of AFPs identified above demonstrate how tasks otherwise

located and industrialized in conventional food systems are reappropriated at the household level. Much as new technologies can engender a reordering of practices (Shove et al., 2012), AFPs rather reject the technologies of conventional agriculture and embed a return to slower food practices of production, processing or preparation. Indeed, AFPs propose values that interrogate the ideology and material arrangement of the dominant neoliberal economic system, with meanings and actions calling into existence decentralized, ethical and sustainable food systems and practices, and for some participants, a demonetized exchange of foodstuff. However, systemic barriers exist to the integration of MCM, limiting the reconfiguring of material arrangements in food systems. Thus, while some AFPs are negotiated outside of the material arrangement of conventional food systems, many remain entangled in them. As found in Spijker et al's (2020) study on practices of self-reliance in foodscapes, my findings suggest that some AFPs still rely on conventional food systems, interacting, overlapping and coexisting with these systems. Indeed, as AFPs are less developed than their conventional counterpart, most participants' food practices continue to depend on conventional purchases. This signals a structural limit to agency, as participants are unable to fully appropriate right livelihood. Still, participants' AFPs are part of urban food practices that create greater access to local foods, contribute to the local and alternative food economy, and build knowledge and community around alternative foods (Diekmann et al, 2020).

Chapter 7
Discussion and conclusion

7.1 Summary of research findings

In this research, my purpose was to examine the motivations and experiences of young adults who are concerned for the environment and who choose to undertake AFPs. My objectives were to (1) understand the motivations of young adults in undertaking AFPs; (2) identify the enablers and obstacles of young adults' AFPs; and (3) examine the relationship between young adults' AFPs and their climate distress. Through a case study of young adults concerned for the environment and practitioners of AFPs in cities in and around Winnipeg, Manitoba, the research process involved a review of the literature on climate distress, food studies and theories of practice, the recruitment and interview of twenty participants, and a thematic analysis of transcribed interviews on NVivo, using inductive and deductive coding. The findings of this research are context-based, drawing from the experiences of a small number of participants, and should not be generalized.

Chapter 4 begins by exploring participants' experiences of climate distress, as part of objective 3. The participants in this research experience a range of eco-emotions as responses to the overwhelming complexity and gravity of the eco-crisis and its intersectional impacts, the ever-so-urgent need for radical transformation as communicated by scientists and activists, the uncertainty of the future, the inadequate governmental/societal response, and the difficulty of upholding a right livelihood in contemporary Canadian society. Potentially experienced as a practical anxiety, climate distress informs participants' responsibility to act for environmental health, as they carefully evaluate their life practices to ensure these are as ethical and environmentally friendly as possible. Chapter 4 then dives into the motivations for AFP, drawing out the findings of objective 1. I found that food stands out as a key domain where ethical choices can be made because conventional food systems are understood as exploitative and unsustainable, because reskilling in AFPs is accessible, tangible and impactful, and because these practices meet multiple goals for just socio-ecological futures while also generating physical and mental well-being, hope, food security, healthy foodstuff, a meaningful connection to food and nature, and a pathway for climate distress management. In Chapter 5, I turn to objective 3, examining the interaction and relationship between climate distress and AFPs. My findings suggest that while climate distress is lessened through the ability to have more control over their ecological impact,

participants also identify ways in which AFPs strain their well-being. A significant finding is that of participants' emotional self-awareness and the framing of their responsibility to act, where they prioritize their well-being by valuing actions accessible to them, however small, by accepting their AFPs as imperfect climate actions, and by allowing for joy despite daunting global circumstances. Chapter 6 is devoted to objective 2, where I explore my findings on the enablers and obstacles to AFP. Doing so reveals the systemic nature of the former and the personal/relational nature of the latter. AFPs are enabled by participants' own motivations and the accessibility of social relations (providing emotional support, sharing materials and/or competencies). Constraints to the sustainable reconfiguration of food practices were the barriers of limited money and space, and systemic barriers of working hours/time, difficulty accessing alternative materials, limiting policies and the collective loss of food competencies. Using a practice-theoretical approach highlighted participants' self-efficacy in integrating the components of practices' meanings, competencies and materials, as well as the ways in which participants' agential interaction with these MCM is weaved into the wider web of opportunity in food systems, both entangled in and challenging conventional food systems.

7.2 Food and climate distress: an intersection

7.2.1 Reducing climate distress: Insights

My findings suggest that climate distress is caused in part by the feeling of a lack of control over the eco-crisis and their environmental impact, as they do not see similar concerns and actions among governments, corporations, and other individuals, and as they wrestle with the perceived insignificance of individual actions. From this emerges reflections for potential pathways to reduce climate distress.

7.2.1.1 Coping: Alternative food practices as pathways to manage climate distress

Research has already documented the benefits of gardening to mental health more generally (Theodorou et al., 2021; Porter et al., 2018; Pourias et al, 2016). The first, and perhaps most significant insight emerging from my research is the potential contributions of AFPs in managing climate distress in particular. Regarding climate change, Hamilton & Kasser (2009) state that "humanity's ability to adapt physically will depend in part on how well people adapt psychologically" (in Lawrance et al., 2022, p. 466). For the young adults I interviewed, part of the adaptation to the psychological impacts of the eco-crisis is to identify and undertake

meaningful practices within the food domain. My findings suggest that participants feel a lack of control and a vulnerability to the socio-ecological impacts of the eco-crisis and that AFPs ease climate distress through meaningful reskilling and positive reappraisal of one's actions, allowing for greater control of and hope in climate futures. The literature on coping and hope proved useful to better understand these processes. Participants' identification of AFPs as a meaningful and accessible solution to issues of the eco-crisis can be described as a problem-solving approach to coping, "that is, searching for information and making plans about what an individual can do about climate change" (Ojala & Bengtsson, 2019, p. 925). Through AFPs, and as found in Thompson et al. (2022)'s study of adolescents experiencing climate distress, meaningfully contributing to climate efforts locally can generate a sense of self-efficacy for global efforts. This self-efficacy, in turn, contributes to hope for climate futures (see section 5.1). Further, honouring their own limits and valuing small steps and actions at the accessible scale are ways participants recognize the meaning and importance of these actions, otherwise perceived as futile to address eco-crisis. This reappraisal constitutes a critical reappropriation of climate agency: it allows participants to maintain their connection to the earth and overcome potential paralysis, inaction and/or disassociation from climate distress. This process also describes characteristics of meaning-focused coping: those of exploring and renewing the meaning of a stressful situation and adjusting one's goals within it (Ojala, 2013; Ojala & Bengtsson, 2019). Indeed, as the stressors of the eco-crisis are beyond one's control, coping occurs as participants reframe their view of the eco-crisis and their role within it in such a way that allows them to honour their responsibility to act for the well-being of the planet while also maintaining their own well-being. The prioritization and balance maintained between personal and socio-ecological well-being and action-taking potentially illustrate Lawrance et al.'s statement that "Climate action has a huge potential for achieving co-beneficial outcomes for both better mental health and wellbeing, and a safer climate" (2022, p. 467).

The climate distress literature has identified a few pathways for coping through research conducted in other countries, but young people's experiences in the Canadian context remain poorly understood. Indeed, Galway & Field (2023) highlight that while the body of research examining experiences of climate distress is growing, we have yet to understand the best ways in which young people can be supported as they cope with climate distress, and the types of support best suited to different lived experiences. The potential role of AFPs as pathways for managing or

coping with climate distress has implications for the barriers and opportunities for young adults in AFPs, as barriers not only constrain these practices but also the opportunities they may provide to manage climate distress. To my knowledge, this particular implication of the barriers in food practice has not been examined in the bodies of work on climate distress and food studies.

7.2.1.2 Adequate and systemic governmental response to the eco-crisis

Researchers in climate distress caution that the mitigation of climate anxiety should not be individualised. Rather, it should spur systemic climate action by decision-makers whose climate actions we need to address the eco-crisis (Hickman et al, 2021; Marczak et al., 2021). The nature of participants' climate distress suggests that the alleviation of climate distress requires "collective action for systemic changes that would enable climate-compatible lifestyles for all" (Marczak et al., 2021, p. 18). Regarding distress caused or aggravated by knowledge of the eco-crisis, Galway & Field's (2023) recent findings propose an interesting solution for students. In their survey conducted with young Canadians, they found that formal education systems could play an important role in educating and supporting young adults by teaching about climate change and its solutions, providing support for students coping with climate emotions, and engaging in hopeful messaging (ibid). These approaches could help mediate the harmful impact of climate change information across students, and empower them with tools to cope and act for planetary and personal well-being. More research could examine the nature and need of such programs.

Moreover, in the face of climate distress caused by governmental inaction, a logical conclusion is that appropriate responsibility-taking by governments and corporations would reduce climate distress, and perhaps also generate hope and optimism. Indeed, Lawrance et al. affirm that "good leadership on the climate crisis improves mental health and well-being" (2022, p. 469). These authors contend that good governance towards socio-ecological wellbeing includes ensuring meaningful participation in decision-making for climate mitigation policies, reaching gender equity, ensuring public investment in local communities to support local climate adaptation, and making a swift shift away from fossil fuels (ibid). Further, the systemic nature of barriers to AFPs makes evident the inadequacy of public policy approaches that suggest "poor choices made by individuals are at the root of the problem of unsustainability" (Paddock, 2017, p. 124). With the practice-theoretical view that social change occurs through practices rather than

individual action alone, my findings support policy that encourages and enables the integration of MCM at the individual level by looking at the life of sustainable practices as a whole, from the materials and infrastructures involved and their institutionalization into policies and social norms (Shove et al., 2012). For AFPs, and depending on community needs and capacities, these governmental actions and responsibilities may include making resources for individual and collective AFPs free and accessible (e.g. providing soil, compost, seeds, wood, tools, training, etc.), putting in place institutional enablers including facilitating the reclaiming and redistribution of foods that are past their 'best before' dates but still safe to eat, developing programs enabling home-raised chickens, planting fruit trees and vegetables in public spaces and parks, and targeting broader systemic barriers such as tackling poverty, encouraging flexible working hours to accommodate the temporality of AFPs, and shifting agricultural subsidies towards local, ethical and agroecological practices and food systems. These actions fall under the broader umbrella of the climate futures envisioned by participants during the interviews, including the longer-term goals and actions to transform city foodscapes by integrating them into a democratized regional alternative food network and by facilitating socio-ecological well-being and connections within urban spaces.

Furthermore, my data suggests that the extent to which AFPs mitigate climate distress is limited by the perception that individual practices have an insignificant impact in the grand scheme of things. Perhaps AFPs would have a greater ability to support the management of climate distress if their contribution to larger efforts of climate adaptation or mitigation was identified, more widely recognized and valued. In other words, situating climate actions as part of collective efforts for change has the potential to show we are not alone in our concern and commitment to generate just futures (Schwartz et al., 2022). Thus, rather than furthering narratives blaming individuals for the eco-crisis (as seen in the centering of individual behaviour change as the locus of climate solutions and the subsequent use of individual-focused policy tools such as the carbon footprint and green consumption behaviours), identifying collective and systemic pathways of action may mitigate climate emotions of guilt and powerlessness. Indeed, examining participants' ability to find balance in their climate action suggests that highlighting the *joint* responsibility required for climate futures may enable individuals to overcome paralysing eco-emotions, to value and take the actions available to them, to accept the

imperfection of their efforts and allow themselves to enjoy life despite the limits of their personal efforts.

Finally, as the brunt of climate hazards is experienced by systematically marginalized communities, climate policies should also center the empowerment and needs of these communities, in recognition of the intersectionality of the eco-crisis. Likewise, in food systems in North America, recent research highlights the disproportionate impacts of food insecurity and different forms of exploitation on racialized populations, through the compounding effects of racial capitalism and settler colonialism in industrial food systems (Elliot et al., 2022). Regarding AFPs, their barriers can be prohibitive to individuals with limited economic capital, with no access to practitioners/communities of practice and materials, and to those who may be marginalized or whose energy/resourcefulness is required elsewhere. A coordinated and adequate systemic response to barriers to culturally appropriate food practice may thus create more equitable access in AFP *and* more equitable access to practices helpful in managing climate distress. As part of these systemic responses, ensuring communities' meaningful participation in decision-making processes is critical to addressing inequities and identifying responses to climate change and food issues (Lawrance et al., 2022), and is also important for young people who are often excluded from these processes (Galway & Field, 2023).

7.2.2 Connections to the literature

In the literature review, I highlighted the lack of studies examining the interaction between climate distress and AFP. Zawadzki et al.'s (2020) meta-analytic study found that intentionally engaging in pro-environmental behaviours increases subjective well-being, and that food choices are one such behaviour contributing to well-being, corresponding to my findings. A deeper connection that emerged is in relation to the pilot study of Ojala & Anniko (2020) which examines the impact of ambivalence among emerging adults' sustainable food choices. In it, the authors find that a positive thinking pattern, in particular having a "focus on the 'right' thing to do" rather than on the consequences or limited impacts of climate action, is associated with a higher inclination to undertake sustainable food choices (2020, p. 28). Meanwhile, having higher ambivalence about food choices and having negative thinking patterns, including black-and-white thinking, are associated with being less inclined to make sustainable food choices. These findings correspond to those of my research, given that participants showed characteristics of positive thinking patterns: an ability for dialectic thinking as they accept the tensions overviewed in

section 5.4 (e.g. the ability to choose and value accessible actions while holding mixed beliefs on their impact) and a focus on the ethical character of AFP in participants' commitment to right livelihood.

7.2.2.1 Facilitated community spaces

As the academic literature on the intersection of climate distress and food is limited, I wanted to see if this intersection was recognized and facilitated in community organizations. I undertook a review of the websites and social media presence of small food and environmental organizations in Manitoba and Western Ontario, to assess the presence of the intersection of food and climate distress (e.g. community gardens, River City Mushrooms, Food Matters Manitoba, Manitoba Eco-Justice, Green Action Center, Fireweed Food Coop, Harvest Kenora). It is common for these organizations to offer resources and events in reskilling in sustainable food practice. In doing so, they create spaces for environmentally-concerned individuals to meet like-minded community members, reskill in meaningful and climate-relevant food practice, and discuss or process climate concerns, as was the case for all participants in my research who partake in a community garden organization. Thus, there is an implicit space created for engaging with climate distress within food-related publications and events, but I have not found an explicit engagement of food organizations with the emotional impacts of the eco-crisis. Regarding climate distress, some events and resources have been offered through student groups at the Universities of Manitoba, Winnipeg and Saint-Boniface, where AFPs are identified as one of many actionable habits one can take to reduce one's environmental impact. Le Club té-vert at the Université de Saint-Boniface stands out as one organization linking gardening and climate distress by inviting participants of their eco-anxiety workshops to participate in their community garden. Thus, from what I could find online, spaces and resources are facilitated for individuals wishing to engage in AFP (and by extension, for individuals to act upon their climate distress), *or* for individuals to learn more about eco-anxiety. Opportunities for explicit engagement in AFPs as pathways to explore and manage climate distress, are scarce. More research would be required to assess the need for explicit engagement with climate distress within community food spaces.

7.3 Links to food sovereignty

Clendenning et al. contend that "the challenge for both food sovereignty and food justice movements, especially in the urban US, is recognizing how their strategies are influenced by neoliberalism and finding ways to navigate around the omnipotence of the corporate food

regime" (2016, p. 175). Neoliberal structures have individualized urban food movements into market-based consumption behaviours, and weakened the broader and deeper political objectives of urban food movements (ibid), including a demobilisation from engagement in policy, food system change advocacy, decolonization and food sovereignty struggles (Bowness & Wittman; 2020). In response, researchers in the food sovereignty literature underline the *collective* nature of food sovereignty struggles and the need for a greater collective organization within cities for the democratization of food systems, the development of food policy councils, the mobilization for public policies and relationships that extend to rural municipalities, and recognizing systems of capitalist accumulation to prevent reproducing these in food sovereignty projects (Garcia-Sempere et al., 2018, 2019).

In this research, I did not select participants for their engagement in collective AFPs in particular, nor did I include questions on participants' views on and actions in food sovereignty movements. Most of the alternative food practices considered were atomized (with social relations and community as meaningful characteristics), with five participants noting they are involved in food organizations for greater community self-sufficiency. While interviews did not include a discussion on the collective organization for food sovereignty, in several ways participants' AFPs embody values of the food sovereignty movement. The food sovereignty movement seeks to assemble different actors of food systems to challenge, imagine and create alternative and better futures, and through a democratized process, resist the normalized exploitation embedded in conventional food systems (A Growing Culture, 2022). Desmarais & Wittman contend that the values and activities of urban foodies, including "voluntarily constructing localized food systems from the bottom up – building farmers' markets, guerilla gardening, local food potlucks, community gardens", correspond to the framework of food sovereignty (2014, p. 1164). In participants' visions of collective, self-sufficient, just and sustainable food futures, and in their prefiguring of these through reskilling, sharing and trading with communities of practice, AFPs could be characterized as contextualized applications of the values and intent of the food sovereignty movement. Further, AFPs challenge the 'social and territorial reorganization' of neoliberal economic development and the 'metabolic rift' it created: the urban-rural dichotomy that has made cities places of consumption and accumulation, and rural areas places of production and impoverishment (Bowness & Wittman, 2020; García-Sempere et al., 2018).

Looking beyond the dissociated and commodified relation to food reproduced by conventional food practices, it is significant that almost half of the participants said they enjoy or seek a meaningful and direct connection with food. As urban dwellers, this connection to food and the desire to source, make and/or exchange foodstuff locally invokes different food imaginaries and materialities that bridge the metabolic rift. The making of their own food sources, the participation in local food organizations, and the sharing, gifting, and trading of foodstuff, create networks of food production and exchange *within* urban spaces. Moreover, with the commitment to know the social and ecological impacts of foodstuff, and the preference for ethical foodstuff from small/local farms, participants seek to contribute to the socio-ecological enrichment, rather than impoverishment, of rural smallholders and landscapes. Through food, participants intend to weave socio-ecologically just relations between urban centers and their region, similar to García-Sempere et al's (2018) call for re-embedding urban food systems within their region. Further research on alternative food practices could employ a food sovereignty framework (e.g. as proposed by Garcia-Sempere et al., 2019) to identify the different ways and scales in which AFPs and its climate-concerned urban practitioners pursue atomized and collective goals for food system transformation.

7.4 Reflections on methodology

While I did not explore the full potential of the dialogical case study methodology that I described prior to conducting my research, I found that the adaptations described in section 3.3.1 allowed me to reach my research objectives. The methodology I detailed was effective to enable the recruitment of participants, the generation of rich qualitative data through online interviews, the qualitative analysis using theoretical and inductive coding and the identification of themes and patterns. I found that the theoretical framework of food studies and climate distress was effective in enriching my findings by situating them in relation to those of the literature, while theories of practice, and to a lesser extent dialogical conceptual tools, provided analytical tools to understand the life of AFP. A deeper use of the dialogical approach could examine the multiple self-other interactions that compose the case, including that of practitioner-material interdependency (Coultas, 2020), the evolution of identity among participants (Cornish, 2020), and could make use of the concepts of chronotope to conceptualize the interaction of phenomena across time and space, and of epistemic genres to examine institutionalized communication styles (Markova & Novaes, 2020). Further, it would be interesting to identify the self-other

interdependencies at play in climate distress, by identifying the self-other relations that reproduce situated experiences of climate distress, including the dialogical reproduction of emotions, hope and coping.

7.4.1 Removing document analysis

After conducting, transcribing and coding 20 interviews, I realized I had before me an abundance of data. In consultation with my thesis committee, it was concluded that conducting a document analysis would not be necessary because I had gathered a considerable quantity of rich data. Drawing from the interview data alone, I was able to reach my research objectives of exploring the phenomenon of the case studied. Further, within the limited scope of this exploratory master's research, I found it more valuable to present my findings in greater detail than to take space to compare them to a thematic analysis of organizations' publications and activities. Section 7.2.2.1 includes a review of food/climate organizations' activities on the intersection of food practice and climate distress, thus providing preliminary insights on the connections of my findings to similar work occurring in Manitoba.

7.4.2 Combining bodies of work

In this research, I examined phenomena that are studied in the disciplines of psychology and public health (climate distress), and the disciplines of food and consumption studies (alternative food practices). Due to the lack of literature examining the overlap between climate distress and food, and due to the complexity of each phenomenon itself, I chose to explore participants' experiences of climate distress and alternative food practices independently before diving into their interaction. Accordingly, in section 4.1, I reported on my findings of participants' climate distress, to be better equipped to explain how they lead to, shape, and are shaped by alternative food practices. In sections 4.2 and 4.3, I examined participants' motivations and experiences in food practice. In Chapter 5, I considered the interaction between AFP and climate distress, and drew from the literature on climate distress to conceptualize AFP as climate action. To facilitate the application of theories of practice, I examined barriers and enablers to AFPs in their own chapter (Chapter 6). Doing so allowed me to shift the focus on practices as the subject of study in the discussion of that section, as per a social practice approach. To understand motivations and experiences in AFPs, examined throughout chapters 4, 5 and 6, I drew from the literature on food and consumption studies. While food studies were useful in situating AFPs in

relation to the experiences in the wider foodscapes, theories of practices offered tools providing insights into the opportunities for agency within these foodscapes. I found that this structure in my analysis and writing allowed for a deeper engagement of both climate distress and experiences in alternative food practice, and of their interaction.

7.5 Contributions of the research

This research makes important contributions to the literature on food studies and climate distress and extends the knowledge of experiences in the Southeastern Prairie Region in Canada.

Firstly, the present study contributes to the limited research on the experiences of young Canadians in alternative food practice. These contributions include a greater understanding of young adults' perception of conventional food systems and the motivations, barriers and enablers shaping their experience in alternative food practice, which may be useful for policy or organizations seeking to facilitate alternative food practice. Additionally, this research contributes to the food sovereignty and urban agriculture literature by exploring the food practices of urban dwellers whose motivations intersect with food sovereignty principles.

Secondly, to my knowledge, no previous research has examined the role of alternative food practices as climate actions mitigating climate distress. That alternative food practices may be pathways to cope with climate distress represents a new finding on the interaction of food and climate distress. The contribution alternative food practices may make to the well-being of young adults with climate distress is relevant to both food studies and the disciplines of psychology and public health.

Thirdly, my research makes contributions to the emerging body of literature on climate distress, and does so by exploring the experiences of young Canadians, their eco-emotions, their sense of responsibility for socio-ecological wellbeing, the relationship between action and hope, and their interaction with food practices as potential coping pathways. Moreover, as recent research examining young people's experiences with climate distress in Canada has employed quantitative methods (Galway & Field, 2023), my findings may contribute a deeper, but case-bound, understanding of the participants' experiences.

Finally, my research extends the growing body of research employing a practice-theoretical lens to food and consumption studies, in particular by drawing from Shove et al. (2012) material, competencies and meaning triad.

7.6 Limitations of this study

This study has limitations. Firstly, the lack of existing research examining the intersection of alternative food practice and climate distress was a limitation. In exploring this understudied area, I was limited in my ability to draw from an existing understanding of the topic to inform my research questions, interview guide, and to conceptualize my findings. Thus, the findings that pertain to this intersection are exploratory in nature.

Furthermore, there are a few limitations regarding the data analysis process. My codes were not verified or reviewed by my supervisor or my thesis committee members. Thus, I did not obtain another person's insight and opinion on these codes and how they were used. Additionally, the participants of the research have not seen the codes. Had I discussed my codes with them, my findings might have changed. Moreover, while most participants chose to review their transcripts (a choice given in the consent form in Appendix II), six participants chose not to. This constitutes another limitation as the interview data of these participants was not confirmed by them. These limitations could be overcome in future research by conducting a focus group with the same participants to discuss the themes and code that emerged from their one-on-one semi-structured interviews. Doing so would provide an opportunity for participants to confirm and/or discuss emerging themes.

Finally, The COVID-19 pandemic and the subsequent isolation measures were limitations to my study because they prevented me from gaining an embodied experience of participants' alternative food practices, for instance by witnessing and participating in their performances. Health regulations permitting, future research would benefit from the researcher's participation in alternative food practices as it could foster a deeper understanding of the meanings embodied in practice, as well as the barriers and enablers of their undertaking.

7.7 Further research

In light of the gap in the literature on the interaction between food and climate distress, my work offers a valuable contribution through its systematic exploration of this phenomenon among young adults in the Southeastern Prairie region in Canada. As this research is case-bound, more research could examine the intersection of food practices and climate distress, to examine whether my findings are echoed in the experiences of other young adults in urban Canadian centers. Research opportunities include diving deeper into how AFPs mitigate climate distress, and how they may be part of young adults' psychological adaptation to climate change. Elements

that stand out include the opportunities for self-efficacy and agency in contributing to socio-ecological change, the role of social relations in food practice, the increased connection/intimacy to food and nature, and how alternative food practices are framed and wielded to allow for reciprocal well-being.

Further, adjusting and coping with the eco-crisis and accepting the anthropogenic cause and responsibility for climate change should be performed in social settings, rather than in isolation (Lehtonen & Pihkala, 2021). Indeed, in a recent survey conducted among young Canadians (aged 16-25), the respondents identified multiple kinds of supports that could help them cope with their climate emotions (Galway & Field, 2023). The most prevalent were seeking emotional and mental health support from/with others, taking individual/collective climate action, getting support from formal education initiatives and programs, and managing emotions through activities (2023, p. 4). Likewise, Lawrance et al. state that "Confronting and processing what is happening, with the right support, may allow people to make space for and constructively hold the grief, fear and anger about climate impacts alongside an 'active hope' to work towards the world they want to see with like minded individuals" (2022, p. 465). In this research, I identified participants' relationships with family, friends and wider communities of practice as supportive of their alternative food practices, but I have not examined the nature of this support network. Further research opportunities include exploring the key elements constituting this 'right support' among young adults experiencing climate distress, especially in the context of our pandemic social world. This could include examining the role of local food and environmental organizations in curating spaces where climate-concerned individuals can meaningfully process or alchemize their climate distress through alternative food practices. Similarly, as informal and formal communities of practice played a key role in facilitating AFPs, research could examine the collective ability of these communities to negotiate climate futures and their subsequent contribution to climate distress mitigation.

Finally, in this research, I considered climate distress as a single experience, without disentangling the complexity of the emotional responses to the eco-crisis (e.g. the different impact and role of anger, guilt, or worry) (Kurth & Pihkala, 2022; Bouman et al., 2020). Further research could systemically examine and define the multiple emotions of climate distress (see Pihkala, 2022 for a proposed taxonomy), the extent to which they are felt and why, and their

relation to hope, coping, and practical anxiety in climate distress-mitigating practices. In addition, further research could contribute to the field of climate distress by considering the factors shaping climate distress, including personality differences and the emotional and coping skills of the individual and their social group (Pihkala, 2022; Kurth & Pikhala, 2022). Ojala et al. also call for "longitudinal studies to identify population-level impacts [of climate distress], causal factors, and moderating and mediating factors" (2021, p. 50). Examining how experiences in alternative food practice vary according to these factors could shed light on how alternative food practices can contribute to self-efficacy, well-being, and coping.

7.8 Concluding Comments

In this thesis, I described that climate adaptation also includes psychological adaptation to the emotional impacts of the eco-crisis, and that AFPs are potential pathways to manage and cope with climate distress. Thus, in addition to the existing recognition of AFPs as contributors to food security and community building, AFPs should be the target of funding and policies because of their potential to facilitate coping with climate distress among young adults. While this is true, it also raises questions regarding whose responsibility it is to cope with climate distress. Critical pathways to mitigate climate distress are also, and perhaps most importantly, those of appropriate responsibility-taking by governments towards systemic climate mitigation and adaptation. Indeed, the potential for coping with climate distress will be limited if the stressor itself (the eco-crisis) is not addressed at the appropriate scale and if issues of economic and social injustices remain as barriers to individual well-being. Surely both approaches are necessary. As individuals experiencing challenging eco-emotions, we need spaces where we can meaningfully contribute to socio-ecological well-being and reconnect with nature, *and* we need solidarity from those in leadership positions to coordinate a systemic response to the eco-crisis.

Finally, amidst the compounding and often grim socio-ecological crises we face today, I find hope and truth in the ways participants care for living beings and negotiate agency, meaning and well-being. AFPs are one of these ways, wielded by participants as a practical tool of empowerment in their refusal to participate in the normalization of exploitative lifestyles. To me, the choice of food as a domain of action signals the value of interacting with the world and with nature through our hands and bodies, especially today where so much is distanced, disassociated, and virtual. There is something in the re-appropriation of food skill that brings us closer to

ourselves, that humbles us at the same time as it makes us proud of yielding a tomato, or a crusty, golden loaf of sourdough, through our collaboration with Earth. I hope that through this research, participants' motivations and experiences contribute to inspiration, hope, and action-taking towards our reciprocal well-being. Indeed, there is a beautiful lesson and a compelling example in participants' ability to draw from care, joy, dedication, and social support to navigate the human responsibility we have to each other and our planet.

References

Adams, W. (2015). Conducting semi-structured interviews. In *Handbook of Practical Program Evaluation* (pp. 492–505). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119171386.ch19

A Growing Culture [@agrowingculture]. (2022, November 24). *Reframing Idealism* [Photograph]. Instagram. Retrieved January 5th, 2023, from https://www.instagram.com/p/ClXJYJzOE4Y/?hl=en

Alberro, H. (September 17, 2019). Humanity and nature are not separate – we must see them as one to fix the climate crisis. *The Conversation*. Retrieved from https://theconversation.com/humanity-and-nature-are-not-separate-we-must-see-them-as-one-to-fix-the-climate-crisis-122110

Albrecht, G., Sartore, G., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., Stain, H., Tonna, A., & Pollard, G. (2007). Solastalgia: the distress caused by environmental change. *Australasian Psychiatry: Bulletin of the Royal Australian and New Zealand College of Psychiatrists*, *15*(1_suppl), S95–S98. https://doi.org/10.1080/10398560701701288

American Psychological Association (APA). (2022, May). *Resilience*. American Psychological Association. Retrieved from https://www.apa.org/topics/resilience

American Psychological Association (APA). (2020, February 6). Majority of US adults believe climate change is most important issue today. *American Psychological Association*. Retrieved from https://www.apa.org/news/press/releases/2020/02/climate-change

Ammar, A., Trabelsi, K., Brach, M., Chtourou, H., Boukhris, O., Masmoudi, L., Bouaziz, B., Bentlage, E., How, D., Ahmed, M., Mueller, P., Mueller, N., Hammouda, O., Paineiras-Domingos, L., Braakman-Jansen, A., Wrede, C., Bastoni, S., Pernambuco, C., Mataruna, L., … Bragazzi, N. (2021). Effects of home confinement on mental health and lifestyle behaviours during the COVID-19 outbreak: insights from the ECLB-COVID19 multicentre study. *Biology of Sport, 38*(1), 9–21. https://doi.org/10.5114/biolsport.2020.96857

Atkinson, J. (2020, June 10). *Why the Covid Gardening Boom is About More than Food.* Earth Island Journal. Retrieved from https://www.earthisland.org/journal/index.php/articles/entry/covid-gardening-boom-about-more-than-food/

Aubrey, A. & Hersher, R. (2019, August 8). To slow global warming, U.N. warns agriculture must change. *npr*. Retrieved from https://www.npr.org/sections/thesalt/2019/08/08/748416223/to-slow-global-warming-u-n-warns-agriculture-must-change

Bakalis, S., Valdramidis, V., Argyropoulos, D., Ahrne, L., Chen, J., Cullen, P., Cummins, E., Datta, A., Emmanouilidis, C., Foster, T., Fryer, P., Gouseti, O., Hospido, A., Knoerzer, K., LeBail, A., Marangoni, A., Rao, P., Schlüter, O., Taoukis, P., … Van Impe, J. (2020). Perspectives from CO+RE: How COVID-19 changed our food systems and food security paradigms. *Current Research in Food Science, 3*, 166–172. https://doi.org/10.1016/j.crfs.2020.05.003

Beingessner, N., & Fletcher, A. (2020). "Going local": farmers' perspectives on local food systems in rural Canada. *Agriculture and Human Values, 37*(1), 129–145. https://doi.org/10.1007/s10460-019-09975-6

Blay-Palmer, A. & Donald, B. (2008). Food fears: making connections. In A., Blay-Palmer (Ed.), *Food fears: from industrial to sustainable food systems* (pp. 1-16). Ashgate Pub.

Bouman, T., Verschoor, M., Albers, C. J., Böhm, G., Fisher, S. D., Poortinga, W., Whitmarsh, L., & Steg, L. (2020). When worry about climate change leads to climate action: How values, worry and personal responsibility relate to various climate actions. *Global Environmental Change, 62*, 102061–11. https://doi.org/10.1016/j.gloenvcha.2020.102061

Bourdieu, P. (1984). *Distinction: a social critique of the judgement of taste*. Harvard University Press.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27-40. doi:10.3316/QRJ0902027

Bowness, E., & Wittman, H. (2020). Bringing the city to the country? Responsibility, privilege and urban agrarianism in Metro Vancouver. *The Journal of Peasant Studies,* 1–26. https://doi.org/10.1080/03066150.2020.1803842

Braun, J. A. & Bogdan, E. A. (2016). Transitioning toward sustainable food and farming: interactions between learning and practice in community spaces. In C. R. Anderson, J. Brady & C. Z. Levkoe (Eds.), *Conversations in Food Studies* (pp. 301-321). University of Manitoba Press.

Brons, A. & Oosterveer, P. J. . (2017). Making Sense of Sustainability: A Practice Theories Approach to Buying Food. *Sustainability (Basel, Switzerland)*, *9*(3), 467–. https://doi.org/10.3390/su9030467

Cadieux, K. V., Levkoe, C.Z., Mount, P., & Szanto, D. (2016). Visual methods for collaborative food system work. In C. R. Anderson, J. Brady & C. Z. Levkoe (Eds.), *Conversations in Food Studies* (pp. 23-51). University of Manitoba Press.

Canada. (2020, February 18). *Household food insecurity in Canada: Overview*. Government of Canada. Retrieved from https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview.html

Carrington, D. (2016, August 29). The Anthropocene epoch: scientists declare dawn of human-influenced age. *The Guardian.* Retrieved from https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth

Cassell, C. (2015). *Conducting research interviews for business and management students*. SAGE Publications Ltd. https://doi.org/10.4135/9781529716726.n3

CBC News. (2020, April 23). 'This is what we need to do': Small-scale farmers create new business models during pandemic. *CBC News*. Retrieved from https://www.cbc.ca/news/canada/manitoba/small-scale-farmers-adapt-covid-19-1.5540185

Clayton, KS. & Karazsia, B. T. (2020). Development and validation of a measure of climate change anxiety. *Journal of Environmental Psychology*, *69*, 101434. https://doi.org/10.1016/j.jenvp.2020.101434

Clayton, S., Manning, C. M., Krygsman, K., & Speiser, M. (2017). *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Washington, D.C.: American Psychological Association, and ecoAmerica. Retrieved from https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf

Clendenning, J., Dressler, W. H., & Richards, C. (2016). Food justice or food sovereignty? Understanding the rise of urban food movements in the USA. *Agriculture and Human Values*, *33*(1), 165–177. https://doi.org/10.1007/s10460-015-9625-8

Coolsaet, B. (2016). Towards an agroecology of knowledges: Recognition, cognitive justice and farmers' autonomy in France. *Journal of Rural Studies*, *47*, 165–171. https://doi.org/10.1016/j.jrurstud.2016.07.012

Cornish, F. (2020). Towards a dialogical methodology for single case studies. *Culture & Psychology*, *26*(1), 139–152. https://doi.org/10.1177/1354067X19894925

Corteva agriscience. (2020). The future of food and farming: understanding what the next generation of farmers and consumers want. *Corteva agriscience*. Retrieved from https://www.corteva.com/content/dam/dpagco/corteva/global/corporate/general/files/The-Future-of-Food-and-Farming_Corteva-Agriscience_Feb-2020.pdf

Costanigro, M., Kroll, S., Thilmany, D., & Bunning, M. (2014). Is it love for local/organic or hate for conventional? Asymmetric effects of information and taste on label preferences in an experimental auction. *Food Quality and Preference*, *31*. 94–105. https://doi.org/10.1016/j.foodqual.2013.08.008

Coultas, C. (2020). The performativity of monitoring and evaluation in international development interventions: Building a dialogical case study of evidence-making that situates "the general." *Culture & Psychology*, *26*(1), 96–116. https://doi.org/10.1177/1354067X19888192

Creswell, J. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*(1), 100–100. https://doi.org/10.1186/1471-2288-11-100

Cunsolo, A. & Ellis, N. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change*, *8*(4), 275–281. https://doi.org/10.1038/s41558-018-0092-2

Cunsolo, A., Harper, S., Minor, K., Hayes, K., Williams, K., & Howard, C. (2020). Ecological grief and anxiety: the start of a healthy response to climate change? The Lancet. *Planetary Health*, *4*(7), e261–e263. https://doi.org/10.1016/S2542-5196(20)30144-3

D'Alimonte, M. (2021, March 12). The mental health impact of the COVID-19 pandemic on Manitobans. *CTV News*. Retrieved from https://winnipeg.ctvnews.ca/the-mental-health-impact-of-the-covid-19-pandemic-on-manitobans-1.5344883

Davila, F., & Dyball, R. (2015). Transforming food systems through food sovereignty: an Australian urban context. *Australian Journal of Environmental Education*, *31*(1), 34–45. https://doi.org/10.1017/aee.2015.14

DePatie, M. (2020, September 5). Grandma's canning: the latest pandemic food craze. *CTV News*. Retrieved from https://winnipeg.ctvnews.ca/grandma-s-canning-the-latest-pandemic-food-craze-1.5094198

Desmarais, A. & Wittman, H. (2014). Farmers, foodies and First Nations: getting to food sovereignty in Canada. *The Journal of Peasant Studies*, *41*(6), 1153–1173. https://doi.org/10.1080/03066150.2013.876623

Diekmann, L. Gray, L. C., & Thai, C. L. (2020). More Than Food: The Social Benefits of Localized Urban Food Systems. *Frontiers in Sustainable Food Systems*, *4*. https://doi.org/10.3389/fsufs.2020.534219

Dinges, G. (2020, May 17). Puzzles, knitting, gardening: Slow living makes a fast comeback. *USA Today*. Retrieved from https://www.usatoday.com/story/life/2020/05/15/coronavirus-cooking-gardening-knitting-puzzles-help-keep-us-busy/3099102001/

Direct Farm Manitoba. (2021). Home. *Direct Farm Manitoba*. Retrieved from https://www.directfarmmanitoba.ca/

Dunn, K. (2005). Interviewing. In I. Hay (Ed.), *Qualitative research methods in human geography* (2nd ed., pp. 79-105). Oxford University Press.

Durrani, T. (2020, October 14). Pandemic gardens, fears over food shortages, rising prices lead first-timers to get growing. *The Winnipeg Free Press*. Retrieved from https://www.winnipegfreepress.com/business/pandemic-gardens-572748041.html

Earthday.org. (2021). Intersectional Environmentalism. *Earthday.org.* Retrieved from https://www.earthday.org/wp-content/uploads/2021/03/EARTHDAY.ORG-Advocacy-Packet-Intersectional-Environmentalism-1.pdf

Edge, J. (2013). Canada's growing appetite for local food. *The Conference Board of Canada*. https://www.actualitealimentaire.com/wp-content/uploads/2013/08/14-021_localfood_cfic_rpt.pdf

Edmonson, S. E. (2020, July 5). *Daily Acts to Ease Your Eco-Anxiety During Lockdown*. Eco-Age. Retrieved from https://eco-age.com/resources/daily-acts-ease-your-eco-anxiety-during-lockdown/

Elliott, H., Mulrennan, M. E., & Cuerrier, A. (2022). "We have a lot of (un)learning to do": whiteness and decolonial prefiguration in a food movement organization. *Settler Colonial Studies*, *ahead-of-print*(ahead-of-print), 1–25. https://doi.org/10.1080/2201473X.2022.2077900

FAO. (2018). The 10 elements of agroecology. *FAO*. Retrieved from http://www.fao.org/documents/card/en/c/I9037EN/

Fletcher, M. & Plakoyiannaki, E., (2010). Sampling. In A. Mills, G. Durepos & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 837-839). SAGE.

Foden, M., Head, E., Katz-Gerro, T., & Martens, L. (2022). Environment or economy? Food concerns and sustainable food transitions in the UK. *Sociology (Oxford)*, *56*(3), 465–486. https://doi.org/10.1177/00380385211043679

Folkman, S. & Moskowitz, J. (2004). Coping: pitfalls and promise. *Annual Review of Psychology*, *55*(1), 745–774. https://doi.org/10.1146/annurev.psych.55.090902.141456

Forssell, S. & Lankoski, L. (2015). The sustainability promise of alternative food networks: an examination through "alternative" characteristics. *Agriculture and Human Values*, *32*(1), 63–75. https://doi.org/10.1007/s10460-014-9516-4

Fourat, E., Closson, C., Holzemer, L., & Hudon, M. (2020). Social inclusion in an alternative food network: Values, practices and tensions. *Journal of Rural Studies*, *76*, 49–57. https://doi.org/10.1016/j.jrurstud.2020.03.009

Fuentes, M. & Fuentes, C. (2022). Reconfiguring food materialities: plant-based food consumption practices in antagonistic landscapes. *Food, Culture, & Society*, *25*(3), 520–539. https://doi.org/10.1080/15528014.2021.1903716

Galway, L. & Field, E. (2023). Climate emotions and anxiety among young people in Canada: A national survey and call to action. *The Journal of Climate Change and Health*, *9*, 100204–. https://doi.org/10.1016/j.joclim.2023.100204

García-Sempere, A., Morales, H., Hidalgo, M., Ferguson, B. G., Rosset, P., & Nazar-Beutelspacher, A. (2019). Food Sovereignty in the city?: A methodological proposal for evaluating food sovereignty in urban settings. *Agroecology and Sustainable Food Systems*, *43*(10), 1145–1173. https://doi.org/10.1080/21683565.2019.1578719

García-Sempere, A., Hidalgo, M., Morales, H., Ferguson, B. G., Nazar-Beutelspacher, A., & Rosset, P. (2018). Urban transition toward food sovereignty. *Globalizations*, *15*(3), 390–406. https://doi.org/10.1080/14747731.2018.1424285

Gomes, A. (n.d.). Ecological Restoration. *DEEP*. Retrieved from https://globaldeepnetwork.org/regeneration/

Goodman, D., DuPuis, E., & Goodman, M. (2012). *Alternative food networks: knowledge, practice, and politics*. Routledge.

Goodman, E. (2019, March 4). Growth markets. *Country Guide*. Retrieved from https://www.country-guide.ca/guide-business/as-farmers-market-sales-in-canada-near-1-5-billion-farmers-plan-for-more/

Goodman, M., Maye, D., & Holloway, L. (2010). Ethical Foodscapes?: Premises, Promises, and Possibilities. *Environment and Planning. A*, *42*(8), 1782–1796. https://doi.org/10.1068/a43290

Grant, A. (2021, April 19). There's a name for the blah you're feeling: it's called languishing. *The New York Times*. Retrieved from https://www.nytimes.com/2021/04/19/well/mind/covid-mental-health-languishing.html

Greenbelt Farmers Market Network. (2015). Tracking market farmer and vendor performance 2009-2015. *Greenbelt Farmers Market Network.* Retrieved from https://www.greenbeltmarkets.ca/wp-content/uploads/resources/2016-Tracking-Market-Farmer-Report-web.pdf

Grooms, L. (2020, March 16). Gen Z, millennials want to reshape agriculture. *Agri-View*. Retrieved from https://www.agupdate.com/agriview/news/business/gen-z-millennials-want-to-reshape-agriculture/article_2439834e-66b5-545f-b9d0-e87afb70464b.html

Gunasiri, H., Wang, Y., Watkins, E.-M., Capetola, T., Henderson-Wilson, C., & Patrick, R. (2022). Hope, coping and eco-anxiety: young people's mental health in a climate-impacted Australia. *International Journal of Environmental Research and Public Health*, *19*(9), 5528–. https://doi.org/10.3390/ijerph19095528

Gunther, A. (2020). COVID-19: fight or flight. *Agriculture and Human Values*, *37*(3), 1–592. https://doi.org/10.1007/s10460-020-10101-0

Gunn, M. (2020, May 28). *The Good Life… ish' by Molly Gunn - How to Deal with Eco Anxiety*. Bower Collective. Retrieved from https://bowercollective.com/blogs/news/the-good-life-ish-by-molly-gunn

Halkier, B., & Jensen, I. (2011). Methodological challenges in using practice theory in consumption research. Examples from a study on handling nutritional contestations of food consumption. *Journal of Consumer Culture*, *11*(1), 101–123. https://doi.org/10.1177/1469540510391365

Halkier, B. (2017). Normalising convenience food?: the expectable and acceptable places of convenient food in everyday life among young Danes. *Food, Culture, & Society*, *20*(1), 133–151. https://doi.org/10.1080/15528014.2016.1243768

Hatch, J. (2002). *Doing qualitative research in education settings*. State University of New York Press.

Hathaway, M. (2016). Agroecology and permaculture: addressing key ecological problems by rethinking and redesigning agricultural systems. *Journal of Environmental Studies and Sciences, 6* (2), 239–250. https://doi.org/10.1007/s13412-015-0254-8

Hayes, K. (2020). A reckoning with climate distress: restoring hope and igniting meaningful actions. *Climate, Health and Courage* (pp. 27–42). Future Leaders. Retrieved from http://www.futureleaders.com.au/book_chapters/Climate-Health-and-Courage/Katie-Hayes.php

Helmer, J. (2020, June 28). Can COVID-19 save community supported agriculture? *Country Guide*. Retrieved from https://www.country-guide.ca/guide-business/can-covid-19-save-community-supported-agriculture/

Hersher, R. (2021, March 17). Drawing a line in the mud: scientists debate when 'age of humans' began. *npr*. Retrieved from https://www.npr.org/2021/03/17/974774461/drawing-a-line-in-the-mud-scientists-debate-when-age-of-humans-began

Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *The Lancet. Planetary Health*, *5*(12), e863–e873. https://doi.org/10.1016/S2542-5196(21)00278-3

Hopkins, R. (2010, October 5). Ingredients of transition: The Great Reskilling. *Transition Culture*. Retrieved from https://www.transitionculture.org/2010/10/05/ingredients-of-transition-the-great-reskilling/

Holland, K. (2020). Canada's food security during the covid-19 pandemic. *School of Public Policy Publications, 13* (13), 1-14.

IPES-Food. (2020). COVID-19 and the crisis in food systems: Symptoms, causes, and potential solutions. Communiqué, The International Panel of Experts on Sustainable Food Systems, 1-11. Retrieved from http://www.ipes-food.org/_img/upload/files/COVID-19_CommuniqueEN%283%29.pdf

IPCC. (2014). Part A: Global and sectoral aspects. Contribution of working group ii to the fifth assessment report of the Intergovernmental Panel on Climate Change. In Climate change 2014: Impacts, adaptation, and vulnerability. Cambridge and New York: Cambridge University Press.

Jacobsen, M.H., & Hansen, A.R. (2019). (Re)introducing embodied practical understanding to the sociology of sustainable consumption. *Journal of Consumer Culture*, *21*(4), 747–763. https://doi.org/10.1177/1469540519846213

Jaffe, J., & Gertler, M. (2006). Victual vicissitudes: consumer deskilling and the (gendered) transformation of food systems. *Agriculture and Human Values, 23*(2), 143–162. https://doi.org/10.1007/s10460-005-6098-1

Jones, C. & Davison, A. (2021). Disempowering emotions: The role of educational experiences in social responses to climate change. *Geoforum*, *118*, 190–200. https://doi.org/10.1016/j.geoforum.2020.11.006

Keyes, C., Dhingra, S., & Simoes, E. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American Journal of Public Health, 100*(12), 2366-2371. https://doi.org/10.2105/AJPH.2010.192245

Kurth, C. & Pihkala, P. (2022). Eco-anxiety: What it is and why it matters. *Frontiers in Psychology*, *13*, 981814–981814. https://doi.org/10.3389/fpsyg.2022.981814

Laakso, S. (2017). Creating new food practices: a case study on leftover lunch service. *Food, Culture, & Society*, *20*(4), 631–650. https://doi.org/10.1080/15528014.2017.1324655

Laforge, J., & McLachlan, S. (2018). Learning communities and new farmer knowledge in Canada. *Geoforum*, *96*, 256–267. https://doi.org/10.1016/j.geoforum.2018.07.022

Laforge, J., Anderson, C., & McLachlan, S. (2017). Governments, grassroots, and the struggle for local food systems: containing, coopting, contesting and collaborating. *Agriculture and Human Values*, *34(*3), 663–681. https://doi.org/10.1007/s10460-016-9765-5

Larson, N., Laska, M., & Neumark-Sztainer, D. (2019). Do young adults value sustainable diet practices? Continuity in values from adolescence to adulthood and linkages to dietary behaviour. *Public Health Nutrition*, *22*(14), 2598–2608. https://doi.org/10.1017/S136898001900096X

Lawrance, E., Thompson, R., Newberry Le Vay, J., Page, L., & Jennings, N. (2022). The Impact of climate change on mental health and emotional well-being: a narrative review of current evidence, and its implications. *International Review of Psychiatry (Abingdon, England)*, *34*(5), 443–498. https://doi.org/10.1080/09540261.2022.2128725

Lehtonen, A. & Pihkala, P. (2021). Encounters with climate change and its psychosocial aspects through performance making among young people. *Environmental Education Research*, *27*(5), 743–761. https://doi.org/10.1080/13504622.2021.1923663

Lewis, S., & Maslin, M. (2015). Defining the Anthropocene. *Nature (London)*, *519*(7542), 171–180. https://doi.org/10.1038/nature14258

Little, J., Ilbery, B., & Watts, D. (2009). Gender, Consumption and the Relocalisation of Food: A Research Agenda. *Sociologia Ruralis*, *49*(3), 201–217. https://doi.org/10.1111/j.1467-9523.2009.00492.x

Loker, A., & Francis, C. (2020). Urban food sovereignty: urgent need for agroecology and systems thinking in a post-COVID-19 future. *Agroecology and Sustainable Food Systems*, *44*(9), 1118–1123. https://doi.org/10.1080/21683565.2020.1775752

Lowitt, K., Mount, P., Khan, A., & Clément, C. (2016). Governance challenges for local food systems: emerging lessons from agriculture and fisheries. In C. R. Anderson, J. Brady &

C. Z. Levkoe (Eds.), *Conversations in Food Studies* (pp. 127-149). University of Manitoba Press.

Luck, L., Jackson, D., & Usher, K. (2006). Case study: a bridge across the paradigms. *Nursing Inquiry, 13*(2), 103–109. https://doi.org/10.1111/j.1440-1800.2006.00309.x

Lutz, J., & Schachinger, J. (2013). Do local food networks foster socio-ecological transitions towards food sovereignty? learning from real place experiences. *Sustainability (Basel, Switzerland), 5*(11), 4778–4796. https://doi.org/10.3390/su5114778

Macy J. & Johnstone, C. (2012). *Active hope: how to face the mess we're in without going crazy*. New World Library.

Mah, A. Y. ., Chapman, D. A., Markowitz, E. M., & Lickel, B. (2020). Coping with climate change: Three insights for research, intervention, and communication to promote adaptive coping to climate change. *Journal of Anxiety Disorders, 75*, 102282–. https://doi.org/10.1016/j.janxdis.2020.102282

Maller, C. J. (2015). Understanding health through social practices: performance and materiality in everyday life. *Sociology of Health & Illness*, 37(1), 52–66. https://doi.org/10.1111/1467-9566.12178 00

Manitoba. (2021). Care for your mental health. *Manitoba*. Retrieved from https://www.gov.mb.ca/covid19/bewell/index.html

Manitoba. (2019). Summary of crop production. *Manitoba*. Retrieved from https://www.gov.mb.ca/agriculture/markets-and-statistics/statistics-tables/index.html

Marczak, M., Winkowska, M., Chaton-Østlie, K., and Klöckner, C. (2021). It's like getting a diagnosis of terminal cancer: an exploratory study of the emotional landscape of climate change concern in Norway. ScienceOpen [Preprint].

Marková, I., Zadeh, S., & Zittoun, T. (2020). Introduction to the special issue on generalisation from dialogical single case studies. *Culture & Psychology, 26*(1), 3–24. https://doi.org/10.1177/1354067X19888193

Marsden, T. & Morley, A. (2014). Current food questions and their scholarly challenges. In T. Marsden & A. Morley (Eds.), *Sustainable Food Systems* (pp. 1-29). Routledge.

Martin, W. & Vold, L. (2018). Building capacity through urban agriculture: report on the askîy project. *Health Promotion and Chronic Disease Prevention in Canada*, *38*(1), 29–35. https://doi.org/10.24095/hpcdp.38.1.06

Mbow, C., C. Rosenzweig, L.G. Barioni, T.G. Benton, M. Herrero, M. Krishnapillai, E. Liwenga, P. Pradhan, M.G. Rivera-Ferre, T. Sapkota, F.N. Tubiello, Y. Xu, 2019: Food Security. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D.C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. https://doi.org/10.1017/9781009157988.007

McGinn, M. (2019, December 27). 2019's biggest pop-culture trend was climate anxiety. *Grist*. Retrieved from https://grist.org/politics/2019s-biggest-pop-culture-trend-was-climate-anxiety/

Merriam, S., & Tisdell, E. (2016). *Qualitative research: a guide to design and implementation* (Fourth edition.). Jossey-Bass, a Wiley brand.

MIJARC Europe. (2020, May 22). Why the return of young people to agriculture must be encouraged. *MIJARC Europe*. Retrieved from https://mijarceurope.net/2020/05/22/why-the-return-of-young-people-to-agriculture-must-be-encouraged/

Morris, C. (2020, June 8). How the coronavirus pandemic could exacerbate eco-anxiety. *ClimateXChange*. Retrieved from https://climate-xchange.org/2020/06/08/how-the-coronavirus-pandemic-could-exacerbate-eco-anxiety/

Mullins, L., Charlebois, S., Finch, E., & Music, J. (2021). Home food gardening in Canada in response to the covid-19 pandemic. *Sustainability (Basel, Switzerland)*, *13*(6), 3056–. https://doi.org/10.3390/su13063056

Music, J., Large, C., Charlebois, S., & Mayhew, K. (2022). Gardening from the ground up: a review of grassroots governance and management of domestic gardening in Canada. *Local Environment*, *27*(8), 1046–1058. https://doi.org/10.1080/13549839.2022.2100880

NASA. (n.d.). *Responding to Climate Change*. NASA. Retrieved from https://climate.nasa.gov/solutions/adaptation-mitigation/

Nelson, P., Beckie, M., & Krogman, N. (2017). The 'locavore' chef in Alberta: a situated social practice analysis. *Food, Culture & Society*, 20(3), 503-524. https://doi:10.1080/15528014.2017.1288798

Neuman, N. (2018). On the engagement with social theory in food studies: cultural symbols and social practices. *Food, Culture, & Society*, *22*(1), 78–94. https://doi.org/10.1080/15528014.2018.1547069

Nyéléni. (2007). *Declaration of Nyéléni.* Nyéléni. Retrieved from https://nyeleni.org/DOWNLOADS/Nyelni_EN.pdf

O'Brien, B. (2017, September 1). Right Livelihood: The Ethics of Earning a Living. *Learn Religions.* Retrieved from https://www.learnreligions.com/right-livelihood-the-ethics-of-earning-a-living-450071

Ojala, M., Cunsolo, A., Ogunbode, C. A., & Middleton, J. (2021). Anxiety, worry, and grief in a time of environmental and climate crisis: a narrative review. *Annual Review of Environment and Resources*, *46*(1), 35–58. https://doi.org/10.1146/annurev-environ-012220-022716

Ojala, M. & Anniko, M. (2020). Climate change as an existential challenge : exploring how emerging adults cope with ambivalence concerning climate-friendly food choices. *Psyke & Logos, 41*, 17-33.

Ojala, & Bengtsson, H. (2019). Young people's coping strategies concerning climate change: relations to perceived communication with parents and friends and proenvironmental behavior. *Environment and Behavior*, *51*(8), 907–935. https://doi.org/10.1177/0013916518763894

Ojala, M. (2013). Coping with climate change among adolescents: implications for subjective well-being and environmental engagement. *Sustainability (Basel, Switzerland)*, *5*(5), 2191–2209. https://doi.org/10.3390/su5052191

Ojala, M. (2012). Regulating worry, promoting hope: How do children, adolescents, and young adults cope with climate change? *International Journal of Environmental and Science Education*, *7*(4), 537–.

O'Leary, Z. (2014). *The essential guide to doing your research project* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Orden, D. (2020). Resilience and vulnerabilities of the north american food system during the covid-19 pandemic. EuroChoices 1-7.

Organic Trade Association (2017, September 14). Today's millennial: tomorrow's organic parent. *Organic Trade Association*. Retrieved from https://ota.com/news/press-releases/19828

Paddock, J. (2017). Household consumption and environmental change: rethinking the policy problem through narratives of food practice. *Journal of Consumer Culture*, *17*(1), 122–139. https://doi.org/10.1177/1469540515586869

Palomo-Campesino, S., González, J., & García-Llorente, M. (2018). Exploring the connections between agroecological practices and ecosystem services: a systematic literature review. *Sustainability (Basel, Switzerland)*, *10*(12), 4339–. https://doi.org/10.3390/su10124339

Pant, L. P. (2020, January 9). Rising eco-anxiety means we should address mental health alongside food security. *The Conversation*. Retrieved from https://theconversation.com/rising-eco-anxiety-means-we-should-address-mental-health-alongside-food-security-123739

Pfefferbaum, B., & North, C. (2020). Mental health and the Covid-19 pandemic. *The New England Journal of Medicine*, *383*(6), 510–512. https://doi.org/10.1056/NEJMp2008017

Pihkala, P. (2022). Toward a taxonomy of climate emotions. *Frontiers in Climate*, *3*. https://doi.org/10.3389/fclim.2021.738154

Pihkala, P. (2020). Anxiety and the ecological crisis: an analysis of eco-anxiety and climate anxiety. *Sustainability (Basel, Switzerland)*, *12*(7836), 1–20. https://doi.org/10.3390/su12197836

Pihkala, P. (2019). Climate anxiety. Helsinki: MIELI Mental Health Finland.

Pihkala, P. (2018). Eco-anxiety, tragedy, and hope: psychological and spiritual dimensions of climate change. *Zygon*, *53*(2), 545–569. https://doi.org/10.1111/zygo.12407

Popkin, G. (2022, August 15). *Ditch Your Grocery Store. Go Foraging Instead.* The Washington Post. Retrieved from https://www.washingtonpost.com/magazine/2022/08/15/wild-foods-foraging-eating-healthy/

Porter, C. (2018). What gardens grow: Outcomes from home and community gardens supported by community-based food justice organizations. *Journal of Agriculture, Food Systems, and Community Development*, *8*(Suppl 1), 187–205. https://doi.org/10.5304/jafscd.2018.08A.002

Pourias, J., Aubry, C., & Duchemin, E. (2016). Is food a motivation for urban gardeners? Multifunctionality and the relative importance of the food function in urban collective gardens of Paris and Montreal. *Agriculture and Human Values*, *33*(2), 257–273. https://doi.org/10.1007/s10460-015-9606-y

Power, E. (1999). An introduction to Pierre Bourdieu's key theoretical concepts. *Journal for the Study of Food and Society*, *3*(1), 48–52. https://doi.org/10.2752/152897999786690753

Printezis, I., & Grebitus, C. (2020). College-age millennials' preferences for food supplied by urban agriculture. *Frontiers in Sustainable Food Systems*, 4. https://doi.org/10.3389/fsufs.2020.00048

Puckett, S. (2022, September 27). *Eating seasonally and locally has many benefits. Is fighting the climate crisis one of them?* CNN. Retrieved from https://www.cnn.com/2022/09/14/health/seasonal-food-produce-lbg-wellness

Qualman, D., Akram-Lodhi, A., Desmarais, A., & Srinivasan, S. (2018). Forever young? The crisis of generational renewal on Canada's farms. *Canadian Food Studies / La Revue*

Canadienne Des Études Sur L'alimentation, 5(3), 100–127. https://doi.org/10.15353/cfs-rcea.v5i3.284

Ray, S. (2020). *A field guide to climate anxiety: how to keep your cool on a warming planet.* University of California Press. https://doi.org/10.2307/j.ctvw1d67m

Reckwitz, A. (2017). Practices and their affects. In A. Hui, T. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed., pp. 114-125). Routledge.

Renting, H., Schermer, M. & Rossi, A. (2012). Building food democracy: exploring civic food networks and newly emerging forms of food citizenship. *Int. J. Sociol. Agric. Food 19*(3), 289–307.

Resler, M., & Hagolani-Albov, S. (2021). Augmenting agroecological urbanism: the intersection of food sovereignty and food democracy. *Agroecology and Sustainable Food Systems, 45*(3), 320–343. https://doi.org/10.1080/21683565.2020.1811829

Ristino, L. (2013). Back to the new: millennials and the sustainable food movement. *Vermont Journal of Environmental Law, 15*(1), 1–30. https://doi.org/10.2307/vermjenvilaw.15.1.1

Robinson, M. (2023). Southeastern Prairie Region [Map]. Used with permission.

Roffel, B. (2021, May 8). Turning to gardening to cope with COVID-19? This Toronto chef has a kit to get you started. *CBC News*. Retrieved from https://www.cbc.ca/news/canada/toronto/chef-gardening-destress-seeding-1.6018645

Sample, I. (2020, Dec 27). Covid poses 'greatest threat to mental health since second world war'. *The Guardian*. Retrieved from https://www.theguardian.com/society/2020/dec/27/covid-poses-greatest-threat-to-mental-health-since-second-world-war

Sanagorski, L. A. (2011, March 20). The starting point: youth's perceptions about sustainable agriculture. *Ileia*. Retrieved from https://www.ileia.org/2011/03/20/starting-point-youths-perceptions-sustainable-agriculture/

Sanson, A., Van Hoorn, J., & Burke, S. (2019). Responding to the impacts of the climate crisis on children and youth. *Child Development Perspectives, 13*(4), 201–207. https://doi.org/10.1111/cdep.12342

Schatzki, T. (2017). Practices and People. *Teoria e Prática Em Administração, 7*(1), 26–53. https://doi.org/10.21714/2238-104X2017v7i1-32735

Schatzki, T. (2001). Introduction: Practice theory. In Knorr Cetina, K., Schatzki, T.R., & von Savigny, E. (Eds.), *The practice turn in contemporary theory* (1st ed., pp. 10-23). Routledge. https://doi.org/10.4324/9780203977453

Schatzki, T. (1996). *Social practices: A wittgensteinian approach to human activity and the social*. Cambridge: Cambridge University Press.

Schupp, J. & Sharp, J. (2012). Exploring the social bases of home gardening. *Agriculture and Human Values, 29*(1), 93–105. https://doi.org/10.1007/s10460-011-9321-2

Schwartzberg, P., Stevens, J., & Acton, K. S. (2022). *Canadians' Perspectives on Climate Change Education: 2022, Executive Summary*. Learning for a Sustainable Future. Retrieved from https://lsf-lst.ca/research-policy/survey/?fbclid=IwAR3ba9Oj0tsPmACZDQR-gQl7Vqb5RNU2JQcntrv_lVMm9SvSpRTtvVSgvX0

Shove, E., Pantzar, M. & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes.* SAGE Publications Ltd, https://www.doi.org/10.4135/9781446250655

Shove, E. (2017). Matters of practice. In A. Hui, T. Schatzki & E. Shove (Eds.), *The nexus of practices: connections, constellations, practitioners* (1st ed., pp. 155-168). Routledge.

Silver, C. & Lewins, A. (2014). Qualitative coding in software: principles and processes. In *Using software in qualitative research: a step-by-step guide* (Second Edition, p. 158–186). SAGE Publications Ltd. https://doi.org/10.4135/9781473906907.n8

Sitra. (2019). *Climate emotions: Report of a national survey in Finland.* Sitra the Finnish innovation fund. Retrieved from https://www.sitra.fi/app/uploads/2019/11/sitraclimate-emotions-report-2019.pdf

Small Scale Food Manitoba working group. (2015). *Advancing the small scale, local food sector in Manitoba: a path forward*. Retrieved from https://www.gov.mb.ca/agriculture/food-and-ag-processing/pubs/small-scale-food-report.pdf

Spijker, S., Mathijs, E., & Parra, C. (2020). Grasping practices of self-reliance within alternative foodscapes in Flanders. *Agriculture and Human Values*, *37*(3), 819–832. https://doi.org/10.1007/s10460-020-10021-z

Sprague, C. & E. H. Kennedy. (2016). Evaluating the cultural politics of alternative food movements: the limitations of cultivating awareness. In C. R. Anderson, J. Brady & C. Z. Levkoe (Eds.), *Conversations in Food Studies* (pp. 201-221). University of Manitoba Press.

Statistics Canada. (2017a). Direct marketing in Canada. *Statistics Canada*. Retrieved from https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2017015-eng.htm

Statistics Canada. (2017b). A portrait of a 21st century agricultural operation. *Statistics Canada*. Retrieved from https://www150-statcan-gc-ca.uml.idm.oclc.org/n1/pub/95-640-x/2016001/article/14811-eng.htm

Taparia, H. & Koch, P. (2015, November 6). A seismic shift in how people eat. *The New York Times*. Retrieved from https://www.nytimes.com/2015/11/08/opinion/a-seismic-shift-in-how-people-eat.html

The Buddhist Centre. (n.d.). Right Livelihood. *The Buddhist Centre*. Retrieved from https://thebuddhistcentre.com/text/right-livelihood

Theodorou, A., Panno, A., Carrus, G., Carbone, G. A., Massullo, C., & Imperatori, C. (2021). Stay home, stay safe, stay green: The role of gardening activities on mental health during the Covid-19 home confinement. *Urban Forestry & Urban Greening*, *61*, 127091–127091. https://doi.org/10.1016/j.ufug.2021.127091

The Yale Tribune. (2020, January 8). Abandoning desks to embrace the field: millennials take to tech-driven agriculture. *The Yale Tribune*. Retrieved from https://campuspress.yale.edu/tribune/abandoning-desks-to-embrace-the-field-millennials-take-to-tech-driven-agriculture/

Thompson, R., Fisher, H. L., Dewa, L. H., Hussain, T., Kabba, Z., & Toledano, M. B. (2022). Adolescents' thoughts and feelings about the local and global environment: a qualitative interview study. *Child and Adolescent Mental Health, 27*(1), 4–13. https://doi.org/10.1111/camh.12520

Tornaghi, C. & Dehaene, M. (2020). The prefigurative power of urban political agroecology: rethinking the urbanisms of agroecological transitions for food system transformation. *Agroecology and Sustainable Food Systems, 44*(5), 594–610. https://doi.org/10.1080/21683565.2019.1680593

Tregear, A. (2011). Progressing knowledge in alternative and local food networks: Critical reflections and a research agenda. *Journal of Rural Studies, 27*(4), 419–430. https://doi.org/10.1016/j.jrurstud.2011.06.003

UNDP. (n.d.). *Goal 13: Climate action*. United Nations Development Programme. Retrieved from https://www.undp.org/sustainable-development-goals/climate-action

USDA. (2019). *Canada – Retail Foods.* Retrieved from https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_Ottawa_Canada_7-10-2019.pdf

Veen, E. & D'Amico, S. (2019). Practices of food provisioning in alternative food networks: how different practitioners engage in different practices, depending on their emotional energy. *Int. J. Sociol. Agric. Food, 25*(1), 449–468.

Verplanken, B., & Roy, D. (2013). "My worries are rational, climate change is not": Habitual ecological worrying is an adaptive response. *PLoS One, 8*(9), e74708–e74708. https://doi.org/10.1371/journal.pone.0074708

Walljasper, C. & Polansek, T. (2020, April 20). Home gardening blooms around the world during coronavirus lockdowns. *Reuters*. Retrieved from https://www.reuters.com/article/us-health-coronavirus-gardens-idUSKBN2220D3

Warde, A. (2005) Consumption and theories of practice. *Journal of Consumer Culture*, 5(2), 131–153.

Watson, M. (2017). Placing power in theory. In A. Hui, T. Schatzki & E. Shove (Eds.), *The nexus of practices: connections, constellations, practitioners* (1st ed., pp. 169-182). Routledge.

Wenger, E. & Snyder, W. M. (2000). Communities of Practice: The Organizational Frontier. *Harvard Business Review*, *78*(1), 139–.

Willow, F. (2020, January 5). How to cope with eco-anxiety. *Ethical Unicorn*. Retrieved from https://ethicalunicorn.com/2020/01/05/how-to-cope-with-eco-anxiety/

Winnipeg. (2020, January 10). Food Council History. *Winnipeg Food Council, The City of Winnipeg*. Retrieved from https://winnipeg.ca/clerks/boards/WpgFoodCouncil/history.stm

Woodbury, Z. (2019). Climate trauma: toward a new taxonomy of trauma. *Ecopsychology*, *11*(1), 1–8. Retrieved from https://www.liebertpub.com/doi/full/10.1089/eco.2018.0021

Wray, B. (2022). *Generation dread: finding purpose in an age of climate crisis.* Alfred A. Knopf Canada.

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The Qualitative Report*, *20*(2), 134–.

Zepeda, L., & Reznickova, A. (2017). Innovative millennial snails: the story of Slow Food University of Wisconsin. *Agriculture and Human Values*, *34*(1), 167–178. https://doi.org/10.1007/s10460-016-9701-8

Zawadzki, S., Steg, L., & Bouman, T. (2020). Meta-analytic evidence for a robust and positive association between individuals' pro-environmental behaviors and their subjective well-being. *Environmental Research Letters*, *15*(12), 123007–. https://doi.org/10.1088/1748-9326/abc4ae

Appendix I: Semi-Structured Interview Guide

Date:
Location:
Participant Code:
Pseudonym:

Introduction to the project:

The purpose of this research is to understand the experiences of young adults who are concerned for the environment and who have chosen to adopt alternative food practices. In this interview, my role as a researcher it to understand your experiences, in particular (1) your experience in conducting your alternative food practice, (2) your experience as someone concerned for the environment, and (3) to understand how this concern interacts with your food practice.

Before we begin I want to highlight that throughout this interview there is no pressure to discuss anything you are not comfortable with. Please know that you can skip questions at any time without prejudice or consequence, and feel free to ask me any question you may have during the interview.

A. Opening questions

1. I would be interested in knowing a little bit about yourself. During our phone call you said you live in _____. How long have you lived there? What is your occupation; do you work, or study?

2. In our phone discussion you said that the main alternative food practice you perform regularly is _____. [If they have more than one principal practice: and _____/but that you also do _____.]
   As my goal is to understand young adults' routine experiences with food practices, it would be helpful if you began by telling me about what a typical week in your life looks like, and where your food practice fits in.

B. Background on the practice (Objective 1 and 2):

3. I would like to know more about the practical details of _____ (the practice). Can you tell me more about it?
   a. How do you perform _____?
   b. Prompt: What materials or tools do you use, in what space do you practice it, alone or with other people?

4. Can you tell me a bit about your journey with this practice:
   a. How long have you been doing it?
   b. When and how did you learn how to _____?

        i. Prompt: Was this practice present in your family?

5. What are the things that helped you start and continue doing this practice? (Objective 2)
    a. What was/is important to enable and support your learning process?
    b. What helps you access the materials and space that you need to do it?
    c. Has learning _____ and doing _____ been mostly an individual process, or have you found that other people have been important to your _____ practice?
        i. Prompt: For example, have people been important to keep you motivated or able to do _____?

6. Do you follow certain websites, blogs, or pages on social media which support you in your practice? If so, would you mind telling me what they are?
    a. How often do you consult them? (Objective 1 & 2).

7. What are the obstacles you have encountered in doing _____? (Objective 2)
    a. Prompt: What are the things that make it difficult to practice _____?
    b. Have the obstacles changed since you first started doing _____?
    c. If you have the intention of further developing your practice, like learning new skills, using different materials, are you experiencing any obstacles there?

8. The COVID-19 pandemic has been such a big change for a lot of people. Has it impacted your practice, and if so, how?
    a. Prompt: has the pandemic provided you with more or less time and energy to devote to _____?

C. Motivations and intentions (Objective 1):

9. What do you like about _____?

10. What are the things that motivate you to do _____?
    a. What do you hope to accomplish with this practice, if anything?
        i. Prompt: Do you have intentions for yourself, for others, for the world?
    b. Why is it important to you to do _____, or to have the ability to do _____?
    c. Have the motivations changed since you started practicing _____?

11. Is there a reason you choose a food-related practice in particular?
    a. Is an alternative food practice important to you, and if so, why?

12. Why would you say your practice is alternative?

D. Climate distress (objective 3):
Now I would like to talk a bit about your experience as someone concerned for the environment, and how that concern interacts with your _____ practice.

13. Can you tell me a little bit about how you experience your concern for the environment?
    a. Prompt: Why you are concerned for the environment?
    b. What are the emotions tied to your concern for the environment?
        i. Which emotion(s) do you experience the most when it comes to your concern or the environment?
        ii. Prompt: Is it worry, anxiety, anger, despair, guilt, fear, a sense of grief?
    c. How would you say your concern for the environment impacts your life?
        i. Prompt: For example, your well-being, your life choices, your daily life?

14. What is the relation between your concern for the environment and your _____ practice?
    a. How does your concern for the environment influence your practice?
    b. How does practicing _____ impact your concern for the environment?
    c. What is the impact of the practice on your well-being?
        i. Prompt: How do you feel when you are doing the practice?

E. In closing:

15. What would you say are the positive and/or constructive things that _____ brings to your life?

16. Is there anything that I have missed regarding your experience as someone concerned for environment who practices _____? Or anything else that you would like to add?

F. Demographic questions

1. What is your age?
2. What is your gender?
3. How do you best describe your racial or ethnic background?

Thank you so much for agreeing to be a participant in my research and for sharing your experiences with me today. Your contributions will be important in helping me understand how and why young adults come to adopt alternative food practices, and how being concerned for the environment interacts with food practices.

If you know of any other individual who would correspond to my research and who might be interested, would you mind forwarding them my recruitment email or poster [Appendix 1.3 or 1.2]?

Appendix II: Consent Form

Title of Study: Alternative Food Practices for the Anthropocene: Listening to the Voices of Young Adults in Western Canada

Principal Researcher: Laurence Ammann-Lanthier (Email: XXXXXXXX@myumanitoba.ca , Tel: (XXX)-XXX-XXXX

Research Supervisor: Professor Iain Davidson-Hunt (Email: XXXXXXXX@myumanitoba.ca , Tel: (XXX)-XXX-XXXX)

Sponsor: Social Sciences and Humanities Research Grant

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. The consent form should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Purpose of this Study: My name is Laurence Ammann-Lanthier, I am a master's student at the University of Manitoba and I am inviting you to participate in my research. The purpose of my research is to understand the experiences of young adults in Urban Western Canada who are concerned for the environment and who choose to conduct an alternative food practice. Alternative food practices could include growing your own food, canning, baking your own bread, foraging, participating in alternative food procurement organizing, and others. The objectives of this study are to: (1) understand the motivations of young adults in undertaking alternative food practices, (2) identify the enablers and obstacles of young adults' alternative food practices, and (3) examine the relation between young adults' alternative food practices and their concern or the environment.

Participant Selection: You are being asked to participate to this study because of your experience as a young adult urban dweller in Western Canada who is concerned for environmental health and who undertakes an alternative food practice.

Study Procedure: Participation in the study will be one interview of 1-2 hours in length, to be conducted on Zoom or by phone due to COVID-19 health restrictions. With your consent, the interview will be audio recorded using Zoom's built-in recording feature to record directly on my laptop. Phone interviews will be conducted using the Zoom platform, as Zoom enables individual to use their phone to dial in the Zoom meeting. Phone interviews will be audio recorded and

transcribed using Zoom's built-in recording and transcription feature. The interview will take place at a time of your choosing. Interviews can be conducted in English or French.

During the interview, you will be asked questions about your experience with your alternative food practice, exploring your motivations and the enablers and hindrances you have encountered. Moreover, you will be asked questions exploring your concern for the environment, in particular why you are concerned, what are the main emotions tied to your concern for the environment, how you experience this concern in your daily life, and how environmental concern interacts with your practice. These questions will allow me to understand the nature of your concern for the environment, and the role it plays in relation to your practice. These last questions might raise some sensitive topics and uncomfortable emotions. Please know that you are encouraged to share only what you are comfortable sharing, and that you are free to choose to refrain from answering any question you prefer to omit, without prejudice or consequence.

If you have any questions regarding the procedures and purpose of the study, please do not hesitate to ask at any moment throughout your participation.

Data Storage: All data (audio recording, written notes, interview transcripts, masterlist) will be stored in Teams, an Office 365 online program through my University of Manitoba email account, as well as encrypted and backed in an external hard drive kept in a locked cabinet at my home at all times. All physical copies of data will be stored in a locked cabinet at my home.

Zoom automatically records both video and audio, and makes available video and audio recordings in separate files. For participants giving consent to audio record, I will delete the video recording files immediately after the interview and will use the audio recording for transcription purposes. The audio recording data will be encrypted and only accessible to myself and my supervisor Iain Davidson-Hunt. The interview will be transcribed into text within one week after the interview. Transcription will be done with the built-in transcription service in Zoom, and I will review transcribed files to ensure accuracy. All audio recordings will be destroyed once the transcription has been verified. If participants do not give consent to audio record, I will be taking typed notes over the course of interview. The transcriptions and interview notes will be destroyed by December 2023, after research dissemination in the form of thesis publication, journal publications and presentations.

Participants' contact information will be kept in an encrypted file on my password-protected account on Teams and on a separate encrypted folder on Teams, with a copy of encrypted files downloaded onto an external hard drive, kept in a separate encrypted folder on the hard drive. This data will be destroyed by December 2023. To delete all data files on my personal laptop and on the external hard drive (audio recording, written notes, interview transcripts, masterlist) I will use a program such as BleachBit or CCleaner. All physical copies of notes will be shredded by December 2023.

Anonymity and Confidentiality: Your personal information will be kept confidential. Unless you choose to waive your anonymity, I will not include information which could identify you

with the information you provide. I will use a pseudonym to refer to you in my study records and in the writing and presentations which will result from the research. If you choose to waive your anonymity, you will have the option of choosing how you wish to be referred to. I will keep a contact list of participants' names and addresses in a secure file on my password-protected Teams account, which I will use to send you the summary of my study results. Consent forms and identifying information will be accessible only to myself and my supervisor and will be stored separately from interview data. The masterlist will contain a list of codes and pseudonyms to store participants' contact information and interview data separately.

I may use your words, via paraphrase or using direct quotation, when discussing or highlighting a specific point in the writing or presentations which result from this research. In the case of paraphrasing or using direct quote you will not be identified as the speaker, unless you choose to waive anonymity.

At the time of the interview, I request you participate from a private and quiet room to ensure confidentiality at your end. You may choose to have your camera on or off during the interview, and you may choose to stop the audio recording at any point during the interview.

Risk and Benefits: Because part of this research has the goal of understanding the experience of individuals who are concerned for the environment, there are risks that sensitive topics and emotional discomfort arise. Specifically, I will ask you to describe your experience as someone concerned for the environment, identify the main emotions tied to that concern, and ask you how your environmental concern impacts your life. The purpose of these questions is to understand the nature of your concern for the environment, and the role it plays in relation to your practice. You can choose not to respond to any questions you wish to omit, and you are encouraged to only share as much information as you are comfortable, without prejudice or consequence.
When writing or talking about the experience and information that you share with me, I will not use your name nor information that could identify you, unless you choose to waive anonymity.
The risks to this research are no greater than those of everyday life.
A potential benefit to participants is the opportunity to reflect on and express their experiences in undertaking an alternative food practice and in experiencing a concern for the environment.
The benefits of this research project are to provide an enhanced understanding of the ways in which alternative food practices emerge and are sustained by young adults urban dwellers in Western Canada, and to provide an increased understanding of young adults' experience as individuals concerned for the environment. These benefits may be useful to organizations or initiatives seeking to develop alternative food systems, and/or seeking to respond to experiences of environmental concern.

If you have any concerns, please discuss with me prior to your participation.

Dissemination of Research Results: The research results will be disseminated through the publication of a master's thesis and a report which will summarize the research results and be sent to participants. Participants can expect to be emailed the report by October 1st, 2022. The

research results may also be disseminated through other mediums including academic publications and presentations, video or audio podcast.

Compensation: Participants will be offered a $50 honorarium that can be transferred via e-transfer. The Honorarium will be e-transferred to participants after the interview, and once they have filled the Honorarium Receipt Form. The Honorarium Receipt Form will be emailed to participants after reception of the signed Consent Form.
As a participant, would you like to receive the $50 honorarium? Yes ☐ No ☐
If yes, please provide the email-address where the honorarium should be e-transferred:
_____

Feedback/Debriefing: I will create a report summarizing the research results which I will send to participants. If participants are interested, they will also have the opportunity to receive an electronic copy of my thesis.

All participants will be given the chance to review their interview transcript before the information is generalised and used for academic and non-academic publications. In reviewing the transcript, you will have the opportunity to clarify information you shared during the interview.
Once I email participants their transcript, they will be given two weeks to review it. If I have not heard back from participants after two weeks, I will send an email to participants with a reminder to review their transcript.

- As a participant, would you like to review your interview transcript? Yes ☐ No ☐
  If yes, please provide your best method of contact:
  - Email: _____

For any participant who has not returned their reviewed transcript, I will email a final reminder on February 8th 2022 to offer them one week as a last opportunity to review the transcript before it is no longer possible to modify or remove their data because of data generalization. February 15th 2022 will be the final deadline for participants to send me their revision of their transcript.

Withdrawal from Research without Negative Consequences: You are free to withdraw from this research, without prejudice or consequence. In the case of withdrawal, your data will be completely destroyed the same week you made me aware of your choice to withdraw. You are free to choose to withdraw only specific sections of the information shared with me, which will be destroyed the same week you made me aware of your choice. Participants will not face consequences in withdrawing. Participants who choose to withdraw during the interview will receive the honorarium, if they have indicated they wish to receive the honorarium. Participants who withdraw after receiving the honorarium will not be asked to return the honorarium. Participants will be able to withdraw until all interviews are transcribed and data is generalized. I anticipate this date to be March 1st, 2022. After that date, data will be generalized and it will not be possible to remove your information from the data analysis.

For participants who chose to waive anonymity and therefore who will have their name associated with the information they have provided, I will be able to withdraw the data that is directly attributed to them and that has not been generalized, until the time of publication. This date is anticipated to be August 2022.
To withdraw, please contact myself or my supervisor by email or phone via the contact information provided above.

Questions: If you have any questions or concerns, please feel free to contact myself or my supervisor with the contact information provided on the first page.

_____

By signing this form, you indicate that you have understood to your satisfaction the information regarding participation in this research project, that you have had an opportunity to ask questions, that your questions have been answered, and that you agree to participate to the research as a subject and that this decision is taken voluntarily. Your signature does not waive your legal rights nor does it release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time and/or choose to refrain from answering any questions. You should feel free to ask for clarifications or additional information throughout your ongoing participation.
This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project you may contact any of the persons previously named or the Human Ethics Coordinator at 204-474-7122 or humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

_____

Consent Signatures: For your participation in the interview, please indicate your consent to the following elements:

1. I am over 18 years of age. Yes ☐ No ☐
2. I give you permission to audio/Zoom record the interview. Yes ☐ No ☐
3. I wish to remain anonymous. Yes ☐ No ☐
4. I wish to remain anonymous, but you may refer to me by a pseudonym. Yes ☐ No ☐
    - The pseudonym I choose for myself is: _____
5. I wish to waive my anonymity and be identified by name with any information I provide in this interview that is included in writing or presentations resulting from this research. Yes ☐ No ☐
    - The name I wish to be identified by is: _____
6. I agree to be contacted after the interview in case it is deemed necessary by the researcher. Yes ☐ No ☐
7. I would like to receive a summary report of this research (by October 1st, 2022). Yes ☐ No ☐
    - If yes, please include your email: _____

Participant's Printed Name_____ **Date** _____

Participant's Signature _____**Date**_____

Researcher's Signature _____Date _____

Thank you for your time!

Appendix III: Verbal Consent Oral Script

Title of Study: Alternative Food Practices for the Anthropocene: Listening to the Voices of Young Adults in Western Canada

Principal Researcher: Laurence Ammann-Lanthier (Email: XXXXXXXX@myumanitoba.ca , Tel: (XXX)-XXX-XXXX

Research Supervisor: Professor Iain Davidson-Hunt (Email: XXXXXXXX@myumanitoba.ca , Tel: (XXX)-XXX-XXXX)

Sponsor: Social Sciences and Humanities Research Grant

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. The consent form should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Purpose of this Study: My name is Laurence Ammann-Lanthier, I am a master's student at the University of Manitoba and I am inviting you to participate in my research. The purpose of my research is to understand the experiences of young adults in Urban Western Canada who are concerned for the environment and who choose to conduct an alternative food practice. Alternative food practices could include growing your own food, canning, baking your own bread, foraging, participating in alternative food procurement organizing, and others. The objectives of this study are to: (1) understand the motivations of young adults in undertaking alternative food practices, (2) identify the enablers and obstacles of young adults' alternative food practices, and (3) examine the relation between young adults' alternative food practices and their concern or the environment.

Participant Selection: You are being asked to participate to this study because of your experience as a young adult urban dweller in Western Canada who is concerned for environmental health and who undertakes an alternative food practice.

Study Procedure: Participation in the study will be one interview of 1-2 hours in length, to be conducted on Zoom or by phone due to COVID-19 health restrictions. With your consent, the interview will be audio recorded using Zoom's built-in recording feature to record directly on my laptop. Phone interviews will be conducted using the Zoom platform, as Zoom enables individual to use their phone to dial in a Zoom meeting. Phone interviews will be audio recorded and

transcribed using Zoom's built-in recording and transcription feature. The interview will take place at a time of your choosing. Interviews can be conducted in English or French.

During the interview, you will be asked questions about your experience with your alternative food practice, exploring your motivations and the enablers and hindrances you have encountered. Moreover, you will be asked questions exploring your concern for the environment, in particular why you are concerned, what are the main emotions tied to your concern for the environment, how you experience this concern in your daily life, and how environmental concern interacts with your practice. These questions will allow me to understand the nature of your concern for the environment, and the role it plays in relation to your practice. These last questions might raise some sensitive topics and uncomfortable emotions. Please know that you are encouraged to share only what you are comfortable sharing, and that you are free to choose to refrain from answering any question you prefer to omit, without prejudice or consequence.

If you have any questions regarding the procedures and purpose of the study, please do not hesitate to ask at any moment throughout your participation.

Data Storage: All data (audio recording, written notes, interview transcripts, masterlist) will be stored in Teams, an Office 365 online program through my University of Manitoba email account, as well as encrypted and backed in an external hard drive kept in a locked cabinet at my home at all times. All physical copies of data will be stored in a locked cabinet at my home.

Zoom automatically records both video and audio, and makes available video and audio recordings in separate files. For participants giving consent to audio record, I will delete the video recording files immediately after the interview and will use the audio recording for transcription purposes. The audio recording data will be encrypted and only accessible to myself and my supervisor Iain Davidson-Hunt. The interview will be transcribed into text within one week after the interview. Transcription will be done with the built-in transcription service in Zoom, and I will review transcribed files to ensure accuracy. All audio recordings will be destroyed once the transcription has been verified. If participants do not give consent to audio record, I will be taking typed notes over the course of interview. The transcriptions and interview notes will be destroyed by December 2023, after research dissemination in the form of thesis publication, journal publications and presentations.

Participants' contact information will be kept in an encrypted file on my password-protected account on Teams and on a separate encrypted folder on Teams, with a copy of encrypted files downloaded onto an external hard drive, kept in a separate encrypted folder on the hard drive. This data will be destroyed by December 2023. To delete all data files on my personal laptop and on the external hard drive (audio recording, written notes, interview transcripts, masterlist) I will use a program such as BleachBit or CCleaner. All physical copies of notes will be shredded by December 2023.

Anonymity and Confidentiality: Your personal information will be kept confidential. Unless you choose to waive your anonymity, I will not include information which could identify you

with the information you provide. I will use a pseudonym to refer to you in my study records and in the writing and presentations which will result from the research. If you choose to waive your anonymity, you will have the option of choosing how you wish to be referred to. I will keep a contact list of participants' names and addresses in a secure file on my password-protected Teams account, which I will use to send you the summary of my study results. Consent forms and identifying information will be accessible only to myself and my supervisor and will be stored separately from interview data. The masterlist will contain a list of codes and pseudonyms to store participants' contact information and interview data separately.

I may use your words, via paraphrase or using direct quotation, when discussing or highlighting a specific point in the writing or presentations which result from this research. In the case of paraphrasing or using direct quote you will not be identified as the speaker, unless you choose to waive anonymity.

At the time of the interview, I request you participate from a private and quiet room to ensure confidentiality at your end. You may choose to have your camera on or off during the interview, and you may choose to stop the audio recording at any point during the interview.

Risk and Benefits: Because part of this research has the goal of understanding the experience of individuals who are concerned for the environment, there are risks that sensitive topics and emotional discomfort arise. Specifically, I will ask you to describe your experience as someone concerned for the environment, identify the main emotions tied to that concern, and ask you how your environmental concern impacts your life. The purpose of these questions is to understand the nature of your concern for the environment, and the role it plays in relation to your practice. You can choose not to respond to any questions you wish to omit, and you are encouraged to only share as much information as you are comfortable, without prejudice or consequence.
When writing or talking about the experience and information that you share with me, I will not use your name nor information that could identify you, unless you choose to waive anonymity. The risks to this research are no greater than those of everyday life.
A potential benefit to participants is the opportunity to reflect on and express their experiences in undertaking an alternative food practice and in experiencing a concern for the environment.
The benefits of this research project are to provide an enhanced understanding of the ways in which alternative food practices emerge and are sustained by young adults urban dwellers in Western Canada, and to provide an increased understanding of young adults' experience as individuals concerned for the environment. These benefits may be useful to organizations or initiatives seeking to develop alternative food systems, and/or seeking to respond to experiences of environmental concern.

If you have any concerns, please discuss with me prior to your participation.

Dissemination of Research Results: The research results will be disseminated through the publication of a master's thesis and a report which will summarize the research results and be sent to participants. Participants can expect to be emailed the report by October 1st, 2022. The

research results may also be disseminated through other mediums including academic publications and presentations, video or audio podcast.

Compensation: Participants will be offered a $50 honorarium that can be transferred via e-transfer. The Honorarium will be e-transferred to participants after the interview, and once they have filled the Honorarium Receipt Form. The Honorarium Receipt Form will be emailed to participants after reception of the signed Consent Form.
As a participant, would you like to receive the $50 honorarium? Yes ☐ No ☐
If yes, what is the email-address where the honorarium should be e-transferred:
_____

Feedback/Debriefing: I will create a report summarizing the research results which I will send to participants. If participants are interested, they will also have the opportunity to receive an electronic copy of my thesis.

All participants will be given the chance to review their interview transcript before the information is generalised and used for academic and non-academic publications. In reviewing the transcript, you will have the opportunity to clarify information you shared during the interview.
Once I email participants their transcript, they will be given two weeks to review it. If I have not heard back from participants after two weeks, I will send an email to participants with a reminder to review their transcript.

- As a participant, would you like to review your interview transcript? Yes ☐ No ☐
  If yes, what is the best method of contact:
  - Email: _____

For any participant who has not returned their reviewed transcript, I will email a final reminder on February 8th 2022 to offer them one week as a last opportunity to review the transcript before it is no longer possible to modify or remove their data because of data generalization. February 15th 2022 will be the final deadline for participants to send me their revision of their transcript.

Withdrawal from Research without Negative Consequences: You are free to withdraw from this research, without prejudice or consequence. In the case of withdrawal, your data will be completely destroyed the same week you made me aware of your choice to withdraw. You are free to choose to withdraw only specific sections of the information shared with me, which will be destroyed the same week you made me aware of your choice. Participants will not face consequences in withdrawing. Participants who choose to withdraw during the interview will receive the honorarium, if they have indicated they wish to receive the honorarium. Participants who withdraw after receiving the honorarium will not be asked to return the honorarium. Participants will be able to withdraw until all interviews are transcribed and data is generalized. I anticipate this date to be March 1st, 2022. After that date, data will be generalized and it will not be possible to remove your information from the data analysis.

For participants who chose to waive anonymity and therefore who will have their name associated with the information they have provided, I will be able to withdraw the data that is directly attributed to them and that has not been generalized, until the time of publication. This date is anticipated to be August 2022.
To withdraw, please contact myself or my supervisor by email or phone via the contact information provided above.

Questions: If you have any questions or concerns, please feel free to contact myself or my supervisor with the contact information provided on the first page.

By providing your verbal consent on this form, you indicate that you have understood to your satisfaction the information regarding participation in this research project, that you have had an opportunity to ask questions, that your questions have been answered, and that you agree to participate to the research as a subject and that this decision is taken voluntarily. Your signature does not waive your legal rights nor does it release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time and/or choose to refrain from answering any questions. You should feel free to ask for clarifications or additional information throughout your ongoing participation.
This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project you may contact any of the persons previously named or the Human Ethics Coordinator at 204-474-7122 or humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Consent Signatures: For your participation in the interview, do you give the researcher your verbal consent to the following elements:

8. I am over 18 years of age. Yes ☐ No ☐
9. I give you permission to audio/Zoom record the interview. Yes ☐ No ☐
10. I wish to remain anonymous. Yes ☐ No ☐
11. I wish to remain anonymous, but you may refer to me by a pseudonym. Yes ☐ No ☐
    - What is the pseudonym you choose for yourself?: _____
12. I wish to waive my anonymity and be identified by name with any information I provide in this interview that is included in writing or presentations resulting from this research. Yes ☐ No ☐
    - What is the name you wish to be identified by?: _____
13. I agree to be contacted after the interview in case it is deemed necessary by the researcher. Yes ☐ No ☐

14. I would like to receive a summary report of this research (by October 1st, 2022).
    Yes ☐ No ☐
    - If yes, what is your email: _____

Verbal consent by participant _____was given on (Date)_____

Researcher's Signature _____Date _____

Thank you for your time!

Appendix IV: Recruitment Email: Approaching Organizations to Request their Help in Interviewee Recruitment

Subject line: Seeking Recruitment Assistance for a Study on Alternative Food Practice and Environmental Concern

Hello [Insert Name],

My name is Laurence Ammann-Lanthier and I am a graduate student at the Natural Resource Institute, University of Manitoba. I am contacting you regarding my master's research thesis titled "Alternative Food Practices for the Anthropocene: Listening to the Voices of Young Adults in Western Canada". I am contacting you today to inquire if you would be interested in helping me recruit interview participants among your membership.

In my research, I am seeking to understand the motivations and experiences of young adults who are concerned for the environment and who choose to conduct alternative food practices such as growing their own food, doing food preservation, baking their own bread, foraging, and participating in local food organizing. I am seeking participants corresponding to these criteria, who live in cities in or around Southern Manitoba, and who may wish to participate in my research. Participation in my study would involve a one-on-one interview of 1-2 hours in length held on Zoom or by phone and at a time convenient to them.

If you think this would be a project of interest to your membership, would you be willing to help me recruit by circulating the attached recruitment poster [Appendix 1.2] to your membership?

Please let me know by replying to this email, and do not hesitate to contact me if there are any questions regarding the research, at this email address or by phone at (XXX)-XXX-XXXX. My advisor is Dr Iain Davidson-Hunt and his contact information is XXXXXXXX@myumanitoba.ca . This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. This research is supported in part by funding from the Social Sciences and Humanities Research Council.

Thanks!

Laurence Ammann-Lanthier

(XXX)-XXX-XXXX
Natural Resources Institute, University of Manitoba,
Sinnott Bldg, 70 Dysart Road, Winnipeg. R3T 2N2
E-mail: XXXXXXXX@myumanitoba.ca

Appendix V: Recruitment Emails to Individuals

Subject line: Participating in a study on alternative food practices and environmental concern

Hello [insert name],

[For individuals who expressed interest to participate in response to the circulated poster or Facebook post: Thank you for expressing interest to participate in this research!]

[For individuals known to me: In the context of my master's thesis research, I am reaching out to you because I am looking for interview participants to my research and I think you might be interested!]

[For individuals with their contact information publicly available: My name is Laurence Ammann-Lanthier and I am a master student at the Natural Resource Institute at the University of Manitoba. I am contacting you because I am conducting research on young adults' experiences with alternative food practice and their concern for the environment. From your involvement in [insert organisation], I think you could provide valuable information pertinent to my research!]

I am doing a project exploring the experiences of eco-conscious young adults who choose to undertake alternative food practices. For this, I am interested in talking to individuals who (1) are young adults urban dwellers in cities in or around Southern Manitoba; (2) have an alternative food practice (e.g. growing your own food, canning, baking your own bread, foraging, organizing alternative food procurement, etc) they do routinely; (3) are concerned for the environment, and; (4) whose alternative food practice is influenced by their concern for the environment.

The interview will be one-on-one, will take approximately 1-2 hours and will be conducted on Zoom or by phone call at a time convenient to you, in English or French. Interview participants will be offered an honorarium of $50.

If you correspond to these criteria and you are interested in participating, I would love to talk to you! If you are interested, please send me your phone number so we can set up a time to chat, and I can provide you with more information about your participation in this project.

Please don't hesitate to ask any questions regarding to the research, I will be happy to provide clarifications.

My advisor is Dr Iain Davidson-Hunt and his contact information is XXXXXXXX@myumanitoba.ca . This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. This research is supported in part by funding from the Social Sciences and Humanities Research Council.

Cheers,

Laurence Ammann-Lanthier
(XXX)-XXX-XXXX
Natural Resources Institute, University of Manitoba,
Sinnott Bldg, 70 Dysart Road, Winnipeg. R3T 2N2
E-mail: XXXXXXXX@myumanitoba.ca

Appendix VI: Recruitment Poster with Deadline

Seeking participants for study on alternative food practices and environmental concern:

Are you a young adult who is concerned for the environment and has an alternative food practice (e.g. growing your own food, canning, baking your own bread, foraging, participating in alternative food procurement organizing, etc) you do routinely? I am looking for such individuals living in a city in or around Southern Manitoba who are interested to be interviewed on Zoom or by phone in a study being conducted through the Natural Resource Institute (University of Manitoba).

The purpose of this study is to understand the experiences of young adults with alternative food practices and the interaction between their concern for the environment and their practice. I will be conducting one-on-one interviews of around 1-2 hours, in English or French. Questions will explore motivations to undertake the alternative food practice, your experience in doing so, your experience as someone concerned for the environment, and how that concern interacts with your food practice. Interview participants will be offered a $50 honorarium.

If you are interested in being interviewed or would like more information, please contact Laurence Ammann-Lanthier at: XXXXXXXX@myumanitoba.ca and provide me with your phone number so we can set up a time to discuss, or call me at (XXX)-XXX-XXXX! Interviews will be scheduled at your earliest convenience. Interested individuals should contact me before January 1st 2022.

My advisor is Dr Iain Davidson-Hunt and his contact information is XXXXXXXX@myumanitoba.ca . This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. This research is supported in part by funding from the Social Sciences and Humanities Research Council.

Thanks!

Appendix VII: Message for Facebook Post

Hey everyone! For my master's thesis at the Natural Resource Institute (University of Manitoba), I am doing a study on young adults' experiences as individuals concerned for the environment who choose to do an alternative food practice.
I am looking for people to interview!

If you are a young adult living in a city in or around Southern Manitoba, if you are concerned for the environment and have an alternative food practice (for example you grow/forage/bake/can your own food or organize local food procurement, etc), and would be interested to be interviewed by myself (in English or French), let me know! Email me at XXXXXXXX@myumanitoba.ca , or my advisor Dr Iain Davidson-Hunt at XXXXXXXX@myumanitoba.ca . Thanks!

Appendix VIII: Follow-Up Phone Call Script

Hi [insert name], this is Laurence calling you, I am the University of Manitoba master's student doing research on alternative food practices. We exchanged a few emails [when], and you provided me with your phone number.
How are you doing?

I am calling you to give you a bit more information on the research and the interview. Do you have 10 minutes to talk?

Great. Firstly, thank you for showing interest in my research!
Like I said in the email, I am interested to talk to young adults who live in cities, who have an alternative food practice they do routinely, and whose alternative food practice is influenced by their concern for the environment. Do you feel that each of these correspond to your experiences, or do you have any questions about this?
Where do you live? What alternative food practice do you do?

In discussing one alternative food practice, the interviews will be about 60-75 minutes long. In the interview, I would be asking you questions to understand your experience with your alternative food practice, specifically exploring your motivations for doing it and the enablers and obstacles you have encountered. I will also ask you questions to understand your experience as someone concerned for the environment, and how that concern influences and interacts with your alternative food practice.

Since I will ask you about your experience as someone concerned for the environment and the emotions related to that, I want to be transparent that some interview questions may be sensitive and personal, and may make you feel uncomfortable. If you choose to participate, you are free to choose to skip questions you prefer to omit, and you are encouraged to discuss only as much information as you are comfortable sharing, without any prejudice or consequence.
Do you have any questions?

The next step would be for me to email you the interview consent form, which contains more information about the interview process. You would then read the consent form, let me know of any questions or concerns that arise. If you want to participate, you would sign and submit the consent form to me by email before we do the interview.
If you prefer, we could also do this process verbally, where I would read out the consent form to you and you would provide me with your signature verbally, if you choose to participate.

[If these are individuals whom I have contacted directly as they are friends or friends of friends: The fact that we are friends [or we are both friends with _____] should not be a pressure for you to participate to the study. So please do not feel any pressure from [our friendship] [our mutual friendship with ____] to participate. Whether you choose to participate or not, I respect your decision!]

[If they said they do more than one alternative food practice: One last thing to consider is that since you said you have more than one alternative food practice, we could either choose to talk about the main practice you feel the most passionate about or dedicated to; or, if you want, we could talk about 2 or 3 of your alternative food practices. If you want to talk about more than one practice it would add an additional 15-40 minutes to the interview, so the interview could go to 1.5-2 hours. We don't have to decide right away.]

Do you have any questions? Would you like me to go ahead and send you the consent form?

Please contact me by email at XXXXXXXX@myumanitoba.ca or (XXX)-XXX-XXXX for any questions or concern about the interview and the consent. You can also contact my advisor Dr Iain Davidson-Hunt and his contact information is XXXXXXXX@myumanitoba.ca . I will provide you with the contact information for myself and my supervisor in a follow-up email.

Thank you again for your time and cooperation!

Appendix IX: Interview Follow-up Email

Hello [insert name],

Thank you again for taking the time to participate to the interview, and for sharing your experiences with me! Your contributions will be very helpful to my research.

[If they said they want to receive and review their interview transcript: You can expect to receive the transcript of your interview in one week.]

[If I judge it necessary: As we have discussed sensitive topics which may have raised discomfort, I want to ensure you have access to some helpful resources in the event you would find them helpful. I have attached them to this email (Appendix 2.4)]

If you have any further question, concern, reflection or clarification you wish to bring to the experiences you shared with me in the interview, don't hesitate to contact myself or my supervisor Iain Davidson-Hunt (XXXXXXXX@myumanitoba.ca)

Thank you again for your time!

Cheers,

Laurence Ammann-Lanthier
(XXX)-XXX-XXXX
Natural Resources Institute, University of Manitoba,
Sinnott Bldg, 70 Dysart Road, Winnipeg. R3T 2N2
E-mail: XXXXXXXX@myumanitoba.ca

Appendix X: Micro, onto and socio genesis and materials, competencies and meaning

		Material, competencies and meaning generating alternative food practices (Shove et al., 2012)		
		Material	**Competencies**	**Meaning**
Dialogical scales where alternative food practices are generated (Marková el al, 2020)	**Microgenesis** *The concrete situations (interactions and spaces) where individual and social change occur*	- Foodstuff acquired from small businesses (local stores, farmers market, farms) and big box stores, and shared by other practitioners/community of practice - Spaces include participants' gardens, community gardens, forest/city spaces to forage, dumpsters - Acquiring alternative food practices requires the adaptation of daily habits	- Food competencies are acquired in participants' kitchens, yards, in practitioners'/communities of practice's/food organizations' outdoor/indoor/virtual meeting spaces and community gardens, on the Internet, through books, and/or through interactions with family/partners, and practitioners	- Communities of practices: online meeting spaces and groups, physical meeting spaces of organizations including events and community gardens - Documentaries, the Internet, and other climate-media consumed by participants - Through participants' own experience and relation with nature - Shared in family homes, or by friends
	Ontogenesis *Agency negotiation; Identity formation; Individual development/life-story*	- Material enablers to agency negotiation include: having enough money, having access to social and cultural capital (supportive friends/family and communities of practice), having a convenient access to the necessary space (kitchen, yard, community garden, dumpsters)	- Competencies enabling agency/participant development in alternative food practices/climate distress include: participants' critical engagement with the impacts of the eco-crisis and of conventional food systems, and their care for the environment motivate the acquisition of alternative food competencies; their research skills and the support of others/practitioners in this process - Acquiring one alternative food practice often leads to the acquisition of additional alternative food practices - The resulting increased self-sufficiency, agency and self-efficacy lead participants to feel empowered, rewarded and satisfied by these competencies	- Participants reject the ease, convenience, lack of skill and unsustainability of conventional food practices/systems, and are attracted to alternative food competencies because they understand them as pathways of tangible action and skill to contribute to ecological and ethical transformation in food systems. - Participants understand their skills as part of their personal and/or collective contribution to climate futures - Participants have to negotiate their responsibility to act for planetary health to ensure they are not overwhelmed or paralyzed by climate distress
	Sociogenesis *Social, ideological, political, historical, or cultural influences and transformations*	- Corporate and public policies support conventional agricultural practices - Underdeveloped alternative food systems result in the lack of access to alternative foodstuff - The cultural loss of practices of gifting, trading and growing/making one's own foodstuff hinders acquiring and sustaining alternative food practices, and hinders the development of localized alternative food economies	- Conventional food competencies are institutionalized through corporate and public policies making them convenient and accessible - Alternative food competencies have been lost through the industrialization of food systems, and they emerge in participants' lives through connections with sub-cultures of communities of practices, through family/friends practitioners sharing competencies, and/or through the Internet.	- Alternative food practices are part of alternative food systems and economies based on values of care, ethic, ecological health, reconnection to nature/food, and skill reappropriation/food system decentralization. This challenges the corporate monopolization in conventional food systems and its de-territorialized economy based on profit maximization. - Alternative food practices are adopted with the goal of contributing to social, cultural and economic transformation towards alternative food systems and climate futures.