MEDIATED MEAT: BUYING AND SELLING BEEF IN CANADIAN SUPERMARKETS

KELSEY LEIGH SPEAKMAN

A DISSERTATION SUBMITTED TO
THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN COMMUNICATION AND CULTURE
YORK UNIVERSITY
TORONTO, ONTARIO

June 2024

© Kelsey Leigh Speakman, 2024

Abstract

Revealing supermarkets as significant mediators of food ethics, this dissertation delves into the contemporary "beef" with beef. Critics wonder if ethical beef consumption is possible, since dominant beef systems have been associated with environmental deterioration, health crises, and unsafe work. As supermarkets are primary places where people encounter beef, they are valuable sites for research on these deliberations.

The ubiquitous role that supermarkets play in beef distribution is indicative of the power they hold at key junctures of the material and affective networks that facilitate foods' movements. To assess the extent to which supermarkets promote ethical beef consumption through these "infrastructures of feeling", the dissertation presents a case study of beef shopping in supermarkets owned by Canada's largest food retail company, Loblaw Companies Limited. The study compiles evidence from promotional materials, in-store observations, expert interviews with management, and focus groups with shoppers. Using critical discourse analysis, it investigates the relationships between beef shopping participants that are expressed in the data.

The project builds on the literature of "cryopolitics" (the governance of frozen time-spaces between life and death) to characterize Loblaw's supermarkets as "cryopolitical mediators" that shape conditions for flourishing in Canada's cattle-beef infrastructure. Chapters address central themes that emerge from the data—trust, choice, ghosts—to depict multiple interpretations of the (un)ethical beef futures that Loblaw offers: from support for Loblaw as a credible risk manager; to critiques of Loblaw's activities that have been reinvented as corporate social responsibility initiatives; and rejections of Loblaw's

plans for beef provisioning, as inspired by haunting signs of organic mutability. The study finds that Loblaw approaches ethical beef consumption through a logic of freshness, whereby profitable elements of the current cattle-beef infrastructure are preserved based on perpetually deferred promises of nourishment.

The dissertation reimagines the apparent gap between eaters and food sources that has been blamed for perpetuating the harms of the beef industry. Whereas an emphasis on separation invokes corrective efforts to fill in missing information, the framework of mediation shifts attention to the work of adjusting perceptions in the interest of finding responses to the relational entanglements of eating and being meat.

For my childhood bovine neighbours (Bogart's fellow dogs)

Acknowledgements

True to the topic of my dissertation, I think of myself as a mediator in my scholarly practice. The work I present here is a collection of my encounters with many people, organisms, and places. While the space on these pages is too limited to list them all by name, they haunt the margins regardless, like the ghosts I write about in the following chapters. I offer them all my deepest gratitude.

First, I acknowledge and extend respect to the Indigenous Nations on whose land I have lived, worked, and studied while undertaking this project, including the Anishinabek Nation, the Haudenosaunee Confederacy, the Huron-Wendat, the Mississaugas of the Credit First Nation, and the diverse First Nation, Inuit, and Métis communities who continue to caretake this place. I commit to using the privilege that I have gained alongside my doctorate degree to advance the work of decolonization.

I am fortunate to have been guided with warmth and wisdom by a group of irreplaceable mentors. I appreciate sincerely my supervisor Dr. Jody Berland for her confidence in me throughout this long journey and the infectious passion she displays for cultivating a better world. I am indebted to her for the dissertation's framework of mediation and my scaffolding as a scholar. I am also thankful for my committee members: Dr. Mustafa Koç who introduced me to the flourishing gardens that are the field of food studies and the Canadian Association for Food Studies (I am proud to be one of the "weeds" he has helped to grow), and Dr. Catriona Sandilands who introduced me to the wonder of nonhuman perceptual worlds which continue to delight me a researcher and human (her inclusive, imaginative teaching practice has inspired my work as an instructor). I am

grateful to my examiners, Dr. Irena Knezevic and Dr. Sarah Rotz, for their interest in the work. I have long admired both the contents of their scholarship and their processes as community-engaged scholars.

I have learned invaluable lessons from the course directors with whom I worked as a teaching assistant. An exceptional advisor during my first years as a university instructor, Dr. Natalie Coulter's explanations of the literatures and worlds of consumer culture have been foundational to my research. My interest in food systems and my understanding of the complex dynamics therein is influenced by my work with Dr. Japji Anna Bas, Dr. Evelyn Encalda Grez, Dr. Roderick MacRae, and Dr. Frehiwot Tesfaye. The tools Dr. Colin John Campbell gave me to explore epistemology, politics, and history were especially welcome as I searched for the big picture meanings of my forays through supermarkets.

I have benefitted from my interactions with countless other colleagues, instructors, librarians, staff members, and students at OCAD University, York University, and beyond. My belief in the possibilities for collaborative scholarly exchange has been re-ignited by being part of the generous community of scholars who make up the Science and Technology Studies Food and Agriculture Network (STSFAN), as well as the scholars who I have had the pleasure of working with during our ongoing dialogue about reimagining food studies and food systems. My belief in the potential for social infrastructures to be organized by more mutual care and respect is inspired by the students who I have learned from as an instructor.

Several people deserve recognition for lending their expertise to various pieces of this project. Dr. Antje Budde and Dr. Fergal Nolan inspired me to begin the PhD program. Dr. Margaret Bancerz provided me with vital strategies for engaging with the food industry.

Michael Chrobok's kind, thorough approaches to social research and funding applications formed a pillar of the work. Emilie Bassi and Dr. Joel Dikau shared with me their knowledge of practice theory and culinary infrastructure respectively, which became important theoretical underpinnings for the dissertation. Gerry Keane and Steve Himel offered me priceless advice on running focus groups. Along with influencing various ideas at the heart of my scholarly curiosity, Aidan Dahlin Nolan helped me to see climate change as a central dynamic with which the dissertation engages, and his superhero alter ego, Ghost Frog, was part of the inspiration for the chapter on ghosts. Dr. Rebecca Halliday has been a consistent source of support in navigating the doctoral process from coursework to the defence.

A special thank you goes out to the research participants whose insights appear directly and indirectly throughout the dissertation. While their identities are anonymized in keeping with Research Ethics protocols, each of their contributions was essential to this project. This thanks includes the individuals at Loblaw Companies Limited who arranged my viewing of the collection of *Insider's Reports* housed at the head office. Regardless of the critiques that I make of the *infrastructures* in which these research participants are embedded, I believe firmly that the individual industry participants whom I encountered make valuable contributions to the foodscape. The views expressed in this dissertation are my opinions based on my interpretation of the evidence I gathered for my case study on a matter of public interest, and they do not necessarily represent the perspectives or intentions of Loblaw Companies Limited, its subsidiaries, affiliates, and/or its current or former employees.

I am forever grateful for the love and support of every one of my friends and family members. They are the "meat" of the network that made this dissertation possible. Thank

you to: Nancy Mann for the innumerable conversations that have been the definition of heart-to-hearts; Larry Speakman and Dianna Speakman for the game nights, teacher talks, dinners, check-ins, and other ever-growing forms of care; Meghan Speakman for being my hero; Kathy Munn for being my safe place to land; and Jersey and Roo for landing safely with me. Receiving an honorary doctorate is Andrew Hanna who has occupied a seat in the front row of this process with acceptance and humour.

Part of the dissertation was previously published as an article with the *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation* under the Creative Commons CC BY-SA license as: Speakman, K. (2024). Beef, beans, or byproducts? Following flexitarianism's finances. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *11*(1), 91–110. https://doi.org/10.15353/cfs-rcea.v11i1.638. I created the figures that appear in the dissertation with the graphic design application Canva.

The research received funding from the Social Sciences and Humanities Research Council of Canada, Ontario Graduate Scholarship Program, York University, CUPE 3903, and the York University Graduate Students' Association.

Table of Contents

Abstract ii

Dedication iv

Acknowledgements v

Table of Contents ix

List of Tables xiii

List of Figures xiv

Prologue: (Exo)skeletons in the Supermarket 2

Crickets and Crises 2

Crickets and Cattle 6

"Crickets" 8

Chapter 1: Feeding the World? 10

Introduction 10

Beef and Risks 11

Supermarketization and Neoliberalism 19

Research Question and Objectives 24

Theoretical Frameworks 26

Mediation and Infrastructure 26

Cryopolitics and Reception 30

Empirical Frameworks 34

Positionality 36

Chapter Overview 41

Chapter 2: Canada's Cattle-Beef Infrastructure 44

(In)visible Infrastructures 44

The Cattle-Beef Commodity Chain: Production, Consumption, and Separation 46

Farm to Fork and Nose to Tail 50

Cattle-Beef Infrastructures: Risks, Scapes, and Mediation 53

Foodscapes and Meatscapes 59

The Rise of the Dominant Cattle-Beef Infrastructure 61

Cultivation (16th Century to 19th Century) 62

Ranching 63

Rationing 66

Classification (Early 19th Century to Early 20th Century) 68

Public Slaughterhouses 69

Self-Service Grocery 70
Centralization (Late 19th Century to Mid-20th Century) 73
Disassembly Lines 74
Supermarkets 78
Purification (Mid-20th Century to Late 20th Century) 82
Single Species Slaughter 83
Shopping Centres 86
Specialization (Late 20th Century to Early 21st Century) 91
Boxed Beef 92
Hypermarkets 96
Dematerialization (21st Century to The Future) 100
Alternative Proteins 102
E-Retailing 105
Vanishing Butchers and Imperialist Nostalgia 108

Chapter 3: Ethical Approaches 116

What's Good Here? 116
Ethics and Food Systems Governance 118
Productionism 125
Sustainable Development 130
Food Sovereignty and Food Justice 135
Ontologies and Epistemologies 141
Feminist Ethics of Care and Justice 144
Indigenous Caretaking Relations and Sovereignty 146
(Re)learning Care 150

Chapter 4: Methodology 154

The Experts 154
Situated Intersectionality 155
Case Study 162
Archives 166
Observations 169
Interviews 174
Focus Groups 177
Data Analysis 182

Chapter 5: Trust 188

"Do Not Worry" 188
Risk Communication and Manufactured Trust 190
Preferred Readings and Social Licensing 195
Loblaw's Trusted Identities 200
Shopping for a Sunday Roast with a Neighbourhood Tastemaker 201
Unpretentious 203
Effortless 205

Tolerant 207
Shopping for a July 1 Barbecue with a Canadian Company 210
Homegrown 213
Local 214
Sovereign 216
Shopping for a New Year's Diet with a Wellness Authority 220
Objective 223
Scientific 225
Personalized 226
"The Right Things" 229
Chapter 6: Choice 231
Cashing in on Crisis 231
(Ir)responsibility and Private Insurance Society 233
Negotiated Readings and Corporate Social Responsibility (CSR) 238
CSR at Loblaw 244
Environmental Sustainability and the "Ecological Hoofprint" Critique 245
Canadian Roundtable for Sustainable Beef (CRSB) 246
Regenerative Agriculture and Insurance for Intensive Beef Production 248
Social Sustainability and the Antimicrobial Resistance (AMR) Critique 257
PC Free From 259
Antibiotic Residues and Insurance for Antimicrobial Use 262
Economic Sustainability and the Farm Crisis Critique 265
Plant-Based Meats 267
Flexitarianism and Insurance for Meat Economies 270
"There's No End to It" 275
Chapter 7: Ghosts 279
Milk and Meat 279
Cryogenic Culture and Spectral Mediation 281
Oppositional Readings, Ghostbusters, and Mediums 287
A Supermarket Séance 292
Purge and the Ghosts of Infrastructures Past 294
Rot and the Ghosts of Infrastructures Future 298
Responding to Ghosts 303
Ghost Stories 303
Ghost Struggles 305
Empty Chairs at Empty Tables? 311
Chapter 8: Ethical Expiry? 315
"Anything Can Happen" 315
Ethic of Freshness: Review 317
Implications for Scholarship and Practice 323

ETHIC OF DECAY: REVISIONS **329**

LIMITATIONS AND REFORMULATIONS **334**

SUPERMARKETS, EXTRACTIVE MEDIATION, AND THE GROCERY CODE OF CONDUCT 337

BUFFALO, RELATIONAL MEDIATION, AND THE BUFFALO TREATY 344

ADDENDUM: SHOPPERS, SOCIAL MEDIA(TION), AND THE LOBLAW BOYCOTT 350

CRICKET POWDER TO DUST… **352**

References **355**

Appendices **468**

APPENDIX A: BEEF SHOPPING LIST **468**

APPENDIX B: MEAT DEPARTMENT OBSERVATION GUIDE **470**

APPENDIX C: STORE MANAGER/OWNER INTERVIEW GUIDE **472**

APPENDIX D: RETIRED EXECUTIVE INTERVIEW GUIDE **474**

APPENDIX E: EXECUTIVE INTERVIEW QUESTIONS **475**

APPENDIX F: FOCUS GROUP SCREENER **476**

APPENDIX G: FOCUS GROUP DEMOGRAPHICS **481**

APPENDIX H: FOCUS GROUP GUIDE **489**

APPENDIX I: CODING NOTES **491**

List of Tables

Table G1: Ages of focus group 1 participants 481

Table G2: Household characteristics of focus group 1 participants 482

Table G3: Household incomes of focus group 1 participants 482

Table G4: Ages of focus group 2 participants 483

Table G5: Household characteristics of group 2 participants 484

Table G6: Household incomes of focus group 2 participants 484

Table G7: Ages of focus group 3 participants 485

Table G8: Household characteristics of focus group 3 participants 486

Table G9: Household incomes of focus group 3 participants 486

Table G10: Ages of focus group 4 participants 487

Table G11: Household characteristics of focus group 4 participants 488

Table G12: Household incomes of focus group 4 participants 488

List of Figures

Figure 1: Map of infrastructures 41

Figure 2: Social formations of contemporary food systems governance 124

Figure 3: Interpretations of beef ethics as an infrastructure of feeling 186

“You want to trust that you are supporting a system that is ethical. I think organizations—big organizations—realized that they better bloody well do their homework; otherwise, they’re going to be found wanting.”

—“Adrian”, former food retail executive

Prologue: (Exo)skeletons in the Supermarket

"We cannot go on treating the world and its contents like some gigantic supermarket" (Serpell, 1996, p. 234).

Crickets and Crises

Canadian food retail company Loblaw Companies Limited (Loblaw) introduced cricket powder to its house brand line of President's Choice (PC) products in 2018.[1] Emphasizing the product's Canadian origins, environmental efficiencies, and health benefits, Loblaw presents PC cricket powder in a press release as an "answer [to] the need for great tasting protein, produced in a more sustainable manner" (Loblaw Companies Limited, 2018, para. 1).

Anthropo-entomophagy—the human practice of eating insects—has received increased attention from food retailers in the past decade[2] since the Food and Agriculture Organization of the United Nations (FAO) published a report on insects' potential roles in future food systems (van Huis et al., 2013; van Huis, 2021). The report begins with a familiar concern: "It is widely accepted that by 2050 the world will host 9 billion people. To accomodate [*sic*] this number, current food production will need to almost double" (p. ix). Taken from another FAO (2009) publication (*How to Feed the World in 2050*), these statistics on population growth[3] and agricultural yield are regularly paired to form a

[1] At the time of writing in spring 2024, PC cricket powder is not available at Loblaw's stores.
[2] Proposals for entomophagy as a solution to food shortages are not new, even as they have seen an upsurge in the past decade. Holt's (1885) *Why Not Eat Insects?* suggests that entomophagy could "alleviate the sufferings of…starving labourers…in…days of agricultural depression" (p. 15). Evidence of entomophagy dates to as early as 9,000 to 30,000 BCE, according to depictions of bee larvae collection in cave paintings (Gahukar, 2013, p. 265).
[3] Population projections have since been updated, estimating growth closer to ten billion people (United Nations [UN] Department of Economic and Social Affairs [DESA], 2022).

metanarrative about the central risk facing the contemporary global food system: too many people and not enough food. Insect farming promises to address a subset of this larger problem by tackling the "protein crisis", which projects an increasing gap between protein supply and protein demand because of not only a growing human population but also increasing per capita consumption of animal products. This situation is compounded by strained ecologies that are struggling to support the additional burdens of animal agriculture (Guthman et al., 2022; International Panel of Experts on Sustainable Food Systems [IPES-Food], 2022).

In the context of widespread questions about dominant animal agriculture's capacity to meet these needs sustainably, the report assesses the potential for insects to act as another protein option that could "contribute…positively to the environment…health…and livelihoods" (van Huis et al., 2013, p. xiii). In comparison to the vast amounts of water, land, and grain that are used for rearing industrialized livestock (Poore & Nemecek, 2018), insect farming requires fewer resources and can recycle bio-waste as feed (Alexander et al., 2017; Halloran & Vantomme, 2013; Varelas, 2019). Given these minimal input requirements, the report suggests that edible insects can provide economic opportunities for small-scale growers and foragers in the global South who are already familiar with insect farming and collecting (van Huis et al., 2013). As cold-blooded animals, insects also have faster feed conversion rates than other agricultural animals (Alexander et al., 2017; van Huis, 2013), and present possibilities for more humane processing methods (Abraham, 2016).[4] Finally, eating insects offers health benefits on the levels of both individual nutrition (as indicated

[4] As insects' metabolism slows when they are frozen, their experience of slaughter by freezing is likened to "fall[ing] asleep" (Abraham, 2016, para. 19). This reference to the use of cold temperatures to transition organisms from life to death foreshadows an important theme in the dissertation.

by the phrases “high in protein” and “an excellent source of B12” on the PC cricket powder packaging) and public safety (given insects’ genetic divergence from humans, they likely present less of a threat than livestock mammals or birds as sources of zoonotic diseases; van Huis et al., 2013; van Huis, 2021).

While the UN estimates that approximately two billion people around the world practice entomophagy (van Huis et al., 2013), consumers in the global North often display trepidation about the prospect of eating insects (Lesnik, 2019; Looy & Wood, 2006). A “re-branding” (Killingsworth, 2013, para. 2) of edible insects has thus been underway. To make products palatable for consumers in the global North, the UN recommends using “the meat industry as a model” (van Huis et al., 2013, p. 152) in that insect products could be supplemented with non-insect components, as in the blends of ingredients that go into processed meats. Indeed, this approach is the route that many start-ups have taken,[5] developing insect bars, burgers, cookies, crackers, and other products that disguise the foods’ entomological origins.[6] The operator of the farms from which Loblaw has sourced its cricket powder, Jarrod Goldin, comments: “Once it becomes flour, it’s just food” (as cited in Toller, para. 17).

The attitude toward the unappealing animality of insect-based products is intertwined with racialized associations. J. I. Jackson (2020) observes: “the categories of ‘race’ and ‘species’ have coevolved” (p. 12), in that the bodies and practices of racialized peoples and animals have been compared with one another in colonial discourses, such that whiteness has been held up as representative of the most advanced form of humanity. Since 15th

[5] See a list of edible-insect companies on the *Bug Burger* website (Engström, 2023).
[6] Products made by Canadian companies include: Entomo Farms’ protein powder, Grillon Le Pain’s cricket bread, and Näak’s cricket energy bars. See a global list of products on *Bug Burger* (Engström, 2020).

century colonial encounters with the food cultures of the Americas, entomophagy has been classified as a "primitive" practice that is unsuitable for "civilized" society (Lesnik, 2019). On the flipside of the desire to eradicate these foodways, however, is a longing to experience the dangerous pleasure of "eating the Other" (hooks, 1992, p. 21), as the spectacle of insect-eating challenges on reality shows like *Fear Factor* demonstrates. Presented in Westernized culinary formats, insect products allow white consumers to taste "a bit of the Other" (hooks, 1992, p. 22) without addressing internalized colonial perceptions of Otherness.

The creation of de-animalized, Westernized insect products is supported by the UN's first priority for research and development surrounding edible insects: "mass-production technologies" (Halloran & Vantomme, 2013, p. 4). While scaling up and standardizing production could allow the edible insect industry to move beyond niche markets and to compete with mainstream livestock industries, it simultaneously reduces the viability of small-scale growers and entrepreneurs. This intensification also presents complications from an animal welfare perspective. Despite many insects' natural organization into colonies, aggression and disease still occur if population densities become too high (Erens et al., 2012).[7] Moreover, science on invertebrates' pain perceptions is evolving and uncertain (Tiffin, 2016).

Insects make themselves known even in products that are designed to erase them. When I attended an insect cooking demonstration hosted by a Loblaws supermarket (one of the store brands owned by Loblaw Companies Limited), I heard the chef promise the guests that they would not be able to detect the insect ingredients in the finished dishes she

[7] Locusts begin cannibalizing each other when they become starved for space, for example, and crickets are sensitive to diseases when heat levels rise with overcrowding (Erens et al., 2012). These issues are similar to those that arise with the overcrowding of conventional livestock (Weis, 2013).

presented. At the same time, she noted that insect legs occasionally get stuck in the teeth or throat like the hull of a piece of popcorn. Such moments of stickiness open subtle opportunities for engagement with the food system actors who remain under-considered in dominant risk management schemes.

Crickets and Cattle

The incongruity between supermarkets' "easy and approachable" (Thomas as cited in Sagan, 2018, para. 5) solutions of having your cricket cake and eating it, too, and the underlying inconsistencies of unaddressed problems in food systems is a key tension that this dissertation investigates. The prologue's foray into the development of *micro*-livestock acts as a *micro*cosm of the dissertation's overarching concerns: How are unethical food practices established and maintained? How could more ethical practices be encouraged? In addressing these questions, the dissertation examines a common foil of the burgeoning insect market: the beef industry.

Goldin states: "If people came and saw our farm and then went and visited a cattle farm, I think a lot of people would switch to eating insects" (as cited in Toller, 2015, para. 28). With its resource intensive practices and the questionable healthfulness of its products, the beef industry is positioned as the epitome of the problems to which many discussions of entomophagy compare the insect industry's benefits (Alexander et al., 2017; Gahukar, 2013; Poore & Nemecek, 2018; van Huis, 2013). As the animal product associated with the highest level of greenhouse gas emissions (FAO, 2023b; Poore & Nemecek, 2018), the beef industry is a prime target for reform and/or replacement in protein crisis scenarios. Nevertheless, tactics of the beef industry are still held up as models toward which

innovators in the insect industry should strive. Even after outlining the environmental shortcomings of animal agriculture, entomophagy entrepreneur Jakub Dzamba (2009) looks to fast food for inspiration:

> Just because you eat a hamburger doesn't mean you want to meet the cow. The same thinking should go for eating micro-livestock—eating whole bugs is not the idea. When eating fast food it isn't always obvious what part of the animal you're eating and how it was processed to look and taste the way it does. Fast food excels at taking foods that at one point would be undesirable and turning them into something appetizing. (p. 14)

In its current formulation, the protein crisis is narrated as a problem that can be addressed by substituting one input for another without adjusting hierarchical relationships that cultivate security for some at the expense of others. This dynamic is indicative of how risk plays a notable role as a "structure of feeling" that influences contemporary food systems. According to Williams (1977), a "structure of feeling" (p. 128) is a combination of existing institutional norms and evolving daily experiences that shapes and is shaped by the interplay of "social formation[s]" (Williams, 1980, p. 37) within a cultural moment. Cohering in the sense of risk that the protein crisis expresses is the "residual" (p. 37) tendency to rely on amplified yield from established animal agriculture operations as well as the now "dominant" (p. 37) directive to count on the market to provide innovative ways out of future catastrophes. And yet, the experience of risk is also haunted by an "emergent" (p. 37) feeling of unease, which does not find comfort in these solutions and reveals other possibilities entangled in the linear trajectory toward apocalypse or redemption. Intertwining the feelings, societies, and materials of food system

risk is the “infrastructure of feeling” (Gilmore, 2022, p. 490) that holds them together as an affective, discursive, and physical web. I identify contemporary supermarkets as key valves at the centre of this infrastructure. As mediators, supermarkets direct the flows of connection and disconnection that shape ethical and unethical relations.

The dissertation undertakes a journey through the mediated networks of Canadian food retail company Loblaw to “meet the cow” (Dzamba, 2009, p. 14) and the other actors involved in the beef industry. It examines the processes by which food purveyors have transformed unappealing elements of the beef industry into desirable trends, and it considers how this process is maintained in the face of criticism. Along the way, bovine ghosts and other spectres are encountered who might collectively re-imagine ethical food practices if humans might listen and respond.

“Crickets”

To listen to crickets is to hear both sounds and silence. The sound of chirping crickets has become associated with a lack of response during a conversation or performance, so much so that the word “crickets” is used as a shorthand to mean “silence” (Merriam-Webster, 2023). Rather than rushing to break these “awkward silences”, what happens if we sit in their discomfort?

…

We may hear the music of an “orchestra”, which is in fact, a word for a group of crickets (Desjardins, 2020).

Whether tuning into crickets, cattle, or other communities, I hope that the instruments of mediation with which this dissertation experiments can help other researchers and

practitioners to hear (to see, or perhaps to sense synesthetically) the “infrastructures of feeling” that are intertwined with food and eating in their most paradoxical of forms.

Chapter 1: Feeding the World?

"In terms of priorities […] if I did have more money to work with, I guess I'd look for ethical... as ethical as meat options can be" (Laura,[8] Focus Group 3).

Introduction

As neoliberal politics have extended from ongoing colonial histories to pave the way for supermarkets' increased authority as intermediaries in global food systems, supermarkets have become both powerful forces for maintaining unethical food practices and key sites through which to identify elements of more ethical food practices. This introductory chapter explains the context and rationale for the dissertation topic, and it introduces the project's major questions, goals, and frameworks. I begin by outlining how concerns about the beef industry have been expressed in declarations of a "protein crisis" as a subsection of a dominant risk narrative on "how to feed the world." Foregrounding the relationship between power and risk perceptions, I trace the rise of supermarkets as key regulators of food systems ethics. Next, I introduce the theoretical frameworks of mediation, infrastructure, and cryopolitics that the dissertation uses to navigate the webs of connections and disconnections in which beef and supermarkets are entangled. Finally, I detail the parameters of the case study I conducted on beef consumption at supermarkets owned by Canadian company Loblaw Companies Limited.

The project builds on the literature of "cryopolitics" (the governance of frozen time-spaces between life and death) to characterize Loblaw's supermarkets as "cryopolitical mediators" that shape conditions for flourishing in Canada's beef systems. The central case

[8] Pseudonyms are used for all research participants.

study finds that Loblaw approaches ethical beef consumption through an "ethic of freshness", whereby profitable elements of current beef provisioning arrangements are preserved based on perpetually deferred promises of nourishment. I argue that ethical beef consumption appears at Loblaw's supermarkets in the form of a burgeoning trend; while Loblaw *mediates* between ethical issues and capitalist imperatives by repackaging criticism as individual choice, it also acts as a *medium* for unaddressed concerns, which haunt supermarkets and call attention to the actors who must be prioritized in future food systems.

Beef and Risks

Frequently expressed in the form of a question about "how to feed the world" now and in the future, the incompatibility between a growing human population and a finite planet is a dominant risk that organizes the governance of contemporary food systems (FAO, 2009; Nature Food, 2020; Searchinger et al., 2019). In the 18th century, Malthus (1798) framed food provisioning as an ethical issue, cautioning that famine and other global crises would result when the human population grew past available food supplies. Developments in agriculture in the following centuries disproved Malthus's projections, as agricultural yield out-paced human population growth. Nevertheless, population growth is still positioned as a central challenge for future food systems (Stone, 2022). The United Nations (UN DESA, 2022) projects that the human population will reach 9.7 billion people by 2050. As persistent levels of hunger and malnutrition demonstrate (FAO et al., 2023), global food systems are ill equipped to meet the needs of even the current population.

Animal agriculture is a prominent point of concern in these discussions. Mounting evidence indicates a variety of ways in which the contemporary meat industry exacerbates the risk that food systems will be increasingly unable to feed people (Katz-Rosene et al., 2023). The beef industry stands out as a particularly risky operation in several respects.

Beef production places strains on land, water, and air not only by heavily drawing on ecological materials, but also by polluting ecosystems. A ground-breaking report from the Food and Agricultural Organization of the United Nations (FAO) identifies the livestock sector as "one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global" (Steinfeld et al., 2006, p. xx). More specifically, it names beef as the livestock product that "carr[ies] the largest costs in terms of land and water requirements for its production, as well as in terms of contribution to climate change" (p. 261). Since then, much ink has been spilled on debating the particularities of the UN's calculations (Gerber et al., 2013; Goodland & Anhang, 2009; FAO, 2016). Significant variation exists between beef production systems, some of which are beneficial for ecosystems. Nevertheless, the beef industry in its current formulation continues to be identified as a sector in need of reform (Katz-Rosene & S. J. Martin, 2020a).

In comparison to other common livestock species, cattle grow slowly. As a result, they require more space, water, and food to be raised from conception to slaughter (Ranganathan et al., 2016). Researchers calculate that ruminant livestock[9] operations represent two thirds of agricultural land use (Searchinger et al., 2019) and that the beef industry accounts for one third of animal agriculture's water footprint (Hoekstra, 2020).

[9] Ruminants regularly used for livestock also include sheep and goats, but cattle are by far the most common (Ranganathan et al., 2016).

While some cattle graze on lands that would not be suitable for many other kinds of agriculture, the swift expansion of the industry has also depended on clearing forests and savannahs for pasture and cultivated feed (Poore & Nemecek, 2018; Ranganathan et al., 2016). When land is stripped of diverse vegetation and subjected to overgrazing or the repeated use of fertilizers and pesticides for monoculture crop production, soil can become eroded, acidified, and unable to support vegetation (United Nations Convention to Combat Desertification [UNCCD], 2022). As habitats disappear, biodiversity loss intensifies to create a pattern that scientists have labeled the "sixth extinction" (Kolbert, 2014).[10]

The beef industry's input-heavy production systems translate into substantial waste. Given the specific nature of ruminant digestive systems, cattle produce significant volumes of methane through enteric fermentation (Gerber et al., 2013; Poore & Nemecek, 2018). They also pass nitrogen into their manure, which cannot be absorbed into the landscape when produced in excess quantities. Instead, this waste leaches into waterways alongside runoff from the nitrogen fertilizers used for feed production (Searchinger et al., 2019).

Exerting a combination of environmental pressures, the beef industry makes a notable contribution to climate change. Cattle can be important participants in fostering the sequestration capacity of grasslands because they maintain vegetation through grazing and build soil nutrients through manure. At current population levels, however, cattle overwhelm these ecosystems (Qualman & National Farmers Union [NFU], 2019). The FAO (2023b) counts more than 1.5 billion cattle in the global population. Statistics vary depending on the parts of the production process that are included and the calculations

[10] Scientists cite accelerating rates of background extinction to propose that we are living through a time of human-precipitated mass extinction that could be compared to five previous mass extinction events in the Earth's history (Kolbert, 2014).

that are used to measure gasses in relation to carbon dioxide, but beef ranks consistently as the food that accounts for the highest levels of greenhouse gas emissions (Poore & Nemecek, 2018; Ritchie et al., 2023). Ongoing estimates made by the FAO's Global Livestock Environmental Assessment Model position the cattle industry as representative of more than 60% of livestock emissions (FAO, 2023c).

The beef industry also contributes to public health risks. The health and safety threats caused by pollution and climate change, to which the beef industry contributes, materialize as extreme weather events and decreased air quality, as well as increasingly virulent pathogens, which develop and spread at accelerating speeds as biodiversity diminishes (Carlson et al., 2022; Wallace, 2020). Moreover, such diseases are becoming more challenging to treat as antimicrobials are losing their efficiency after years of routine, subtherapeutic use in livestock operations (United Nations Environment Programme [UNEP], 2016). As a calorie-dense food that contains important micronutrients, beef can play a role in ameliorating the diets of people who do not have access to adequate nutrition (FAO, 2023a). At the same time, the widespread overconsumption of red meat is linked to increased rates of noncommunicable diseases such as heart disease, cancer, and diabetes (Bouvard et al., 2015; FAO & WHO, 2019).

The wellbeing of workers and animals is similarly compromised. Cattle can experience physically and psychologically harmful situations when living and dying in regimented, crowded quarters. During industrial production, they routinely endure castration and dehorning, separation from herds, and arduous transport (Mandel et al., 2022; Nalon et al., 2021). Especially for rural households in the global South, livestock production is an important source of income (FAO, 2018). Still, workers face unstable and/or hazardous

conditions throughout the industry including high rates of debt for farmers/ranchers, workplace injuries and psychological damage for slaughterhouse workers, and insufficient wages for precariously employed food service and retail staff (Black, 2022; Food Processing Skills Canada [FPSC], 2019; Qualman & NFU, 2019).

Beef consumption is stagnating in several places in the global North, but it is expected to continue to rise in the global South, resulting in an overall increase in global demand. The projected levels of consumption of other meats display similar geographical patterns, though the demand for poultry is predicted to outpace other categories substantially (OECD & FAO, 2023). This situation has prompted declarations of a looming "protein crisis" wherein protein supplies will be unable to keep up with demand, thus compounding the challenge of feeding the world. Indeed, the discourse on the problem of feeding the world "often center[s] on protein" (Guthman & Biltekoff, 2022, p. 665), given the combination of protein's positive associations with essential nutrition and its negative associations with strains on animals and environments.

Industry organizations and governments have proposed various strategies to fill the apparently widening "gap" between protein availability and protein requirements (Gauthier & Sernyk, 2016; World Economic Forum [WEF], 2018). The efforts reposition as a "purported protein *production* deficit" (IPES-Food, 2022, p. 23) the now discredited belief in a "protein gap", an idea that guided the work of international health agencies in the mid-20th century based on the understanding that diseases of malnutrition like kwashiorkor were caused by a lack of protein (Guthman et al., 2022). Current projections on protein unavailability assume that countries in the global South will follow the historical patterns of the "nutrition transition" wherein the consumption of animal products and processed foods

has increased as populations have urbanized and incomes have risen since the 1960s (Popkin et al., 2001).

While there is growing consensus that existing animal agriculture norms need to be transformed, there is disagreement about the causes of current challenges and the strategies that should be pursued to address these issues (Katz-Rosene & S. J. Martin, 2020b; Katz-Rosene et al., 2023). Neo-Malthusian approaches focus on the relationship between food supply and demand, suggesting that protein production will need to increase to feed the growing human population. These perspectives diverge from Malthus's belief that starvation would be an inevitable result of human immorality; instead, they highlight the accomplishments of historical "agricultural revolutions" as evidence of humans' abilities to outrun natural forces (D. C. Rose & Chilvers, 2018; Sippel & Dolinga, 2023; Stone, 2022). Neo-Malthusian viewpoints trust technology to carry the historical trajectory of improvements into the emergent "fourth agricultural revolution". This next stage of agricultural innovation is expected to be characterized by the automation and digitization of agricultural processes including the use of artificial intelligence (Bronson & Knezevic, 2016, 2019; Rotz et al., 2019a, 2019b).

Other proposals find a different problem with the mismatch between food supply and demand; noticing vast quantities of food waste alongside wide disparities in individuals' abilities to access food, they turn attention to inequitable food distribution rather than insufficient production. Flipping the narrative of scarcity presented in the protein crisis, D'Silva and Webster (2017) describe overabundance as the central characteristic of the "meat crisis" as they define it:

> Too much meat for our own good health, too much for the dwindling global resources of land and water, too much for the health of our planet's climate and environment and too much to enable the animals we eat to have decent lives before we devour them. (p. 2)

Similarly, Weis (2013) proposes the term "meatification" (p. 17) to refer to "the movement of meat from the periphery of human consumption patterns…to the centre" (Weis, 2020, p. 30), a pattern that has intensified since the mid-20th century. Whereas the "nutrition transition" situates quantitative, uniform changes in global diets as a natural feature of human evolution, "meatification" describes qualitative, uneven transformations in the relationships between humans, animals, and ecologies as a result of particular political structures. Since the mid-20th century, animals have been "disarticulated from agricultural landscapes" (Weis, 2020, p. 29) and placed in intensive livestock operations (ILOs), which have been productive in terms of yield and economic growth only because costs have been externalized onto environments, eaters, workers, and animals, as detailed above.

Observing a tendency for debates to turn into calcified conflicts rather than cautious collaborations, Katz-Rosene et al. (2023) invite further work on the tensions and overlaps in discussions about ethical protein futures, particularly in the social sciences and humanities:

> This all gives rise to a potential area of future research for scholars whose interests lie at the intersection of protein and sustainable development: While there is no shortage of technical and scientific literature on questions surrounding protein and sustainable development, more research is needed on the discursive, socio-political and cultural

side of protein sustainability, and the material outcomes of protein politics today. (p. 12)

In conversation with this call, I explore how the distribution of beef-related risks is informed by the divisions of power in global risk society. As conceptualized by Beck (1986/1992) and Giddens (1990), risk society refers to a contemporary period of modernity in which social life is increasingly organized around risk and the management of risk. Unlike hazards or dangers, which are threatening circumstances beyond an individual's control (Giddens, 1999), risks are "staged" (Beck, 2007/2009, p. 11) in relation to assessments about potential disasters in the future, such that mitigation efforts are undertaken in the present (Doyle, 2007). This "anticipation" (Loon, 2002, p. 2) thus brings elements of risks' repercussions into the present with manifestations including the "market opportunities" (p. 21) that emerge as companies and individuals wager on products, services, and investments that may increase their personal and corporate security.

Risks are made concrete through "struggles and conflicts over definition" (Beck, 2007/2009, p. 30) that take place within specific structures of power. Defining "relations of definition" as "the rules, institutions and capacities which specify how risks are to be identified in particular contexts" (p. 32), Beck proposes that these dynamics have eclipsed "relations of production" as the locus of power in risk society. Like those who owned the relations of production that were the engines of development in industrial capitalist society, those who control the "relations of definition" hold power to shape the social structures of risk society. In the contemporary systems that circulate foods and their (intentional and unintentional) byproducts around the world, supermarkets have gained a significant degree of influence in this regard.

In the context of risk, food governance decisions are entangled with ethics, in that they involve determinations about who and what is of significance now and in the future: How should risk be managed to ensure security? Who or what is entitled to this security? These questions are debated and experienced at collective and individual levels from transnational agreements on food safety to personal quandaries about whether "to eat or not to eat hamburgers" (Loon, 2002, p. 32).

Supermarketization and Neoliberalism

As supermarkets are primary places where people encounter beef, they are valuable sites for research on how these ethical deliberations play out in daily life. The ubiquitous role that supermarkets play in contemporary beef distribution is indicative of the power they have come to hold at key junctures of the material and affective networks that facilitate foods' movements. The inequitable arrangements of the "nutrition transition" have been mirrored and supported by a process of "supermarketization", which has seen supermarkets take increasing responsibility for global food provisioning since the late 20th century (Dixon & Banwell, 2016). Given that a wide variety of retailers sell food, I define supermarkets specifically as "full-line, self-service grocery store[s]" (Arbulu & Zimmerman, 2017, p. 6). The infiltration of supermarkets into food systems around the world has been made possible by the ongoing legacies of colonialism, which have prepared for smooth appropriation various ecologies and cultures via long histories of empowering certain groups of people at the expense of other peoples, organisms, and environments.

The expansion of food provisioning networks has been an impetus and justification for imperial conquest since European empires secured access to strategic ports and resources

for the spice trace in the 15th and 16th centuries (Freedman, 2008). Colonies continued to provide raw materials and labour to fuel the industrialization of European powers as monarchies transitioned to capitalist democracies through to the 19th century (Mintz, 1986; Tyler, 2020). Even as many previously colonized countries gained political independence during the decades following World War II, colonial patterns of resource extraction were reinvented in development projects, which provided "technical assistance" to countries in the global South to "modernize" their agricultural systems in line with high-input Western models (Patel, 2013). Mexico and India became testbeds for American-backed scientists and industry actors to experiment with yield-boosting strategies during the Green Revolution, including most notably hybrid seeds, which produced bountiful crops with the assistance of irrigation, chemical fertilizers, and pesticides. While the Green Revolution did result in increased volumes of certain staple cash crops, it also eroded local people's access to subsistence crops and integrated farmers into dependent relationships with multinational seed and agrochemical suppliers (Patel, 2013; Shiva, 1991).[11]

Inequitable global power structures have thus long been a prominent feature of food provisioning practices. In the late 20th century, supermarkets inherited the benefits of these historical power imbalances when the political economic climate of neoliberalism enabled their rise as "the leading actors in the agri-food system" (Konefal et al., 2007, p. 268). Following from Harvey (2005), I define neoliberalism as a political economic theory and set of practices that promote individual freedom as a necessary foundation for societal stability

[11] The technologies of the Green Revolution are not uniformly negative for farmers in the global South. Shilomboleni (2018) observes that farmers in Mozambique make use of some of the tools of the Green Revolution to contribute to their economic wellbeing and food security. In addition, the negative repercussions of the Green Revolution are not neatly divided into global hemispheres. The global North has also seen the erosion of rural communities as farmers have been forced to rely on expensive, high-input agricultural models (Qualman & NFU, 2019).

and advancement by championing free market exchanges and opposing state involvement in social life. While initially theorized in the 1940s, neoliberal economic policies were not widely implemented until after the 1970s recession prompted governments of the global North to move away from Keynesian economics' approach to targeted state intervention in the marketplace. In relation to food systems, neoliberal policies have involved primarily the removal of regulations on industry and the elimination of trade barriers in the interest of growing companies and stimulating the free flow of agricultural commodities internationally (Clapp, 2016; McMichael, 2009).

Three components of neoliberalism's enactment have been particularly essential to supermarketization. First, the deregulation of industries promoted a wave of mergers and acquisitions in the 1980s, which has led to a concentrated retail landscape (Gertel & Sippel, 2016). Food retailers have achieved economies of scale and scope by extending vertically along supply chains and horizontally across sectors (Lawrence & Burch, 2007). After opportunities for foreign direct investment in supermarkets were opened in the 1990s, multinational chains rapidly consolidated in the global South (Reardon et al., 2003; Winson, 2013). These strategies are epitomized by Walmart, which has built a global empire by integrating into food production with house brands like Sam's Choice and Great Value, and diversifying into related industries including real estate (Haiven, 2013). Based on revenue and sales volume, Walmart has gained a position as the world's top food retailer (Goldschmidt, 2024; International Supermarket News, 2024).

Second, regional oligopolies have situated supermarkets in a prime position to be able "to exploit the 'benefits' of financialisation" (Burch & Lawrence, 2009, p. 277), an increasingly common economic arrangement wherein value is amassed through the buying

and selling of financial instruments. In comparison to previously powerful food manufacturers, supermarkets have less capital invested in the physical creation of commodities and more opportunities to accrue value through other revenue streams. Diversification into key finance sectors, like banking, has allowed supermarkets to move funds strategically between company divisions (Clapp & Isakson, 2018a). Controversially, supermarkets' strong market position has also enabled companies to manipulate fees charged to suppliers.[12] Overall, supermarkets, like other contemporary businesses, have turned increasing attention to managing financial assets as a strategy to make profit and to demonstrate returns to shareholders (Gertel & Sippel, 2016).

Third, since state funding for public health activities has been cut back as part of austerity measures, supermarkets have been able to fill the void as actors to which members of the public can turn for nutrition expertise, culinary advice, and food safety assurances (Dixon, 2007; Isaacs & Dixon, 2016). Supermarket companies establish connections with shoppers by instituting private loyalty schemes, offering special events and services like nutrition consultations and cooking classes, participating in charity work, and drawing on recommendations from government nutrition guidelines and celebrity food influencers in their promotional materials (Dixon, 2003; Isaacs, 2018). Even as the environmental standards, labour arrangements, animal welfare practices, and other elements of globalized food systems have received criticism from proliferating food movements (Levkoe, 2014), supermarkets have been able to absorb these critiques by

[12] In 2016, the Groceries Code Adjudicator of the UK found that Tesco "knowingly delayed paying money to suppliers in order to improve its own financial position" (Tacon, 2016, p. 27) by ensuring that forecasted profits margins would be reported in particular periods. A Grocery Industry Code of Conduct is being developed in Canada in response to allegations of imbalances in fee relationships between grocers and suppliers (Blois, 2023). See Chapter 8 for further discussion.

transforming them into marketing campaigns, specialty departments, and/or production standards that are imposed on suppliers (Busch, 2017; Friedmann, 2005). In addition to economic pressures then, supermarkets exert cultural influence by establishing themselves as "pre-eminent food authorit[ies]" (Dixon, 2003, p. 34) to teach people what and how to eat.

These trends of consolidation, financialization, and privatization have led to volatility in food provisioning systems. Notably, food systems experienced serious shocks during the COVID-19 pandemic. The bottlenecks that accumulated throughout globally integrated, consolidated supply chains demonstrated both the paradoxical fragility of large food retailers' all-encompassing power and the strength of diverse, small- and medium-scale food enterprises (Akram-Lodhi, 2021; IPES-Food, 2020; Regnier-Davies et al., 2022). Beef shortages in supermarkets were particularly noticeable, as COVID-19 outbreaks shut down the large packing plants that supply much of the world's beef, including the Cargill plants that provide fresh beef to Loblaw's stores (Montford & Wotherspoon, 2021).[13]

Giles (2022) argues that supermarkets were spaces of "'essential' labour" (p. 111) during the heart of the pandemic not only because they provided sustenance for communities by maintaining food supplies, but also because they shored up faith in the "commodity" (p. 112) as food's normalized form by maintaining polite, organized service. Supermarkets have emerged from the pandemic profitably, even as inflation has hit food prices particularly hard, leading to public critiques of the food retail industry (Blois, 2023;

[13] I learned about the sourcing of beef for Loblaw's stores during interviews with store managers and owners. Sourcing can also be determined by searching the Canadian Food Inspection Agency's (CFIA; 2023) "list of federally registered meat establishments and their licensed operators" using the establishment number printed on beef packages.

Competition Bureau Canada, 2023b). For Blanchette (2022), these dynamics reveal that dominant food systems are made up of "a patchwork of temporary measures" (p. 167) that skirt deep repairs in favour of covering over widening cracks in the foundations.

If COVID-19 has both exposed and re-entrenched pressure points in food systems, are evolving crises (like the protein crisis) being handled any differently? In preparing for future disasters and routine problems, how are risks being defined and managed? As powerful actors that have significant sway over governance decisions as well as high stakes in the preservation of the status quo, supermarkets are prime vehicles through which to research the ethics of current food system practices and how they might be transformed.

Research Question and Objectives

Acknowledging supermarkets' positions as primary influencers in contemporary food systems, this project investigates supermarkets' roles in addressing (in)equitably food system risks through an exploration of the multifaceted ethical issues surrounding beef consumption. It examines supermarkets as mediators that leverage both economic and cultural power (Dixon, 2003) to shape beef shopping practices. The overarching research question I ask is: To what extent do supermarkets promote ethical beef consumption?

The dissertation works through three central objectives in its examination of this question:

- To map the material-discursive-affective relationships between actors involved in beef provisioning systems organized around supermarkets;
- To assess whose interests are and are not being cared for within those beef provisioning webs and how so;

- To adjust the research perspectives that food scholars and practitioners use when evaluating ethical weaknesses and potential changes in beef provisioning by incorporating attention to equitable *relationships* in addition to equitable outcomes.

These objectives speak to several interconnected fields of scholarship and practice. Most directly, the research engages with the field of food studies, which I and my co-authors have described elsewhere as an interdisciplinary and transdisciplinary field that incorporates theoretical and practical insights to examine foods and their relations with the world around them (Chartrand et al., in press; Speakman et al., 2021). The systemic perspectives and efforts to encourage (more) equitable food practices with which the dissertation works have become hallmarks of food studies. More specifically, the research's attention to the contested ethics of beef engages with the newly proposed sub-field of meat studies, which "interrogate[s] meat's inherent (though often invisible) ambiguity as a cultural form" (R. J. Phillips & Abergel, 2024, p. 3) by exploring meat's various material and affective places in human (and more-than-human) societies.

The theoretical approaches that I bring to the topic of food are also grounded in communication and cultural studies, especially the growing scholarly interest in the affective-discursive-visceral processes (like food and eating) that connect humans and nonhumans to their environments and each other (Durocher & Knezevic, 2023a; Knezevic & Durocher, 2023; Paxson, 2023). The research may also be of use to work in interdisciplinary area studies including animal studies (in its appreciation for bovine animals as agential beings), environmental studies (in its analysis of cattle and beef's harmful and beneficial interactions with ecologies), and science and technology studies (in

its framing of beef provisioning participants as mutually influential parts of a physical and ethical network).

Theoretical Frameworks

The dissertation's central scholarly intervention is to explore the ways in which supermarkets act as mediators of beef consumption. Following from the word's origins in the Latin *medius* (middle; Oxford English Dictionary [OED], 2024b), I define a mediator as a connection between two or more entities that shapes and is shaped by the ways in which those actors experience each other.

Mediation and Infrastructure

My understanding of mediators draws on theorizations of infrastructure in communication studies and food studies. Defining "media infrastructures" as "situated sociotechnical systems that are designed and configured to support the distribution of audiovisual signal traffic" (p. 4), Parks and Starosielski (2015) acknowledge both the discursive arrangements and the material flows that constitute media technologies and experiences. In doing so, they "foreground…*processes of distribution*" (p. 5) as significant components of media's interactions with sociocultural formations, rather than placing analytical attention solely on the creation and reception of media products. This line of thinking is indebted to the work of the Toronto School of Communication, which was an unofficial collection of scholars associated with the University of Toronto in the mid- to late 20th century who studied the historical relationships between media and societies (Watson & Blondheim, 2007). More specifically, the infrastructural approach builds on feminist and

decolonial engagements with this work to notice not only broad patterns of socio-technological change, but also how these transformations have been informed by uneven configurations of power and experienced differently from various social locations (Sharma & Singh, 2022; Towns, 2022).

Placing similar emphasis on the significance of underlying and intermediary processes, the concept of "culinary infrastructure" brings attention to the activities that occur between the frequently studied spheres of food production and food consumption. Pilcher (2016) describes "culinary infrastructure" as: "those artifacts, institutions, and media that are used to mobilize and organize food or to convey knowledge about food" (p. 107). Not limiting definitions of foods to bounded commodities, the framework expands explorations of foods' multidimensional capacities as organic materials that carry sociocultural meaning, economic values, and ecological relationships (Dickau et al., 2021; Elton & Cole, 2022).

Bringing together these infrastructural perspectives on media and food, I identify supermarkets as "crucial nodes and linkages of culinary infrastructure" (Pilcher, 2016, p. 121). Like other key media, they have become a "means by which people"—and nonhuman organisms, entities, and ideas—"hold together in time and space" (Young, 2017, p. 242) to form relationships of nourishment and/or malnourishment. I conceptualize supermarkets as mediators in relation to three interconnected roles they perform.

First, supermarkets are institutional distributors that move food from producers to consumers. I draw on traditions of critical theory to examine food distribution as a political ecological process that exists in relation to particular contexts of power. Political ecology builds on critical political economy, which studies how political arrangements and economic relationships organize the material interactions that constitute social formations

over time (Mosco, 2009). To these dynamics, political ecology adds an appreciation of how organic environments and multiple agencies therein facilitate and restrict human activities (Robbins, 2012). Using these approaches to map food distribution reveals a consolidated food retail sector that sits at the neck of an hourglass-shaped system between large numbers of growers on one side and an even more substantial population of eaters on the other (Howard, 2016; IPES-Food, 2017).[14]

Second, supermarkets are branded venues that host shopping as a social practice. I am inspired by the insights of practice theory to notice not only how supermarkets make available certain foods at particular times and places, but also how they construct people's experiences of these foods (Shove et al., 2012). Explaining human behaviours as neither a product of determining forces nor an outcome of rational decisions, practice theory accounts for the ways in which structural factors intersect with individual motivations to create the "temporally and spatially dispersed nexus of doings and saying" (Schatzki, 1996, p. 89) that constitute a practice. I use this lens to see how supermarkets configure elements of beef consumption by employing promotional vehicles to guide interactions with beef in and beyond retail spaces.

Third, supermarkets are mediums that conduct affect between the organisms that feed each other across space and time. From a "feminist multi-species perspective" (Blue, 2020, p. 154), I tune into the traces of eating's frequently messy materialities that linger in supermarkets. This sensibility understands humans, nonhumans, and environments as fundamentally co-constituted (Haraway, 2008; Heldke, 2018; Shotwell, 2016). As such, it

[14] Other bottlenecks exist within food systems including consolidations in the industries of agrochemicals, agricultural commodity trading, and food processing (IPES-Food, 2017).

intersects with and can learn from diverse Indigenous practices of relationality, which describe and enact responsibilities between past, present, and future members of socio-ecological communities (Todd, 2016; Watts, 2020; Whyte, 2021b). I find in these multi-temporal connections reminders of the intertwined fates of food systems; these indications of entanglement destabilize current arrangements in which marginalized actors carry risks on behalf of everyone else.

In studying supermarkets' identities as mediators, I am thus interested not only in the contents of supermarkets and the ethical relationships that beef products represent, but also in supermarkets themselves and the ethical relationships they enact by facilitating beef consumption. This emphasis builds on infrastructural extensions of McLuhan's (1964) aphorism, "the medium is the message" (p. 7), which encourage attentiveness to the ways in which media shape societies through their form as well as their content.

In short, I understand supermarkets as media "environments" in line with theories of "media ecology" (Anton, 2016; Islas & Bernal, 2016). This body of work has expanded on McLuhan's explorations of the relationships between humans, technologies, and the surrounding world to conceptualize media not just as channels between one communicator and another, but as nested environments formed in relation to the actors that intersect with them (Flew, 2017; Näser-Lather & Neubert, 2015). Studies of infrastructure can be placed under this "media ecology" umbrella, as they make plain the material and discursive networks that come together to constitute entities that are often conceptualized as singular mediums (e.g. the cables, international information regulations, programming codes, and so on that make up the internet; Näser-Lather & Neubert, 2015; J. D. Peters, 2015). For Postman (1970), media ecology is intertwined with ethics in that it considers "how

[humans'] interaction with media facilitates or impedes our chances of survival" (p. 161). While infrastructures are often intended to minimize the risks actors experience in their encounters with the world (and vice versa in terms of minimizing the impacts on the world that certain actors have), they might also generate unwelcome side effects (J. D. Peters, 2015). Gathering foods into centralized, regulated spaces, supermarkets are ostensibly designed to reduce the risks of food provisioning. At the same time, they have also produced new risks by encouraging the expansion of a globalized, capitalist food system wherein materials are extracted from landscapes and waterscapes and transformed into food commodities that generate profit and security for a limited number of powerful actors while making others more precarious (Bowness et al., 2020).

Cryopolitics and Reception

Having established supermarkets as mediators within culinary infrastructure, I draw on theories of cryopolitics and media reception to understand *how* supermarkets mediate. From their position as mediators between ecologies and eaters, supermarkets occupy notable biopolitical junctures. As outlined by Foucault (1976/1978), biopolitics are forms of modern governance that manage populations not strictly as subjects, but also as biological beings.[15] Bringing together biopolitics and media ecology, Goodman, Johnston, and Cairns (2017) introduce the concept of "mediated biopolitics" to analyze the ways in which food media influence the social and economic value of food practices, and thus the sustenance of particular forms of life and ways of living. In addition to elevating certain

[15] Scholars working in the areas of animal studies (e.g., Shukin, 2009, Wolfe, 2013) and plant studies (e.g., Nealon, 2016) note that biopolitics governs nonhuman organisms in addition to humans. Moreover, biopolitics operates on humans through our bodies, which share common forms of vitality with nonhuman animal, plant, and microbial life (Paxson, 2012; Sandilands, 2017).

"truths" through the discourses that circulate on "'good' eating" (p. 163), "mediated biopolitics" takes the form of "intervention strategies designed to sustain life or manage death" (p. 163). Individuals are tasked with assembling healthy diets, for example, in the interest of maintaining themselves as contributing members of society.

While Goodman, Johnston, and Cairns (2017) focus their examination on "food media" in the specific sense of the mass communication technologies that circulate "texts and images" (p. 161) about food, including cooking shows, restaurant reviews, food blogs, and so on, I expand this definition to incorporate any transitional environments through which foods and food practices move. From this perspective, supermarkets can be seen as powerful "food media" within a larger food media infrastructure, as they have gained hold over a key "leverage" point (J. D. Peters, 2015, p. 36) from which to translate food materials and knowledge between food industry and the public. Deepening the exploration of food media's biopolitical functions, I understand supermarkets as "cryopolitical" media environments.

Cryopolitics substitutes for *bio* the prefix *cryo* to name a specific iteration of biopolitics that regulates and manipulates a frozen "zone of existence" between life and death (Radin & Kowal, 2017, p. 6). Enabled by the introduction of refrigeration technologies in the 19th century, cryopolitics has roots in the imperial beef trade wherein frozen carcasses were shipped intercontinentally from colonies to European powers (Freidberg, 2010; Woods, 2017). Given that beef was associated with status and health, interest in beef products increased when the British population urbanized and purchasing power grew. Experiments in refrigeration were spurred on by attempts to supply these demands for not only individual consumers, but also the country as a whole, as "many believed that [beef

supplies were] also necessary for maintaining the country's status as a world power" (Freidberg, 2009, p. 55). Building on T. C. Eastman's (1875) use of ice tanks on ships and Charles Tellier's (1876) mechanically refrigerated steamship ("*Le Frigorifique*"), a transatlantic trade in chilled beef emerged in the late 19th century. The perishable quality of animal flesh, in other words, was manipulated such that its edibility was stretched over time to complement empire's expansion over space (Freidberg, 2010). From its inception then, cryopolitics has operated as a form of protein management to stave off hunger and death for valued populations by intervening at a molecular level to suspend the cellular aspects of other organisms' lives (Kowal & Radin, 2020).

Including refrigerated railcars, warehouses, meatpacking plants, retailers, and home storage, developments in "cold chain"[16] technology have built on the foundational infrastructure of transportation that was initially invented for the beef industry (Freidberg, 2009; Pilcher, 2016; Specht, 2019). At the centre of the contemporary global refrigeration infrastructure, supermarkets are responsible for holding and displaying foods at a level of "suspended animation" (Radin & Kowal, 2017, p. 4) that is appealing to shoppers, as well as training the public to judge "freshness" by standards that are profitable for industry (Freidberg, 2009).

While beef and supermarkets have a deep cryopolitical history, public responses to beef procurement are not predetermined. To steer away from a deterministic perspective that imagines that the elite impose their food practices onto others via the media, Goodman, Johnston, and Cairns (2017) insist on applying a "media ecology" (p. 164) approach to the

[16] In his article on "culinary infrastructure", Pilcher (2016) indicates that the metaphor of a "chain" that "convey[s] chilled food from producer to consumer" may be better described as "an interlocking system of refrigeration and transport" (p. 112).

biopolitics of food, which recognizes food media as co-constituted by all participants even if some actors may have more sway than others. While "particular truth discourses" (p. 165) on healthy eating circulate in food media, for instance, eaters "relate to this discourse in diverse ways, from enthusiastic embrace, to weary skepticism or playful critique" (Goodman et al., 2017, p. 165), according to observations from Cairns and Johnston's (2015a) related study (see also, Durocher & Knezevic, 2023b).

These findings resonate with Hall's (1973) well-known audience reception model. Taking the context of communication events into consideration in addition to the messages themselves, Hall notices that the same message can be received in multiple ways. Within these possibilities, he recognizes three main categories. In the case of a "preferred" reading (p. 9), the audience interprets and identifies with a hegemonic meaning of the text that is in line with common sense assumptions perpetuated by dominant groups. When the audience applies a "negotiated" reading (p. 17), they accept parts of the dominant meaning, but also modify it in relation to specific circumstances. Finally, an "oppositional" reading (p. 18) occurs when an audience understands the prevailing code and rejects it, positing a different perspective in its place.

Incorporating an infrastructural appreciation of nonhumans as active and contextual participants in communication, I employ this framework to explore the ways in which shoppers interpret the cryopolitical messages of supermarket media environments. The tripartite structure of Hall's schema overlaps with Williams' (1980) characterizations of residual, dominant, and emergent "social formations" (discussed in the Prologue), but the two models are also distinctive in their interpretive approaches. I thus use them in conjunction with one another to illuminate complementary aspects of the shopping

infrastructure: I analyze both the specific encounters that shoppers have with supermarkets' cryopolitical risk management techniques (via Hall) and the general ethical-social configuration in which these practices are situated and to which they contribute (via Williams).

Empirical Frameworks

Exploring an extended example of how supermarkets work as cryopolitical mediators in practice, the dissertation takes the form of a case study of beef shopping in Toronto-based supermarkets owned by Loblaw Companies Limited. Canada is an informative location in which to examine the connections between supermarkets and the ethics of beef consumption. Positioning beef as a national food, the Canadian beef industry participates in a pattern of "simultaneously remembering and forgetting [Canada's] history" (Berland, 2019, p. 71) alongside its own checkered legacy. As the Dominion of Canada expanded its claims westward in the 19th century, cattle were enrolled as "sentinels of territorialization" (Plessis, 2021, para. 8) to prepare the land for settlement by overtaking buffalo[17] and demonstrating potential for European-style agriculture (Daschuk, 2013). Rather than a story of colonial occupation and the depletion of Indigenous socio-ecologies and foodways, the establishment of the beef industry is narrated as a tale of industrious pioneers who managed to thrive on the rugged landscape (Speakman, 2020). This early period of ranching remains a touchpoint for patriotic nostalgia (Blue, 2008). The nationalistic connotations of beef re-solidified during an outbreak of bovine spongiform encephalopathy

[17] While European taxonomic classifications name the species "bison", many Indigenous communities use the term "buffalo" when referencing the animal in the English language (Schneider, 2023).

(BSE) in the mid-2000s (Blue, 2009). When countries closed their borders to Canadian beef, Canadian industries, government, and communities rallied around the Canadian beef industry (Blue, 2008; Plantinga, 2003). As an industry "galvanized" by crisis (Canadian Agri-Food Policy Institute [CAPI], 2012, p. 21), the Canadian beef industry provides a productive testing ground for experimenting with solutions to contemporary risks. In particular, Canada has been a leader in addressing beef sustainability. The multistakeholder organization Canadian Roundtable for Sustainable Beef (CRSB) launched the world's first Certified Sustainable Beef Framework in 2017 (CRSB, 2017).

Loblaw is a founding member of the CRSB, and it was the first Canadian food retail company to purchase beef from Certified Sustainable sources for its stores in 2020 (Loblaw Companies Limited, 2020d). Loblaw is also Canada's largest food retail company, holding a market share of close to 40% of the country's exceptionally consolidated food retail industry (Lombardo, 2024).[18] A report by Canada's Competition Bureau (2023b) describes the country's three biggest grocery chains, Loblaw, Empire (Sobeys), and Metro, as "tower[ing] over the grocery industry" (p. 14); in 2022, they counted more than $100 billion in sales in over 3,000 stores and achieved profits of $3.6 billion. Supermarkets—Loblaw's locations in particular—are reported to be the primary spaces where people purchase food. Canada's retail landscape offers an opportunity to investigate the significant levels of influence that a single food retail chain has on beef shopping patterns (Blois, 2023; Competition Bureau Canada, 2023b). Specifically, Canada's most populated urban centre

[18] This calculation excludes supercentres, warehouse clubs, and convenience stores, which have gained ground in recent years (Lombardo, 2024).

(Statistics Canada, 2021), Toronto, is a fitting site in which to examine these dynamics, as the city's diverse population represents a wide variety of interactions with beef shopping.[19]

The dissertation takes an exploratory, bricolage approach to research by mapping and analyzing connections that emerge from original, empirical data. The case study draws on evidence that includes: archival material from public and private collections such as advertisements and flyers; observations from visits to Toronto's Loblaws and No Frills supermarket locations; expert interviews with Loblaw executives, store managers, and franchise owners; and focus groups with Toronto supermarket shoppers. The bulk of this data was collected between 2016 and 2018, but it has been supplemented with ongoing examinations of Loblaw's promotional materials and company reports as well as media and industry stories on trends in food retail and beef consumption.

Positionality

As a researcher and eater, I am situated in this data in an inescapably embodied way. Informed by feminist and critical race scholarship, I understand accountability for one's situatedness to be an essential component of responsible research (Crenshaw, 1989; Haraway, 1988). Even as I am critical of the structures that comprise Canadian food systems, I have benefitted from these constructions as a white, able-bodied, middle-class settler and cisgender woman who holds lifelong Canadian citizenship. I have not had to wonder where my next meal is coming from, to search to find culturally appropriate foods, nor to confirm the accessibility of a store before my arrival. The foods I grew up with are

[19] Toronto's population is diverse in age, ethnicity, gender, income, household characteristics, language, etc. (Statistics Canada, 2021).

displayed prominently within my reach throughout mainstream supermarkets. Given my appearance, I was able to move comfortably through stores when conducting my observations and was not subjected to the kinds of monitoring experienced in retail spaces by Black, Indigenous, and racialized individuals, individuals experiencing housing insecurity, and individuals with visible mental illnesses (Dunlap, 2021; Ontario Human Rights Commission, 2017).

As an eater who lives in an urban environment and who has grown only a little of my own food, I remain indebted to the people who have produced, processed, and distributed food that has nourished me, often encountering great personal and economic strain (Qualman & NFU, 2019). While I was raised in a rural community, my family did not own a farm. My longest encounters with farm work have been through my experiences as a volunteer for community gardens, organic market gardens, and a farm animal sanctuary, activities that demonstrate the privileges that are bound up with alternative food networks and animal activism (Guthman, 2017; Harper, 2010).

Given that my perspectives as a white, middle-class cisgender woman are already well represented in academic and activist work on food system change, I have a responsibility to grapple with inequitable structures and to commit to undoing them through my research. In addition to consulting the perspectives of diverse research participants, I turn regularly to work by scholars, activists, and community members who occupy subject positions unlike my own. In line with the topic of my research, I understand my role as a researcher to be like that of a medium—to listen in a way that hosts creative, surprising, and often frightening conversations across intersecting and sometimes-incommensurate planes (Kanngieser & Todd, 2020).

While the participants in my expert interviews generally occupied positions of social and occupational privilege, my situatedness in relation to them is still worthy of consideration. Given my background in critical food studies and animal studies, I approached large food companies with some skepticism. Nevertheless, I entered these interactions with curiosity, rather than dismissing the opinions of participants as part of a "company line". The individuals who participated in my research were generous with their time and genuine in their commitments to providing safe, accessible food. These interactions revealed the potential of collaborating with diverse food system actors in order to make change, even if such alliances are not always smooth (Katz-Rosene et al., 2023; Rosol et al., 2022). Neither relying on corporate social responsibility (CSR) platforms as solutions to food system dilemmas nor rejecting these initiatives entirely, I align myself with Bancerz's (2016) perspective on the possibility of a "third view" (p. 129) that brings industry and civil society into dialogue.

Alongside an acknowledgement of my relationship to human participants, I am also aware of my identity as a human researcher conducting animal studies work (DeMello, 2012). As humans are biological animals, scholars and activists have made use of terminologies including *nonhuman* (Allen & Bekoff, 1999; Cavalieri, 2001) and *more-than-human* (Whatmore, 2002) to describe more accurately the category commonly known as *animal*. At the same time, these terminologies have been criticized for centring humans as the norm against which animals are defined (Fudge 2002; Nibert 2002). Culinary terms like *meat* and *beef* are also the subject of critique by animal studies scholars who propose words like *flesh* and *cow flesh* to trouble the separation between human and nonhuman bodies that linguistic differentiation performs (Adams, 1990; Adams, 2018), as well as meat

industry actors who insist that their products remain distinct from plant-based foods (Scott-Reid & White, 2019). Willey (2021) offers "a queer feminist and critical trans" (p. 242) reading of "fake meat" that questions the ontological stability of meat as the original norm that plant-based products imitate. This "queering" (p. 243) of meat is a reminder that culinary and species categories are cultural constructions even as they are connected to biological forms. Although I acknowledge the terms' flaws, I consciously use the words *animal*, *meat*, and *beef* throughout the dissertation alongside terms like *nonhuman* and *more-than-human* because I am interested in analyzing foods not as pre-constituted forms, but as discursive and material entanglements.

While recognizing the limitations of using human language to report their findings, researchers who undertake work with and about animals have experimented with accessing an appreciation of animals' experiences by using participant observation (Alger & Alger, 1999; Goodall, 1971) and embodied empathy (Despret, 2013; A. Horowitz, 2009). Similarly, scholars who conduct research with and about plants have worked to consider the world from plants' perspectives (Pollan, 2001; Trewavas, 2014) and to practice "plant-thinking" in the sense of tuning into the plural ontology that plants enact through their networked expressions of agency (of which humans are also a part; Marder, 2013; Sandilands, 2017). Although I am not working directly with living animals or plants, I borrow from these research models to study the lively qualities of the organic matter that moves through food systems.

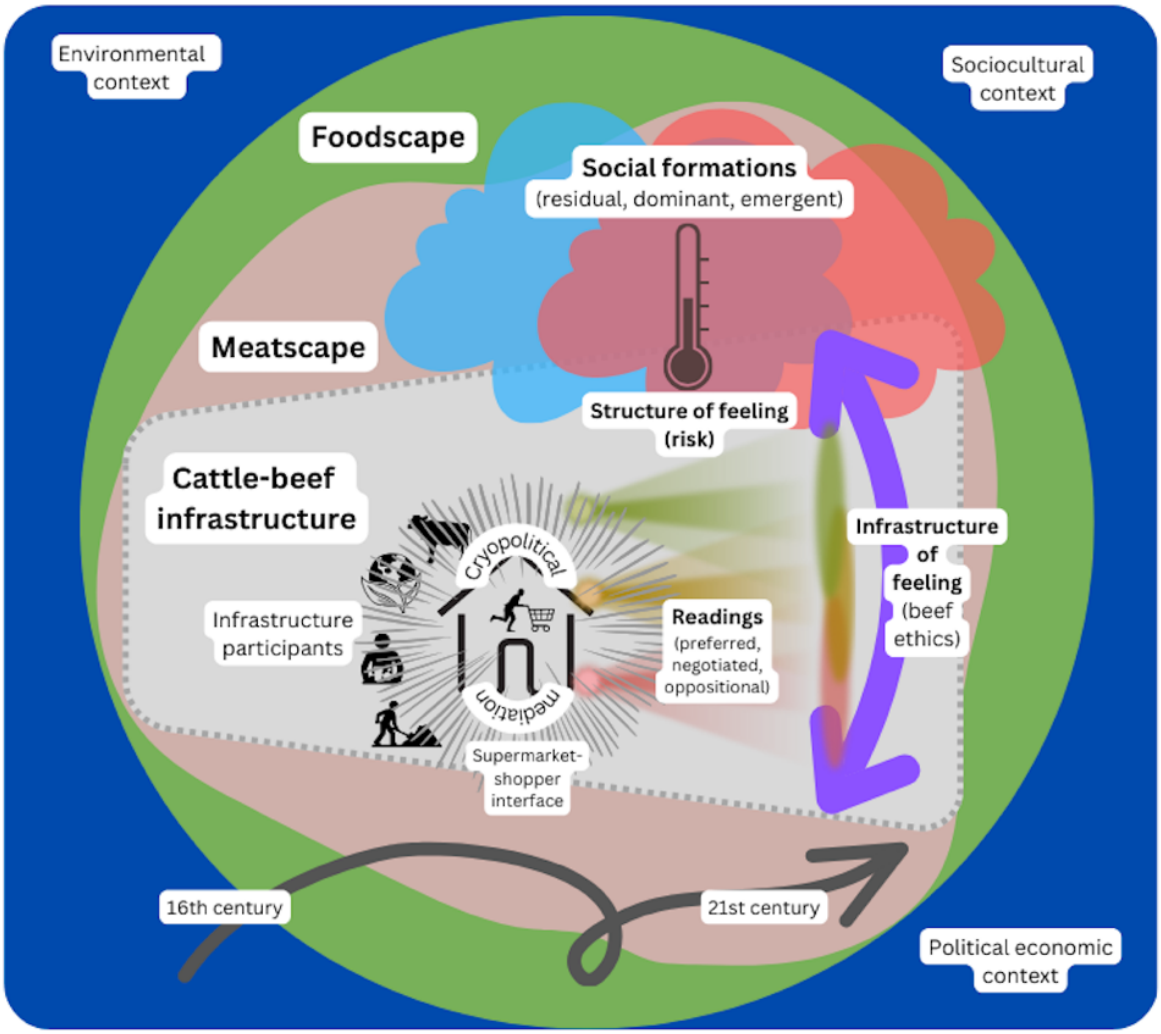
Given the primary form that the animals in my study take, I follow from other researchers who study meat industries in Canada by including here a discussion of my relationship to eating animals (Bassi, 2017; King et al., 2019; MacDonald, 2016; Shotwell,

2016). I have eaten primarily vegan foods since I was in my early 20s. While I make this choice as part of a commitment to incorporate intersectional ethics into my daily life, I negotiate my decisions constantly, such as in circumstances when food might be wasted or in relation to significant cultural practices. Throughout the course of my research and my personal experiences with veganism, I have observed the pitfalls of a purist approach to food and eating, which imagines that one can transcend the inevitable physical and moral messiness involved in being embodied (King et al., 2019; Shotwell, 2016). For instance, animal activists have contributed to the erosion of Inuit foodways, economies, and socio-ecologies through unilateral condemnations of seal hunting (Arnaquq-Baril, 2016; Knezevic et al., 2018).

Although I do not eat meat myself, I did not set out on this project with an abolitionist approach, which opposes all uses of animals by humans (Francione, 2008). Respecting research participants' unique situatedness in food systems, I encounter their decisions without moral judgment, even as I consider possibilities for how these practices might change to encourage and to reflect more ethical relationships in the future. In this way, I take an intersectional perspective that looks toward the "promise of interspecies solidarity" (Coulter, 2016, p. 2). Recognizing that the oppressions of humans and animals are interconnected, interspecies solidarity offers "a multifaceted and contextualized approach to understanding work involving animals, one that is genuinely multispecies and that takes both human and animal well-being seriously" (Coulter, 2016, p. 2). I understand this solidarity not as an idyllic harmony, but as an ongoing, contested process of "working through and across difference" (Rosol et al., 2022, p. 4).

Chapter Overview

Figure 1
Map of infrastructures



Note: This high-level map depicts the material-discursive-affective landscape the dissertation explores. Held together through processes of cryopolitical mediation, the supermarket-shopper interface (where beef shopping occurs) is nested within several interacting dynamics (global contextual factors, Canada's foodscape/meatscape, the cattle-beef infrastructure formed over time). Experiences of beef shopping shape and are shaped by interactions between the scapes: In conversation with the cattle-beef infrastructure, risk as a structure of feeling (emergent from overlapping social formations) forms beef ethics as an infrastructure of feeling; these ethics are interpreted in multiple ways during beef shopping.

The dissertation is organized into eight chapters (in addition to a prologue). This introductory chapter has set out the problems, questions, and contexts to which the dissertation responds (see Figure 1). Given that contemporary governance structures

correlate the ability to frame risk with the power to make ethical determinations, I propose that supermarkets are essential subjects to study in relation to contentious parts of food systems like the beef industry.

The next three chapters deepen the articulation of the context in which the case study takes place. The second chapter (on history) provides an overview of the evolution of beef shopping and the rise of the dominant cattle-beef infrastructure in Canada based on secondary sources that detail this history. Interrogating the limitations of the concept of "separation" used in consumer culture literature to describe the relationship between production and consumption, I focus on the intersection between meatpackers (places where meat is produced) and supermarkets (places where meat is consumed) as a significant node of mediation.

The third chapter (on ethics) situates the dissertation's perspectives on ethical beef consumption in conversation with major formations of food systems governance that have taken shape in response to risk as a contemporary "structure of feeling" (Williams, 1977). Aligning my approach with the perspectives of food sovereignty and food justice, I incorporate critiques from decolonial, feminist scholarship to find resonance with a distributed form of ethics that practices placed, intertwined accountability. The fourth chapter (on methods) offers a description of the dissertation's methodology, which has been presented in brief in this chapter. Foregrounding my use of situated intersectionality as an epistemological orientation, which locates truth(s) in layered, multi-optic dialogue, I detail the combination of methods that I used to carry out the case study of beef shopping at Loblaw's stores.

The subsequent three chapters (on results) present the analysis of my empirical data on the ethics of Loblaw's supermarkets' cryopolitical media environments as encountered in practices of beef shopping. I divide my findings into three overarching themes that correspond roughly to the three tendencies in Hall's (1973) audience reception schema. In the chapter on trust, I explore the alignment between *dominant* sociocultural values and promotional discourses that have established confidence between Loblaw, select shoppers, and the beef industry. I identify key facets of Loblaw's brand identity that have been invaluable to these relationships. In the chapter on choice, I examine how Loblaw employs activities related to CSR to *negotiate* critiques of the food systems in which it participates as a primary beneficiary. I notice that recent beef-related CSR initiatives use responsible consumer choice as a discursive tool to justify uneven patterns of risk distribution. In the chapter on ghosts, I unearth ethical *resistances* that supermarkets unintentionally channel and cannot contain within the moral logics of meat departments even with the addition of CSR. Using the metaphor of haunting, I search for opportunities to listen to the marginalized actors who speak from the past and the future through the fleshy materialities of beef.

The concluding chapter contemplates the dissertation's implications for evolving food scholarship and food systems by embracing the multi-relational paradoxes of an "ethic of decay" in counterpoint to the hierarchical clarity of the "ethic of freshness" that organizes contemporary engagements with ethical beef consumption in Loblaw's supermarkets. In comparison with the forms of security that are gained through extraction and preservation, an "ethic of decay" encourages the nourishing circulation of materials and responsibilities through spaces, bodies, and times.

Chapter 2: Canada's Cattle-Beef Infrastructure

"If you were to seek out the world's perfect place for raising beef, what would you look for?… Wide open spaces for cattle to graze: an environment that's been conducive to grazing herds since time began" (Canada Beef, 2016, p. 5).

(In)visible Infrastructures

In 1916, Clarence Saunders opened the first self-service grocery store in Memphis, Tennessee, which has been widely cited as a forerunner to the contemporary supermarket (Koch, 2018; Lawrence & Burch, 2007; Patel, 2007; Steel, 2009).[20] Entering through a turnstile, shoppers wound their way through the space along a particular route, which took them past shelves that displayed all the store's goods; after collecting items in their baskets, they lined up to pay at the exit of the shop. The store was named Piggly Wiggly, since the interior design and customers' movements mirrored, as "Saunders obviously realized, a pig run" (Humphrey, 1998, p. 66). Transposing to human architecture an animal-based geography of disciplined movement, Piggly Wiggly represents the intersecting infrastructures of animal agriculture, meat, and supermarkets, which are the topic of this chapter.

The flow of animals and humans through dominant global meat supply chains has become more streamlined since Piggly Wiggly's founding. Animal and human bodies are surveilled and synchronized with one another as units of growing and potential capital. After animals move from artificial insemination through intensive livestock operations (ILOs) to slaughterhouse disassembly lines, their bodies are shipped in pieces to the market

[20] While Piggly Wiggly is frequently named as the first self-service grocery store, other stores had tried out the format earlier with less success (Humphrey, 1998).

locations where shoppers are waiting in store aisles, parking spots, or homes for wrapped trays to be delivered to their carts, cars, or front doors.

A tenuous stability is at the heart of the large-scale infrastructures that support the movement of goods, ideas, and organisms around the globe. In one sense, "the general tendency of infrastructures [is to] normalize behavior (such that they become relatively invisible, unnoticed, or internalized)" (Parks & Starosielski, 2015, pp. 15–16). By the same token, infrastructures contain "the potential for the disruption of that normalization, which can occur during instances of inaccessibility, breakdown, replacement, or reinvention" (p. 16). Illustrating this pattern, the COVID-19 pandemic illuminated the simultaneous dominance and fragility of the just-in-time model of meat distribution (as referenced in Chapter 1). As an exceptionally consolidated sector, Canada's beef industry was particularly hard hit when plants supplying approximately 85% of beef processing went into outbreak (Finnigan, 2021; Patrice & Lamboni, 2020). Ruptured supply chains revealed pre-existing bottlenecks and inequities in Canada's beef distribution infrastructure, which had been made invisible through a history of increasingly mediated relations.

This chapter introduces that history with a review of the scholarly literature on the food systems of consumer culture, which tells the story of widening separations between food producers and consumers. The contexts of risk society complicate this narrative, however, as risks overflow between the apparently segmented economic stages that move foods from landscapes to tables. Recognizing both the boundaries and pores between food system interfaces, I use *mediation* in place of *separation* to describe the ways in which foods move through space and time. Looking through this lens, I use secondary sources to track the parallel development of slaughterhouses and supermarkets in the global North with a focus

on the Canadian context. Although food retailers and meatpackers arose to organize distinct spaces of production and consumption, they have become an increasingly entangled node of cryopolitical governance in the larger infrastructure of the beef distribution system. Examining the scholarly accounts of this history, I reveal the interconnected roles that slaughterhouses and supermarkets play as "sticky" mediators (Hindman, 2018; Livingtone & Knezevic, 2020) that hold together distant actors to create and to maintain dominant beef distribution infrastructures.

The Cattle-Beef Commodity Chain: Production, Consumption, and Separation

As depicted in the streamlined structure of the "cattle-beef commodity chain", beef travels a linear pathway from pastures to Canadian supermarkets based on feedback that has been gathered from previous deliveries. In one direction, cattle flow through a "vertically organized…sequence of activities…which add value to basic organic ingredients" (MacLachlan, 2009, p. 30) from: (1) the birth of calves, to (2) backgrounding (weaning on grass/hay), (3) finishing (grain feeding), (4) slaughter and fabrication, (5) and retail, food service, or further processing (p. 32). In the other direction, communications flow from consumers' purchases back to producers as market signals that direct future production (MacLachlan, 2001).

Arguing against this model of seamless transmission, scholarship on consumer culture proposes that economic stages have become increasingly disarticulated as commodity chains have become more complex and expansive. Naming consumer culture as a dominant societal formation that corresponds with the economic systems that arose in Europe in the

17th century and have spread globally up to the present era, scholarly literatures trace its development through a gradual process of *separation between production and consumption* (Leach, 1993; Smart, 2010). According to food systems analysis, the "disconnectedness between production and consumption" (Hatanaka, 2019, p. 7) materializes as fractured communications between the growers and eaters of food (Pilcher, 2016). B. Kneen (1995) positions this dynamic of "distancing" as the overarching "logic of the [contemporary] food system" (p. 24).

In contrast, production and consumption were "bound together" (Leach, 1993, p. 147) in pre-industrial Europe, since people made the resources that they used themselves. B. Kneen (1995) summarizes: "There was a time when food was grown within the daily experience of just about everybody" (p. 24). With the development of capitalism, the experiences of consumption became increasingly disconnected from the material resources of production. Marxist analyses locate the roots of capitalism in the 16th century breakdown of the feudal system and the beginnings of agrarian capitalism, particularly in England where agricultural labourers took on roles as tenants who participated in emerging marketplaces beyond the arrangements of serfdom. During the 16th to 18th centuries, colonial powers established mercantile networks, which introduced and normalized practices of extracting remote resources and trading goods (including people and other organisms) over long distances. Once new bourgeois classes rose to power following the American and French Revolutions, they gained control over the emergent mechanized "means of production" during the 19th century Industrial Revolution. Meanwhile, landless rural dwellers of the proletariat flocked to growing cities in search of work after common areas for growing food and grazing animals were enclosed as private property. These wage

labour arrangements between the bourgeoisie and the proletariat are at the heart of classical capitalism (Fairlie, 2009; Tribe, 1981; Wood, 1998).

According to Marx (1867/1889), the capitalist system is based on the exploitation of labour. Dispossessed of property and the means of production, the proletariat must survive by working for wages to pay for their subsistence needs. The labour-power that workers put into producing goods is in excess of the time for which they are paid, such that the bourgeoisie who own the means of production can accumulate wealth by capturing this difference as surplus value. Feminist and eco-feminist critiques have refined and extended Marxist frameworks to call attention to other forms of exploited labour that undergird the capitalist harnessing of proletariat labour, including "ecosystem services" (Ehrlich & Ehrlich, 1981), reproductive labour performed by women, non-binary, and gender nonconforming people (G. Rubin, 1975), nonhuman animals' service work with humans (Coulter, 2016), and the "surplus labor of plants"—or "the *vegetariat*" (Sandilands, 2017, p. 22).

As links are attached to commodity chains, new opportunities to extract value from multiple types of labour arise at each intersection. In food systems, physical and epistemic gaps between food producers and consumers are filled by a growing list of intermediaries that have profited off of extended pathways of economic exchange, particularly since intensification of agricultural industrialization post World War II: bioengineering firms, chemical manufacturers, and processors offer technologies to extend foods' durability; shipping, packaging, and energy companies provide logistics and resources to move foods across borders; and marketers, retailers, and food service operators present attractive

stories and locations to encourage food purchases at the end of these journeys (Kloppenburg et al., 1996; B. Kneen, 1995).

As opposed to the formerly intimate relationship between growers and eaters then, "producers and consumers only know each other abstractly in the form of money and commodities" (Hatanaka, 2019, p. 7) under the capitalist arrangements of consumer culture. In other words, as the foods of consumer culture move through global supply chains, they become "fetishized" commodities in Marxist terms. Although the value of commodities comes from the labour that produces them, Marx (1867/1889) observes that the commodity takes "the fantastic form of a relation between things" (p. 43) as money becomes the signifier of this labour. Detached from labour, commodities act as fetishes in that they appear to be intrinsically valuable, thereby obscuring the processes by which they were produced.

As commodities, foods are sources of alienation from rather than connection to the worlds built by (human and nonhuman) labour. When workers are disconnected from productive labour, a sense of control is resurrected in the sphere of consumption (Ewen, 1976/2001). As described by Veblen's (1899/2007) notion of "conspicuous consumption" (p. 49), displays of leisure—or the "non-productive consumption of time" (p. 33)—have become a primary way by which people judge each other's success and social standing. Extending from the classed, gendered, racialized, and otherwise socially delineated taste hierarchies that have emerged through the cultural habits of consumer culture (Bourdieu, 1979/1984), contemporary "foodie" culture continues to revere specific culinary experiences as markers of social distinction (Johnston & Baumann, 2015).

According to Debord's (1967/1970) analysis of the alienated relations of consumer culture, "the principle of commodity fetishism…reaches its absolute fulfillment in the spectacle" (thesis 36). Describing a world in which representation replaces direct experience, Debord positions the rationalized assembly line as extending beyond the factory to produce "separation itself" (thesis 27) as a general feature of life. In place of the "former unity" (thesis 2) between production and consumption, the spectacle offers a simulated vision of a cohesive world. In department stores, malls, supermarkets, and the other "cathedrals of consumption" (Ritzer, 2001, p. 108) that pay homage to the spectacle, the modern subject is bombarded with "sensory distraction" (Buck-Morss, 1992, p. 22) such that the body's sensory system plays a protective, "*an*aesthetic" role (p. 18) by numbing the organism as in the experience of medical anesthesia. This barrier between self and world allows humanity to aestheticize self-destructive practices, including the violence embedded in global supply chains. Wrapped in plastic and placed neatly on supermarket shelves, fetishized beef products conceal handily the animal welfare infringements, work safety violations, environmental strains, and other ethical costs that buoyed their travels through the supply chain.

Farm to Fork and Nose to Tail

In the interest of countering the destructive tendencies of dominant global food systems, a variety of "alternative" food movements have arisen that attempt to "defetishize" foods by "reduc[ing] distance in the system and…shrink[ing] or recaptur[ing] the middle spaces that have been opened and dominated by actors other than food producers and consumers" (Clapp, 2016, p. 173). While food movements take a wide variety of forms and

follow divergent tactics, a predominant line of thinking diagnoses "false consciousness" (Engels, 1893/1935) as a central food system problem associated with disconnected eaters. This Marxist concept proposes that consumers incorrectly assume that they are autonomous, even as they are manipulated by the structures of capitalism. Without full knowledge of foods' travels through supply chains or senses of connection to one another and the lands that they distantly share, so the argument goes, producers and consumers are neither adequately informed nor sufficiently motivated to intervene in the exploitative practices of the world's food systems. This situation of manufactured ignorance "serves the interests of those who intermediate on behalf of consumers" (Sage, 2012, p. 264) by enabling them to continue to supply information and services that capture value along supply chains.

"If people only knew where their food came from", well-meaning advocates suggest, food systems would be transformed (Guthman, 2008b, p. 387). Particularly in the case of food systems' more graphic elements, like the intensive farming of animals, such beliefs are informed by a "politics of sight" (Pachirat, 2011, p. 15), which suggests that positive change will inevitably follow if conditions that are normally invisible are revealed. Extrapolating from the patterns of "increasing mechanization, increasing centralization, and…decreas[ing] intimacy" (Purcell, 2011, p. 61) that characterize the history of industrial meat production, the theory proposes that meat eaters have only been able to "reconcile…themselves to industrial meat products by distancing themselves from industrial meat production" (Specht, 2019, p. 260). The reveal of slaughter in metaphorical "glass abattoirs" (Pollan, 2002, para. 81), in contrast, would be a step toward the dismantling of industrial systems, as viewers would object to harmful practices if they were

made aware of them. Consumers could thus become "hero[es]" rather than "dupe[s]" in the marketplaces of consumer culture if they were armed with transparent information to awaken them from the comforting state of false consciousness (Slater, 1997, p. 59). Undeceived by the fetishism of commodities, such consumers represent the liberal figure of the "sovereign consumer" (Hutt, 1936)—a rational actor who exercises control over their decisions in the marketplace. The sovereign consumer does not send information back to beef producers unwittingly or passively, but rather they "vote at the cash register" (MacLachlan, 2001, p. 326) consciously for the cattle-beef commodity chain that they want to support.

In addition to ignoring the limitations posed by constrained financial resources, uneven urban planning, cultural hegemonies, and other structural barriers to food access (Li et al., 2023; Reese, 2019), the anti-distancing argument fallaciously positions secrecy and transparency as oppositional forces in food systems. Instead, as Pachirat (2011) points out, "sight and sequestration exist symbiotically" (p. 252) in meat industries as flipsides of the same logic. The presumed disgust upon which the transformational tactics of the "politics of sight" are based is cultivated only through conditions of sustained invisibility that categorize that which is hidden as morally repugnant. As demonstrated by the "New Carnivore" movement's valorization of intimate encounters with slaughter as indicators of authenticity (Parry, 2010, p. 381), the process of bringing veiled practices to light can be reframed as a commendable practice of industry transparency or personal accountability, which might encourage normalization rather than critique (Arcari, 2019). Moreover, the intended shock of defetishization is muted by the depth to which large-scale violence has been embedded as a structural feature of industrial animal agriculture. Appealing to the

standards of an idyllic status quo that is antithetical to actual food system norms, "the narrative conventions of the liberal exposé genre that shapes most meat writing are politically inadequate for our contemporary world" (Blanchette, 2020 p. 26).

As the cattle-beef commodity chain chugs on in the face of decades of public exposure (Sinclair, 1906/2003), its resilience shows that defetishization does not necessarily lead to concern. In the same way, the persistence of those who have continued to fight against the exploitations of the beef commodity chain indicates that fetishization does not necessarily lead to apathy (Kranjc, 2020). As Purcell (2011) advises: "Perhaps the presumed inverse relationship between intimacy and cruelty is not as straightforward as it initially appears" (p. 65). Building on these observations, I argue that separation is not the primary source of food-related inequities, and I offer a counter-diagnosis of ills with which food systems are infected.

Cattle-Beef Infrastructures: Risks, Scapes, and Mediation

Presenting a counterpoint to assumptions about industrialized distance, material remnants of meat are "invisible alongside us at all moments" (Blanchette, 2020, p. 13) in places like Canada.[21] Not confined to the pathways of the commodity chains that connect farm to fork, cattle parts infuse global landscapes to fertilize crops, feed pets, cover and clean human bodies, construct and power buildings and vehicles, and etch messages in

[21] The same kinds of relationships are true of our entanglements with industrialized plant life. Sandilands (2021b) writes: "I wonder how many people ever think *plant* with thanks when they sit at a richly-grained oak desk, drink their morning coffee or tea, take an aspirin, fall asleep between cotton sheets, or shelter from the cold in a fir-framed house?" (p. 779).

media. The National Renderers Association (2019) presents an infographic of "rendered ingredients produced from cattle", which includes: hides (leather, shoes, garments, upholstery), meat and bone meal/beef meal (feed, fertilizer), blood (feed, fertilizer), tallow (biofuel, soap, lubricants, textiles, shampoo, emulsifiers, cleansers, creams, inks, glues, solvents, explosives, rubber, tires, crayons, paints, feed). Blanchette (2020) observes of the contemporary food system's relationship with the porcine species: "industrialization has turned the industrial pig into a(n) (inter)national project" (p. 230). The same can be said of the bovine species. A vast, differentiated network of consumers and consumption spaces is required to support the scale and profitability of the contemporary industrialized beef industry. The capitalist imperative to extract growing economic value from strained animal bodies has created an all-encompassing, yet unstable cattle-beef system that must constantly recruit new actors and hold them in its web.

Erupting as risks, formerly invisible traces of cattle confound assumptions of economic linearity by showing up throughout the supply chain as if out of place. In the 1980s and 1990s, a series of poisoned meat outbreaks called attention to the potential dangers of industrialized meat (Franklin, 1999).[22] Beginning in Britain in 1996 and spreading to other parts of Europe and North America in the following decade, outbreaks of bovine spongiform encephalopathy (BSE) became a source of particular alarm when ingestion of BSE-contaminated beef was linked to the development of incurable Creutzfeldt-Jacob Disease (CJD) in humans (Leiss, 2004). Media depictions of "cannibal" cows advanced the narrative that BSE was a twisted outcome of human meddling in farming systems that had

[22] These outbreaks include salmonella poisonings from milk and milk powder in the United States and Britain (Franklin, 1999) and E. coli poisonings from beef served at American fast-food chain, Jack in Box (Levenstein, 2012).

been functioning according to natural principles (Washer, 2010, p. 91). Scientists hypothesize that the prions that cause BSE made the jump from sheep to cattle via sheep meat and bone meal that was added to cattle feed, which was then amplified by further practices of including cattle remains in the feed (Leiss, 2004). Rather than leaving meatpacking plants to become foods or other products for human consumers, pieces of dead bovine bodies cycled back to primary production, where live cattle acted simultaneously as producers and consumers of their own flesh (and organs, sinews, and bones).

Collapsing spaces of production and consumption, BSE and other "new food scares" seemed to "put into reverse one of the key characteristics of meat eating in modernity." Franklin (1999) elaborates:

> They emphasized to the consumer, the connections between animals and meat, and underlined the processes of animal-into-meat. These rationalized, intensive processes, so studiously hidden from the public gaze, were revealed to be the source of the new risk. (p. 164)

Upon closer inspection, however, it becomes apparent that BSE only *appeared* to reverse a presumed-to-be-growing disconnect between meat producers and consumers. Instead, it exposed that the beef system had not been on a trajectory toward increased disconnection. In Latour's (1991/1993) terminology, the BSE crisis revealed that beef had "never been modern", in that the industry did not enact human separation from nature—an alleged state of modern progress that Latour argues has not in fact been reached. While industrialized food is presented as a measure of humans' increasing freedom from the biological uncertainties of food procurement, it actually ties together humans and nonhumans in even

more complex ways. The feeding innovations that gave rise to BSE can be understood not as a break from modernity, but as an extension of its economic logics, which tighten extraneous profit-leaking gaps between production and consumption. By recycling the waste surplus from industrial meat production, the new "cannibalistic" feeding practices aimed to substitute cheap, available inputs (i.e., unsellable animal body parts) for more costly grains to create additional economic surplus (Shukin, 2009). Like the other rendered residues that fill gardens, homes, and bodies, the seemingly misplaced elements of the BSE outbreak were hiding in plain sight—waiting to eke out more value from an already intensely rationalized system.

As a long-incubating disease that resulted from the ratcheting up of production and distribution efficiencies, BSE is a "model *Risk Society* issue of late modernity" (Washer, 2010, p. 91). Beck (1986/1992) and Giddens (1999) position risk society as a new era of modernity that struggles with dangers that have been produced by the global amplification of modern principles (Matten, 2004). Describing the period as "reflexive modernization", Beck, Giddens, and Lash (1994) argue that modernity's emphasis on reason has led to the intensification of self-referential practices of assessing and reassessing information across multiple spheres of human activity. The experience of living in a state of uncertainty is compounded by "disembedding mechanisms" (Giddens, 1990, p. 22) that "lift…social relations out of their 'situatedness' in specific locales" (p. 53). In other words, the institutions of modernity facilitate the coordination of relationships across time and space—or "time-space distanciation" in Giddens' (1990, p. 14) terminology—such that individuals regularly relate to "'absent' others" (p. 18) who affect their present experiences without coexisting with them geographically or temporally.

As opposed to food movements' assumptions about the correlation between distance and disconnection, time-space distanciation recognizes new and heightened connections as potentially paradoxical counterparts to the global diffusion of relationships. With this framework, I understand the global beef distribution system as a shifting network of relations rather than a preprogrammed series of evenly spaced events. In place of the "cattle-beef commodity chain" then, I turn my attention to "cattle-beef infrastructure"—a term that combines Specht's (2019) terminology of the "cattle-beef complex", which refers to "the set of institutions and practices keeping beef on the dinner table" (p. 4), and the sense of "infrastructure" discussed in Chapter 1, which describes the material and social networks that underlie functional systems. In line with the media ecology approach, Parks and Starosielski (2015) describe infrastructure as "fundamentally a relational concept rather than a concrete object" (p. 9); infrastructure is not a static background against which daily activities take place, but rather it emerges in relation to the environments and actors with which it interacts.

While I study the dominant cattle-beef infrastructure that has evolved in Canada, I position it neither as the only cattle-beef infrastructure in the region, nor as a stable entity that forecloses other possibilities. Instead, cattle-beef infrastructures are always multiple, and they vary in their formulations across time and space.[23] Though related through globalized food systems, the dominant cattle-beef infrastructure in Canada is different from cattle-beef infrastructures in other regions.[24]

---

[23] For the sake of brevity, when I use the terminology "the cattle-beef infrastructure" in the rest of the dissertation, I am discussing its dominant iteration in Canada (even as multiplicity is implied).
[24] Consider, for instance, the political, religious, and cultural contexts in India that have shaped restrictions on beef, leading to casteist violence (Ahuja, 2021; Dave, 2014).

Unlike the cattle-beef commodity chain, cattle-beef infrastructures do not feature specific locations as the beginnings and endings of their operations. Instead, they are constituted by relationships that are always already *in the middle* of cycling between lands and eaters. I thus move away from the model that studies the cattle-beef commodity chain as an entity regulated by a logic of *distancing* (B. Kneen, 1995), which moves the beginning point of the producer ever further away from the ending point of the consumer. Examining the relationships of Canada's dominant cattle-beef infrastructure, I instead propose that the organizing principle of the global meat system might be understood as *mediation*. For Latour (1991/1993), mediation is the process by which "hybrids of nature and culture" (p. 10) are created. While modernity has proceeded as if its social and technological achievements have been a result of humans' mastery over the nonhuman world, Latour argues that the global expansion of modernity has not been facilitated "by the separation of humans and nonhumans but, on the contrary, by the amplification of their contacts" (p. 41). Following from this perspective, I notice that the cattle-beef infrastructure spreads across time and space not by severing connections, but by gathering together more diverse and more plentiful actors through increasingly entangled strings of attachment.

I bring my attention to the situated human and nonhuman entanglements that have formed and reformed the cattle-beef infrastructure in Canada. I understand the global intersections of this infrastructure to be divergent from the imagined mobility of the cattle-beef commodity chain. While the cattle-beef commodity chain offers a set of homogenous rules that apply to its apparently self-regulating iterations throughout the globe, cattle-beef infrastructures emerge from particular relational landscapes: their modes of governance are not preset but are embedded in their churning material and economic processes. As

opposed to studying Canada's dominant cattle-beef infrastructure as a stable entity that can be decoded, I examine it as a mutable coalescing of placed relations.

Specifically, I suggest that the cattle-beef infrastructure (of which supermarkets have become the contemporary heart) participates in a process of *cryopolitical mediation* that extends and was enabled by colonial relationships between lands and eaters, which position nature as a resource from which human property owners are entitled to extract. As discussed in Chapter 1, cryopolitics is the governance of the spaces between life and death (Radin & Kowal, 2017), while mediation, as mentioned above, is the process that connects entities and environments to one another. Taking these terms together, I define cryopolitical mediation as the regulation of the ways in which life connects to death. Through cryopolitical mediation, the cattle-beef infrastructure harvests life from landscapes and holds it in states of suspended "freshness" (Freidberg, 2009) such that maximum profit can be extracted before decay.

Foodscapes and Meatscapes

My infrastructural perspective on beef distribution systems aligns with critical food studies scholarship on foodscapes, which "explore[s] the production and consumption of food without privileging one over the other" or positioning "them as essentialized categories" (Goodman, 2016, p. 258) as in farm-to-fork narratives. The concept of foodscapes borrows from Appadurai's (1990) model of the globalized cultural economy as "a complex, overlapping, disjunctive order" (p. 296) of flowing "scapes" that give rise to worlds and identities beyond and between the borders of previously hegemonic nation-states. As applied to food environments, the concept of "scapes" signifies the circulating

material foodstuffs and cultural cuisines that make up imagined and embodied food practices and spaces (Crowther, 2018; Ferrero, 2002; Goodman, 2016; Johnston & Baumann, 2015; Johnston & Goodman, 2015). Concentrating on a subset of foodscapes, Hansen and Jakobsen (2020) define "meatscapes" as "spatial intersection between large-scale geographies of meatification and their everyday articulations in social practice", or more concretely, "where the killing of animals is embedded in everyday life through retailing and consumption of meat" (p. 22). As opposed to referencing a singular temporal moment when animals are made into meat as is invoked in the paradigm of the "cattle-beef chain", meatscapes recognize multiple, overlapping material, ideological, and discursive processes through which this transformation is made repeatedly both before and after the time of slaughter (Blanchette, 2023).

Looking at "meatscapes" through the lens of cryopolitical mediation, I trace the history of Canada's cattle-beef infrastructure as an enterprise that has made and remade colonial environments based on a belief in the abundance and malleability of nonhuman nature. As powerful actors have struggled for control over the central infrastructural position from which cryopolitical mediation radiates, the risks and benefits of beef consumption have been spread unevenly (Purcell, 2011). In presenting the origins of these inequities, my historical review does not locate an original severed link between production and consumption, but instead positions beef consumption as always already mediated by the infrastructures that enable it.

The Rise of the Dominant Cattle-Beef Infrastructure

As slaughterhouses are key spaces in which beef is produced[25] and supermarkets are key spaces in which meat is consumed,[26] I study the relationship between these apparatuses in the interest of attending to the lively dynamics that fill the supposedly empty gap between food production and consumption. While meatpackers and food retailers formed as discrete institutions in the 19th and early 20th centuries, they have become increasingly interdependent as complementary elements in the cattle-beef infrastructure since the late 20th century. Situating slaughterhouses and supermarkets as meatscape actors as well as physical locations, I follow Johnston and Goodman's (2015) recommendation to analyze foodscapes with an eye "to examin[ing] those active creative agents who mediate our understandings of food on a daily basis" (p. 209). Such agents play varying roles in regulating flows of materials and values through foodscapes.

Together, slaughterhouses and supermarkets organize how other actors coalesce throughout meatscapes, such that risk is distributed favourably for the growth of the dominant cattle-beef infrastructure. Highlighting six notable infrastructural changes in cattle slaughter and food provisioning, the next section of the chapter traces an evolution of beef production and consumption in Canadian meatscapes that has involved the cattle-beef infrastructure gathering lands and waters as resources, nonhuman animals as commodified meats, and human eaters as alienated workers and/or shoppers. This arrangement of

[25] Although cattle are raised on ranches and farms, I follow from Vialles (1994) by bringing attention to slaughterhouses as spaces that are central to the production of "true meat" (p. 4).
[26] While consumption can also refer to ingestion, I draw on Warde (2005) in identifying consumption as "purchasing and shopping" (p. 150).

participants has supported the rise of freshness as an ethic according to which beef's value as an economic and cultural entity is assessed.

Cultivation (16th Century to 19th Century)

As summarized in a tagline by trade organization, Canada Beef (2016), contemporary Canada is depicted in the popular imaginary as "the world's perfect place for raising beef" (p. 5). With "wide open spaces", "a heritage of hardworking ranching and farming families", and "a caring and effective government" (p. 5), Canada ostensibly offers a set of ideal ingredients that have made for a natural historical progression from raw materials to a thriving beef industry. This naturalized narrative disguises powerful forces that have profoundly reshaped the socio-ecologies of Turtle Island via "the violent exclusion of people[,]…bison" (Specht, 2019, p. 23), other organisms, and their interrelated lifeways.

The establishment of the cattle-beef infrastructure in so-called Canada was foundational to the ongoing project of settler colonialism, in that it facilitated the empire's claims to the land upon which the riches of successors have been built. Summarizing colonial attitudes in the 15th and 16th century, Earle (2010) writes:

> Colonialism relies on a dream of unity combined with an insistence on distance. Maintaining the separation between colonizers and colonized was as much a requirement of the enterprise as was the elimination of that separation by teaching the Indians to live "like rational men." (p. 712)

In other words, colonialism mediates between colonizers and colonized in ways that both bind them to one another and sustain the differentiating power of colonizing subjects. In Latour's (1991/1993) formulation, this relationship is representative of the ways in which

underacknowledged forms of interdependence underlie modernity's presentation of singular authority. Conforming to colonial principles, the cattle-beef infrastructure collects actors together while maintaining hierarchical distinctions between them. Since the 16th century invasion of Turtle Island, cattle and beef have been enrolled in "thermal colonialism", which Hobart (2022) defines as a practice of mediating temperature to "produce…idealized environments as well as ideal subjects for those environments" (p. 10). On Turtle Island, the cryopolitical management of cattle and beef has been instrumental to the creation of a physically and politically temperate landscape conducive to the growth of colonial powers.

Ranching

Since time immemorial,[27] the foodscapes of Turtle Island have taken the shape of diverse food practices informed by agreements that peoples made "*in relation to creation*" (Crosschild et al., 2021, p. 21). These governance structures include nonhuman organisms, lands, and waters as members of society who provide ongoing input into the ways in which humans conduct themselves (Simpson, 2021; Stark, 2010). Before the arrival "of European colonists…, there were no cows, sheep, or hens and meatscapes were associated to hunting" (Farah, 2016, para. 7) on Turtle Island. Cattle were first brought to Turtle Island in the 17th century to supply food for newly established French and British fur trading posts.

[27] Many Indigenous cultures use the phrase "time immemorial" to describe the depth of their ancestral connections to specific lands. As their epistemologies do not conform to the linearity of the Western model of time, the phrase signals an ongoing relationship rather than a specific time in the past (Weir, 2013). Current Indigenous archaeological research supplements the teachings of oral stories to indicate that Indigenous peoples may have inhabited the lands of Turtle Island more than 100,000 years ago (which contradicts previous evidence that places humans on Turtle Island at the end of the last ice age approximately 12,000 years ago; Steeves, 2021).

Provisioning settlements with familiar foods was part of the settler colonial objective to maintain not only the physical bodies of settlers, but also their European identities. According to humoural theories of the time, particular combinations of food and climate were necessary for balancing the substances ("humours") of the body. If settlers ate European foods, their bodies would be shielded from the "unmediated contact with…new lands" (Earle, 2010, p. 688) that could either sicken them, or in an equally undesirable scenario, make them indistinguishable from Indigenous inhabitants. In particular, humoural theories advised that foods with a "heating nature" like beef (Willich, 1801, p. 225) should be eaten to balance the cold environments and cooling foods of the "New World" (Earle, 2012).

To achieve long-term stability, settler colonies had to be self-sustaining in their food provisioning practices, meaning that they could not rely on foods shipped from overseas and needed to cultivate them in the "New World" as well. Through deforestation and related efforts to prepare land for cattle ranching and other agricultural practices, settlers believed they were creating a warmer, "more hospitable world" (Keeler, 2020, para. 11) that would better suit the European temperament. While scientific measurements of greenhouse gas emissions were not available at the time, deforestation and cattle ranching have indeed turned out to be significant contributors to global warming (FAO, 2023b). The introduction of "Old World" crops and livestock took the form of a metaphorical and literal process of remaking "untamed" landscapes in the image of an imagined pastoral Europe by "transplanting" civilized European human and nonhuman organisms to replace the existing "weeds" (Carter, 2016; Earle, 2010).

Processes of ecological reengineering ramped up as the fur trade moved West; sights were set on buffalo[28] and Plains Indigenous peoples, including the Assiniboine, Cree, Dakota, Kainai, Siksika, Stoney Nakoda, and Tsuut'ina, as one such set of organisms that "'infest[ed]' the Plains" (Specht, 2019, p. 30) and hindered settlement. Bringing productive and profitable activity to the plains during a "global cattle boom" (MacLachlan, 2006, p. 8) in the 1860s, cattle farming would lay claim to lands and resources that were being "squandered" by Indigenous peoples (Specht, 2019). Performed largely by Indigenous women, existing food cultivation practices were "dismissed as 'gardening'" (Carter, 2016, p. 36) that supported the supposedly idle time of "lazy" Indigenous men (p. 77). Initially, cattle imports from the United States supplied other frontier industries on the west coast, including coal mining and railway construction. The recently formed Dominion of Canada began to encourage ranching as an industry in its own right in the 1870s, with initiatives that included bringing a "breeding nucleus" (MacLachan, 2006, p. 15) from Montana to the area that was then the North-West Territories.

In 1872, the Dominion Lands Act divided the Western landscape into a grid and gave authority to Canada to grant pieces of land to its priority groups; segments of the grid were made available to settlers for farming as "homesteads", for instance. People who were defined as "Indian" were not eligible for homesteads and were relegated to less arable land on reserves. When farming on reserves began to succeed in spite of such obstacles, the Department of Indian Affairs introduced further restrictions on the amount of reserve land that could be cultivated with stipulations like only "hav[ing] one cow (rather than cattle herds)" (Carter, 2016, p. 52). Meanwhile, European-owned cattle acted as "mobile

[28] See Note 19 in Chapter 1 for an explanation of the terminology "buffalo" versus "bison".

colonizers" (Specht, 2019, p. 35) to stake property claims on lands that were the subject of disputes with Indigenous inhabitants on behalf of the Dominion (Belcourt, 2015; Carter, 2016). Cattle[29] thus occupied an "ambiguous" position in colonization (McClintock, 1995, p. 6), in that they were used to enforce property relations, but only because they themselves were subjected to these dynamics as "form[s] of mobile capital: wealth that could be bred, milked, fattened, and finally walked to a profitable slaughter" (Freidberg, 2009, p. 51).

Rationing

Instituting European frameworks for land as property, the reserve system developed out of the colonial capture of relations of trade between settlers and Indigenous peoples that were once more equitable (Innis, 1930). The intercontinental fur trade initially emerged as a complement to the fishing industry when European fishers traded meat and fur with Indigenous peoples, including the Haudenosaunee and Anishinaabeg, in exchange for metal and cloth goods in seasonal fishing settlements that had been established in the early 16th century. The fashion for wide-brimmed felt hats in late 16th century Europe drove increasing demand for beaver pelts, and the subsequent expansion of the fur trade (Berland, 2019).

Competing fur trade companies offered goods, social services, and military alliances to keep Indigenous peoples invested in their arms of the enterprise (Foster & Eccles, 2019). Much to the frustration of fur trade authorities, Plains Indigenous peoples were not as tightly integrated into these trade networks as Indigenous peoples of the Eastern

[29] Originally, the word "cattle" was a general term for "property" or "chattel" (OED, 2024a). As Marx and Engels have analyzed, this connection extends to the concept of "capital" as an asset or form of currency (Ficek, 2019).

Woodlands given their connections to buffalo (Dobak, 1996). As agrarian settlers and their cattle began moving to the region in increasing numbers in the mid- to late 19th century, however, they "brought intense competition for forage and introduced diseases" (Daschuk, 2013, p. 102) along with government-backed sport and hide hunters to an already diminishing buffalo population. As "cattle supplanted bison on the plains during the 1870s and 1880s" (Zontek, 2007, p. 26), the Dominion presented treaties to Indigenous peoples with the understanding that cattle (and other supplies) would be available to replace the depleting buffalo herds as the communities transitioned to the agricultural economy that was allegedly available on reserves (Carter, 2016).

As treaty-making practices differed substantially between Indigenous and European governance systems, Indigenous leaders often signed treaties with the understanding that lands would be shared rather than owned and cultures would co-exist rather than be subordinated. As discussed above, Indigenous treaty-making also involved nonhuman nations (Simpson, 2021; Stark, 2010; Whyte, 2021a). While "Treaty Six negotiations in 1876 included requests for protection of the buffalo by Chiefs Beardy and Sweetgrass" (Crosschild et al., 2021, p. 11), for example, the Dominion used treaties as ownership documents to acquire land for agricultural settlement by sequestering Indigenous peoples away from their buffalo relatives.

For Plains Indigenous peoples, stationary life on reservations was contrary to their traditionally mobile foodways, which followed buffalo migratory patterns (Daschuk, 2013). For the emergent beef industry, reservations offered a captive market for their products, particularly for undesirable quantities that could not be sold elsewhere. Media reports depicted cattle and beef ration delivery to reservations as a "spectacle" that included

bloody slaughter and the eating of raw meat. These descriptions reaffirmed colonial narratives that claimed that the erasure of Indigenous peoples was a marker of inevitable progress (Specht, 2019, p. 46).

Classification (Early 19th Century to Early 20th Century)

As the cattle-beef infrastructure took hold in the "New World", it employed colonial techniques of "classification" (Shotwell, 2016, p. 25) to bring increasing order to the apparently lawless land. Noticing differences between European and Indigenous bodies and practices, colonists found apparent material "proof" to support the theories of "social evolution" that were emerging during the Enlightenment. In comparison to pre-modern conceptions of a static, hierarchical universe, these new proposals suggested that humans evolved from a state of "primitiveness" to one of "civilization" as they gained more "control of nature" (Porr, 2019, p. 187). These frameworks provided justification for colonial projects based on beliefs in European evolutionary superiority and the moral duty to assist other peoples along the trajectory of progress (McNiven & Russell, 2005; Porr, 2019).

Shotwell (2016) writes: "when classifications work well, they become infrastructure—they fade out, we cannot easily perceive them, and the social relations they shape become commonsensical" (p. 26). The colonial classifications embedded in the cattle-beef infrastructure underwent such a process toward the turn of the 20th century, as moral categories were delineated in conjunction with newly regulated spaces of slaughter and selling. In contrast to the unpredictable sensory cacophony of blood and vocalizations in live animal markets, the shops of reformed cities offered a controlled environment for food procurement that was segregated from emerging slaughterhouses (Steel, 2009). Drawing

on Elias (1939/2000), P. Y. Lee (2008b) and Pachirat (2011) categorize the slaughterhouse as a "civilizing" institution. By inviting eaters to experience a crafted (cryopolitical) pause between death and decay, emergent grocers worked in conjunction with slaughterhouses to demonstrate to respectable society that the base elements of human life were under control. The cattle-beef infrastructure thus normalized a vision of civilized humanity that has remained reliant on a perpetually subdued "primitive" animalized Other.

Public Slaughterhouses

In the early 19th century, livestock slaughter in the "New World" was performed on farms and in small village butcher shops (MacLachlan, 2001). Changes to these arrangements followed 19th century developments in Europe (Brantz, 2008), which saw the replacement of "private slaughterhouses" with new "public slaughterhouses" (Fitzgerald, 2010, p. 60). During the urbanization of the Industrial Revolution, the presence of livestock in urban centres was ubiquitous in European cities. Butchers procured live animals from markets and slaughtered them in stalls ("tueries"; P. Y. Lee, 2008c, p. 47), open air "shambles" (MacLachlan, 2008, p. 107), or domestic residences (Otter, 2008).

The growing urban population did not mesh well with the haphazard geography of animal slaughter. The precedent for centralized slaughter was set with Napoleon's decree of 1807, which ordered the construction of public slaughterhouses to supply the whole of Paris with meat. Developments were spurred on by bourgeois citizens' arguments about the immoral character of the parts of town where slaughter took place and the "normalization of violence promoted by the accidental sight of animal slaughter" (P. Y. Lee, 2008c, p. 50). As such, they suggested that relocating practices of slaughter away from

populated areas would be beneficial to public safety. In Britain, early discussions about pathogens and germs in the veterinary community combined with commentary on animal protection from the humanitarian movement to provide rationale for the establishment of regulated slaughterhouses (Otter, 2008). Such growing scientific knowledge also added weight to medical experts' appeals for state monitoring of food safety; the ease that centralized slaughter afforded meat inspection became a key impetus for establishing such facilities (Brantz, 2008).

Similar reasoning informed the calls for public slaughterhouses in Canada in the late 19th century. For urban residents with public health concerns and urban butchers operating out of cramped stalls, the non-residential locations and specialized equipment of public slaughterhouses offered increased sanitation and space. For farmers who had been facing trade barriers, public slaughterhouses presented possibilities for greater penetration in overseas markets through centrally inspected, coordinated efforts (MacLachlan, 2001).

Self-Service Grocery

The segregation of slaughter was complemented by a new vision for food shopping in the 19th century, which also emerged out of Europe and its trade with the "New World". Without refrigeration and home storage, the residents of pre-industrial European cities shopped daily, receiving credit at market stalls that specialized in one type of food (Boothman, 2009). Established in the 10th century, London's Smithfield Market represents a prototypical example of this market environment where life, death, and decay intermingled (MacLachlan, 2001; Steel, 2009). As part of the arguments for centralized slaughter in the mid-19th century, residents raised concerns about the slaughtering of animals in such

marketplaces as well as the presence and selling of live animals in central urban locations. In response, the Metropolitan Cattle Market at Islington was created in 1855 to manage the sale of live cattle near the railways outside of the perimeter of the city, while a new meat market was established at Smithfield in 1868 (Otter, 2008). In Toronto, cattle sales in St. Lawrence market were moved to the Western Cattle Market on the perimeter of the city in 1877 (Dickau et al., 2021; MacLachlan, 2001).

As the development of railways facilitated the long-distance movement of commodities and livestock, food shops emerged as alternatives to marketplaces on the high streets of urban centres like London (Steel, 2009). While the growing middle class patronized these venues, working class customers continued to purchase cheap cuts of meat and other less prized items from urban markets. Food shops became more widely available as grocers began to develop larger networks. In 1844, a group of British weavers came together to form the Equitable Pioneers of Rochdale, which operated as an early co-operative by buying goods in bulk and distributing them to its members (Goody, 1982; Steel, 2009). In the 1850s, the co-operative expanded across Britain by opening several branches and integrating into wholesaling (Goody, 1982; Humphrey, 1998).

Private firms emulated this distribution model in the following decades with the establishment of "multiples" (or chains)—groups of food stores that operated under central ownership and sold a range of unspecialized commodities (Humphrey, 1998, p. 31). Emerging in tandem with department stores, "food 'multiples' were crucial to the development of a modern retail and consumer culture" (Humphrey, 1998, p. 32), as they experimented with the economies of scale and diverse selection of commodities that are central to mass consumption.

In the United States, the Great Atlantic and Pacific Tea Company (A&P) made significant strides as an early grocery chain after its establishment in 1859 (Boothman, 2009; Humphrey, 1998). Initially a shipping company, A&P set up retail stores and used its distribution networks to sell its own products (Patel, 2007). In 1912, A&P introduced the "economy store" format, which sold affordable groceries according to a cash and carry model, rather than a credit and delivery system (Humphrey, 1998; MacLachlan, 2001). A&P was instrumental in modeling not only a new approach to commodity networks, but also the concept of a "company identit[y]" (Humphrey, 1998, p. 32), which positioned the retail store as a distinctive marketer and seller of goods in addition to its function as a distributor.

At the intersection of meatpacking and retail in Canada, the William Davies Company "was best known as a pork packer" but "originated as a retail butcher stall in Toronto's St Lawrence market and later developed Canada's first chain of food stores" (MacLachlan, 2001, p. 297). Although the company was focused on exporting pork to Britain, local shops provided outlets for pieces of hogs that did not meet standards for export—a strategy for offloading products that was subsequently employed by other meatpackers, like Calgary-based P. Burns and Company. Expanding beyond pork products, Davies stores sold selections of products under "the Davies brand name", thereby "pioneering the house brand that has become a distinctive feature of Canadian food retailing" (p. 298).

Chain store innovations were taken further with Piggly Wiggly's aforementioned self-service approach to grocery retailing. Offering lower labour costs and maximum product exposure, the enterprise took off, and 1,200 additional Piggly Wiggly locations were established within eight years of the self-service store's founding (Patel, 2007, p. 222). Manufacturing advancements in mass production and durability fit the needs of growing

chains, while packaging took on an increasingly important communicative function as the role of the shopkeeper decreased. Eliminating the sociability that slowed down the pace of sales, self-service operations "replac[ed] people with packages" (Hine, 1995, p. 2).

In Canada, Theodore Pringle Loblaw and Milton Cork borrowed from Saunders' model when they introduced self-service in 1919 to their expanding Toronto-based line of Loblaw "grocerterias" (Boothman, 2009; Loblaw Companies Limited, n.d.-b). During the 1920s, grocerterias set standards for mass retailing in Canada, including wide product selection, branded commodities, and limited customer service (Deutsch, 2010; MacLachlan, 2001). Holdovers from the marketplace model, meat counters would be late additions to the self-service revolution.

Centralization (Late 19th Century to Mid-20th Century)

At the dawn of the 20th century, the cattle-beef infrastructure was swept up in the myth of national progress. Especially given that Henry Ford cited the disassembly process that he saw in a Chicago abattoir as inspiration for the first auto assembly line (Shukin, 2009; Specht, 2019),[30] beef can be positioned as the original example of a commodity that became more widely available to the growing middle class because of Fordist developments in mass production. Emphasizing consumer accessibility as proof of beef's "democratization" (Specht, 2019, p. 5), meatpackers and supermarkets took hold of power in a nexus that was once populated by a variety of players.

[30] Tours of the Chicago Union Stock Yards were a popular way for "travelers…to physically see myths of American progress" (Blanchette, 2020, p. 2).

In a reprisal of the narratives of civilization that justified the growth of monarchical empires, emergent meatpacking and food retail companies framed centralized power as a pathway toward widespread improvement: The economies of scale they offered through an expanding network of refrigeration would make beef available to all citizens and would thus build a stronger, more modern nation (Specht, 2019). Associations between beef eating and progress had already been established in pseudo-scientific discourses of the 19th century that positioned beef-centred diets as a source of superior colonial strength in comparison to the rice- and corn-based foodways of peoples in the countries being colonized (Adams, 2018; Corning, 1884; Stănescu, 2017). Referencing the growing centrality of beef in the British diet of the 19th century, Freidberg (2010) writes: "few foods were more closely associated with wealth, wellbeing and overall national progress than fresh beef" (p. 262). As these ideas were transposed to the working and middle classes of North America, eating beef became a (gendered, racialized) practice of upward mobility, which signified social, political, and economic inclusion in the (white patriarchal) nation (DuPuis, 2007).

Disassembly Lines

As livestock moved out of markets during the late 19th and early 20th centuries, "meat-packing industrial complexes" (MacLachlan, 2001, pp. 5–6) were formed. Premised on the idea that carcasses could be more efficiently transported than live animals, agricultural animals were slaughtered in stockyards located near railway hubs, and their bodies were shipped by the growing rail system (Fitzgerald, 2010; MacLachlan, 2001). Opening in 1865, Chicago's emblematic Union Stock Yard was established as an amalgamation of smaller

stockyards. Chicago packers developed refrigerated boxcars in the 1870s, which "[did] away with the seasonal character of the industry" (Pacyga, 2008, p. 155) and added more miles to the increasingly long distances that meat could be shipped by rail. These advancements in transport shifted the slaughterhouse's role from a regional to a national supplier of meat (P. Y. Lee, 2008b), as the model spread to other cities in the United States and Canada (MacLachlan, 2001). A replacement for the Western Cattle Market, for example, the Union Stock Yards of Toronto was opened northwest of the city in 1903 (MacLachlan, 2001).

Other meatpacking industrial complexes borrowed from the Chicago Union Stock Yard its geographical logistics, as well as its mechanized production innovations. Chicago's abattoirs were designed as disassembly lines; animals moved past a series of workers who each performed a single step in the larger task of slaughter (Pacyga, 2015). Offering lessons that Ford later applied to the auto industry, this rationalized process promised savings on a few fronts as long as scale could be maintained.

Whereas live cattle's economic profitability depreciated due to lost weight or lost lives when they were shipped by rail, their full value could be captured when beef was shipped as dressed carcasses. By centralizing slaughter, packers encouraged other industries associated with slaughter to come to them, including tanners and renderers (MacLachlan, 2001; Specht, 2019). They could thus offset attractive low carcass prices by accruing profits through the sale of byproducts, like "blood, bones, [and] hide" (Specht, 2019, p. 192), or "coproducts" as they have been called in recognition of their value (Walker, 2000; Wrye, 2015).

Meatpackers were also able to cash in on profitable parts of distribution and to opt out of its unpredictable elements. Since American meatpackers developed refrigerated railcars ("reefers") themselves when railway companies did not want to bet on the new idea, they owned technologies that ended up being valuable for shipping other food commodities in addition to meat (Specht, 2019). Canada's Grand Trunk Railway was an important partner for American meatpackers, as it offered alternative shipment routes when American railways banded together to try to regain control from the newly powerful railcar owners (MacLachlan, 2001; Specht, 2019).

After cornering the market on shipping, meatpackers decided that the problem of catering meat distribution to the unpredictable needs of local consumer markets was a task best left up to someone else. At the time, the business of butchery was divided into "wholesale butchers" who slaughtered and dressed animals, and "retail butchers" who bought quarters or cuts to sell to consumers (Specht, 2019, p. 202). Aiming to "replace wholesalers", meatpackers proposed to butchers that they should "stop slaughtering cattle and instead focus on selling meat, [and] the packers would handle the rest" (p. 203). Clearly, this offer was not altruistic given that packers would be able to pull the strings of the retail butcher market once they gained control over wholesale supply (Freidberg, 2009).

The introduction of the disassembly line led to the division of the skilled labour of wholesale butchers between "unskilled" workers who could be paid lower wages and machines that did not need to be paid at all. Management arranged hiring and promotion decisions to encourage the fragmentation of the largely immigrant workforce not only by

skill, but also by gender and ethnicity.[31] Troublesome labour conditions came to light in Sinclair's (1906/2003) exposé of Chicago's Packingtown district, *The Jungle*. While Sinclair intended to highlight the struggles of workers, public attention centred on the unsanitary practices that the book revealed; as Sinclair famously stated: "I aimed at the public's heart, and by accident I hit it in the stomach" (p. ix). The book prompted the launch of inquiries into the industry in the United States and Canada, which led to the passing of the United States Meat Inspection Act in 1906 and Canada's Meat and Canned Foods Act in 1907. Especially concerned with protecting the reputation of the countries' export markets, these pieces of legislation extended federal inspection to all meats that passed between borders (MacLachlan, 2001).

Considering the socialist goals of Sinclair's (1906/2003) work, MacLachlan (2001) and P. Y. Lee (2008a) identify the ironies of these legislative outcomes. From a producer perspective, the acts increased the dichotomy between large-scale and small-scale packers, as they limited the range of small-scale producers to regional markets and strengthened the position of export-focused packers (MacLachlan, 2001). From a consumer perspective, the growing strength of large-scale packers coincided with further distinctions between middle-class consumers and the anonymous workers and animals who produced meat (P. Y. Lee, 2008a).

Meatpackers formed powerful oligopolies in the early 20th century. In the United States, the leading "big five" companies (Armour, Swift, Morris, Wilson, and Cudahy) were dubbed

[31] Nevertheless, community-building efforts took place in the working-class neighbourhood that developed around the stockyards (Pacyga, 2008). The Amalgamated Meat Cutters and Butcher Workmen of North America was established as an affiliate of the American Federation of Labor in Cincinnati in 1897 and moved its headquarters to Chicago in 1901. Initial strikes were largely unsuccessful, however, and meatpacking unions did not gain strength until the late 1930s (MacLachlan, 2001).

the “beef trust” (Sinclair, 1906/2003) in reference to the parallels between their market authority and Rockefeller’s oil monopoly (MacLachlan, 2001, p. 185). In the face of criticism, “the packers often argued that their product’s perishability required trust-like behavior” (Freidberg, 2009, p. 73). Only a coordinated effort could ensure that beef circulated throughout the nation without spoilage and waste. Canada’s “big three” packers (Canada Packers, Burns and Company, and Swift Canadian) represented even further concentration, responsible for nearly 85% of industry output in the mid-1930s (MacLachlan, 2001, p. 207).[32]

The strength of these meatpackers did not go unchallenged, however. With the introduction of legislation[33] that allowed workers to organize by industry rather than craft, the Packinghouse Workers Organizing Committee was formed in 1937 and spread to Canada to 1939 to form the United Packinghouse Workers of America (UPWA). Organizing over half of American packinghouse workers by the early 1940s, the UPWA led successful rounds of pattern bargaining in the United States and Canada in the 1940s (MacLachlan, 2001).

Supermarkets

While the growing unions of the 1930s challenged the power of large meatpackers, consumer groups questioned the dominant market position of grocery chains. In 1935, for example, women’s groups in the United States organized a meat boycott to protest increases in meat prices (Cohen, 2004). Notably, the interests and goals of worker and

[32] These levels of concentration were determined after a royal commission was established in 1935 to investigate the consequences of this company power on consumer prices (MacLachlan, 2001).
[33] Passed in 1935 as part of the New Deal in the United States, the National Labour Relations Act promoted equal power between unions and employers through collective bargaining (Waltz, 2018).

consumer movements were not always coordinated even as they were interrelated. Instead, the demands for fair wages and low prices were often at odds, enabling meatpackers to position themselves as allies to consumers when they presented centralization as the key to affordability and quality (Specht, 2019). As prices and food safety eclipsed other issues in public discourse, grocers' centralized arrangements did not initially fare as well as those of the meatpacking industry. Consumer actions coincided with the introduction of anti-chain legislation in the United States, which sought to protect suppliers from the potential price-setting pressures of increasingly large chains (Deutsch, 2010).[34] Though more limited in scope, similar measures were put in place in Canada in the interest of maintaining competition between small businesses and chains (Boothman, 2011).

In addition to criticisms from the growing consumer movement of the late 1920s and 1930s (Deutsch, 2010), grocery chains encountered the challenges of the Great Depression. Even with its earlier success in Canada, Loblaw Grocerterias "exemplified the mortality of chains" (Deutsch, 2010, p. 135) during this period in the United States. After a simultaneous rollout of several new locations in the United States in the late 1920s, the chain sold off its Chicago operations to Jewel Food Company by 1932 (Boothman, 2009; Deutsch, 2010).

To mitigate economic damages, chains shut down unprofitable stores and focused their attention on middle- and upper-class neighbourhoods, "adding touches of glamour and luxury" (Deutsch, 2010, p. 144) to stores in these areas. Given that anti-chain laws structured taxes according to the number of stores in a chain as opposed to sales volume, chains also implemented new formats to increase profits in individual stores. While chain

[34] Also known as the "anti-A&P law", for instance, the Robinson-Patman Act of 1936 set limits on practices of price discrimination between retailers and wholesalers (Eisenhauer, 2001).

store firms built empires by selling dry, transportable goods in the 1920s, independent grocers added meat to their selection of dry goods in "combination stores". These venues were often built "simply by knocking down walls between neighboring butchers and grocers" (Deutsch, 2010, p. 139). Prioritizing immediate sales over company expansion, chain stores adopted this combination model in the 1930s.

Meanwhile, independent grocers initiated another wave of grocery innovation by utilizing abandoned warehouses as spaces to sell a range of goods at low prices. Differing from chain store firms' models for coordinated personnel, the departments in these new locations were staffed by separate operators. The partners of Big Bear leased an old auto factory in New Jersey and rented space to a "conglomeration of individual retailers" (Deutsch, 2010, p. 144). Operating on a similar scale, former Kroger executive Michael Cullen established Kullen Grocery Company in an old garage in Queens (Deutsch, 2010; Hine, 1995). In addition to towering displays of goods, these venues advertised sales and featured entertainment as part of the shopping experience. Offering one-stop shopping at a grand scale and affordable price, these warehouse stores are cited as the first "super markets" (Deutsch, 2010, p. 144).

After their initial successes, supermarkets expanded and became less distinct from chain stores. Adopting chain store firms' template for centralized ownership and management, the spectacle of supermarkets became less about mass entertainment and more about upscale sophistication (Deutsch, 2010). The establishment of the Supermarket Institute (now the Food Marketing Institute) in the mid-1930s expedited the spread of this model, as the organization compiled and distributed information about food retailing designs and strategies. In Canada, trade publication *Canadian Grocer* encouraged

subscribers to remain competitive with American companies by sharing layout and promotional techniques (Boothman, 2009). The mid-1930s also saw the invention of the shopping cart in Oklahoma City, which enabled customers to amass more items during their perusals (Hine, 1995; Warnes, 2019).

The outbreak of World War II brought about labour shortages that furthered grocery stores' reliance on self-service (Boothman, 2011). Given the backlogs of customers waiting at butcher counters, supermarket operators were keen to speed up sales with self-service meat (R. Horowitz, 2006). Early attempts at wrapping meat with butcher paper for self-service were unsuccessful, as the opaque packaging prevented customers from assessing the quality of the meat. The invention of cellophane was therefore a significant advancement for self-service meat. After breaking into the baked goods industry in the late 1920s, cellophane producer and chemical company DuPont targeted the meat industry in the 1930s. Meat packaging was a particular challenge, as the material had to be strong, but permeable to oxygen in order to maintain the red colour that shoppers associated with fresh meat (Hisano, 2019; R. Horowitz, 2006). In Canada, Loblaw was the first company to debut cellophane-wrapped meat for self-service, introducing a "Meateteria" format to six of its stores in 1932 (Boothman, 2009; Bradburn, 2019).

While cellophane facilitated a standardized meat shopping experience, the material also added to the appeal and intrigue of the meat department, as its reflective properties gave products an added "sparkle" (Hine, 1995, p. 126). Cellophane was promoted as a vehicle for increasing brand recognition, as it offered a surface upon which logos could be affixed (R. Horowitz, 2006). Along with produce sections, meat departments became attractive features of grocery stores (Hisano, 2019). Hine (1995) argues: "The visual alchemy of the

gleaming, clear wrapping had the greatest impact on meat" (p. 127), as it enabled shoppers to examine meat products themselves, rather than relying on the butchers who had remained a staple in retail operations long after other food experts were moved off-site.

Purification (Mid-20th century to Late 20th century)

The 19th to 20th century "democratization" of beef oriented the cattle-beef infrastructure toward the creation of a homogenized national food culture as the century progressed. As a practice of "aspirational eating" (Specht, 2019, p. 220), beef consumption was tied to the status and lifestyle that national subjects were supposed to emulate. Extending from colonial classifications, this national identity was constructed out of a "purity politics" (Shotwell, 2016, p. 7) that defined the desirable in opposition to the undesirable. In the context of 20th century wars—both hot and cold—democratic capitalism and its proponents were exalted in allied countries like Canada while other political formations (e.g., fascism, communism) were vilified alongside associated people and practices.

Beef became more convenient for this idealized citizen with the introduction of a series of interconnected "black boxes" in the cattle-beef infrastructure that extended the flexible mobility of the cold chain, including trucks, cars, and household refrigerators. As described by Latour (1999), a black box is a part of an infrastructure that is visible only in terms of its "inputs and outputs" (p. 304), rather than the internal processes by which it operates. The cold chain's black boxes connected the emergent material and ideological geographies of factory farms and suburbia, which themselves acted as larger black boxes, in that they attempted to create controlled habitats that would segregate humans and nonhumans from

the ecological and social entanglements that sustained them. At the centre of these mechanisms of "purification" (Latour, 1991/1993), single species slaughterhouses and shopping centres enabled particular kinds of animals to be ferried to particular kinds of people without reminders of death or exploitation that would interrupt fantasies of the American (or Canadian) Dream.

Single Species Slaughter

The "Union Stock Yard era" (Fitzgerald, 2010 p. 62) of meatpacking began to wane in the mid 20th century. As big players in the meatpacking industry became increasingly powerful through the 1930s, fewer small packing companies remained to make frequent purchases at public stockyards, and sales from farmgate to packers became more common instead. With the development of animal confinement techniques through the 1950s, direct-to-packer sales became increasingly efficient, as animals could be evaluated and bought en masse from ILOs (MacLachlan, 2001).

The spread of direct-to-packer sales was facilitated by the growth of the highway system. While the location of stockyards had been based on the rail system, this position became less important when trucks were introduced as a method for shipping livestock in the 1920s. Carrying only about one quarter of Canadian livestock shipments in the mid 1930s, trucks accounted for almost three quarters of livestock shipments to stockyards by the late 1950s (MacLachlan, 2001, p. 98). Moreover, as residential neighbourhoods enveloped stockyards in expanding urban centres, stockyards became an unwelcome source of traffic congestion and were marked for closure.

Urban dwellers encountered livestock less frequently than they did in previous decades as smaller numbers of animals passed through cities on the journeys between farms and slaughterhouses (Singley, 2018), and even rural inhabitants experienced fewer incidental interactions with these creatures. The postwar period in Canada and the United States saw the birth and intensification of techniques that have come to be known as "factory farming" (Albritton, 2012; Weis, 2007). Animal biology was manipulated using a combination of breeding, feeding, and housing technologies that sought "to overcome the twin obstacles of natural growth rates and variations in size" (R. Horowitz, 2006, pp. 130–131). In the 1930s, the practice of raising chickens in confined, indoor sheds became profitable when companies[35] vertically integrated into feed and hatchery industries and outsourced growing and slaughter (Weis, 2007). This process of "chickenization" spread to pork, beef, and other animal agriculture industries in subsequent decades (Silbergeld, 2016).

The model became especially lucrative for vertically integrated companies with the introduction of more expensive agricultural inputs. Following wartime productivity, chemical companies searched for new peacetime uses for their products. The agriculture industry proved to be amenable to this purpose. When sub-therapeutic doses of antibiotics were combined with soy- and corn-based feed, animals displayed faster growth rates. As antibiotics guarded against diseases that could quickly wipe out a farm's livestock population, animals could be more tightly packed indoors and inputs could be more carefully regulated (R. Horowitz, 2006; Weis, 2007). "Deviant behaviours" (Weis, 2007, p. 60), such as head butting, were managed through practices like de-horning. Chemical

[35] John Tyson was an instrumental figure in the development of this process (Weis, 2007). Tyson Foods has gone on to become a leading multinational meat processor and marketer.

companies also introduced fertilizers and pesticides to accelerate the growth of monoculture crops—an increasing proportion of which went to animal feed. In combination with developments in farm machinery, irrigation, and hybrid seed technology, these practices succeeded in temporarily overcoming the limits to profit accumulation that natural systems posed (Albritton, 2012; Weis, 2020).

In slaughterhouses, the postwar period saw the extension and refinement of techniques of rationalization that had begun with the 19th century disassembly line. Central to these new technologies was the Canadian innovation of "on-the-rail-dressing", or the "Can-Pak system" (MacLachlan, 2001, p. 172). First in operation in St. Boniface in 1951, the Can-Pak system spread to the United States through the 1950s. Up to that point, disassembly lines were housed in multi-story buildings; livestock entered the plants through inclined ramps and their carcasses moved downward through the disassembly process. With on-the-rail-dressing, however, animals were hoisted after they were stunned, and their carcasses travelled along overhead rails that corresponded to the height that was appropriate for the tasks along the line. On-the-rail-dressing thus compressed the space that was needed for slaughter, and the continuous movement of the rail accelerated the speed of the line for increased productivity.

The multi-story design of older slaughterhouses became even more redundant through the 1960s, as new packers further rationalized the disassembly line technologies according to the requirements of slaughtering specific species. In the following decade, multispecies slaughterhouses gave way to plants that "specializ[ed] in one livestock species and often only one grade and sex" (MacLachlan, 2001, p. 246), which were run by meatpacking companies that vertically integrated into the feed and feeding industries. This arrangement

facilitated a steady supply of homogenized materials to funnel through supply chains. “Convenient animals” (R. Horowitz, 2006, p. 130) were created through biological manipulation and chemical inputs to achieve standardized growth-rates and sizes that would allow them to pass as seamlessly as possible through this system. The development of species-specific slaughterhouses emphasized the intimate connections between the lives of agricultural animals and their deaths; conforming to “the repetitive demand for efficiency and quantifiable productivity” (P. Y. Lee, 2008a, p. 240) in the meatpacking industry, animals were conceived and raised according to the specifications of the machines and facilities that killed them.

Shopping Centres

Despite early experimentations with the model in the 1930s, self-service meat departments did not become a regular feature of the supermarket until the 1950s (Deutsch, 2010). World War II had slowed developments in self-service technology. Factories that produced refrigerators, for instance, were redirected to the war effort (Hisano, 2019). Once the manufacturing of retail goods resumed after the war, however, advancements in refrigeration technologies proved to be an essential complement to cellophane for the establishment of successful self-service meat departments. While A&P introduced open refrigeration cases in the 1930s, the technology took off as part of the meat department in the late 1940s when DuPont replaced ammonia with Freon as a cooling agent. This substitution held refrigerators to the low temperatures that were necessary for preserving the colour of cellophane-wrapped meat (R. Horowitz, 2006).

By the end of the 1950s, supermarkets had become the major players in food retailing (Deutsch, 2010). No longer representative of the chaotic warehouses of the 1930s, "the term 'supermarket'" came to signify the "modernization of…the food industry" (Brand, 1963, p. 3), and supermarkets were associated with "much that was considered 'good' in post-World War II consumer society" (Deutsch, 2010, p. 183). With more women entering the workforce, supermarkets sought to provide customers with products that would cut down the labour of shopping and cooking. In the meat department, these goals translated into a proliferation of precut or processed meats, which could be procured through self-service (R. Horowitz, 2006).

The growth of highways after World War II transformed not only practices of commodity distribution via trucks, but also the landscape of commodity consumption via cars. With the development of new residential patterns, cars became an integral part of shopping (Cohen, 2004). Government-backed insurance policies in Canada and the United States supported the construction of single-family homes in suburban neighbourhoods (Boothman, 2011). Coupled with an economic boom and low unemployment levels, these arrangements attracted large numbers of Canadians and Americans to suburbs in the 1940s and 1950s.

More than a collection of homes, suburbs enacted a process of "social engineering" (Boothman, 2011, p. 287) reminiscent of 19th century homesteading. The inhabitants of the new communities were disproportionately white, as the low interest rates that made suburban home ownership enticing were largely only available to white families. Mortgage policies were based on maps that divided neighbourhoods by loan risks with low-income, frequently racialized neighbourhoods demarcated by red lines to indicate uncertain

investments. In a practice that has come to be known as redlining, residents of marginalized neighbourhoods were therefore discouraged from participating in the widespread movement to suburbs (K. Jackson, 1985; May, 2008).[36]

This pattern was repeated decades later in a process of "supermarket redlining" (Eisenhauer, 2001, p. 128) when supermarkets closed stores in unprofitable inner-city neighbourhoods in the 1980s. The precedent for these actions was established in the 1940s and 1950s, however, as "supermarkets…followed white middle-class incomes to suburbs" (New York Law School Racial Justice Project, 2012 p. 6).[37] Indeed, the growth of the suburban landscape and its "low-density lifestyle suited supermarkets perfectly" (Steel, 2009, p. 137). Given the convenience of personal automobiles and the growing popularity of household appliances like the refrigerator, supermarket operators anticipated that shoppers would stock up on goods at a single store once a week, rather than patronizing multiple shops daily (Warnes, 2019). As a result, they sought to make supermarkets family attractions that housed a range of amenities. Canadian company Dominion launched a line of "mammoth markets" in the 1950s, which were promoted with an elephant mascot that touted the slogan: "big but friendly" (Boothman, 2011, p. 288). In name and size, Dominion's "mammoth markets" recalled the "wild animal stores" (Deutsch, 2010, p. 146) like Big Bear and similarly named super-markets of the 1930s (e.g., Big Tiger, Big Bull), but their family-friendly image reassured shoppers that the restrained consumption of the Depression had come to an end. To the families who moved to suburbs seeking the

[36] While most infamously associated with the Home Owners' Loan Corporation that was established as part of the New Deal in the United States, examples of redlining also occurred in Canada. Moreover, although redlining is often associated with inner-city neighbourhoods, it was practiced on suburban neighbourhoods as well (R. S. Harris & Forrester, 2003).

[37] Some chains purchased tracts of land outside of the city during the war in preparation for postwar development (Eisenhauer, 2001).

American Dream, the elephant mascot offered permission to "enjoy more—you deserve it" (Nance, 2012, p. 91).[38]

Anchored by supermarkets, shopping centres arose as rationalized "merger[s] of consumption and community" (Boothman, 2011, p. 287). While prototypes were built as early as the 1920s, the shopping centre arose as a prominent retail form in suburban communities of the 1950s (Cohen, 2004; Eisenhauer, 2001). Modeled on high streets, early shopping centres[39] presented sanitized versions of urban downtowns. Featuring standardized design, landscaped promenades, and community meeting places, shopping centres excluded "unwanted urban elements" (Cohen, 2004, p. 265) from their version of a city core. Such elements included not only traffic and litter, but also low-income, racialized people. While the demographics of suburbs were already segregated, shopping centres also deliberately sought out and catered to middle-class, white audiences through their marketing efforts (Cohen, 2004).

In the context of the Cold War, communism was conjured as a persistent danger to justify the regulation of sanitized spaces. The threat of nuclear war had been a driving force for the creation of suburbs. According to the principle of "defense through decentralization" (May, 2008, p. 161), urban centres were vulnerable to attack and should therefore be depopulated, while highway systems would provide quick evacuation routes for remaining

[38] In the 1950s, elephants and "jumboism" were commonly used to sell the abundant lifestyle of modernity. Tracing the history of elephants in advertisements back to the promotion of Jumbo the elephant as part of Barnum's "mammoth" circus show (p. 84), Nance (2012) positions "the Jumbo elephant" as "the iconic animal of North American capitalism" (p. 93).
[39] Early examples include the Southdale Centre in Minnesota and the Yorkdale Shopping Centre in Ontario (Therrien, 2011).

inhabitants.[40] Moreover, small, suburban communities were thought to be less susceptible to the labour unrest that could lead to communism.

Ideologically, shopping centres became symbols of capitalist progress in the United States and allied countries like Canada. In contrast to the oppression of communism, mass consumption became synonymous with democracy (May, 2008). In an era that Cohen (2004) labels as the "Consumers' Republic" (p. 7), freedom of choice in the marketplace was conflated with the political freedom of a democratic society. Identifying agriculture as a key battleground between capitalist and communist modes of development, Hamilton (2018) observes: "American supermarkets came to be enrolled as weapons in the American economic arsenal of the Cold War" (p. 2).[41] Not only did supermarkets embody capitalist ideals of abundance and free enterprise, but they also acted as powerful economic vehicles to integrate global markets into an industrial food system (Deutsch, 2010; Hamilton, 2018).

---

[40] It should be noted that the white, affluent families who were prioritized in the establishment of suburbs were also the families who could afford to own the cars that would be needed for such evacuation (K. Jackson, 1985; May, 2008).

[41] While presented comedically, an ad from the June 1986 edition of Loblaw's promotional magazine *Dave Nichol's The Insider's Report* demonstrates confidence in the superiority of the West's consumer products. Beside a cartoon image of a roll of toilet paper bearing the inscription "CAPITALIST TOOL", the copy reads:

> WHAT ARE THE RUSSIANS MOST JEALOUS OF??
> Your first guess might be blue jeans. Or old Beatle [*sic*] records. But according to Paul Mazursky's comedy, MOSCOW ON THE HUDSON, the item that tops any Russian's list of most-wanted items from the west is toilet tissue! TOILET TISSUE!!!! Russians don't mind standing in line for hours for a chance to buy a pair of nylons; they don't mind waiting six to ten years to qualify for a 450 sq-foot apartment in a public housing development; BUT WHEN IT COMES TO THE QUALITY OF THEIR TOILET TISSUE, THE VERY FABRIC OF COMMUNIST SOCIETY IS SORELY TESTED!
> The Russian people are tired of proletarian toilet tissue, and I don't blame them. That's why we've developed THE ULTIMATE IN SOFTNESS, a luxurious, 3-ply tissue! The market is filled with many bourgeois toilet tissues that only have 1- or 2-ply thickness, but ours is a Czar's dream, a generous and supple 3-ply tissue… I wouldn't be surprised if it became the #1-demanded contraband inside the very walls of the Kremlin itself. (PC, 1986, p. 13)

Specialization (Late 20th Century to Early 21st Century)

Taking the "convenience revolution" (R. Horowitz, 2006, p. 150) of post-World War II to a new level in the late 20th century, Canada's cattle-beef infrastructure employed a combination of coordinated and targeted techniques to deliver cattle and their body parts to slaughterhouses and supermarkets on a "just in time" basis. Blanchette (2020) observes that the "industrialism" of animal agriculture "is reaching some tensions…as it grapples with…biological being[s] that [have] little obvious room left for capitalist expansion" (p. 4). On one hand, the "anatomically fixed" (MacLachlan, 2001, p. 292) nature of both bovine bodies and consumer stomachs[42] made the beef industry a poor candidate for post-Fordist "flexible accumulation" strategies, which seek to overcome the upper limits of mass production's high output/low unit cost efficiencies by churning out small batches of specialized goods (Slater, 1997).

On the other hand, the cattle-beef infrastructure's global reach opened access to scalable markets for increasingly specific elements of cattle biology. Coupled with heightened precision in cold chain logistics, boxed beef ensured that meatpackers could quickly send specified pieces of cattle (e.g., ribs, sirloin, liver) from designated supply chains (e.g., organic, antibiotic-free, halal) to meet the demands of the specialty retailers and hypermarkets that catered to and curated shoppers' desires from the centre of the expanding infrastructure. Intercontinental networks and hierarchies established during

[42] Food processors and marketers discuss strategies to address the economic barrier of the "fixed stomach": the demand threshold that is reached when people have enough food to be satiated (Levenstein, 1993, p. 108).

colonial empires were thus put to work to prop up the next phase of the global inequalities of beef.

Boxed Beef

Summarizing a mid-century shift in the fortunes of the cattle-beef infrastructure, R. Horowitz (2006) argues:

> The growth of supermarkets and their self-serve meat departments in the 1940s and 1950s undermined the power of the old Chicago-based packing firms and permanently altered power relations between food business sectors. (p. 150)

Railways had been essential to the success of the wholesale distribution networks that powerful meatpacking companies had established in the 1930s. After slaughter, meat was shipped in reefers to packer-owned "wholesale warehouses with cold storage facilities" (MacLachlan, 2001, p. 188), or branch houses. Retailers visited these facilities in person to select carcasses, which were then delivered to stores. The growing market power of supermarkets in the 1950s shifted these arrangements. MacLachlan (2001) comments: "The gradual demise of the branch-house system paralleled the inexorable rise of the large supermarket chain" (p. 10). Supermarkets began bypassing branch plants and using their own distribution centres to break down meat.

Displacing the need for on-site retail butchers in the back of stores, centralized meat fabrication helped to control the ballooning labour costs of self-service meat departments. In addition to the labour of breaking down carcasses and wrapping meats, retail clerks had been tasked with rearranging meat cases after customers sorted through them, as

cellophane was prone to tears. These extra duties had translated into more employees with additional salaries (R. Horowitz, 2006).

Adding to their agricultural uses as fertilizers and pesticides, petrochemicals offered solutions for the problems of torn meat packages. Polyvinyl chloride (PVC) proved to be superior to cellophane as a material for wrapping meat from a retail perspective, as it was stronger, clearer, and could be tightly shrunk around animal flesh (R. Horowitz, 2006). Alongside simplifying the meat shopping experience in stores, the development of PVC "change[d] meat distribution between processors and retailers" (R. Horowitz, 2006, p. 143), as it was a key part of the "boxed beef revolution" (MacLachlan, 2001, p. 258) in the latter part of the 20th century.

In the late 1950s, the Cryovac Company encouraged slaughterhouses to use their patented process to vacuum pack meats in PVC as a final step in the meatpacking disassembly line. This technology extended the shelf life of fresh meat, as it eliminated the atmospheric conditions that caused meat to discolour. Rather than shipping carcasses in sides or quarters as "swinging meat" (R. Horowitz, 2006, p. 144), meatpackers split meat into standardized cuts,[43] removing fat and bone to be processed as coproducts in nearby plants or in house (Bisplinghoff, 2006; Freidberg, 2009; MacLachlan, 2001). Introduced by American meatpacking company Iowa Beef Processors (IBP) in the 1960s, boxed beef was first brought to Canada by Burns Foods in 1976 (MacLachlan, 2001).

Like wholesale butchers before them, retail butchers faced increasing redundancy first in the face of self-service meat counters and then boxed beef, as the job was transposed

[43] Sides are made into five primal cuts (hip, sirloin, short loin, rib, and chuck), some of which are further broken into subprimal cuts (MacLachan, 2001, p. 246).

onto the disassembly line as a series of tasks (Broadway, 1997; Fitzgerald, 2010). Meat fabrication moved from supermarket distribution centres to packinghouses in the 1960s in the United States and the late 1970s in Canada (MacLachlan, 2001). While Burns Foods and Canada's other previously powerful meatpackers integrated boxed beef by coordinating between their "kill and chill" and fabrication plants, a "new generation of meat packers" (MacLachlan, 2001, p. 260) incorporated boxed beef and associated coproduct processing directly into new large-scale plants.

The new meatpackers displaced the "big five" in the United States and the "big three" in Canada. Entering the American industry between the 1960s and 1970s, IBP, ConAgra, and Excel (a subsidiary of Cargill) became even more concentrated than the original "beef trust" by the 1990s. IBP and Cargill built and acquired Canadian plants in the 1980s and 1990s. They represented the majority of the country's meatpacking industry until a plant in Brooks, Alberta owned by Tyson (formerly IBP) was sold to Canadian meatpacker XL Foods in 2008 (CBC News, 2008; MacLachlan, 2001; MacLachlan, 2009).

Opening in 1989, Cargill's Canadian plant in High River, Alberta "was planned from the outset to include a boxed beef production line, hide-curing facilities, and rendering" (MacLachlan, 2001, p. 262). After acquiring the Better Beef processing facility in Guelph, Ontario in 2005 (NFU, 2008), Cargill came to control two of the three top plants in Canada, which together are responsible for 85% of Canada's beef processing capacity (the aforementioned plants that experienced outbreaks of COVID-19 in 2020; Finnigan, 2021; Patrice & Lamboni, 2020). The third plant is owned by the world's largest meat company, Brazilian-headquartered JBS, which took over the Brooks operation from XL Foods in 2013 after the plant was shut down due to an E. coli outbreak (D'Aliesio, 2013).

Considering the economies of scale that multinational meatpacking companies have developed, MacLachlan (2001) positions boxed beef as an extension of the Fordist logics that have characterized meatpacking since the late 19th century. After the introduction of the disassembly line, the meatpacking industry adopted technical innovations and labour practices that rationalized animal slaughter into shorter, faster, more controllable steps. At the same time, the products of these systems became more flexible with the advent of boxed beef. Although the process of boxing cattle into standardized units at the end of disassembly lines conformed to Fordist models of rationalized production, boxed beef also allowed meatpackers to ship customizable selections of body parts in line with flexible principles of post-Fordism, as discussed above. Having broken cattle down into marketable pieces, packers could respond to demand in different areas by shipping requested cattle parts shortly after slaughter (MacLachlan, 2001).

Flexibilization as a profit accumulation strategy put demands on human labour as well. Meatpackers sought a cheap, expendable labour force by relocating to rural communities. Unlike the strongly unionized environments of mid-century slaughterhouses, these locations were unfriendly to unions.[44] Settling in communities with small populations on which to draw for labour, meatpackers were able to hire immigrant or migrant workers[45] for temporary contracts with low wages (Broadway, 1997; Fitzgerald, 2010; MacLachlan, 2001).

[44] The meatpacking industry in the United States has increasingly moved into states with "right-to-work" laws, which prohibit mandatory union membership and dues as a condition of hiring (Waltz, 2018, p. 3).
[45] Canada's Temporary Foreign Worker Program (TFWP) is one such source of labour for meatpacking plants (FPSC, 2019; Montford & Wortherspoon, 2021).

Farmers also became an increasingly flexible source of labour as meatpackers vertically integrated. Working under contract, farmers became dependent on companies for agricultural inputs (e.g., feeds, antibiotics, etc.) and were locked into agreements to supply packers with cheaply priced livestock. While weather and other natural processes remained an unknowable part of raising animals, contract arrangements benefitted packers by offloading these risks onto farmers (Qualman & NFU, 2019).

Strategies of vertical integration are indicative of the financialized ways in which the new generation of meatpackers has achieved economies of scale. As multinational companies, they can take advantage of differences in labour availability and regulatory regimes both nationally and internationally. Moving beyond Fordist techniques of striving for higher volumes of output in bigger facilities, meatpackers have grown through mergers and acquisitions and by expanding into (or investing in) related industries (Howard et al., 2021).

Hypermarkets

As more people, goods, and ideas flowed across national borders with accelerating speed at the end of the 20th century (Appadurai, 1990) and the Cold War came to an end, supermarkets' roles as symbols of capitalist democracy and national pride became less relevant. Under these conditions, supermarkets "need[ed] to build new forms of identity between the shop and the shopper" (Humphrey 1998, pp. 152–153). Humphrey observes: "During the 1980s retailers increasingly believed that the supermarket was losing its mass appeal as an emblem of convenience and modernity, in part because the notion of the mass market itself was coming undone" (p. 150). While the abundance on display in

supermarkets symbolized the height of progress in the 1950s and 1960s, the newness of mass consumption gave way to banality by the 1970s.

According to Ritzer (2001), this trajectory toward "disenchantment" (p. 109) is the inevitable consequence of rationalization. When consumption spaces like supermarkets adopt rationalized principles to serve higher volumes of people at faster speeds, they transform into "cold, inhuman settings that are less likely to attract consumers" (p. 109). While the logics of modern consumption therefore presented obstacles to continued sales, Ritzer observes that consumption in reflexive modernity provided possibilities for "reenchantment" (p. 109) in two seemingly contradictory manners. In the case of food retailing, these directions recall key features that made the original "super markets" appealing in the 1930s.

On one hand, food retail spaces took rationalized shopping to an extreme. Stripped of décor and personalized services, stores like Costco[46] reinvented the fantasy of rationalization by bringing back the warehouse format. While the standardization of mid-century supermarkets signified the sleekness and comfort of modern living, the uniformity of late-century warehouse shopping offered "fantasies [that] involve getting a lot of things at low prices" (Ritzer, 2001, p. 131), a feat that is now lauded as morally commendable according to a pattern that Potter and Westall (2013) describe as an "austerity aesthetic" (p. 157). On the other hand, the displays of consumption in standard grocery stores became "increasingly spectacular" (Ritzer, 2001, p. 133). As the experience of consuming became just as important as the products themselves, entertainment once again became a regular

[46] The first Costco location was opened in Seattle in 1983 (Costco Wholesale, 2024). The chain came to Canada in 1985 (CBC Archives, 2019).

part of food spaces, a conflation that Ritzer (2001) calls “eatertainment” (p. 26).

As the modern mass market disintegrated, supermarkets found success by catering to different groups of domestic and international consumers. On the local level, a proliferation of niche marketing strategies accompanied the fragmentation of consumers into lifestyle segments (Humphrey, 1998). The word “foodie” was coined in the 1980s to describe a growing group of people who built lifestyles and identities around culinary experiences. While access to gourmet food was once confined to an elite population, it became part of American mass culture in the 1960s. In counterpoint to this democratization of luxury foods, the foodies of the 1980s sought out distinctive foods and specialized culinary knowledge to act as measures of their social status (Johnston & Baumann, 2015). Founded in 1980 and expanding to Canada in 2002, Whole Foods Market became the retail embodiment of foodie culture, offering specialized foods and shopping experiences tailored to local markets (Johnston, 2008; Johnston & Baumann, 2015; Whole Foods Market, 2024).

On the global level, “large supermarket chains [broke]…free from the confines of national markets and a limited consumption base” (Lawrence & Burch, 2007, p. 5). Given the heightened mobility of boxed beef and the emphasis on free trade in the 1980s, the slaughter of cattle was no longer moderated by the demands of national populations (MacLachlan, 2009). This expansion was essential to the enduring viability of the beef industry in Canada. While beef consumption stagnated in Canada in the 1970s (Agriculture and Agri-Food Canada [AAFC], 2021), global levels of beef consumption continued to rise (FAO, 2023b). As discussed in Chapter 1, patterns of “supermarketization” in the 1990s saw the transnational spread of supermarkets and meat-centred diets from the global North to the global South (Reardon et al., 2003).

Described as "the next phase of the supermarket revolution" (Lawrence & Burch, 2007, p. 4), hypermarkets were key vehicles for the intensification of this consumption model. Hypermarkets sell both food and non-food commodities, and they offer a range of services such as pharmacies and dry-cleaning. Epitomized by Walmart,[47] hypermarkets reorganized supply chains by centralizing procurement (Konefal et al., 2007). Like meatpacking firms of the late 20th century, hypermarkets have straddled the line between Fordist and post-Fordist economic models.

In one sense, they expanded the Fordist rationalization of agri-food supply chains to a global scale. Rather than interacting with multiple brokers, supermarkets gained market power such that they were able to source their products directly from producers around the globe (Konefal et al., 2007). Given these companies' economies of scale, international suppliers won out over local operations in the bid to provision supermarkets with large volumes of uniform goods. A steady supply of commodities moved from the global South to the global North after economies were reoriented toward export production in accordance with the loan programs of the International Monetary Fund (IMF) and World Bank that were instituted in the 1980s (Barndt, 2008).

In another sense, the post-Fordist flexibility of the supply chain was a key part of this global expansion. The introduction of "Efficient Consumer Response" in the 1990s enabled supermarkets to source products "just in time" from around the globe (Guptill & Wilkins, 2002; Konefal et al., 2007). Making use of the growing popularity of scanning technologies after the mid-1980s, this system shares retail data on projected demand with suppliers in

[47] The First Walmart was opened in Arkansas in 1962. Walmart Canada was started in 1994 and introduced its Supercentre format in 2006, which included "fresh groceries and general merchandise all under one roof" (Walmart Canada, 2024, para. 8).

the interest of minimizing over-ordering and reducing handling costs for retailers. Along with increasing the flexibility of product supply, scanners reduced the labour requirements of an already flexible retail workforce (Konefal et al., 2007). Supermarkets employed both "functional flexibility" by having staff perform multiple duties, including stocking shelves and checking out customers, and "numerical flexibility" by hiring part-time employees who worked shorter shifts at peak shopping times without full access to employment benefits or promotions (Barndt, 2008, p. 152).

Creating the ultimate experience in one-stop shopping in the form of a pastiche (Jameson, 1991), the hypermarket "transform[s] the supermarket into a 'hyperspace'" (Humphrey, 1998, p. 146). Consumers fill their carts with products that gesture to the food system's diverse origins while they sip coffee and listen to jazz, test their blood pressure and fill prescriptions, or drop off their kids at childcare before buying new school supplies and clothes. In this way, hypermarkets have anticipated further digital developments in retailing that have brought customization to new heights by combining seemingly an infinite array of material and immaterial spaces at warp speed.

Dematerialization (21st Century to the Future)

As digital technologies and practices have developed rapidly since the beginning of the 21st century, the contemporary cattle-beef infrastructure prefigures meatscapes of the future in which customizable beef is available not "just in time", but *at all times* even before specifications materialize: Based on past data, automatic orders would be placed for particular cuts of beef made from processed, bioengineered plants, or cultures of animal cells. These protein production and distribution technologies are being launched with the

promise that they will lead to effortless abundance in food systems, recalling the ways in which the landscapes of the "New World" were once depicted. While online shopping promises a form of food procurement without interpersonal interactions and unlimited accessibility, plant- and cell-based meats offer the possibility of eating meat made from endlessly regenerating materials without killing animals. In this future meatscape, humans would have transcended nature to such a degree that the messy biology of bleeding animals and rotting meats would be a thing of the past.

Summarizing the production processes that are described in startup companies' pitches for proteins of the future, Guthman and Biltekoff (2021), write:

> Inputs…are made to seem as though they are placeless, at once everywhere and nowhere, projecting a sense of limitless abundance yet with little attention to how ecologies might be effected at scale—a sleight of hand reminiscent, if not perfectly analogous, to the way in which bitcoin's presumed placelessness obscures the massive energy consumption its circulation requires. (p. 1595)

These fantasies of dematerialization ignore the physical infrastructures of material and labour that are required to create through innovative technologies the illusion of transcendence for a slice of the world's population. The 21st century technologies of Canada's cattle-beef infrastructure may be new, but they reiterate 16th century colonial principles that position the human mind as separate from and in control of natural matter. Like the "criteria for the perfect place for raising beef" (Canada Beef, 2016, p. 5), the ingredients for future meatscapes are conceived as an ahistorical collection of inert material ingredients that can be arranged and rearranged by the immaterial force of human innovation.

Alternative Proteins

While international consumers sustain the Canadian beef industry via exports of boxed beef and coproducts, domestic consumers (perhaps surprisingly) offer support to the industry through the "alternative protein"[48] market. Eaters in Canada are cutting back on meat, and they identify beef as a particular target for reduction (Doucette, 2019). A survey of beef consumption in Canada conducted during the heart of the COVID-19 pandemic found that 25% of respondents had "thought about cutting beef from their diets in the last 12 months" (Charlebois & Music, 2021, p. 2). In addition to moving away from beef because of increased prices (or "meatflation"; Agri-Food Analytics Lab at Dalhousie University, 2022, p. 11), survey participants cite concerns about beef's associations with negative health and environmental outcomes. In place of beef, respondents report expectations that "vegetable protein options [will] get better over the new few years" (Charlebois & Music, 2021, p. 4).

Current industry trends demonstrate: "Alternative proteins are everywhere" (Natural Products Canada [NPC] et al., 2022, p. 32). A&W Canada sold out of stock within weeks of introducing to their menu in 2018 burgers from plant-based meat company Beyond Meat (Skerritt, 2019). Plant-based stock has also been in demand in a financial sense. With global retail sales of plant-based products reaching $29 billion, plant-based companies attracted $907.7 million in investments in 2023 (Good Food Institute [GFI], 2024b). In Canada, an ongoing government-supported multistakeholder initiative, Protein Industries Canada (PIC;

[48] While recognizing the way in which the term centres meat and other animal-based products, I use "alternative proteins" to reference the market category that includes: "novel plant- based substitutes, lab-grown meat/fish/dairy products, insect-based protein foods, and other novel manufactured high-protein foods (and excluding tofu, tempeh, seitan and other traditional plant-based preparations)" (IPES-Food, 2022, p. 10).

2022b), aims to grow the plant-based sector "to supply…10 per cent of the ingredients for the global plant-based market" by 2035 (p. 8).

In addition to encouraging growth in the analogue meats category, capital is being directed toward cellular agriculture—the growing of animal products from cell cultures in laboratory settings. Investments in the space in 2023 totaled $225.9 million, and more than 170 publicly announced companies were counted as working in the industry in 2023 (GFI, 2024a). With the approval of Eat Just's cultivated chicken in 2020, Singapore became the first country to authorize sales of cultivated meat (Huling, 2020). Startups and scientists are working toward similar projects in Canada (NPC et al., 2022). Steered by nonprofit organization New Harvest Canada, Cellular Agriculture Canada (n.d.) brings together actors from academic, government, and industry "to collaboratively advance Canada's cellular agriculture ecosystem" (About Us section).

Unlike historically common vegetarian dishes and meat alternatives (e.g., tempeh, tofu, seitan), the "new generation" (Zhao et al., 2022, p. 2) of plant- and cell-based foods is meant to replicate meat indistinguishably. As "simulacra" of meats, the products present the material impossibility of being simultaneously identical and superior to meat (Guthman & Biltekoff, 2021, pp. 1586). These ontological inconsistences are covered over with references to "patents and trade secrets" (p. 1585), which suggest that the public is simply lacking access to an understanding of the techniques that will make meat "from (nearly) nothing" (p. 1584). In addition, the companies "create selective vision that highlights what the source ingredients are, not their ecological embeddedness" (p. 1597). In other words, the companies emphasize what the products are made of (e.g., animal stem cells, beans, algae, etc.), rather than how these ingredients are sourced and processed. The specificities

of alternative proteins' infrastructures are referenced mostly in the negative sense of what they will *not* do in comparison to the ethical infractions of the meat industry: they will not produce waste; they will not use animals; they will not cause illnesses, and so on (Guthman & Biltekoff, 2021). At the same time, the embrace of "protein" as an isolatable nutrient that is good for food systems has enabled the meat industry to reframe the morality of its products (Guthman et al., 2022). Rebranding as "protein" companies, meat and dairy processors are expanding their product lines and investments into plant- and cell-based alternatives (Howard et al., 2021).

In 2020, for example, Cargill launched a plant-based protein consumer brand in China called PlantEver (Cargill, 2020b, para. 4) and added pea protein to its selection of plant-based ingredients that are available to food retail and service operations for use in control brands (Cargill, 2020a, d). Canadian packaged meats company Maple Leaf furthered its goal to become a "leader in sustainable protein" (Canadian Grocer staff, 2017, para. 4) by acquiring plant-based brands Field Roast and Lightlife Foods in 2017 and purchasing a plant in Indianapolis to produce plant-based products in 2021 (Maple Leaf, 2021). Large meat companies including JBS, Tyson, and Cargill are also continuing their involvement in the cell-based space. JBS, for instance, "began construction on a $62 million research, development, and innovation center for cultivated meat in Brazil" in 2023 (GFI, 2024a, p. 16). Through these processes of acquiring existing brands, introducing lines under new labels, and investing behind the scenes, large meat and dairy corporations keep veiled their identities, thereby "present[ing] an illusion of greater organizational diversity" (Howard et al., 2021, p. 9) in place of the realities of still concentrated power in the cattle-beef infrastructure.

E-Retailing

Infusing spaces with digital content opens hypermarkets to a seemingly limitless archive of references with which to construct their hyperreal "total world[s]" (Jameson, 1991, p. 40). Digital components like quick-response (QR) codes and tablets have been introduced to stores to allow customers to access additional information about products by scanning them (Koch, 2018). In other cases, consumers interact with stores only through digital platforms and parking lots, as they place orders online in advance of their shopping trips and wait for their items to be delivered to their cars. Still other shoppers are dispensing with visits to brick-and-mortar stores altogether, opting for home delivery.

Online grocery delivery has been a feature of Canadian grocery shopping as early as the founding of e-grocer Grocery Gateway in 1999 (purchased by grocery chain Longo's in 2004, which was itself acquired by Empire in 2021; Canadian Press, 2021; Condon, 2018). While seeing modest uptake since then, the sector grew rapidly during the COVID-19 pandemic, a period that saw "13% of Canadians order…groceries online for the first time" (Bilodeau et al., 2021, para. 6). The top three companies—Loblaw, Empire (Sobeys), and Metro (Lombardo, 2024)—intensified their e-retailing projects to keep pace with already growing threats from "stealth competitors" (Zwiebach, 2016, para. 4), including discounters, convenience stores, dollar stores and, most recently, tech companies (Livingstone & Knezevic, 2020). To gain an edge over their competitors by playing to their specific strengths as food providers, supermarkets have a small window of time in which to corner the fresh grocery market, which provides more of a challenge for home delivery than packaged goods (Canadian Press, 2018b; Lombardo, 2024; Zwiebach, 2016).

Loblaw struck a deal with American grocery delivery company Instacart in 2017 (Canadian Press, 2017c), and it expanded its "click-and-collect" grocery pickup service in 2020 when it entered another partnership with California company Gatik for self-driving grocery delivery (Hansen & Mazerolle, 2021; Loblaw Companies Limited, 2022b). Collaborating with UK company Ocado Group, Sobeys launched its Voilà delivery service out of a distribution centre in Vaughan, filling online orders using cloud technology and robots (Hansen & Mazerolle, 2021; Stefanac & R. Harris, 2018). After starting its delivery service in Montreal in 2016, Metro expanded to the Greater Toronto Area in 2019 and quickly increased capacity for online orders and "click-and-collect" during 2020. Emphasizing the store's fresh offerings, Metro has developed "Tri-Zone" delivery trucks with multiple refrigerated and frozen sections to preserve foods at optimal temperatures (Brown, 2019; Hansen & Mazerolle, 2021).

As the acute disease outbreaks of the pandemic stabilize and inflation soars (Agri-Food Analytics Lab at Dalhousie University, 2024), shoppers are cutting down on some extra e-retail costs, like meal kit delivery (R. Harris, 2022). And yet, other developments in online shopping (e.g., buying products through Amazon) do not appear to be slowing down (Hawley, 2022; Lombardo, 2024). Regardless, the digital feature that promises to be the most lucrative for retailers is not one for which shoppers pay extra: Valuable data is extracted as customers engage with companies through online platforms. As part of the "journey to become Canada's leading digital retailer", Loblaw launched Loblaw Digital, an e-commerce division that "operates like a start-up with extensive resources" in a separate office in downtown Toronto (Brown, 2018, paras. 5–6). At the heart of Loblaw Digital is the company's control brand President's Choice (PC). The PC brand provides for Loblaw a

"loyalty loop" that "reward[s]" customers and "incentivize[s them] to return to Loblaw banners and services more frequently" (Laird, 2019, para. 7). The wealth of data that accumulates as shoppers link purchases to PC Optimum loyalty cards[49] and browse online resources allows Loblaw to present increasingly personalized marketing offers to shoppers. Moreover, as part of a growing digital advertising business, Loblaw sells customer data to consumer packaged goods companies for targeted promotional purposes.[50]

Loblaw thus follows in the footsteps of "algorithms and analytics" (Charlebois, 2019, para. 3) aficionado Amazon, which has been setting standards in food retail since it acquired Whole Foods in 2017 (Livingstone & Knezevic, 2020).[51] Amazon is expanding beyond its existing Prime network to offer same-day grocery pickup and delivery through AmazonFresh in the United States and select international cities (C. Peters, 2023). Furthermore, the converging technologies of the "internet of things" are increasingly accompanying—and even replacing—people during these shop-from-home activities. After shoppers shout out the names of generic food items, voice assistants like Amazon's Alexa place orders for preferred branded products (Stefanac & R. Harris, 2018).

Through its constantly evolving collection of digitally enabled shopping services, Amazon has "continued to work on making the shopping experience convenient and easy,

---

[49] After acquiring Shoppers Drug Mart in 2014, Loblaw merged its PC Plus program with the popular Shoppers Optimum program in 2017 to create the PC Optimum rewards program (Canadian Press, 2017b).
[50] Loblaw presents the advertising initiative as being consistent with the benefits of the PC Optimum program: "We're extending the same idea to advertising. Our members will see more relevant ads while browsing online and we will reward them for allowing us to use their data and advertise to them" (Stuekmann as cited in Powell, 2019, para. 5).
[51] The data from Whole Foods customers is particularly valuable, as it comes from a segment of consumers who tend to be more affluent and can choose to spend disposable income on "affordable luxur[ies]" (Johnston & Baumann, 2015, p. vii) that are in line with their ethical beliefs. In addition to opening new possibilities for curating shopping lists for individual grocery shoppers, this customer data can be used to steer purchases from Amazon's selection of non-food offerings.

and in some cases, even disappear for customers" (Amazon press release as cited in Levy, 2019). As in the case of alternative protein's "promises of quasi magical de-materialization" (Guthman & Biltekoff, 2021, p. 1596) that broadcast the benefits of singular ingredients in ways that distract from products' interconnections with the ecologies from which these ingredients are derived, the disappearance of shopping for some people is based on more intensive work for others. The strenuous labour involved in the processes of physically filling automated orders came to light during the ultimately suppressed push for unionization at Amazon in 2021 (Logan, 2021), as well as the strikes and threatened strikes undertaken by workers at Canada's grocery stores in 2023 (CBC News, 2023a, b). Despite these disruptions, companies like Amazon and Loblaw have continued to post record sales (Goldberg, 2024; Saba, 2024d).

Vanishing Butchers and Imperialist Nostalgia

Symbolizing the digital queue that keeps track of selected products before shoppers pay for their purchases, Amazon's shopping cart icon functions according to Warnes' (2019) analysis as a "skeuomorph", an object that retains ornamental design features of another article used for a similar purpose. The skeuomorph's mimicry is part of a process of rendering irrelevant the original item. By "offering…reassuring continuity" (p. 7) that acclimates shoppers to the routines of online shopping, the shopping cart icon paves the way for a fully digital food retail future.

Amending Warnes' reading, I notice that the allegedly immaterial e-retailing foodscape is not actually devoid of shopping carts even though human shoppers are not always the actors who push such devices. Instead, shopping carts are displaced from public-facing

shops to other parts of the shopping infrastructure. In a Sobeys distribution centre, for example, “hundreds of cube-shaped robots” (Hansen & Mazerolle, 2021, para. 6) function as hybrids of shoppers and shopping carts, as they select and transport grocery items through warehouse spaces to fill online orders. Replacing the activities that human shoppers perform in supermarkets, the robots gather products by “mov[ing] along a three-storey storage system known as ‘the hive’”, and then they “deliver…items to humans below who package them” for shipment (Hansen & Mazerolle, 2019, para. 6). From shoppers’ perspectives, however, the shopping infrastructure consists of only their screens, Sobeys’ delivery brand (Voilà), and the boxes that appear at their doors—as the slogan claims—“Just like that” (Voilà, 2023). While it may appear to shoppers as if material shopping carts have been replaced by immaterial icons then, the digital interface is just the surface of a physical infrastructure that continues to execute the actions once performed in stores by the combination of human shoppers and metal shopping carts.

In the case of beef, shoppers in Canada encounter via the interface of supermarkets not the inner workings of the cattle-beef infrastructure, but rather a branded story of Canadian beef. As summarized by Canada Beef (2016), the narrative is made up of the component parts “Canada + Beef” (p. 3) because “we put the best of Canada into our beef” (p. ii). While “Canada” and “Beef” are explicit words in the brand name “Canada Beef”, the plus sign is implicit. While “+” is not part of the brand name, the mediating function that it symbolizes underlies the construction of Canadian beef as a commodity. In other words, the colonial processes by which valued material components of the landscapes of so-called Canada are extracted and (literally and symbolically) “put into” beef have become an invisible part of the dominant cattle-beef infrastructure.

The mediating actor who brought together Canada and beef was once the traditional butcher who was responsible for both slaughtering cattle and selling beef. Operating out of marketplaces, these full-service butchers occupied a central cryopolitical intersection in the cattle-beef infrastructure when Canada was establishing itself as a settler colonial nation through the 19th century. Not only were marketplace butchers responsible for managing the freshness of beef from organic life to cellular decay, but they also encouraged the overall cultivation and growth of "Old World" meatscapes in the "New World" by delivering the products of European-style agriculture from rural regions to expanding urban spaces. This figure "vanished" to an increasing extent over the course of the history I have outlined above. In the late 19th and early 20th centuries, the labour of slaughtering cattle and selling beef was distributed between "wholesale butchers" and "retail butchers". The jobs of wholesale butchers were absorbed into the sequence of steps that made up disassembly lines as large meatpackers gained market power through the mid-20th century. The responsibilities of retail butchers met a similar fate as self-service meat departments were popularized in the second half of the 20th century.

With the term "vanish", I draw on Berland's (2019) application of Jameson's concept of the "vanishing mediator" to characterize animals' roles as affective facilitators of "first contact" (p. 7) encounters from the colonization of Turtle Island to the introduction of digital media platforms. As "vanishing mediators", animals become redundant once links between divergent parties and their worlds are established in ways that solidify existing (colonial) power relations. Whereas beavers were once so central to early colonial trade routes that they became an emblem of Canada, for instance, they are no longer essential in holding together Canada's identity as a nation (especially in their physical form).

Similarly, butchers who slaughter cattle *and* sell beef are no longer at the heart of the dominant cattle-beef infrastructure in Canada. As the activities of slaughter, inspection, storage, and sales were spread throughout the cattle-beef infrastructure, colonial hierarchies were also adopted and embedded in meatscapes. Butchers thus became increasingly unnecessary in demonstrating Canada's ownership claims to the landscapes and animals of Turtle Island.

In popular and academic literature on the food systems of consumer culture, the disappearance of butchers has been (mis)interpreted as leaving behind a space between production and consumption, which is made empty and obscured by powerful actors on either side. On the surface, slaughterhouses and supermarkets are institutions that have worked to disappear butchery throughout their histories. As production spaces, slaughterhouses have segregated bovine death from the daily lives of consumers. As consumption spaces, supermarkets have presented the edible results of these processes in controlled, inviting environments. This "radical disjuncture between the violent material conditions of production and the sanitized, seductive physical conditions of consumption" makes meat the "paradigmatic commodity" (p. 106) according to Otter (2008), as the consumer is completely removed from the source of their food and its conditions of production. According to this narrative, the division between production and consumption must be reconnected if meat provisioning's ethical breaches are to be discouraged.

A closer examination of this history reveals that the actors of the cattle-beef infrastructure remain thoroughly intertwined with one another. Like the shopping cart's relocation in e-retailing infrastructure, the mediating functions of butchers have been distributed to others in the cattle-beef infrastructure (e.g., supermarkets) who have taken

over the cryopolitical duties of delivering beef to settler colonial Canada, even as traditional butchers themselves are not widely in operation. In this chapter, I have argued that this redistribution is indicative not of increased separation between production and consumption, but of intensified mediation that brings more actors into relation with one another to produce and to consume beef in accordance with dominant colonial categorizations.

As actors that profit from the dominant cattle-beef infrastructure, large-scale slaughterhouses and supermarkets leverage nostalgia for marketplace butchery, as if connections to conditions of production have been lost through physical separation and psychological ignorance, rather than the extension of colonial ways of being that position de-animalized humans as fundamentally different from and superior to the material worlds that nourish them. This branded nostalgia appears in food retail spaces as an apparent return to the traditions of the marketplace butcher. Supermarkets emulate the design of farmers' markets by incorporating "natural" or "rustic" elements such as handwritten labels, wooden shelving, and fresh products displayed in stalls around store perimeters (Koch, 2018). Loblaws locations, for instance, feature fresh meat counters dubbed "Your Neighbourhood Butcher", which are decorated with chalkboard style signage that boasts about custom cuts and in-house expertise. Such touches are in line with the "new visibility" in the beef industry, which reveres transparency as an indicator of authentic ethical practice (Parry, 2010, p. 382).

This kind of appreciation for butchery in the cattle-beef infrastructure can be described as "imperialist nostalgia", defined by Rosaldo (1989) as "a particular kind of nostalgia, often found under imperialism, where people mourn the passing of what they themselves have

transformed" (p. 108). In the case of Canada's cattle-beef infrastructure, this nostalgia operates on a national level, as the erasure of small-scale beef provisioners was a process in which industry actors, governments, and shoppers all participated (though in different senses). As slaughterhouses and supermarkets grew as authorities in the meatscape with the support of Canada's settler colonial governments, they made unfeasible the slaughter-and-sell arrangements of traditional butchers, and shoppers patronized the new venues that became available to them in turn.

On a deeper level, the imperialist nostalgia of the dominant cattle-beef infrastructure is evident in the ways in which contemporary promotions of butchery rework historical narratives to position marketplace butchers as natural extensions of a romanticized pre-colonial meatscape. As hooks (1992) points out, imperialist nostalgia takes the form not only of mourning, but also celebrating a "sense of a continuum of 'primitivism'", which "assuages the guilt of the past" (p. 25). Even though full-service butchers have "vanished" in a material sense, in that slaughtering is performed by other actors off-site, trappings of full-service butchery, like the decorations and signage that surround Loblaws' fresh meat counters, provide an appearance of continuity between the contemporary cattle-beef infrastructure and the buffalo landscapes that it displaced.

In Canada's contemporary meatscape, industrialized meat fabrication's capacities to transform a singular animal into a plethora of products draw comparisons to idealized descriptions of environmentally sustainable, morally respectful, and economically efficient Indigenous hunting techniques (Shukin, 2009).[52] These depictions situate Indigenous food

[52] These perspectives are articulated in my focus group data, the collection of which will be discussed further in Chapter 4. To present a contrasting example to the ways in which industrialized animal processing "treat[s

provisioning in an imaginary, unchanging past, despite the fact that various Indigenous communities employ both traditional and contemporary tools to continue to hunt in the present (Judge et al., 2022). Narrating the "history of North American rendering" in a book produced by the National Renderers Association (now the North American Renderers Association), for example, Bisplinghoff (2006) writes:

> The recycling of animal by-products into useful commodities is not a recent innovation. The cave people, the ancient Jordanians, the Eskimos [*sic*], the Indians [*sic*]—one could go on and on—all ate far more of the animal than we do, but they also were innovative and utilized what they didn't eat to improve their way of life. The hides and skins provided them with clothing and shelter, bones and teeth provided weapons and sewing utensils and they burned the waste fat to cook the meat. (p. 17)

The "nose-to-tail" skills of marketplace butchers are an essential part of these colonial retellings of cattle-beef history, as they provide a bridge between Indigenous hunting practices and industrialized rendering. Although contemporary supermarkets do not tend to point to Indigenous hunting explicitly in their promotional discourses, their references to marketplace butchery evoke this reconstituted historical narrative; they thereby imply that the ethical ideal of using the "whole animal" has been maintained even though the details of disassembly practices have evolved over time.

Blanchette (2020) observes that contemporary eaters' "nostalgia" for using every piece of slaughtered animals "is complicated and perhaps…misplaced in light of the extreme evisceration" (p. 212) on which industrialized meat processing relies to maximize profit.

---

animals] as products as opposed to beings", Logan (Group 3) states: "Native people—that's what I always reference—they ate all kinds of things, and still do. And they would use, you know, everything."

While operating under the guise of *shrinking* meatscapes, the cattle-beef infrastructure's recent claims to reconnect eaters with traditions of marketplace butchery through in-store fresh meat counters are "fundamentally about *expanding* [emphasis added] the realms and worlds mediated by industrialized [animal] substance" (Blanchette, 2020, pp. 214–215). Providing a mediated passageway across the histories of the dominant cattle-beef infrastructure, depictions of butchers in contemporary supermarkets misleadingly suggest that the ethics of industrial beef processing in Canada have been inherited from traditions traceable to Indigenous buffalo hunting methods. Like the pathway of the original Piggly Wiggly that directed shoppers to cash registers, this linear narrative through history is organized to display only the most profitable parts of the dominant cattle-beef infrastructure. The next chapter examines the ethical norms that have emerged from these (dis)engagements with past, present, and future meatscapes.

Chapter 3: Ethical Approaches

"I realized that whenever you are talking about these ethical issues around food and eating, the worst kind of fantasy you can have is that they all make sense" (Wolfe, 2019, p. 31).

What's good here?

"Isn't beef Canada's ultimate plant based protein?" (Beef Cattle Research Council [BCRC], 2019, title). This proposal from the research arm of trade organization Canada Beef reasons that cattle "produce a net gain in protein" (para. 12)[53] by ingesting and transforming plants that are inedible for humans into edible meat proteins. Responding to the uptick in interest in alternative proteins (particularly beef substitutes), as referenced in Chapter 2, the Beef Cattle Research Council (BCRC) re-categorizes beef by borrowing from the "halo effect"[54] of plant-based products as well the longstanding correlations between protein and nutrition (Guthman et al., 2022). This example of promotional reframing demonstrates the ontological instability of beef and the epistemological uncertainty of the criteria by which the ethics of beef consumption are judged. Who defines ethical foods and ethical eating? How do these actors arrive at certain determinations?

[53] This claim contrasts with Weis's (2013) contention that contemporary grain-based feed practices represent a "net nutritional drain" (p. 148), as cultivated crops "are cycled through livestock to produce food" (p. 131), rather than being eaten directly by humans. The debate on food versus feed is ongoing. Accounting for grassland that "cannot be converted to cropland", Mottet et al. (2017) find that "57% of the land used for [animal] feed production is not suitable for [human] food production" and that 86% of the feed eaten by livestock "is made of materials that are currently not eaten by humans" (p. 7). The beef industry latches onto such statistics to justify its whole range of practices (e.g., the Canadian Roundtable for Sustainable Beef's website, *Beef for the Planet*), even as studies like Mottet et al.'s specify significant differences between production systems (e.g., in comparison to cattle in intensive feedlot production, cattle in extensive grazing systems display low feed conversion rates, but also eat less human-edible feed).

[54] First proposed by Thorndike (1920) to describe perceptions of goodness based on pre-formed societal beliefs, the concept of the "halo effect" has been used by food marketers and scholars to describe (often unfounded) beliefs about the healthfulness of food. Commentators observe that the recent surge in plant-based products has benefited from this phenomenon (Wells, 2019).

Based on factors such as availability (M. Harris 1987), safety (Sinclair 1906/2003), taste (Bourdieu 1979/1984), religion (Douglas, 1972), and ecological relationships (Settee & Shukla, 2020), societies and cultures have long developed normative understandings about the foods that are considered good to eat, and the manners and methods by which foods should be procured, prepared, and eaten (Lévi-Strauss, 1964/1969). In the face of mounting criticism and competition from other protein industries, the dominant cattle-beef infrastructure engages with these types of frameworks as it tries to maintain positive ethical associations with its products.

This chapter presents the intersecting approaches that I encountered as I considered how to study the ethical dimensions of beef shopping. First, I position risk as a notable "structure of feeling" (Williams, 1977) that pervades the governance of contemporary food systems. Reviewing the literature on food politics, I see three divergent viewpoints on the priorities for building ethical food systems in relation to risk (productionism, sustainable development, food sovereignty/justice), which correspond roughly to a constellation of "social formations" that I describe in Williams' (1980) terms as residual, dominant, and emergent. Next, I contemplate how these approaches might be troubled and/or supplemented by epistemological adjustments from decolonial feminist perspectives that engage with food systems governance as a multispecies responsibility. Centring intersectional equity as a common yet contested priority, I find resonances between food sovereignty and food justice's commitments to distributed governance and decolonial feminist recognitions of the interactive processes that make up agency and identity. Together, these perspectives gesture toward ethical approaches that encourage relational,

contextual enactments of speculative care for multiply animated materialities across space-time (these approaches resonate with the "ethic of decay" I discuss in Chapter 8).

The chapter's review of ethical approaches situates the dissertation's case study on beef shopping as an exploration not only of infrastructure but also "infrastructure of feeling" (Gilmore, 2022). Specifically, I examine the "infrastructure of feeling" that constitutes contemporary beef ethics, which I understand as a dynamic exchange between the cattle-beef infrastructure and the current cultural moment's predominant "structure of feeling", risk. In studying the dissertation's central research question on supermarkets' engagements with ethical beef consumption, I consider how supermarkets mediate cryopolitically between participants in the cattle-beef infrastructure according to the "infrastructure of feeling" in which they are all embedded and to which they all contribute to varying degrees. As key mediators of these relations, supermarkets hold power to shape the ways in which anticipatory responses to beef-related risk are expressed in practice as ethical norms about beef consumption.

Ethics and Food Systems Governance

At a base level, eating inescapably involves ethics in that it orients eaters in relation to determinations on the lives and deaths of other organisms (Goodman et al., 2010; Shotwell, 2016). Intensifying recognition of humans' entanglements with planetary ecologies, the multiplying crises of risk society have spawned a more specific "ethical turn in thinking about food" (Sage, 2012, p. 264) that increasingly influences decision-making processes about how to (re)organize food systems. In this context, scholars explore the shifting collective values that inform and emerge out of embodied and imagined interactions with

food, particularly in relation to the "'goodness' and 'badness' of…various foods" (Goodman et al., 2010, p. 1782) and how they relate to other issues of social concern like health and environmental sustainability. Riffing on Lévi-Strauss's (1962) oft-cited phase,[55] Goodman et al. (2010) write:

> That food is good to "think" as much as eat, is most certainly true. Yet, it is even more true that "good" food is *even better* to both think and feel *with* (and sometimes eat) at the moment, particularly in an era of food scares, continuing poverty, a supposed "obesity crisis",[56] debates concerning food (in)security and food sovereignty, and environmental degradation. (p. 1782)

The attention to food as a substance that is experienced, thought, and felt in relation to a society's situations and moods is reminiscent of Williams' (1977) concept of "structure of feeling" (as referenced in the Prologue). Using a chemistry analogy, Williams defines "structures of feeling" as "social experiences in solution" (p. 133). The concept is thus interested not in abstracted "ideolog[ies]" that one can study ex situ, but in "meanings and values as they are actively lived and felt" (p. 132), which relate in various ways to the more sedimented aspects of social structures.

Experiences in the "solution" of the contemporary globalized food system create and are created by a looming sense of risk, referenced in Chapter 1 as the question of "how to feed the world". In an actionable sense, this subject has been debated under the umbrella of

[55] The original passage from Lévi-Strauss (1962) reads: "Il ne suffit pas qu'un aliment soit bon à manger, encore faut-il qu'il soit bon à penser" (p. 128).
[56] The (gendered, racialized) fat phobia that positions people with fat bodies as constitutive of a "crisis" is criticized by these authors and others (e.g., Ellison et al., 2016; Strings, 2019).

"food security". Taking on multiple definitions since its emergence in the 1970s, the concept represents a valuable gauge of evolving ethical approaches, as Koç (2018) summarizes:

> The conceptual perplexity of food security discourse reflects competing imaginations of how access to food should be managed in market economies as well as changes in the specific ways the food system is organized, i.e., the policies and practices that define conditions of food provisioning. (p. 38)

Positioning food security as a supply issue, initial discussions in the 1970s were focused on preserving the "volume and stability" (FAO, 2003, p. 26) of world food resources. By the 1990s, the concept expanded to take into consideration a broader set of circumstances that enable and constrain individual and societal access to foods. In 1996, the UN World Food Summit adopted the definition of food security that is still in use today (with a minor adjustment in 2001 to include the word "social"; Clapp et al., 2022): "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2001, p. 49). The definition incorporates the principles that have come to be seen as "four key pillars" of food security: "availability, access, utilization, and stability" (Clapp et al., 2022, p. 1). Food supplies must be sufficiently obtainable (availability) in forms that everyone can make use of (access) to nurture themselves fully (utilization) throughout the course of their lives (stability; High Level Panel of Experts [HLPE], 2020).

The food security framework remains contested. Critics argue that it prioritizes outcomes over processes and, and a result, fails to account for the structural imbalances that concentrate power over food systems in the hands of a few players (Holt-Giménez & Shattuck, 2011). Others propose that the concept and its applications can continue to be

refined to address these circumstances (Clapp et al., 2022). The High Level Panel of Experts on Food Security and Nutrition (HLPE; 2020) recommends that "six dimensions of food security" (p. 10) should be implemented, identifying "agency" and "sustainability" as two additional pillars to supplement the existing four. These new principles would emphasize the importance of ensuring that people are able to participate in creating their own food systems (agency), which persist over the long-term (sustainability).

As it stands, the landscape of food security is incredibly uneven. On a global level, food insecurity is concentrated in the global South (FAO et al., 2023). On a national level, individuals who are marginalized based on ability, age, citizenship status, gender, race, socioeconomic standing, and/or other social categories experience disproportionate levels of food insecurity in the global South and North (Li et al., 2023). Distributions of "sufficient, safe and nutritious food" reflect and reinforce these patterns. Industry actors are motivated to locate their operations in economically advantageous areas (Reese, 2019), while publicly supported food programs are disintegrating (Riches, 2018). Meanwhile, "the amount of edible food" that goes to "waste amounts to the equivalent of 1.3 meals per person impacted by hunger, per day" (UNEP, 2024, p. xvi) according to UN global estimates that account for waste from households, food service, and retail.

As indicated by this growing attention to food insecurity, the urgency of feeding a socially polarized human population on a finite planet has become apparent to a range of supranational organizations, national governments, the food industry, activists, and eaters. But debates continue about the reasons behind systemic discrepancies and the approaches that should be pursued to address current and coming food system challenges (Mosby et al., 2020). I explore these discussions through the framework of "infrastructure of feeling".

Building on "structure of feeling", scholars use the terminology of "infrastructure(s) of feeling" (Gilmore, 2022; Rosati, 2019) to discuss the material-affective structures that shape not only *what* people feel but also *how* and *why* they feel. In short, I understand infrastructure of feeling as a conversation between infrastructure and feeling; it coalesces not just as an experience of a practice (i.e., a structure of feeling), but also as an indication of *how to* experience the practice. Referencing the persistence of the Black Radical Tradition as a political and affective formation, Gilmore (2022) names "infrastructure of feeling" as: "consciousness-foundation, sturdy but not static, that underlies our capacity to recognize viscerally (no less than prudently) immanent possibility as we select and reselect liberatory lineages in a lifetime…as well as between and across generations" (p. 490). Stretching across time and space, an infrastructure of feeling encourages the surfacing of particular decision-making practices that select for certain kinds of relations. While Gilmore references a decolonial infrastructure of feeling, the politics of infrastructures of feeling are neither predetermined nor exclusively liberatory.

As a wide range of frameworks and actors participate in determining the best ways to circulate foods from lands to bodies, the regulation of food systems can be described not as falling under the sole purview of governments with top-down policies and laws, but as enacted through forms of "governance", a broad spectrum of everyday practices through which norms are established in relation to power (Andrée et al., 2019). Rejecting the notion that such configurations are static and all-encompassing, Williams' (1980) account of "social formation[s]" (p. 37) overlaps with his concept of "structures of feeling" to describe the dynamic tensions and resonances between groups of people that create the loose boundaries of a cultural moment. Williams names a "dominant" social formation as the

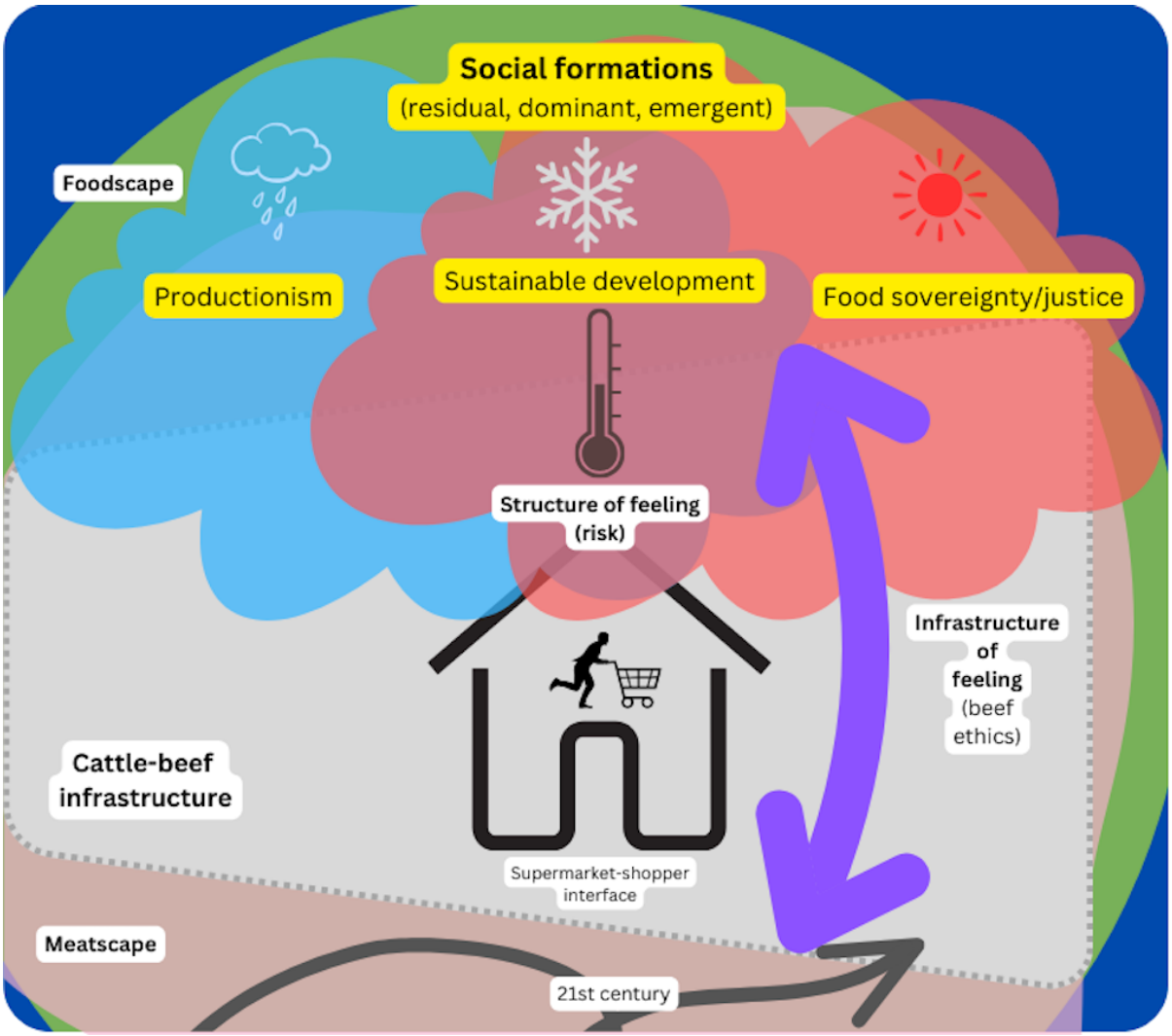
"system of practices, meanings and values" (p. 37) that is central to the cohesive operations of a particular time and place. The relative stability and centrality of such an arrangement is maintained by a push and pull between "residual" social formations that were once influential and "emergent" social formations that are not yet fully formed. Some aspects of these other formations are "incorporated" (p. 41) into the "dominant" form, thus giving the "dominant" form purchase over a wider swath of society. Other aspects exist in "opposition" (p. 40) to the "dominant" form, which may shift social norms in a new direction.

The literature on contemporary food systems governance reveals three discernable social formations (see Figure 2). While all three models aim to create and to maintain food systems that support maximum human flourishing, they foreground different priorities in their approaches to achieving that goal. First, *productionism* expresses a residual preoccupation with food supply by promoting intensified food production and unrestricted economic growth. Second, *sustainable development* aligns with the dominant attention to factors affecting both supply and demand by balancing market freedom with state intervention in economic prosperity, environmental management, and social services. Third, the *food sovereignty and food justice* movements display an emergent recognition of food's entanglement with socio-ecological contexts by advocating for redistributed agency among food system actors. In what follows, I summarize the central tenets of these approaches along with associated critiques. In doing so, I establish the landscape of overlapping social formations that contribute to the "structure of feeling" that is risk in the contemporary globalized food system. As each of these social formations exists in dialogue with the cattle-beef infrastructure, they express various shades of the infrastructure of

feeling that coalesces as contemporary beef ethics. The schema of social formations is not absolute, and the formations blend and influence each other in multiple ways.

Figure 2

Social formations of contemporary food systems governance



Note: This zoomed-in selection from Figure 1 depicts the literature and practice of food systems governance with which the dissertation engages. The overlapping social formations of contemporary food systems governance (productionism, sustainable development, food sovereignty/justice) both respond to and create risk as a structure of feeling in Canada's contemporary foodscape. The social formations are presented as intersecting weather systems. As one inhabits the world inside the shifting weather systems, one experiences a certain temperature (i.e., a structure of feeling).

Productionism

Productionism is an approach to production that positions output as the ultimate measure of success. When applied to agriculture, productionism holds up maximum yield as the central goal of farming. According to productionist principles, an ethical food system will emerge out of intensified efforts to deregulate the food industry, which will encourage the production of surplus food to feed people and to grow the economy (Finan, 2011; Fouilleux et al., 2017).

Foundational values associated with productionism can be traced back to Malthus's prediction that human population growth would outpace food production (discussed in Chapter 1; Juskaite & Haug, 2023). Informed by his education as an Anglican priest, Malthus (1798) proposed that ills like famine would act as balancing mechanisms if humans were unable to mitigate their appetites, both gustatory and carnal. Alongside a growing belief in human ingenuity in place of concerns about divine retribution, neo-Malthusian food production systems have been designed to outrun this dynamic rather than abate it. The relationship between productionism and agriculture solidified during the post-World War II Green Revolution, which saw the global spread of techniques that were specifically aimed at increasing yield (e.g., hybrid seeds and chemical fertilizers; Juskaite & Haug, 2023). Entangled with technology, trade became an increasingly significant method of encouraging production throughout the 20th century. Via the Marshall Plan, Point Four Program, and subsequent modernization projects, "technical assistance" and food aid programs became formalized as part of the United States' Cold War foreign policy strategies to contain the spread of communism by maintaining political allies in the global North and gaining economic allies in the global South. Under the mantle of humanitarian assistance, food aid

offered the United States an opportunity to leverage surplus production as an avenue through which to enter developing markets (Lopez, 2011; Mousseau, 2005).[57]

Especially after the stagflation of the 1970s, the promotion of free trade through trade agreements and structural adjustment programs prevented agricultural production levels from plateauing, as surplus products were circulated between countries. As such, the ideologies and practices of productivism and neoliberalism became intertwined with productionism. Deepening productionism's general focus on increasing production, productivism advocates for growing production through methods of capitalist accumulation specifically (Fouilleux et al., 2017). As discussed in Chapter 1, neoliberalism arose in the late 20th century as a political economic ideology and practice that supported the widespread implementation of free market principles as the best pathway toward individual and social progress. In this context, production became a means toward economic growth, rather than simply an end in itself. The productivist techniques of high input agriculture and the neoliberal protection of the marketplace have been promoted as the primary methods by which this goal can be achieved (Fouilleux et al., 2017; Patel, 2013).

In addition to forming the backbone of international projects, the food surpluses of productionist agriculture have also been situated as abundant resources with which to feed

[57] In 1954, the Eisenhower administration passed the Agricultural Trade Development and Assistance Act (or Public Law 480), which created an overseas food assistance program called the Office of Food for Peace. Initially concentrated on expanding markets through the donation and sale of surplus agricultural commodities from the United States to developing economies, the program adopted the humanitarian focus of addressing international food crises after amendments to the act in 1966. In 2008, the Agricultural Trade Development and Assistance Act was replaced by the Food for Peace Act, which sanctioned a combination of emergency and development food assistance programs that include food security as a specific priority (Lopez, 2011; Patel 2007). The Food for Peace Modernization Act proclaims: "It is the policy of the United States to use its abundant agricultural productivity to promote the foreign policy of the United States by enhancing the food security of the developing world" (United States Senate, 2018, p. 2).

domestic populations in the global North. After high levels of poverty in the United States came to public attention, the first food bank was established in Phoenix, Arizona in 1967. This model of emergency food services spread to other industrialized nations in the following decades to become an increasingly normalized component of the food provisioning services (Riches, 2018).

According to the productionist approach, the global industrial food system has been a success. Even as the human population has doubled since the early 1970s, calories available per person have increased (Berners-Lee et al., 2018; Ritchie, 2022). In response, advocates indicate that productionist techniques will continue to offer the best way forward for food security in the future. Productionist approaches are exemplified by the frequently cited projection from the FAO (2009) report, *How to Feed the World in 2050*: "food production…must increase by 70%" (p. 2).

Canada is "solidly embedded in…the productivist model of food production and harvesting" (LaForge et al., 2021, p. 194). Agriculture and Agri-Food Canada (AAFC; 2023) reports that Canada was the "fifth-largest exporter of agri-food and seafood in the world" (Pathways section, para. 25) in 2022. Although the ramp-up of international trade raises concerns about the emissions from increased food transport, productionist approaches explore opportunities for efficiency improvements that might offset such repercussions. In beef industries, such measures include adjustments to feed practices that would reduce the amount of methane cattle produce (FAO, 2023b; WEF 2018). In the productionist context, "efficiency" is focused on quantitative targets of increasing "Per farm-, per farmer-, per hour-, per animal- and per acre-output rates" (Qualman, 2011, p. 24). This "productivity push" (Clapp, 2016, p. 173) takes the form of a modified extension of the Green Revolution,

which doubles down on globally integrated trade and "techno-fixes"—technologies that attempt to engineer solutions to (largely human-generated) problems (Huesemann & Huesemann, 2011).

Efforts are underway to develop technologies that would close the "yield gap", the difference between projected optimal yield and actual yield. As discussed in Chapter 1, protein availability is of particular concern to the extent that "the need to produce more food and the need for more protein are often conflated in…productivist narratives" (IPES-Food, 2022, p. 23). While the selective breeding technologies of the Green Revolution may have reached a plateau, biotechnologies allow for even more targeted manipulation of plant and animal genetics to encourage higher yields (Godfray et al., 2010). The first genetically engineered (GE) animal available in Canada for human consumption—AquAdvantage salmon designed by AquaBounty—was approved by Health Canada in 2016, for example (Health Canada, 2016). AquaBounty (2024) claims that AquAdvantage salmon grow faster than their non-GE counterparts while requiring 25% less feed.[58]

As in the Green Revolution, the global South is being targeted as a space for productionist expansion (Clapp, 2016). In addition to the promotion of inputs like biotechnologies, this involvement includes the acquisition of arable land in the global South by powerful economic actors. Termed "agricultural investment" by the World Bank and proponents and "land grabbing" by critics, this practice is presented as a method by which to convert "empty" land into high yield ratios (Borras et al., 2011; IPES-Food, 2024).

[58] Beyond addressing the protein production gap, AquaBounty (2024) references the "global seafood gap" (FAQ section) as a shortage that their technologies help to alleviate.

When "production is taken to be the sole norm for ethically evaluating agriculture" (Thompson, 1995, p. 48), policy responses overlook broader determinants of food security. The flipside of "a focus on maximizing agri-food production and exports" is the maximization of environmentally intensive, expensive, corporate-controlled "agricultural *inputs*" (Qualman & NFU, 2019, p. 6).[59] Commentators observe that costs resulting from these productivity gains are externalized, such that negative consequences including environmental destruction, poor health, and the decline of rural communities are not reflected in food prices (LaForge et al., 2021). Instead, the public pays for externalized costs through taxes to fund social resources like healthcare (though the full scope of externalities cannot be translated into dollars and cents). Considering the uneven resources that different actors have amassed through these arrangements, food scholars and practitioners have also identified unbalanced levels of influence on policymaking from transnational corporations and the governments of wealthy countries versus civil society organizations and countries from the global South (Canfield et al., 2021; Fouilleux et al., 2017).

Though aid organizations have increasingly switched to cash-based donations, food aid projects have long been criticized for "dumping" food onto the economies of the global South. Providing destinations for surpluses of government-subsidized products, this arrangement has been beneficial to donor countries. In recipient countries, however, food aid has depressed prices and disincentivized local production, thereby creating dependence on these international sources of food (Friedmann, 1993; Mousseau, 2005). On a national level, food banks remain an essential resource for food insecure people, but critics observe

[59] Canadian farmers' nitrogen fertilizer and pesticide use has more than doubled since 1980, for instance (Qualman & NFU, 2019).

that they have been positioned inappropriately as long-term solutions. Preserving a benevolent image of society on the surface, emergency food programs act as stopgaps that offload responsibility onto non-state actors without addressing underlying problems of food insecurity (Poppendieck, 1998; Riches, 2018). Overall, Shiva (2000) proposes that the productionist concept of "'growth' is really a form of theft from nature and people" (p. 1) in that the industrial agricultural economy transforms traditional sources of sustenance, shelter, and livelihood into commodities that benefit agri-food companies.

Sustainable Development

Moving beyond the productionist focus on quantitative measures of food supply and gross domestic product (GDP), sustainable development puts forward a more expansive approach to achieving food security that considers the "social and environmental externalities" (Holt-Giménez & Shattuck, 2011, p. 115) of food systems. While continuing to promote the growth of the economy, sustainable development recognizes that increases in social and environmental wellbeing are equally indicative of improvements to human systems. The approach proposes that the creation of a sustainable and ethical food system requires a combination of free market principles to encourage food production and targeted state involvement in economic, social, and ecological systems to mitigate unintended side effects (Juskaite & Haug, 2023).

The ethical impulses that underpin sustainable development are intertwined with a lineage that stretches back to the reform movements of the 19th century, which sought to "clean up" early modern cities according to middle-class ideals of improvement (DuPuis & Goodman, 2005). According to this reconciliatory model, "modern" standards are

universally desirable and can be made universally available if they are properly regulated. Responding to warnings from antigrowth advocates and environmentalists of the 1960s and 1970s, the UN World Commission on Environment and Development (the Brundtland Commission) introduced the concept of "sustainable development" as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development [WCED], 1987, I.3.27). With additional insights from the socially conscious perspectives of human development in the 1990s, sustainable development came to be understood as the maintenance of a balance between ecological, economic, and social imperatives (in 't Veld, 2013). While antigrowth arguments identified a fundamental irreconcilability between economic growth and environmental stability (Meadows, et al., 1972), sustainable development proposed that the three spheres could exist in harmony.

Sustainable development took centre stage as an approach to food security with the 2015 release of the United Nations Sustainable Development Goals (SDGs): a set of transnational targets "for people, planet and prosperity" (UN General Assembly, 2015, p. 1). Included in the 17 goals is "Goal 2: Zero Hunger", which outlines intentions to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" (p. 5). Tempering the productivist focus on continual economic growth, SDG 2 proposes that the twin goals of improved standards of living and environmentally resilient farming systems can be achieved by "increase[ing] investments…in order to enhance agricultural productive capacity in developing countries" (p. 6). Created out of consultation processes with state and non-state actors, the SDGs combine multiple scales and forms of governance by offering a framework at the supranational level that governments are responsible for implementing

at the national level in accordance with the unique needs of their populations (Dalby et al., 2019).

This blended form of governance is mirrored by a growing number of "roundtables" for sustainable food products, which bring together stakeholders from industry, government, and civil society to develop recommendations on best practices surrounding environmentally impactful products.[60] Through the Canadian Roundtable for Sustainable Beef (CRSB) and its launch of the world's first Certified Sustainable Beef Framework (2017), Canada has been at the forefront of advancing the multistakeholder approach in the beef industry. Gaining credibility by adhering to the standards of such programs, "ethical commodities" (Mutersbaugh & Lyon, 2010, p. 27) like certified sustainable beef promise social and environmental responsibility, and they account for some of the fastest growing economic sectors of the food industry.

After consultations with "diverse actors and stakeholders from across the food system", Canada launched the first *Food Policy for Canada* in 2019 with the following vision: "All people in Canada are able to access a sufficient amount of safe, nutritious, and culturally diverse food. Canada's food system is resilient and innovative, sustains our environment and supports our economy" (AAFC, 2019, p. 5). As targets emerge out of the framework, they "will also align with the UN Sustainable Development Goals" including SDG 2 (p. 13). The policy represents a step toward the "joined-up" approach that food policy advocates have long argued is a necessary response to the multidimensional realities of food systems issues (Koç & MacRae, 2001; MacRae, 2011). At the same time, scholars and activists

[60] These roundtables include Global Roundtable for Sustainable Beef (GRSB), Roundtable for a Sustainable Cocoa Economy (RSCE), Roundtable on Sustainable Palm Oil (RSPO), and the Round Table on Responsible Soy (RTRS).

caution that listing the governance principles of "Inclusion and Diversity" and "Reconciliation" (AAFC, 2019, p. 10) is not the same as enacting anti-oppressive practices that "center…the voices of [marginalized] communities and take…leadership and direction from their own goals and objectives" (Levkoe & A. Wilson, 2019, p. 117; see also Rotz & Kepkiewicz, 2018).[61]

Including targets for countries like Canada in the global North, the SDGs depart from the Millennium Development Goals' focus on the "underdevelopment" of the global South. At the same time, commentators observe that the SDGs continue to reproduce the colonial hierarchies that have historically underpinned international development projects (like the Green Revolution) by positioning the expansion of capitalist consumer culture as the central mechanism through which improvements to human wellbeing will be facilitated (Dalby et al., 2019; Hosseini, 2019; Quilley & Kish, 2019). Rather than offering a new ethical model (Hosseini, 2019), the reforms of sustainable development ascribe to a "consequentialist ethics" that prioritizes end goals without rearranging the power dynamics of the actors involved in the processes of working toward those aims (Goodman et al., 2010, p. 1787). Indigenous communities, farmer organizations, and other civil society groups organized a boycott of the 2021 UN Food Systems Summit (UNFSS), which had been convened as part of the SDG initiatives. Boycotters and their supporters argued that even as the event was framed as a "People's Summit", possibilities for horizontal dialogue had been

[61] The reformist undertones of the Food Policy's subtitle *Everyone at the Table* (AAFC, 2019) is notable in relation to Guthman's (2008b) call for: the need to do something different than "'invite others to the table'—an increasingly common phrase in considering ways to address diversity in alternative food movements. (Who sets the table?)" (p. 388).

captured by corporate actors that were being given more opportunities to express market-centred interests (Canfield et al., 2021; Chandrasekaran et al., 2021).

The competing perspectives of food system actors have been translated into niche markets. This pattern appears in retail establishments as "a 'pick'n'mix' food ethics" (Lang, 2010, p. 1823) that "offers consumers different ethical positions in separate consumption or product 'boxes'" (p. 1825). Such arrangements lend themselves to the watering down of regulatory standards and pressure through "greenwashing"—misleading claims and representations of environmental responsibility (Athanasiou, 1996)—as well as "bluewashing—the use of the UN imagery and brand to strengthen the reputation of multinational corporations in the name of the public good—especially in relationship to the UN Global Compact and the Sustainable Development Goals" (Canfield et al., 2021, p. 12).

Loblaw's recent corporate social responsibility (CSR) and environmental, social, and governance (ESG) reports, for instance, highlight the company's contributions to the SDGs by matching the UN icons for specific goals (e.g., text reading "2 Zero Hunger" printed above a drawing of a steaming bowl) with descriptions of Loblaw's related work (e.g., food waste reduction programs, donations to food banks; Loblaw Companies Limited, 2021a, 2022a, 2023a). Scholars and activists question the efficacy of market-based action as a vehicle for sustainable development, and the extent to which certain SDGs can be achieved (e.g., Goal 8 on economic growth) without sacrificing the integrity of other sustainability principles (e.g., Goals 14 and 15 on aquatic and terrestrial biodiversity; Dalby et al., 2019).

Food Sovereignty and Food Justice

Responding to the negative consequences of productionism, food sovereignty and food justice scholars and advocates seek to remake the global industrial food system in ways that go beyond reformist adjustments (Desmarais, 2015; Holt-Giménez & Shattuck, 2011). In addition to sustainable development's considerations of "socio-economic well-being [and] ecology", food sovereignty and food justice approaches emphasize the necessity of including "democratic governance" (M. Massicotte, 2014, p. 266) as a component of sustainable agricultural systems (Andrée et al., 2014). In conjunction, the approaches propose that ethical food systems require dispersed control over food production and consumption to promote equitable sharing of responsibilities and resources among all people.

The principles at the basis of food justice and food sovereignty movements build on a history of radical social justice politics including labour rights, women's suffrage, national liberation, and civil rights, which have fought for equal opportunities for all people regardless of social positioning. While these movements emerged from grassroots activism, they were also framed by universal ideals of human value and dignity as enshrined in the United Nations (1948) *Universal Declaration of Human Rights*.[62] Though the movements are united in their resistance to the dominant globalized food system and the alliances between them are growing, the idea of food sovereignty arose primarily out of the concerns of food producers, while the idea of food justice has been historically driven by food consumers (Andrée et al., 2014).

[62] Prior to the coalescing of the food sovereignty and food justice movements in the late 20th century, struggles for human rights animated earlier food-related activism for fair working conditions (e.g., the Delano Grape Strike) and equitable access to food (e.g., the Black Panthers' Breakfast program; Cadieux & Slocum, 2015).

McMichael (2014) indicates that the idea of food sovereignty emerged as a response to the "agrarian crisis" (p. 346) of the 1990s after structural adjustment and the World Trade Organization's (WTO) *Agreement on Agriculture* (1994) exacerbated imbalances between countries in the neoliberal global economy. In the face of the widespread loss of traditional practices, land dispossession, and urban migration resulting in "depeasantization" (Araghi, 1995), a transnational group of farmer representatives founded the movement La Vía Campesina in 1993 to give voice to the common interests of small-scale farmers. In 1996, La Vía Campesina put forward the concept of food sovereignty as: "the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity" (Vía Campesina, 1996, para. 2). La Vía Campesina has grown to include 182 organizations in 81 countries that represent "millions of peasants, small and medium size farmers, landless people, rural women and youth, indigenous people, migrants and agricultural workers" (Vía Campesina, 2021, p. 2). Simultaneously, the calls for food sovereignty have grown beyond La Vía Campesina to other activist groups and nongovernmental organizations (NGOs) as part of a global movement for food sovereignty (Akram-Lodhi, 2013; Desmarais, 2015).

Associated especially with food-based activism coming out of the United States (Gottlieb & Joshi, 2010; Holt-Giménez & Wang, 2011), the food justice movement brought together the environmental justice movement's recognition of the disproportionate impacts of environmental destruction on racialized populations with the community food security movement's calls for local control over access to healthy, affordable, and appropriate food (Gottlieb & Fisher, 1996). After introducing a social justice perspective to American policy discussions through the *Community Food Security Empowerment Act* (1995), the nonprofit

organization Community Food Security Coalition (CFSC) formalized the inclusion of institutional racism as a focus of its food activism during a 2003 conference (Gottlieb & Fisher, 1996; Morales, 2011; Slocum & Cadieux, 2015). Expanding on the work of the CFSC with an explicit focus on justice, a group of activists founded the Growing Food and Justice for All Initiative (GFJI) in 2007 with the support of Growing Power—a Milwaukee-based urban agriculture, education, and community organization (Morales, 2011; Cadieux & Slocum, 2015).

In response to contemporary food insecurity, food sovereignty and food justice advocate for "systemic change" rather than "increased production" (Cadieux & Slocum, 2015, p. 2). Not limiting action to the reformist strategies of localizing production systems and changing consumer behaviour, food sovereignty and food justice aim to address the exploitative colonial capitalist foundations of the industrial food system (Slocum & Cadieux, 2015). In other words, they conceive of their work on food systems equity as being necessarily entangled with other social justice efforts to dismantle ableism, colonialism, heteropatriarchy, and white supremacy. As part of this process, food sovereignty and food justice organizations have also worked to acknowledge and remake the power structures implicit in their own organizations.[63] On the whole, food sovereignty and food justice offer a reformulation of food security as a responsive process, rather than a measurable linear target (Andrée et al., 2014; Wiebe & Wipf, 2011). In Canada, these food movements take the form of an increasingly coordinated "network of networks" (Levkoe, 2014, p. 399) that

[63] For example, La Vía Campesina has committed to gender parity at international gatherings (Vía Campesina, 2002), and the Community Food Security Coalition (CFSC) has established committees and policies to promote anti-racist practices (Slocum, 2006, 2007).

enacts resistance and alternatives through interrelated place-based initiatives at multiple scales.

In addition to organizing protests[64] and land reclamation efforts,[65] food sovereignty activists resist land grabbing and productionist pushes for biotechnology by modeling ways of being with the land and growing food that rely less on external chemical inputs (e.g., herbicides) in favour of working with natural rhythms and interactions (e.g., intercropping). These approaches can be grouped under the umbrella of agroecology, which is "a practice, a science or a movement…or all of these at once" (Anderson et al., 2021, p. 16) that integrates diverse, local knowledges into food practices that are based on ecological principles (Declaration of the International Forum for Agroecology, Nyéléni, Mali, 2015). Through the persistence of food sovereignty advocates in policy spaces, the food sovereignty framework has come to be addressed in supranational policy documents (e.g., *United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas*) and national constitutions (e.g., Ecuador; Desmarais, 2015).

Food justice projects address the immediate needs of food insecure populations while making connections to broader efforts to tackle underlying issues that perpetuate these conditions. In urban spaces, food justice organizations have developed urban agriculture initiatives, community supported agriculture (CSA)/food box programs, farmers' markets, and educational programs that supply these communities with culturally appropriate foodstuffs, resources, and skills while simultaneously supporting marginalized producers

[64] For example, La Vía Campesina has marked September 10 as the International Day of Action Against the WTO and Free Trade Agreements in recognition of farmer Lee Kyung Hae who immolated himself outside of the WTO Ministerial Conference in 2003 (Vía Campesina, 2023).
[65] For example, the Brazilian Landless Rural Workers Movement (MST) has seen rural workers come together to recover land since 1984 (Movimento dos Trabalhadores Rurais Sem Terra [MST], 2024).

(e.g., Phat Beets in Oakland and FoodShare in Toronto; Friedmann, 2011; Slocum & Cadieux, 2015). Operating through direct citizen engagement, a growing number of food policy councils have arisen to coordinate plans for infrastructure that supports these community-driven food systems (Holt-Giménez & Shattuck, 2011; C. Kneen, 2011). Building on a history of rural activism (e.g., United Farm Workers), farmworkers and allies have formed organizations, which have used consciousness-raising and direct-action strategies including work stoppages and boycotts to advocate for contracts and auditing programs that ensure fair working conditions (e.g., Coalition of Immokalee Workers in Immokalee, Justicia for Migrant Workers in Toronto; Asbed & Hitov, 2017; Encalada Grez & Clarke, 2016).

Recognizing the difficulties of translating principles into action, commentators have noted that food initiatives can continue to reproduce existing power relationships in practice even when organizations adopt the language of food justice or food sovereignty into their mission statements. By appealing to the authority of the state as an effective ally for policymaking, for example, the strategies of policy councils may not always reflect the legacy of oppression that marginalized groups have encountered in relation to the state (Cadieux & Slocum, 2015). Commenting on urban food initiatives such as farmers' markets and CSAs in underserved areas, Guthman (2008a) observes that practices of "bring[ing] good food to others" are underscored by ongoing histories of "white desires and missionary practices" (p. 433). Rather than taking into account the agency and interests of those they claim to help, some of these initiatives have defined the parameters of good food systems from positions of privilege. In mobilizing romanticized images of agrarian life to promote local foods, for instance, food movements can sideline necessary reckonings with the

oppressive histories of land ownership and forced labour upon which settler colonial farming has been built (Cairns et al., 2015; Rotz, 2017; Stănescu, 2011).

Food sovereignty and food justice invoke human rights as the basis of a food system that promotes equity rather than privilege, but the rights-based approach comes with its own shortcomings. On one hand, scholars position this framework as a "genuine alternative" (Fairbairn, 2010, p. 30) to the dominant food system that cannot be easily co-opted by the neoliberal marketplace. On the other hand, the concept of human rights is intertwined with the same systems of global governance against which these movements react. For rights to have meaning in practice, they must be enforceable. As such, human rights "imply a particular burden on a specified entity"—or a sovereign—to act as a "guarantor" (Patel, 2009, p. 668) who ensures that these rights are in place. Contrary to the "oppositional relationship to the state" (Cadieux & Slocum, 2015, p. 7) that food sovereignty and food justice adopt, the contemporary concept of human rights relies on the juridical authority of an international system of nation-states.

Furthermore, given that the notion of inherent human rights is premised on the creation of boundaries around the definition of a morally considerable "person", a degree of exclusion is encoded into an apparently universal model. The subjects who counted as "persons" when nation-states first arose in the 18th century were limited by conditions of gender, class, and race (Calhoun, 1992). Although the boundaries of citizenship have been extended to include women and racialized peoples, rights-based concepts of universal justice continue to invoke a society of autonomous, equal, "properly human" (Shotwell, 2016, p. 26) individuals who receive equivalent consideration under the law (Wolfe, 2013). Peña (2017) critiques this citizenship model as an under-recognized limitation of the food

sovereignty movement, as it invokes protection for the interests of separate human individuals, which is an unworkable framework for many Indigenous governance systems that understand humans as fundamentally entangled with environments.

Ontologies and Epistemologies

Building on existing approaches, I attend to the anthropocentric limitations of centring human flourishing as an ethical goal for food systems governance. Examining the fluid boundaries of "ethical beef consumption", I find promise in the approaches of food sovereignty and food justice, which position equity as the foundational value that motivates diverse efforts to disperse power between food system actors. Looking beyond rights-based approaches to achieving equity, however, I also argue that decentring the Western ontology that underpins dominant approaches to food systems governance is necessary for finding more ethical approaches to navigating food system risks like beef consumption.

Stretching from imperialism of ancient Greece to neoliberal globalization of the present, this ontology constructs the world as a series of "hegemonic dualisms" (Escobar, 2012, p. xxviii) that separate culture from nature, some humans from others, and the mind from the body (Quijano, 2000). The accompanying epistemology holds that superior elements of the pairings (culture, privileged humans, mind) are associated with immateriality, making them capable of knowing and controlling the inferior, material elements (nature, marginalized humans, body; Aristotle, ca. 350 BCE/1920; Heldke, 1992). In this manner, a separation between ontology (as a material way of being) and epistemology (as an immaterial way of knowing) is implicit in Western systems' engagements with the world (Watts, 2013).

In comparison, being and knowing are indivisible in multiple non-Western lifeways, which share some common teachings even as they cannot be conflated with one another. Watts (2013), for example, observes that the Western division between ontology and epistemology is not a feature of Haudenosaunee and Anishnaabe Place-Thought, which reveals knowledge as "a literal and animate extension" (p. 33) of place. According to a "Cree ethic" that is part of "Métis philosophy and legal tradition", Todd summarizes: "Lands, waters, and atmospheres co-constitute human knowledge and being" (Kanngieser & Todd, 2020, p. 389).

Such perspectives pre-exist but can inform Barad's (2007) new materialist call for "ethico-onto-epistem-ology": the recognition that "ethics, knowing, and being" (p. 185) are inseparable in experiences of perceiving and living in the world. To be a body is to learn with and within the world as an "intra-active" (p. 151) participant. Unlike the grand theory of modernity, which presents a singular, Eurocentric narrative of ontological history from which Western epistemology arose, relational ethico-onto-epistemologies experience the world as a "pluriverse" of diverse, but interconnected ways of being (Mignolo & Tlostanova, 2006). In the pluriverse, Western ontologies and epistemologies persist, but are decentred as sources of universal truth.

An appreciation of multiple ontologies and epistemologies would change the ways in which new "pillars" (like agency and sustainability) might be incorporated into food security discourse and application (Clapp et al., 2022). While the Western ontology constructs "agency" as a limited resource that empowered individuals gain by disempowering others, relational ethico-onto-epistemologies locate agency in entangled dynamics of care. These biosocial "care ecologies" (Carolan, 2015, p. 318) trouble fixed

power dynamics "between the subject[s] and object[s] of care" (Probyn, 2016, p. 166). Indeed, such borders are dissolved in Marder's (2013) plant-inspired "vegetal ontology", which invokes the rooted, interactive orientation plants display with their surroundings, and in the process, reminds us of our own entangled participation in earthly exchanges of oxygen and carbon (Sandilands, 2017). Ethico-onto-epistemological perspectives on care thus reject "*colonialist* care discourse[s]" (Narayan, 1995, p. 134) that legitimize relationships of dominance as expressions of care, and patriarchal discourses that erase the labour of marginalized caregivers as a form of love (McElya, 2007). Instead, care is the enactment and manifestation of "healthy attachments" that promote "general flourishing within…overlapping networks" (Whyte & Cuomo, 2017, p. 234) in which humans, nonhuman organisms, and the Earth exist as both caregivers and recipients of care.

Food and eating are intertwined with the "complex, life-sustaining web[s]" (Tronto, 1993, p. 103) that constitute care. These entanglements display an inescapable messiness that defies the colonial impulse to create ethical order through categorization. Who receives care and who is "called to respond" (Shotwell, 2016, p. 7) shifts and changes over time and space. Rather than aiming to re-distribute agency as a form of control over food systems then, relational ethico-onto-epistemologies call for a re-attunement of the relationships of care that make up food systems to promote maximum equity.

Next, in the interest of expanding the emergent directions of the food justice and food sovereignty approach, I outline engagements with care that reveal meanings of justice and sovereignty that are not limited to the universalized human. These reformulations offer a provisional guide that I use to study how beef consumption practices and the

infrastructures of feeling in which they are embedded might enable and constrain multi-relational flourishing.

Feminist Ethics of Care and Justice

Feminist ethics of care offers models for conceiving of justice beyond the Western rights-based approach. As initially formulated by Gilligan (1982), ethics of care foreground "the understanding of responsibility and relationships" as opposed to "the understanding of rights and rules" (p. 19). This perspective problematizes the ethical prioritization of justice over care given that justice depends upon sets of universalized legal standards that are created from dominant perspectives. Applying this approach to theories of animal ethics, ethic-of-care feminists critique animal rights principles that rely on abstract calculations of the greatest good (Singer, 1975), or criteria about who counts as having inherent value (Regan, 1983). Instead, they adopt a "situational, contextual ethics" (Donovan & Adams, 2007, p. 2), which makes space for the nuances of individual circumstances and variable needs.

Ethic-of-care perspectives do not exclude justice from their considerations, however. Motivated by care for particular others, a "political ethic of care" (Tronto, 1993, p. 155) analyzes structural circumstances that contribute to experiences of injustice and considers how these systems can be transformed. Justice can also become an "enabling condition" (Narayan, 1995, p. 139) for care. When oppressive power structures or systemic complexities obscure the capacity for identification with specific marginalized others, for instance, struggles for justice can be a necessary step toward shifting these ideological norms. Care and justice are therefore conceptualized as counterparts in dialectic

relationships that respond to the needs of particular actors and circumstances while attending to the ways in which power differences influence the (in)equitable fulfillment of these needs.

Disability studies scholars add vital perspectives to feminist discussions of care and interdependence (Shotwell, 2016). Interrogating the supposed autonomy of the privileged (neo)liberal political subject, these scholars highlight the inescapable reality that all humans rely on others (Gerber, 2020; Stiegman, 2022). Sunaura Taylor (2017) illuminates how ableist dismissals of dependence "play…out across the species divide" (p. 214). Unlike their "wild" counterparts, domestic animals are positioned as "unnatural" beings who depend on humans for survival (p. 208). In cases like agriculture and entertainment, humans are seen to be justified in exploiting domestic animals because of this "burden" (p. 211) of care. Instead, Sunaura Taylor emphasizes, dependence is a commonality rather than a weakness. She reads domestic animals' expressions of dependency as indications of agential communication, proposing: "Caring for animals ethically means listening to what animals are telling us about the care they are receiving and the care they would like to receive" (p. 217), and responding accordingly.

Feminist engagements with ethics of care in Science and Technology Studies (STS) add to these conversations by breaking down further the boundaries between participants in relations of care. For Haraway (2003), humans are made biologically and socially through co-evolutions with "companion species" wherein "'the relation' is the smallest possible unit of analysis" (p. 20). In this light, members of companion species are simultaneously entangled together as mutually constituted beings and positioned divergently as component parts that respond to one another. Building on Haraway, Shotwell (2016)

proposes that the ethics of eating are distributed among variously situated participants who are limited in their capacities to influence the whole of the system but obligated to attend to their positionings. Networks of care are thus also necessarily networks of justice. Puig de la Bellacasa (2017) defines care in "more than human worlds" as: "a force distributed across a multiplicity of agencies and materials [that] supports our worlds as a thick mesh of relational obligation" (p. 20). While the Western concept of justice requires individuals to conform to a set framework for the fulfillment of entitlements, a feminist ethics of care presents a concept of justice that is responsive to the contextual needs of the Earth's varying inhabitants.

Indigenous Caretaking Relations[66] and Sovereignty

Relational definitions of justice reiterate insights that have always been part of diverse Indigenous systems of ethics (Todd, 2016). Beyond extending the borders of human-created justice systems to include various life-forms, practices of "being in good relation" (TallBear, 2019, p. 25) enact relational governance with more-than-human beings. Since "spirit exists in all things" (p. 30), Watts (2013) writes:

> Habitats and ecosystems are better understood as societies from an Indigenous point of view; meaning that they have ethical structures, inter-species treaties and agreements… Non-human beings are active members of society. Not only are they active, they also directly influence how humans organize themselves into that society. (p. 23)

[66] See TallBear, 2019.

More-than-human governance structures disrupt Western associations between sovereignty and property. Although the multitude of Indigenous nations and communities around the world operate according to unique, locally grounded governance structures, many share relational values, which challenge the authority that the Western concept of sovereignty grants to humans to own and to manage land (Morrison, 2011). According to the modern governance system of nation-states, the people who inhabit the land within the nation's borders are beholden to the laws of the state. As such, the state is responsible for guaranteeing the rights of its citizens, while the land remains bound to property holders who act in accordance with these laws (Balibar, 2004). Positioning humans as the natural caretakers of other organisms and the land, modern notions of husbandry and stewardship reconceptualize relationships of domination as interactions that are "mutually beneficial" (Ellis, 2013, p. 435) for humans and nonhumans.

In comparison, multiple Indigenous perspectives on stewardship[67] are based on relational attitudes toward land. Land cannot belong to people because land and people are inseparable from one another.[68] Venne (1998) indicates that this "view of sovereignty…differs greatly from the concept of western sovereignty which is based upon absolute power." She writes:

> Our sovereignty is related to our connections to the earth and is inherent. The idea of a nation did not simply apply to human beings. We call the buffalo or, the wolves,

[67] See, for example the Resolution of the First Stewards Coastal Peoples Address Climate Change Symposium, which emphasizes among other principles: "the First Stewards' awareness of the interconnectedness of the clouds, forest, valleys, land, streams, fishponds, sea, lakes, canyons and other elements of the natural and spiritual world, and the use of their expertise and methodologies to assure responsible stewardship of them" (McCarty et al., 2012, para. 3).

[68] The Kari-Oca 2 declaration (2012) states: "Our lands and territories are at the core of our existence—we are the land and the land is us" (para. 17).

> the fish, the trees, and all are nations. Each is sovereign, an equal part of the creation, interdependent, interwoven, and all related. (p. 23)

The awareness of and respect for this interdependence motivates ethical responsibilities to care for the web of relationships in which one is situated according to dynamics of "relational accountability" (Louis, 2007; RAIR Collective, 2023; S. Wilson, 2008). These caretaking responsibilities are held not only by humans, but also by nonhuman organisms and the Earth; human actions should not interfere with the capacity of these other entities to perform their duties (McGregor, 2009). The teachings that govern Indigenous communities thus emerge from and are embodied in relationships with "storied land[s]" (Goeman, 2008, p. 23), while the reciprocal responsibilities between humans, lands, and other animate beings guarantee the relational rights of all (Kimmerer, 2013).

Even as Indigenous peoples have been active participants in the transnational food sovereignty movement, some thinkers argue that the movement's foundations in Western conventions of sovereignty are counterproductive to Indigenous struggles for the integrity of traditional food systems (Peña, 2017). Others propose that food sovereignty can be consistent with Indigenous self-determination if the movement affirms Indigenous worldviews (Coté, 2016). Overlapping with the transnational food sovereignty movement's focus on community grounded governance, Indigenous scholars and food practitioners have formulated "Indigenous food sovereignty" as a framework that describes the capacity of diverse Indigenous cultures to define and to sustain their own food systems (Morrison, 2011, 2020). Highlighting the sacred, "kincentric" (Grey & Patel, 2015, p. 433) nature of food and the land, Indigenous food sovereignty counters the idea that humans can control food systems, whether for large-scale or small-scale food cultivation. Conceived of as

relatives, the organisms and ecosystems that make up food and food systems cannot be seen as limited to the legal status of a commodity (Whyte, 2021a). Sovereignty, in this context, refers to not only Indigenous self-determination, but also the autonomy of the land itself.

Coulthard (2014) describes such ethical praxes as "grounded normativity": "the modalities of Indigenous land-connected practices and longstanding experiential knowledge that inform and structure our ethical engagements with the world and our relationships with human and nonhuman others over time" (p. 13). As Shotwell (2016) advises, grounded normativity cannot be enacted by settlers (like me) who "do not have those specific relations" (p. 54) with place. Nevertheless, the responsibilities that settlers hold to account for our positions in these ongoing histories and spaces are profound. Rejecting "frontier logics" that position Indigenous peoples and settlers as inhabitants of separate worlds, Donald (2009) observes that the cultures are intertwined by virtue of "living together in a place for a long time" (p. 6). This partially divergent, partially shared experience comes with an "ethical imperative" (p. 7), which Donald names as "ethical relationality". Rather than erasing differences, ethical relationality approaches "engagements across…difference" with a deep understanding of "how our different histories and experiences position us in relation to each other" (p. 6).

The above interrogations of justice and sovereignty offer contingent (re)definitions of the relations of flourishing that coalesce in equitable governance and food systems. Whereas the Western concept of equity necessitates the creation of boundaries around particular groups of individuals in order for their access to fundamental entitlements to be protected by the state, relational understandings of equity recognize the shared

vulnerability that is embedded in webs of always already connected actors as part of an obligation to attend to structures of accountability. As I assess the current infrastructure of feeling associated with beef ethics in my case study of beef shopping, I turn to these perspectives to remember that other approaches to ethical beef consumption are possible.

(Re)learning Care

Adopting Gibson-Graham's "reparative stance",[69] Slocum (2007) highlights potential in the diversity of projects that are searching for better food systems, despite the limitations of such initiatives. Similarly, Katz-Rosene et al. (2023) see promise in the pursuit of multiple avenues toward improvements in protein provisioning, as heterogeneity may provide a more "resilient response to the wicked problem of unsustainable protein" (p. 13). Although the multiple approaches to food systems governance present different ideas of ethical change, they are united by "a sense that there is a more just way of producing, distributing and eating food" (Slocum, 2007, p. 523). As an organizing "structure of feeling", risk can engender collaboration in addition to competition. The coming population of ten billion humans can loom large as an inevitable, demanding threat against whom contemporary food systems must fight for dwindling resources, or they can exist as ethically significant participants toward whom contemporary food systems can respond (imperfectly) by caring for material webs of sustenance.

[69] Gibson-Graham & Roelvink (2009) advocate for opening scholarship beyond critical thinking to embrace hope: "the reparative stance is receptive and hospitable, animated by care for the world and its inhabitants" (p. 324). Similarly, S. Wilson (2008) proposes research that "use[s] relationality to find out more about the universe around us" (p. 95) by forming relationships to ideas rather than dismissing them through judgement.

As opposed to fighting over a pathway toward a singular food system that ascribes to a "good abstract universal valid for all" (Mignolo & Tlostanova, 2006, p. 219), scholars and activists find promise in embracing solidarity as an ethical way of inhabiting risk society's foodscapes (Haraway, 2016; Gibson-Graham, 2011). Undoing the "purism" (p. 7) that restricts solidarity to alliances between delineated identity groups,[70] Shotwell (2016) presents "aspirational solidarity" as "solidarity based on collective conceptions of worlds that do not yet exist" (p. 105). Similarly, Simpson rejects the Western belief that the only ways to make change are by appealing to or overthrowing those in power. Instead, she advocates for intersectional solidarity in the form of the building of: "constellations of co-resistance locally and internationally with those communities actively building ethical, principled and radical futures in the present, by animating and embodying those ethical systems as the intervention" (Simpson et al., 2018, p. 82).

The cultivation of these aspirational constellations involves a "shift in the cultural ethical episteme" that encourages people to notice actively the inequities that are "happening all about them" (Donovan, 2007, p. 175) by analyzing power structures, listening to other actors (Narayan, 1995; Kanngieser & Todd, 2020), and tuning into the embodied components of these overlapping relationships (Carolan, 2015; Despret, 2013; Sandilands, 2021b). Building on Latour (2004), Gibson-Graham and Roelvink (2009) describe "learning to be affected as an ethical practice" (p. 325) that emerges from an acknowledgement of and a responsiveness to interconnections. In other words, re-attuning food systems relationships to promote anti-oppressive equity and pluriversal flourishing is an ethical project of (re)learning how to care. In opposition to strategies that deepen the

[70] See Roediger, 2016 for a critique of the histories of solidarity.

tendencies of risk society by targeting specific food systems actors for more careful control, (re)learning care is a practice of working with other food systems actors to co-create change. In the context of ongoing pandemics, for instance, preparedness plans in agriculture could focus only on identifying pathogens of concern and pre-emptively inoculating livestock against them. They could also learn from communities disproportionately affected by the COVID-19 pandemic to "fortify…public health and health-care systems, strengthen…social safety nets" (Yong, 2022, para. 14), and rebuild diversity in food provisioning networks, which together might slow the spread of future diseases (Wallace, 2020).

The practice of building ethical food systems by prioritizing multi-relational equity simultaneously already exists and is always on the horizon. While decolonial thinkers observe that alternatives[71] to the modern Western ontology have been present throughout history, they also note that these onto-epistemologies are not confined to the past (Mignolo & Tlostanova, 2006; Quijano, 2000). Confounding Western investments in linear time, decolonial worlds are resolutely of the past, present, and future (Whyte, 2021b).

In dialogue with the overall feeling of risk that structures contemporary food systems, the current approaches to governance pursue pre-formulated goals of increased production levels (productionism), sustainability measures (sustainable development), or universal human rights (food sovereignty and food justice). In comparison, the specifications of food systems that might emerge from a decentring of the Western ontology remain unknown, and thus cannot be listed as "a set of indicators or best practices" (Cadieux & Slocum, 2015,

[71] Indeed, the very positioning of such onto-epistemologies as "alternatives" is a result of the centrality of the Western ontology (Mignolo & Tlostanova, 2006; Quijano, 2000).

p. 13) against which to measure the ethics of current food practices. In studying the infrastructure of feeling that informs contemporary beef consumption in relation to these undetermined future infrastructures of feeling, I employ the speculative orientation modeled by approaches to practice theory that position social change as a relational, material process of adjustment (Shove et al., 2012). These enactments of practice theory ascribe to an "imperfect politics" (Cadieux & Slocum, 2015, p. 13) or a "politics not yet known" (Morgensen, 2015, p. 309) that governs changing food ethics through "continuous, reflexive processes" (DuPuis & Goodman, 2005, p. 361) of experimentation. As such, they exist in conversation with a variety of speculative projects of ethical world-building, including (but not limited to) prefigurative politics (L. Yates, 2021), emergent strategy (brown, 2017), Afrofuturism (Dery, 1994), Indigenous futurisms (Dillon, 2012), and Zapatismo (Rosset et al., 2005). Instead of delineating a prescriptive route toward a "perfectionist utopian vision of the food system" (DuPuis & Goodman, 2005, p. 360), these experimental processes are motivated by "queer" visions of utopia that draw on ongoing collaborations to imagine and to reimagine futures through present, embodied practices (Muñoz, 2009).

As values of emergent social formations begin to take shape in contemporary infrastructures of feeling, supermarkets have a key role to play in deciding whether the principles will be diluted within the existing "solution" (in Williams' chemistry sense) of dominant ethical approaches to risk or transmuted into other infrastructures influenced by diverse ethico-onto-epistemologies. In the next chapter, I outline further the tools that I use to strain through Loblaw's mediated engagements with the cattle-beef infrastructure.

Chapter 4: Methodology

"There is a conversation in the room that only these people at this moment can have. Find it" (brown, 2017, p. 44).

The Experts

Kelsey: Does anyone else ask for help at the supermarket when they're shopping?

[*Pause*]

Kenneth: No, we're all experts, I guess [*group laughter*].

Kelsey: That's why you're here. (Focus Group 3)

This focus group exchange speaks to the heart of my methodological approach, even as it is expressed as a joke. Since humans are embedded within foodscapes as living, eating beings, no singular person can create a comprehensive picture of food provisioning infrastructures from a detached perspective. At the same time, everyone has expertise to share from their specific locations, which can overlap to illuminate a more complete impression of the material and ethical spaces that we all inhabit.

The group goes on to discuss their experiences with various supermarket employees. They decide that staff knowledge should reflect the unique responsibilities that jobs require, whether that involves interacting with animal carcasses, food packages, and/or human shoppers. Following such an appreciation of multifaceted expertise, I turn to a diverse constellation of beef shopping participants to gather research ingredients.

This chapter explains the methodological design of my empirical research into supermarkets' roles in shaping ethical beef consumption. To begin, I introduce situated intersectionality as the broad methodological approach that informed my work. Valuing the

relational experiences that give rise to practices, events, and circumstances, this research perspective makes space for studying the inherent messiness of the variety of ethical approaches that are implicated in the infrastructure of feeling with which the cattle-beef infrastructure engages (described in Chapter 3). Next, I outline the parameters of my case study of beef shopping in Loblaw's supermarkets, presenting it as an example of ethical complexity rather than a generalizable model for discerning best practice. In the remaining bulk of the chapter, I detail the methods that comprise the study, including archival research, observations, interviews, and focus groups.

The primary objective of the case study was to outline the relationships that constitute the practice of beef shopping in Loblaw's supermarkets as an entity, in the interest of analyzing the ethical norms that are expressed through beef shopping in Loblaw's supermarkets as a performance. The dual conceptualization of beef shopping as both an entity and a performance is informed by practice theory, which proposes that practices hold together as identifiable routines through the repeated enactment of particular configurations of elements (Shove et al., 2012). Constructed from the insights of variously situated respondents whose interactions with supermarkets take multiple forms, the study explores how the practice of beef shopping constitutes and is constituted by ethical relationships in the context of a globalized food system that elevates supermarkets as cryopolitical mediators of those interactions.

Situated Intersectionality

The decolonial feminist ethico-onto-epistemologies that inform my understanding of possibilities for ethical beef consumption as a relational activity (as discussed in Chapter 3)

also inform the dialogical methodologies that I used to study contemporary beef shopping in Loblaw's supermarkets, which will be outlined in depth in this chapter. These methodologies intertwine with Haraway's work (1988) on "situated knowledges", reflexive research practices that remain rigorous without claiming to circumvent bias via the scientific transcendence of human subjectivity. Contrasting with positivism and relativism, dialogical approaches propose that knowledge arises from the interplay between multiplicities of situated perspectives. While positivism presumes the existence of a single objective truth and relativism proposes multiple, separate truths dependent on social and cultural circumstances, dialogical perspectives see truth as a compilation of diverse and shifting forms of understanding that can never be known all at once in their entirety. Dialogical approaches are thus embedded in ways of knowing and being that organize life according to relationships with—rather than control over—the world.

Dialogical (multi)viewpoints shape the "theoretical and conceptual tools" (Yuval-Davis, 2015, p. 93) of "situated intersectionality". Building on Black feminist theorizations of intersectionality as an approach to understanding social positioning and identity as a matrix of interacting power relations (Crenshaw, 1989), Yuval-Davis conceives of "situated intersectionality" as a theoretical framework that is "based on a dialogical epistemology which incorporates differentially located situated gazes at…inequalities" (p. 100). Challenging the co-option of intersectionality into identity politics, situated intersectionality refuses essentialist constructions of social boundaries by acknowledging both individual and collective experiences of social positioning. Furthermore, Yuval-Davis proposes that intersectional analysis can be used to understand both privileged and

marginalized positionalities, while recognizing the distinctions between different forms of power and the uniqueness of experiences.

Situated intersectionality combines insights from border thinking (Anzaldúa, 1999; Mignolo, 2000) and feminist standpoint theory (Harstock, 1983). Drawing on the Zapatistas'[72] decolonial ontology of "a world in which many worlds might fit" (Escobar, 2020, p. 26), border thinking enacts an "epistemology of pluriversity" (Mignolo, 2018, p. ix), which challenges the vision of a singular universe that has been advanced through the imposition of the "imperial epistemology of modernity" (p. xi) as a superior, universal form of knowledge (as referenced in Chapter 3). Rather than the collection of isolated worlds that a cultural relativist perspective envisions, however, the worlds of the pluriverse remain connected to each other through their entanglements with colonial power. As in the combinations of knowing (epistemology) and being (ontology) discussed in Chapter 3, "border thinking" is intertwined with "border doing" (p. xi). Inhabiting the margins of Western ontologies and epistemologies, these practices enact decolonial projects by resisting and (re)imagining the path dependencies of modernity.

While border thinking therefore overlaps with critical theory's transformative orientation to the world, it decentres critical theory's position as the prominent scholarly approach to analyses of power and social change. At the same time, pluriversality makes space for these theoretical traditions to coexist among a range of options. Viewing social categories as simultaneously "irreducible to one another" and "mutually constituted and

[72] The Zapatistas are an Indigenous, peasant movement from Chiapas that has actively resisted state occupation since 1983.

shaped" (Yuval-Davis et al., 2019, p. 26), situated intersectionality incorporates pluriversality by seeking to understand phenomena and experiences within their contexts.

In addition to the diversity of positionalities that border thinking illuminates, situated intersectionality includes an emphasis on subjective experiences as inspired by feminist standpoint theory. Based in Marxist analysis, standpoint theory proposes that workers' experiences of themselves as subjects give rise to unique understandings that counter the capitalist exploitation and objectification of the proletariat. Expanding the Marxist focus on class, feminist standpoint theory indicates that women's embodied, daily experiences of oppression constitute a particular place from which to understand and to resist (patriarchal) power structures. Taking this appreciation a step further, Yuval-Davis (2015) stresses:

> We need to add to the pluriversal epistemology a dialogical inclusive one in which as many as possible of the participants in a particular social encounter would take part, as the only way to approximate the truth (although "the truth" would ever remain elusive). And there can be no social justice without attempting to approximate the truth as much as possible. (p. 97)

Situated intersectionality thus extends feminist standpoint theory beyond respect for multiple viewpoints to include recognition of mutually transformative *encounters between* various perspectives.

Resonating with these models, critical animal studies scholars have combined standpoint theory with feminist ethic-of-care perspectives (described in Chapter 3) in the interest of "shifting the epistemological source of theorizing about animals to the animals themselves" (Donovan, 2006, p. 305). In conjunction with a "political…perspective" that

recognizes the structures of power in which animals are situated, this framework calls for a "dialogical…method" (p. 324) that informs ethical decision-making through practices of paying attention to animal perspectives—or "listening to animals" (p. 305) and attempting to respond appropriately to animals' communications (which may involve both action and/or inaction; Derrida, 2002).

Dialogical practices of "listening to animals" do not imply unfettered access to nonhuman experiences. As Uexküll's (1934/2010) model of the *umwelt* invokes, organisms inhabit a multiplicity of unique perceptual worlds, co-constituted by interactions between bodies and environments. More recent propositions suggest that nonhuman communications are not entirely untranslatable, however. By cultivating sustained, holistic attention to evolutionary histories, physiological systems, behaviours, life experiences, and ecologies, ethologists demonstrate possibilities for practicing precise empathy with the nonhuman others who intersect with and exceed human life-worlds (Bekoff & Pierce, 2009; R. Horowitz, 2009). Highlighting the ethical ramifications of such projects, Despret (2013) proposes an "affected perspective" as a refinement of "the 'semiological perspective' Von [*sic*] Uexküll promoted" (pp. 56–57). Rather than delineating the meanings of environmental elements for organisms in a structural sense, the affected perspective is curious about what is "most meaningful" (p. 55) to these organisms. Sandilands (2021b) proposes a similar practice of learning what "matters" to plants by "noticing" them (p. 781), researching their stories, and speculatively "identifying" with their experiences (p. 782). While a semiological perspective approaches organisms and their environments as systems that can be analyzed from the exterior, an affected perspective asks researchers to respond to organisms as subjects of shared—if differently experienced—worlds.

Kanngieser and Todd (2020) propose an ethic and "method of listening" that is responsive to not only organisms but also place. The method's awareness of perceived and embodied positionality resonates with Gumbs' (2020) work on echolocation and its relevance to the intertwined contexts of survival created by marine mammals and Black people amongst the crises of climate change and "racial gendered ableist capitalism" (p. 4). Unlike the "god trick" (Haraway, 1988, p. 581) of the disembodied, anthropocentric gaze, which purports to be able to map the world from a detached perspective, echolocation is a reminder that to perceive the world is to be in relation to the world: Echolocating organisms orient themselves based on the vibrations that move throughout and between their bodies and the world around them.

Reworking and building on feminist standpoint theory, careful, humble practices of "listening to animals" can model and inspire practices of ethically reaching toward other perspectives, even when viewpoints are ultimately incommensurable. Gumbs (2020) writes:

> Sometimes my best guess echoes back to me like a slap in the face and I remember I know nothing….
>
> Which is to say I am humbly listening and I am learning to take responsibility for my frequencies. I can lower them to reach you. I can reflect before I speak out.
>
> Echolocation is not the same as mind-reading. (p. 18)

In this vein, Kanngieser and Todd (2020) emphasize that even as practices of listening to places include curiosity about other beings and environments, they also involve recognizing the thresholds at which one's interest is unwelcome and/or damaging. Learning from Pacific Research Protocols, Kanngieser shares:

> Listening teaches me that there are many ways to ask permission, and that permission needs to be sought again and again of places as well as of people. Attunement makes me aware of when *to give thanks and leave, which is one of the most crucial lessons a researcher can learn.* (p. 390)

In the spirit of quieting down and making space, interventions in feminist standpoint theory have called for the centring of various marginalized voices in the ethical frameworks that affect their wellbeing. Owing especially to critiques from Black feminism (Collins, 1990), feminist standpoint theory has increasingly recognized that the experiences of women, non-binary, and gender nonconforming people are not universal. Building on these theories, situated intersectionality considers knowledge to be "situated" in subjective perspectives that exist in relation to larger structures of power. As such, situated intersectionality insists on studying everyday practices in connection with the systems in which they are embedded.

By turning attention to the relational infrastructures that make up beef consumption instead of studying *beef* as an unambiguous, homogenous research topic, I respond to Tompkins' (2012) critique of "the field of food studies' unconscious investments in the commodity itself" (p. 2). Shifting analytical emphasis from food to eating, Tompkins rejects the notion of food as a bounded substance in favour of an acknowledgement of the social and cultural relationships that constitute the bodies of and categorical distinctions between eaters and eaten. Under the umbrella of "critical eating studies" (p. 2), Tompkins calls for work that interrogates the "political beliefs and structures that underlie eating as a social practice" (p. 2). Similarly, Heldke (2012) develops "an alternative ontology of food…that views foods not as substances, but as loci of relations." She calls for a transformation in

"ethical decision making" about food "that emphasizes the relational nature of food-and-us" (p. 70). Rather than attempting to make a determination about beef as a uniformly ethical or unethical commodity, I examine the shifting ethics of the infrastructure of feeling that surrounds beef shopping in particular temporal and geographic contexts.

Case Study

Encompassing a range of methods depending on the research topic and scholarly discipline, case study is a "research strategy" that explores the relationships that constitute a "specific entity" in a particular context (A. J. Mills et al., 2010, p. xxxii). Case study research has been criticized as a limited approach that can only be used for preliminary explorations, since the findings of a single case cannot be generalized to a broader population. At the same time, given that human behaviour cannot be reduced to a series of "rule-governed acts" (Flyvbjerg, 2006, p. 223), detailed analyses of specific instances are essential to building well-rounded knowledge about larger ethical, sociocultural, and political issues. Indeed, case studies have been identified as a prime source of information for policy interventions (Abbott, 1992). The overall reliability of case study research can be increased through the inclusion of rich narrative details[73] and the deliberate selection of cases (Flyvbjerg, 2006).

The act of reporting on a case does not reproduce identically the original relations and contexts. While I was embedded in the spaces I studied, they are mediated here by me, my writing, and the scholarly apparatuses of which I am a part. "The case study", Kanngieser

[73] In social science research, the practice of "thick description" involves considering contexts as well as observable behaviours (Geertz, 1973).

and Todd (2020) argue, "is predicated on [the] disassociation of place from thought" (p. 398) that is fundamental to the Western way of being/knowing (referenced in Chapter 3), in that specific cases act as "metaphors" for larger patterns. In comparison, "one place cannot stand in for another" according to the onto-epistemologies through which Kanngieser and Todd conduct their research: "each place is formed through ongoing reciprocal relations" (p. 386). As such, they propose the "concept of 'kin study'" (p. 385) to take into account the specificities of the places with which their research is conducted.

Cognizant of these limitations, I offer my case as an "example" in the sense that Viveiros de Castro (2019) gives to the word, aligning it with a Geertzian distinction between a "model for" as opposed to a "model of" (p. 300). To navigate contemporary intersecting crises of ecological destruction and social inequities, Viveiros de Castro considers how researchers might work with examples as experiments in progress ("models for"), as opposed to pre-fabricated plans ("models of"). He writes: "Examples are borrowed horizontally—they diffuse—while models are imposed vertically—they emanate" (p. 300).

As examples, case studies are unique in their local expressions, but they are also intertwined with global systems. Even as cases do not replicate one another to demonstrate a universal rule, their polyvocal expression can present a sense of an overall "infrastructure of feeling" (Gilmore, 2022). In this manner, I do not position my case study of beef shopping in Loblaw's supermarkets as a diagnostic tool for determining the definitive morality of beef consumption; rather, I present it as one notable iteration of the ethical relationships that have coalesced in conjunction with risk as a "structure of feeling" (Williams, 1977) that infuses contemporary food systems. I thus serve this case like a meal—an offering of

ingredients arranged in a meaningful, but temporary pattern that might inspire further improvisations as other researchers and eaters experience it.

When building examples, researchers act like "bricoleurs" to assemble findings from the materials around them, as opposed to operating as "engineers" to pre-select points of interest before they enter the field (Viveiros de Castro, 2019, p. 300). Working with multimedia information from various sources, bricolage discerns the value and meaning of data not by following a regimented, step-by-step research program, but by paying attention to the patterns that form from bringing pieces of contextualized data into conversation (Ehn et al., 2016). A bricolage approach is therefore appropriate to the study of infrastructure, as it encourages responsiveness to the under-acknowledged physical and discursive materials that interact in the functioning of daily routines (M. Marshall, 2022).

While I have continued to supplement my research with new content from company websites, trade publications, government reports, civil society initiatives, and academic literature, much has unfolded in global food systems between the main stage of my empirical data collection (2016 to 2018) and my writing process. Putting these findings into dialogue with contemporary circumstances, I see the earlier data as nascent indications of the patterns that have emerged and continue to evolve in Canada's meatscapes.

In contrast to the importance of random sampling for generalizable research, purposive or judgmental sampling techniques—in which the researcher selects "unique cases that are especially informative" (Neuman, 1991, p. 198)—is appropriate for case study research. Flyvbjerg (2006) advises that "atypical or extreme cases" offer a wider range of information

than representative samples given that they "activate more actors and more basic mechanisms in the situation studied" (p. 229).

My sampling decisions were based on constructing an "extreme" case in several respects, as referenced in Chapter 1. First, after identifying the "protein crisis" as a pressing contemporary issue, I selected beef for focused research as the animal-based food that has garnered the most attention for its environmental repercussions (Gerber et al., 2013; FAO, 2023b). Second, given large retailers' dominant positions in food systems, I concentrated my study of beef consumption on supermarkets, as the most prominent place in which people encounter beef in Canada (Competition Bureau Canada, 2023b). Third, I chose to locate my study in Canada, considering the country's concentrated food retail landscape and its support for the first sustainable certification program for beef products (Competition Bureau Canada, 2023b; CRSB, 2017). Canadian food retail also represents a "critical case" (M. N. Marshall, 1996, p. 523) about the ethics of beef consumption, given that it offers an indication of how the industry is responding to mounting concerns about beef's sustainability. More specifically, I identified the country's largest food retail company, Loblaw Companies Limited (Loblaw), as the site of my case study (Lombardo, 2024). Finally, Toronto's position as Canada's most populous city informed the specific choice of the location of my fieldwork (Statistics Canada, 2021). Beyond fitting the general parameters of an extreme case study, Toronto's diverse population also provided opportunities for "maximum variation sampl[ing]" (M. N. Marshall, 1996, p. 523) in the selection of stores and shoppers from which/whom I gathered field data.

Aligning with the bricolage approach, case studies can be composed of "any combination of methodologies and methods" (A. J. Mills et al., 2010, p. xxxiii) that would

best articulate the contexts delineated by the parameters of the case. Triangulating between methods helps to account for the limitations of individual methods (Guest et al., 2012). I conducted my study with methods that allowed me to map the infrastructures of beef shopping. Since the research aimed to tease out complex relationships between retailers, shoppers, and other participants in the cattle-beef infrastructure, rather than to confirm hypotheses or to develop statistics on retailer and consumer behaviour, qualitative approaches were more appropriate than quantitative techniques (Denzin & Lincoln, 2011). To explore the ethical dimensions of beef shopping, I employed methods that offered (partial) access to the situated perspectives of various actors involved in the practice.

All research participants signed informed consent forms and the study was approved by the Office of Research Ethics at York University. I use pseudonyms for all research participants.

Archives

I used archival research to reconstruct a map of Loblaw's historically shifting relationships with beef consumption. Archival research is the finding, analyzing, and interpreting of materials housed in public or private collections (Corti, 2004). Rather than viewing archives as a compilation of set historical facts, social researchers stress that archives present incomplete pictures of history (L'Eplattenier, 2009). Archival resources therefore must be studied in conjunction with an acknowledgement of the conditions of their production and consumption, along with a consideration of their relation to other texts (Coffey, 2013). Furthermore, archives themselves must be understood as socially produced by the individuals and organizations who/that make, store, and donate materials,

the archivists who select and organize resources, and the researchers who analyze the documents. Even as the narratives that emerge from archival research are necessarily uncertain, archives also offer productive glimpses into dynamic social histories. Describing "documents" as "the 'physical traces' of social settings" (p. 367), Coffey (2013) argues that they offer rich sources of data about the practices and intentions of individuals and organizations during particular moments in time.

I focused my archival research on promotional materials from the 1980s to the present. As discussed in Chapter 1, this period saw the neoliberal developments of consolidation, financialization, and privatization that have facilitated the growing power of supermarkets in food systems. The 1980s was also the decade during which Loblaw's control brand President's Choice (PC) was introduced, and Cargill—a meatpacker that supplies fresh beef to Loblaw's stores—opened its first plant in Canada.

I visited three archives as part of my examination of Loblaw's recent promotional history.

To begin, I explored the Pirate Group Inc. archive at McMaster University Library in Hamilton, Ontario. Comprised of materials given to McMaster University by Pirate Group Inc.—Canada's largest audio advertising production company—the archive includes advertisements created by Pirate Group Inc. and its predecessor companies, along with documentation about advertising development, such as scripts, concept presentations, and recording sessions. I examined materials about Pirate Group Inc.'s work with President's Choice from 2000 to 2010.

In addition, I went to the City of Toronto Archives, which contain municipal government resources and non-governmental materials donated by organizations and individuals from

1792 to the present. After searching materials relating to "Loblaw" and "No Frills", I studied Loblaws and No Frills flyers from 2012 and 2013 along with selected articles from Toronto newspapers from 1998 to 2002.

The most fruitful source of archival material was a collection of *Insider's Reports* from 1983 to 2013 that is housed at the Loblaw head office in Brampton, Ontario. Inspired by a publication from California-based grocery chain Trader Joe's, former Loblaw President Dave Nichol introduced a promotional periodical that profiled the stories of Loblaw's products. The "magalogue" ran from 1983 to 1994 as *Dave Nichol's Insider's Report*. After Nichol left the company, the flyer continued as the *Insider's Report* from 1994 to 2000 and the *President's Choice/PC Insider's Report* from 2000 to 2013 until it was replaced by an online *PC Insiders Collection* (Kingston, 1994; Loblaw Companies Limited, 2015a). It was re-launched as an online magazine in 2020 followed by the addition of print editions in 2021 (Loblaw Companies Limited, 2020c, 2021b).[74]

I analyzed themes that emerged in the archival material from these three collections in conjunction with the data I gathered from other sources. Scholars have complicated and expanded the concept of the archive beyond the enduring materials specifically delineated in archival collections (Derrida, 1995/1998). Turning attention to what groups of people, discourses, and environments *do* instead of what they mean, for example, performance studies scholars have challenged the archival centrality of written texts as technologies that have been used to suppress other forms of knowledge in constructions of historical truth (D. Taylor, 2003). Moreover, animal studies scholars have questioned the anthropocentrism that limits archives to repositories of human knowledge, even as nonhumans leave traces of

[74] The apostrophe in "Insider's" is now omitted from the publication's title (*PC Insiders Report)*.

their histories in and beyond the confines of these collections (Berland 2019; Tortorici, 2015; J. Yates, 2017). Rather than existing as a complete narrative preserved in documents then, Loblaw's history with beef consumption is also reproduced and remade in contemporary settings.

Observations

I studied the contemporary context of beef consumption as a set of embodied performances by mapping the practice of beef shopping through observations in supermarket spaces. My ethnographic activities correspond to Crowther's (2018) suggestion that observing and participating in supermarket shopping can be used as a grounded method to reveal foodscape interactions. My approaches to observation drew from ethnographic techniques, which involve a researcher studying practices, behaviours, and customs in a specific place (or set of places) in order to gain insight into human (and more-than-human) cultures (Marvasti, 2013). Observations from the field offer the researcher access to nuanced information that might not be visible out of context. At the same time, this situated knowledge remains mediated by the researcher. Stemming from much debate about the relationship between the "observer and the observed" (Marvasti, 2013, p. 355), ethnographic researchers have increasingly adopted self-reflexive attitudes toward their positions in the field (Madison, 2005). These approaches advocate for transparency about the researcher's influence on the study. Along with recording observations about the external world, researchers reflect on their internal experiences of the situations that they are researching (Lofland, 2004).

I draw on multispecies engagements (Kirksey & Helmreich, 2010) with "critical ethnography", which go beyond reporting on culture, and seek to uncover inequities in sociocultural and ecological arrangements (Madison, 2005). Rather than accepting the practices of everyday life as "natural or inevitable", critical ethnographers reveal the mechanisms that "accomplish that sense of naturalness" (Machin, 2002, p. 1) in the interest of transforming these dynamics.

I selected Loblaws and No Frills as the stores in which I would carry out my observations, given that the two banners provided opportunities for me to observe differing store designs while remaining focused on common spaces in which people shop. Loblaw Companies Limited operates food retail banners under three divisions: Hard Discount stores concentrate on value; Market locations feature specialized products and amenities; and the Shoppers Drug Mart division includes drug stores and other health services (Loblaw Companies Limited, 2023b). While stores that operate under the Shoppers Drug Mart banner offer food products, I limited my fieldwork locations to conventional grocery stores. No Frills and Loblaws are the most common locations in Toronto under Loblaw's Hard Discount and Market divisions.

In the summer of 2016, I searched the "Store Locator" functions on the Loblaws and No Frills websites with the key term "Toronto"; my search returned 17 No Frills and 18 Loblaws. I visited all 35 stores between the summer and fall of 2016, along with one additional Loblaws location that opened during that time. In preparing for the visits, I followed Twine's (2012) recommendation to make use of company websites as generative sources of data for tracing the relationships involved in animal agriculture. I used the key term "beef" to search the products on the Loblaws and No Frills websites. After surveying

the results, I sorted the available products into six categories: meat, deli, grocery, frozen, pet food, and veal. Arranging the results by "most popular", I selected the top five products in each category to create a kind of shopping list for my store visits (see Appendix A).[75] I used the list to mimic a beef-focused shopping trip by organizing my movements through the stores with to the intention to observe the selected items, while remaining open to other surprises and impulses that caught my attention. Although I was removed from full participation, as I did not purchase beef for my own consumption during my visits, I adopted "active membership" in the field by reflecting on my personal responses to the shopping environments (Adler & Adler, 1987, p. 50). In addition to observing beef products in situ, I made general observations and field notes about my overall impressions of the stores, including the stores' locations in the urban landscape, the in-store atmospheres (music, smells, colours, etc.), and the activities of other shoppers. I also drew floor plans of the stores, making note of the various services available at each location.

I adopted an observational stance that was closer to "complete membership" (Adler & Adler, 1987, p. 67) in the field when I participated in several in-store events that were presented as part of Loblaw's promotional campaign *Taste the New Next*. This campaign highlighted five emerging consumer trends in 2017: The New Conscious Consumer, The New Mindful Foodie, The New Home Chef, The New Connected Shopper, and The New Canadian Cuisine (Loblaw Companies Limited, 2016). In addition to featuring promotional signage and displays, the campaign included themed demonstrations and workshops that corresponded to each of these trends. I explored an interactive sustainable protein exhibit

[75] Popularity may not indicate the products that people buy most frequently, as the algorithms on these search functions may be set up to prefer store brands.

and attended an insect cooking demonstration, both part of the "Serve the World" series on sustainable eating; I joined in on two demonstrations on seasonal and fusion cooking respectively, included in the "From Far & Wide" series on Canadian cuisine; and I participated in a plating workshop, which was offered in the "Home Chefs Unite" series on do-it-yourself cooking and hosting. These events offered indications of how Loblaw positions beef consumption as part of the future of grocery shopping.

To experience supermarkets as sites that change over time, I selected three Loblaws stores and three No Frills stores in the east, west, and central areas of the city, and I returned to each of these locations twice in the fall of 2017. While remaining open to new general impressions, I followed an inductive process of concentrating my observations on specific store elements that emerged as significant in data from field notes, interviews, and focus groups (which are discussed below). Given that interview and focus group participants generally associated the practice of beef shopping with the fresh meat department, I focused my second round of observations on this section of the stores. While my observations did not take the form of quantifiable details, I created an observational guide, which directed my attention to the arrangement and availability of beef products, descriptions of beef sourcing, and comparisons between beef and other meat sections (see Appendix B).

In addition to these store visits, I applied an ethnographic approach to my participation in two meetings: the Semi-Annual Meeting of the Canadian Roundtable for Sustainable Beef (CRSB) that was held on April 12 and 13, 2017 in Guelph, Ontario; and a "Community Networking Event" called "Facilitating a Healthy, Well-Connected Community" that was held on November 30, 2017 at the Community Idea Centre in Toronto.

As referenced in Chapter 1, the CRSB is a multistakeholder initiative that works "to make continual progress in the sustainability of beef production in Canada" (CRSB, 2024a, para. 1). As a founding member of the organization, Loblaw has taken a leadership role in developing the Certified Sustainable Beef Framework, which was launched in December of 2017 (Loblaw Companies Limited, 2017). I attended the meeting as an observer.[76] As beta testing of the Certified Sustainable Beef Framework had been recently completed, the Semi-Annual meeting focused on topics including refinement of the framework's sustainability indicators, the logistics of implementing sustainability verification, and the promotion of sustainable beef to the public. While I did not vote on CRSB business, I was invited to participate in breakout sessions that would guide the direction of future CRSB activities.

Open to the public between 2017 and 2018, The Community Idea Centre was a space for consulting with the neighbourhood about a proposed development project headed by Loblaw's real estate arm, Choice Properties Real Estate Investment Trust (REIT). While the event was designed as a networking opportunity between project participants and resident associations, business improvement associations, and community members, it also included an informal presentation and question-and-answer session with a project manager. This discussion encompassed queries, concerns, and commentaries about how the project would be designed to meet the needs of families and businesses, from affordability and accessibility requirements to shopping options.

[76] According to the CRSB bylaws (2015): "Non-members may attend the General Assembly meetings as observers at the discretion of the Council" (p. 4). Observers are defined as "specialized individuals that have specific expertise in the various fields pertaining to sustainable beef production that the CRSB Council has invited to the Roundtable" (p. 3).

Supplementing my experiences in stores, my participation in these meetings provided insight into higher-level discussions and policies that inform everyday shopping practices,[77] along with a glimpse into the practices of community consultation that influence the company's stances on matters of public interest. I analyzed my observations on these activities in conjunction with data that I sourced more directly from beef shopping participants.

Interviews

In addition to the information I encountered at the CRSB meeting, I mapped food retail industry opinions on beef consumption by including the situated perspectives of Loblaw employees. I gathered these viewpoints through interviews with Loblaws store managers, No Frills franchise owners, a No Frills meat department supervisor, a current Loblaw executive, and a former Loblaw executive.

Interviews are conversations between researchers and selected subjects that aim to elicit information about a research topic (Berger, 2000). Like the relationship between the observer and the observed in fieldwork, the interactions between interviewers and interviewees have received significant scholarly attention. While some approaches conceive of interviews as a method of extracting information that has already been experienced and processed by members of a representative population, others emphasize the role of the relationship between the researcher and respondent as a unique research dynamic in

[77] My observations of the Semi-Annual Meeting are in accordance with CRSB (2015) bylaws: "Discussions of the closed sessions of the CRSB Roundtable are held under the 'Chatham House Rules' whereby participants are free to use the information received and discussed, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed, except with consent" (p. 4).

which new information emerges (Brinkmann & Kvale, 2015; Mishler, 1991; H. J. Rubin & I. S. Rubin, 2005).

According to a dialogic approach, interviews take the form of embodied dialogues in which participants are affected by each other (Madison, 2005). In line with this perspective, my interview style was instructed by H. J. Rubin and I. S. Rubin's (2005) "responsive interviewing" (p. 30) techniques, which conceptualize interviewees "as partners rather than as objects of research" (p. 27) such that their responses guide the flow of the exchange. Rather than following a set list of research questions, I approached my interviews with store managers and owners by using a semi-structured interview guide (see Appendix C) in order to allow space for the surprises that respondents brought to the analysis while maintaining the critical goals that underlined the project (Berger, 2000). While I also adopted this approach for my interview with a retired Loblaw executive (see Appendix D), company policies dictated that I send in a list of questions to be approved before attending my interview with a current Loblaw executive (see Appendix E). As a result, this interview took a more structured form, even as my delivery remained conversational.

I first reached out to store managers and owners in November of 2017 by mailing letters to all 36 locations that I visited in person. These letters indicated the goals of the study and my interest in including store managers' and owners' perspectives on marketing, consumer behaviour, and sustainable food. I placed follow-up phone calls to the stores between November of 2016 and March of 2017, and I sent a second round of letters in January of 2017. After reaching several potential respondents by phone, I was able to schedule and to conduct interviews with three No Frills store owners and two Loblaws store managers between December of 2016 and January of 2017. In addition, a supervisor

of a No Frills meat department participated as a second respondent in the interview with one No Frills storeowner. Lasting for approximately 30 minutes, the interviews touched on: beef sourcing, stocking and presentation decisions, sales patterns and consumer demographics, waste, consumer feedback, and future directions for beef retailing (see Appendix C). While I was able to audio record one interview with a No Frills store owner and one interview with a Loblaws store manager, the four other respondents declined to be recorded. I took handwritten notes during all the interviews, and I transcribed the recorded discussions.

I was interested in interviewing industry participants as experts in their fields who could illuminate the operations of a specific company. Especially when the pool of respondents is limited, the literature suggests that a small number of expert interviews is appropriate (Baker & Edwards, 2012). While qualitative researchers often continue to collect data until new themes stop emerging, the saturation point for my interview sample was reached after I had been in contact with all store managers and owners from the 36 locations and had received declines or inconclusive replies to my interview requests.

Given the specialized nature of executive positions, the group of potential upper-level management respondents was even smaller and harder to access than store-level management. Although I was unsuccessful in reaching out to the company through email, I encountered at industry and academic meetings one current and one former Loblaw executive who were both involved in the marketing of sustainable proteins. I conducted interviews with these respondents in May and August of 2017. One interview lasted 30 minutes and the other took 90 minutes. The interviews included discussions of the role of retailers in building a sustainable food system, retailers' responses to changing consumers,

and predictions for the future of food retail and beef (see Appendices D and E). I took handwritten notes and audio recorded both interviews, and I transcribed the audio recordings.

As Carolan (2015) observes, critical academic studies on food have seldom featured industry participants.[78] Industry is notoriously difficult to access, and the field of critical food studies tends to concentrate on consumption and production. As such, the perspectives of eaters and farmers have received more attention than retailers in academic literature. Given the vital role that industry participants play as "taste makers" (Carolan, 2015, p. 318) both in the literal sense of making foods and in the figurative sense of influencing cultural norms, the inclusion of their situated perspectives in academic studies is essential, even though they are over-represented in other agri-food spheres (Canfield et al., 2021; Chandrasekaran et al., 2021).

Focus Groups

I worked with focus groups to map the situated perspectives of shoppers who respond to and reshape the configurations of beef consumption as defined by Loblaw. Focus groups are moderated conversations between groups of people about a specific topic, which are used by academics, politicians, marketers, and the media industry to learn about popular opinion on a variety of issues. First developed to study the effects of radio propaganda in the 1940s, the techniques of focus groups were applied to the field of marketing in the 1960s. Ascribing to a positivist framework, these early focus groups—or "focused

[78] Notable exceptions exist. See, for example, the UC AFTeR Project's work on food and ag tech sectors based in Silicon Valley (Guthman et al., 2023).

interviews"—were positioned as extensions of interviews in that they offered the opportunity to extract information quickly from large numbers of individuals (Kamberelis & Dimitriadis, 2013).

Critics have questioned the validity of focus group data, given that the opinions of individual focus group members are influenced by the responses of the other participants in the room. At the same time, this interdependence has come to be seen as a strength of the focus group method, according to paradigms that view the self as co-constituted with the environment. In the 1970s and 1980s, popular education and audience reception studies introduced a dialogical framework to focus groups, which valued social dynamics as a unique feature of the method. Rather than corrupting the integrity of the data from individual participants, the social organization of focus groups can encourage "'memory synergy'" (Kamberelis & Dimitriadis, 2013, p. 6), which prompts respondents to recall experiences that might not occur to them in individual interview settings. Furthermore, agreements and disagreements between participants illuminate the social processes that produce "unarticulated norms and normative assumptions" (Kamberelis & Dimitriadis, 2011, p. 559), and offer insight into how such standards might be changed. While focus groups do not faithfully reproduce the interactions that take place in "natural" settings, their "artificial" structure can reveal dynamics that are not accessible to researchers in the field. Macnaghten and Myers (2004) suggest: "focus groups work best for topics people could talk about to each other in their everyday lives—but don't" (p. 65). Focus group conversations on the little-discussed details of meat shopping routines offered a valuable complement to my observations of shoppers in stores, especially in terms of "the *hows* and *whys* behind" (Kamberelis & Dimitriadis, 2013, p. 40) the activities I witnessed.

I held four focus groups on four different dates at four branches of the Toronto Public Library during the summer of 2017. While recommendations vary depending on the goals of the study in question, the literature indicates that three to six focus groups are needed to produce enough data to encompass the majority of themes that will emerge in the research. Guest et al.'s (2017) empirical study of focus groups demonstrates that thematic data saturation plateaus around four focus groups. To accommodate as many potential participants' plans as possible, I scheduled groups on different days of the week in multiple neighbourhoods. While I selected predominately evening times to account for standard work hours, I also included an afternoon time slot to capture non-traditional schedules. Recognizing that university spaces can carry associations of elitism, publicly accessible facilities like libraries are recommended as locations for community-based focus groups to increase the comfort of participants (Fern, 2001).

To produce the dynamic social quality of the focus group while affording all subjects space to speak, the literature suggests that focus groups include approximately eight participants who have a common experience (Guest et al., 2017; Macnaughten & Myers, 2004). Accounting for the likelihood of absences, I scheduled ten participants for each group in the interest of aiming for approximately eight. To fit within the parameters of my case study, I determined six eligibility requirements for focus group participants. I selected participants who:

- Shop for beef at Loblaws and/or No Frills (at least once in the past two months)
- Shop for beef regularly (once a month or more)
- Have responsibility as a primary or equal grocery shopper in their household
- Shop in Toronto

- Are over 18 years of age
- Have attended two or less focus groups.[79]

Using Google Forms, I created a screener (see Appendix F) that included required questions to determine participants' suitability in relation to the above eligibility criteria, along with optional questions about demographic characteristics. I used this additional information to select a mix of participants in terms of genders, ethnicities, household compositions, incomes, and neighbourhoods of residence.

To recruit participants, I created posters and flyers for digital and hard copy distribution using the graphic design software Canva. Concentrating especially on the catchment areas surrounding No Frills and Loblaws stores, I distributed posters and flyers in visible locations around the city, such as community centres, community message boards, cafes, libraries, and student centres. In addition, I posted digital classified notices in the "community volunteers" sections of Craigslist and Kijiji Toronto. As the participants would not be drawn from a particular group of people who would be eager to share their opinions on a specialized topic, I decided that an additional monetary incentive would be necessary to encourage participation, especially in terms of inciting interest from shoppers who might otherwise be hesitant to participate (e.g., low-income shoppers). Considering that all the participants would be supermarket shoppers, I determined that a grocery gift card would be of use to them.

Based on the data I gathered from the screener, I organized eligible participants into potential groups based on availability, demographic diversity, and store patronage. I

[79] This requirement was an attempt to filter out professional focus group respondents who regularly participate in focus group studies and whose familiarity with focus group structures may take away from the conversational aspects of the discussion.

organized one group of people who all indicated that they shopped at Loblaws in the last two months (Group 2), and one group of people who included No Frills as a location in which they shopped in the last two months (Group 4); the remaining two groups were composed of participants who had selected either No Frills or Loblaws as a store in which they had shopped in the last two months (Group 1 and Group 3). In the end, seven participants took part in the first group; nine participants attended the second and third sessions; and eight participants showed up to the fourth group (See Appendix G for the demographic characteristics of each group).

Based on a set of key research questions, I developed a guide for moderating the focus groups (See Appendix H). Rather than asking theoretical questions directly, I included prompts that would allow participants to discuss these issues by reflecting on experiences that they might encounter in their daily lives. The group discussions covered personal associations with beef, valued store and product characteristics, and knowledge and opinions on the beef and food retail industries. Overall, I structured the guide with the intention to ascertain the extent to which participants feel connected to other actors when they shop in supermarkets, and the extent to which these (dis)connections factor into their shopping decisions.

While industry studies generally hire outside moderators to run focus groups, I moderated the groups myself, recognizing that academic focus groups tend to require that moderators have specialized theoretical knowledge (Fern, 2001). Moreover, budgetary constraints prevented me from making use of the services of a professional marketing agency. Instead of detracting from the quality of the focus groups, however, my direct participation as a moderator aligned with the dialogical approach of the broader study.

Rather than working with predetermined directives, I was able to respond in the moment to allow participants to guide the direction of conversations. All groups were audio recorded, which allowed me to participate in organizing the conversations, and to return to them for further analysis after I transcribed the audio recordings.

Data Analysis

I analyzed the empirical data I collected from archives, observations, interviews, and focus groups to examine the (un)ethical relationships that form through beef shopping at Loblaw's supermarkets. To select from the diverse participants involved in beef shopping a set of notable actors whose relationships would illustrate supermarkets' roles in mediating beef ethics, I surveyed food literature and determined four groups whose interests are regularly addressed in definitions of ethical food (e.g., Lang, 2010; Mason & Lang, 2017; Sage, 2012). They are listed in Mepham's (1996) "Ethical Matrix" as: treated organisms, producers, consumers, and biota (p. 106). Applying these categories to the relationships of beef shopping, I identified four sets of actors on whom to focus my analysis: animals,[80] workers,[81] eaters,[82] and environments.[83] In making analytical distinctions, I recognized that the selected actors are neither the only participants in beef consumption nor are the divisions between them impermeable (according to the ethico-onto-epistemologies that

[80] While plants, fungi, and microorganisms are also intimately involved in beef production, I focus here on animals (specifically cattle) as central actors around whom these other organisms coalesce.
[81] Nonhuman animals have also been classified as workers in relation to the diverse services they provide to humans and ecosystems (Coulter, 2016), but my analysis focuses on human workers specifically.
[82] While various organisms eat and eat in concert with various microorganisms (Hey, 2023), I concentrate my analysis on human eaters.
[83] Recognizing that the previous three groups of ethical actors are part of environments, I use the term to signify lands, waters, and airs.

inform my work, as referenced in Chapter 3, the analysis of actors is always already an analysis of relationships).

I employed "applied thematic analysis" as the central framework for organizing the empirical data. As defined by Guest et al. (2012), "applied thematic analysis" is a practically grounded approach to analysis that examines data to find significant themes, which are topics that recur throughout data sets. To identify themes, scholars search for patterns in data that relate to analytic objectives. These occurrences are translated into codes, which are applied to the data to help researchers to interpret the meanings of specific examples and overall data sets (see Appendix I).

Stemming from the study's overall intention to explore the extent to which Canadian supermarkets promote ethical beef consumption, the analytic objectives with which I approached data interpretation were informed by the study's theoretical grounding in media ecology, which explores the relationships between actors and environments as co-creative rather than deterministic. First, I examined empirical data to establish the normalized configurations into which Loblaw's beef shopping participants are currently arranged. Next, I assessed how these arrangements enable and/or constrain ethical responsibility between the actors involved in beef shopping.

My approach to coding was grounded in the techniques of critical discourse analysis. Critical discourse analysis considers the ways in which language and communication inform and reinforce the sets of assumptions that make up the values, structures, and systems of the status quo. Rather than a set of methodological rules with which to interpret a text, critical discourse analysis offers a perspective on reading texts as discursive events that simultaneously shape and are shaped by their contexts; analyses look at how

communications become meaningful within environments and how surrounding environments also shift in response to actors' communications (Willig, 2013; Wodak, 2004). It is thus an appropriate methodology to match with media ecology theories, as both approaches explore the mutually constitutive relationships between self and world.

I adopted this analytic attitude to explore textual data, including promotional materials, labels, signage, and transcribed exchanges with workers and shoppers. As the "discourse interpretation" (A. Bell, 2011, p. 520) framework does not limit "texts" to written words and verbal utterances, I also used this perspective to analyze the images, sensations, and architectural spaces that I encountered in my empirical research, including archival photographs, drawings, and audio recordings, as well as notes and sketches about the sensory information I gathered in the field (Banks, 2007; G. Rose, 2001).

I created codebooks for each set of data: archives, observations, interviews, and focus groups. Codebooks are used to sort "the observed meaning in the text…into categories, types, and relationships of meaning" (Guest et al., 2012, p. 52). Along with a list of codes, codebooks typically include definitions of the codes and sets of criteria that indicate the circumstances under which each code should be applied to the text. These codes are generated through iterative processes of reading and rereading the data for patterns of meaning.

I generated codes to describe the appearances of animals, eaters, workers, and environments in each set of data. Comparisons between data sets demonstrated how ethical relationships between actors are shaped by the mediating functions of supermarkets in their multiple roles as institutional distributors, branded venues, and extrasensory mediums. While interview data demonstrated Loblaw's position as a

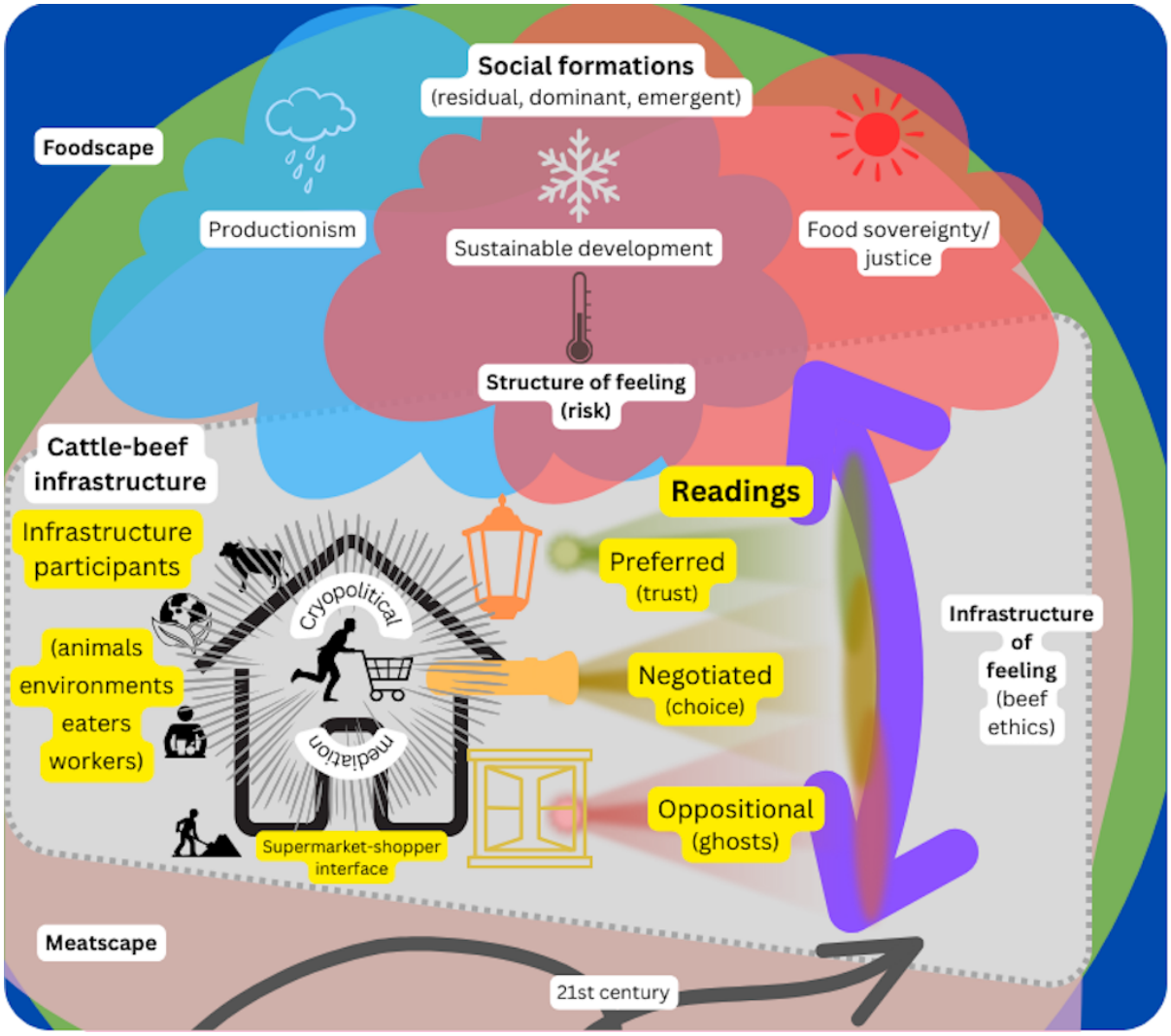
regulator of beef shopping, for instance, focus group data revealed how these intentions were taken up by shoppers in practice.

I used the qualitative data analysis software QDA Miner Lite to organize the empirical data and corresponding codebooks. Supporting the analysis of text- and image-based data, this software allows codes to be defined and applied to selections of text and portions of images. Data can then be sorted by individual codes or code groupings.

After I coded the data according to how each type of actor appeared in each data set, I examined the empirical data as a whole to determine broad themes about the interactions between supermarkets and beef shoppers in terms of the implications that these mediated dynamics have for other actors involved in beef consumption (see Figure 3). Emerging across coded data sets, three central themes—trust, choice, ghosts—illustrate Loblaw's tendencies as a cryopolitical mediator (as described in Chapter 1), which organizes via the supermarket-shopper interface connections between lives and deaths in the cattle-beef infrastructure according to an ethic of freshness that circulates through the intersecting infrastructure of feeling. The three themes display divergent interpretations of Loblaw's capacity to address ethically the overarching structure of feeling of risk in which the cattle-beef infrastructure is situated. Organized with the guidance of Hall's (1973) audience reception model on preferred, negotiated, and oppositional readings, the themes are explored as the central topics of the following three chapters.

Figure 3

Interpretations of beef ethics as an infrastructure of feeling



Note: This zoomed-in selection from Figure 1 depicts the key components and themes of the dissertation's data analysis. By examining how supermarkets organize through cryopolitical mediation the relationships that take shape at the supermarket-shopper interface with and between the cattle-beef infrastructure's participants, I found different interpretations of the ethics of these processes that I grouped into three major themes (trust, choice, ghosts). These readings are presented as different light sources. As one uses the different light sources to examine beef ethics, the infrastructure of feeling is bathed in overlapping tints that illuminates its various aspects.

First, the chapter on trust examines how beef shopping reinforces relationships that position Loblaw as ethical and trustworthy. Second, the chapter on choice considers the ways in which ethical tensions of beef consumption are reconciled through relationships that separate shoppers from structural contexts and present ethical issues as individual

choices. Third, the chapter on ghosts explores moments when unaddressed aspects of ethical relationships trouble the routines of beef shopping. Summarizing the ethic of freshness as the central infrastructure of feeling with which these interpretations engage, the concluding chapter proposes an ethic of decay that might include the ghosts of supermarkets in dialogical processes of building more ethical food systems.

Chapter 5: Trust

"We believe that companies like ours should take a leadership role, and that by doing so we will continue to earn the trust of our customers and contribute towards a thriving Canadian society, both today and for generations to come" (Weston as cited in Loblaw Companies Limited, 2019b, p. 5).

"Do not worry"

Within a week of the World Health Organization (WHO) declaring COVID-19 a global pandemic, Loblaw issued the following statement from the company's executive chairman and then-president, Galen Weston Jr.:

> Those who went shopping recently will have seen extraordinary numbers of people in stores, long lines, and aisles empty of product. This was a result of extreme levels of buying as millions of Canadians stocked up their kitchens and medicine cabinets. I'm sure the many photos of bare shelves on social media only increased your level of concern.
>
> First and foremost. Do not worry. (Loblaw Companies Limited, 2020b, paras. 3–4)

Repeating this three-word affirmation, Weston promised that food would remain accessible in Loblaw's stores throughout the crisis. He also called on readers to do their part to protect the health of fellow shoppers and Loblaw staff members.

By the end of 2020, trust in the Canadian food system was at "an all-time high" (p. 6) according to results from the annual public trust research conducted by nonprofit organization Canadian Centre for Food Integrity (CCFI).[84] While the CCFI interprets these findings as evidence of the Canadian food industry's success in handling the challenges of

[84] Notably, Loblaw joined the CCFI as a member in January 2024 (CCFI, 2024).

the pandemic, I suggest that public trust is not a reliable indicator of an ethical food system that supports public wellbeing. As a metric of business performance, public trust invokes a particular and limited imaginary of the public (Biltekoff & Guthman, 2022). In keeping with a vision of social obligation that has been at the heart of social contract theory since Locke (1689/1980), this imaginary public is made up of a collection of rational, moral individuals who observe social rules like refraining from stockpiling and/or stealing goods with the understanding that such actions would interfere with others' abilities to obtain provisions. When this imaginary public patronizes a company, it does so with the confidence that the company has put measures in place to ensure that everyone abides by such norms, and it revokes support if the company fails to maintain these standards.

On the surface, shoppers who are part of this imaginary public would choose to adhere to Weston's requests because they are, as Weston references, "kind" (Loblaw Companies Limited, 2020b, para. 16) and, as was a frequent pandemic refrain, "in this together." And yet, in the contexts of global capitalist food provisioning, individuals are only empowered to make such choices because of hierarchical distributions of risks (Beck, 1986/1992). Readers could choose to follow Weston's instructions only if they were in the fortunate position of having supplies at home and/or reliable access to other avenues to meet their needs. In short, the trust between Loblaw and the public is premised on a decontextualized version of social responsibility whereby companies protect the freedoms of a privileged section of society and this segment of the public supports these companies in kind. To perform as a trustworthy member of the public, one must have the privilege to act as if one is self-sufficient. In turn, companies garner support from this constructed trustworthy public if they facilitate continued fantasies of individual autonomy.

Presenting the theme of trust as it appeared in my case study data, this chapter investigates how confidence is established in Canada's dominant cattle-beef infrastructure via Loblaw's practices of cryopolitical mediation. After a review of the literature on risk and social contracts, I identify social licensing as a key strategy of neoliberal risk management that Loblaw employs. Referencing a state of ongoing public acceptance of an entity's operations, social license to operate (or social license) is valued in a neoliberal context as it enables companies to operate without significant external regulation. In the case of Loblaw's interactions with the cattle-beef infrastructure in a climate of risk, a social license results from a "preferred" reading of cryopolitical mediation (Hall, 1973), which perceives an appropriate alignment between the death of cattle, the abatement of decay, and the continued sustenance of human lives. Exploring the ways in which practices of mediated beef shopping might allow for such an interpretation, my research indicates that Loblaw establishes itself as a trustworthy partner in responsible beef consumption through its positions as a neighbourhood tastemaker, Canadian company, and wellness authority. I argue that ethical beef consumption is increasingly defined by ideals that emerge out of positive feedback loops of manufactured trust between Loblaw and select groups of shoppers.

Risk Communication and Manufactured Trust

After a bumper year for public trust in 2020, the CCFI's 2021 research found "an eight point drop in those who feel the food system is headed in the right direction" (p. 6) from

47% to 39% of respondents.[85] Pointing to a context of "information overload", the CCFI emphasizes that the decrease was not illustrative of a parallel increase in people who felt that the food system is going in the "Wrong Direction", but rather a shift toward the "'Don't Know' category" (p. 6): "Respondents do not feel they can confidently say that the food system is moving in the right or wrong direction because they simply don't know what information to trust" (p. 7).

Hesitancy about the trustworthiness of the Canadian food system is embedded in the overall context of global risk society and its associated structure of feeling (Beck, 2007/2009). Creating cracks in the liberal imaginary of the public, contemporary risks challenge individuals' abilities to determine how to act in their own interests without harming others. As was highlighted by the bovine spongiform encephalopathy (BSE) crisis (discussed in Chapter 2), the personal and collective risks of eating beef are unpredictable and widespread. Levenstein (2012) summarizes: "Repeated reports of frightening deaths and illnesses brought home the fact that the modern beef production industry had suddenly turned the ever-popular hamburger into a random killer" (p. 53).

As outlined in Chapter 1, more risks have glommed onto practices of eating beef since the 1990s, including the fact of increased rates of cancer and other noncommunicable diseases to which beef consumption is linked, as well as the more indirect repercussions of climate change and other forms of environmental devastation to which beef production contributes (FAO & WHO, 2019; Willett et al., 2019). Indeed, the risks of the COVID-19 pandemic can also be associated with beef because the beef industry is a key part of a

[85] The CCFI's subsequent research recorded another drop to 33% of respondents in 2022 (CCFI, 2022) and 34% in 2023 (CCFI, 2023).

global agri-food system that has destroyed the biodiversity of natural habitats and brought humans in closer proximity to pathogens carried by displaced wild animals (Wallace, 2020).

The uncertainty of eating is not new given humans' biological history as opportunistic omnivores who may encounter unsafe substances in their foraging and hunting (Levenstein, 2012), but the ability of food system authorities to provide veneers of certainty is collapsing in a novel way for foodways organized by the Western epistemology (Beck, 2007/2009; Koç, 2015). In their post-Aristotelian iterations, these foodways found certainty in natural law as prescribed by religious authorities (M. Harris, 1987; Zwart, 2000), while scientific expertise, health and safety regulations, and the unbiased free market provided similar assurances in modern contexts (Dixon, 2003; Scrinis, 2008). In risk society, however, the same modern institutions that promised order have become sources of increased disorder (J. J. Yates, 2003). Whereas the big meatpackers of the mid-20th century declared that centralized processing would lead to heightened safety, for instance, the scale of subsequent consolidation in the industry has introduced new, increasingly uncontainable risks as the bodies of hundreds of cattle are ground together and shipped all over the world (Specht, 2019).

Under these circumstances, the locus of power in the cattle-beef infrastructure centres on not only the control of physical property, but also the management of definitions and perceptions of risk (discussed in Chapter 1 as the "relations of definition"; Beck, 2007/2009, p. 32). When BSE materialized as a new physical infection, it also emerged as a risk that was experienced differently in various contexts. While beef consumption declined dramatically in Japan and Germany, for instance, this reduction was temporary in the

United States (Kuchler & Tegene, 2006, 2007) and demand actually increased in Canada after domestic cases of BSE were discovered (Blue, 2009). In addition to factors including distinct cultural eating habits and the variable disease prevalence in domestic herds, researchers argue that differing strategies of risk communication accounted for divergent consumer behaviours across the affected countries (Blue, 2009; Leiss, 2004). In Canada, for example, promotional activities that emphasized a romantic image of small-scale ranching combined with media reports' presentation of BSE as "more [of] a trade concern than a public health issue" (Blue, 2009, p. 233) to create a climate of support for the country's beef industry.

As risks become real through communication, they signal ethical boundaries according to which security is distributed. Linking risk communication with ethics, Beck stresses: "It is the question of who, with what legal and intellectual resources, gets to decide what counts as a 'risk,' what counts as a 'cause,' and what counts as a 'cost'" (as cited in J. J. Yates, 2003, question 5). While the material repercussions of large-scale risks (e.g., climate change) will eventually affect everyone, those who have power over the "relations of definition" are able to massage the levels of protection that different actors experience as risks unfold.

As explained in Chapters 1 and 2, supermarkets have gained influence over the staging of risks through their positions as mediators of the dominant cattle-beef infrastructure. Unlike their slaughterhouse counterparts discussed in Chapter 2, supermarkets are public-facing institutions. As "points of connection between lay individuals" (i.e., shoppers) and the "abstract systems" (i.e., the cattle-beef infrastructure) on which these people rely, supermarkets are "access points" (p. 88) in Giddens' (1990) terminology where trust can be

both lost and gained. Supermarkets are therefore essential infrastructural intersections that maintain and/or disturb current structures of power and associated risk distribution patterns.

Richards et al. (2011) argue that supermarkets engage in "trust manufacturing" through private certification programs and similar marketing tactics that attach trust to commodities as an added value to be "sold alongside other product characteristics" (p. 34). Connecting this perspective to Herman and Chomsky's (1988/2002) analysis of the media (in the sense of communication institutions) via an understanding of supermarkets as media environments, I argue that supermarkets "manufacture consent" for the existing arrangements of the dominant cattle-beef infrastructure. While the apparent function of the media in a democratic society is to uncover and to report matters of public interest in ways that check the power of governing authorities, Herman and Chomsky claim that the media in fact "serve, and propagandize on behalf of the powerful societal interests that control and finance them" (p. xi). Instead of offering dialogue between governing authorities and the public, the information channels of the media are oriented toward gaining public consent for the governing decisions of those in power. Similarly, although supermarkets are allegedly spaces for members of the public to participate democratically in the food system by casting a "vote" via their purchases, this participation is organized to secure consent for the risk management strategies of dominant food infrastructures.

Unlike the unidirectional flow that Herman and Chomsky (1988/2002) ascribe to the movement of information from those in power through media "filters" to the public, however, I observe that the communication processes of foodscapes are made up of multidirectional circuits of information in which supermarkets intervene. Values are not

imposed on the public by governing authorities, but rather they are emergent from the concerns of global risk society, which members of the public are involved in articulating. As discussed in Chapter 3, a central risk that directs contemporary food systems governance is the prospect of maintaining food security—and particularly protein security—for a growing population.

Preferred Readings and Social Licensing

The intersections between the risks of beef consumption and food security must be staged in a particular way if current infrastructural arrangements are to remain valid. Leveraging their roles as "access points" (Giddens, 1990, p. 88) through which individuals experience food systems, supermarkets emphasize the congruencies between the practices of the dominant cattle-beef infrastructure and the values of trusted members of the public. A "preferred" reading (Hall, 1973) of this alignment concludes that the cattle-beef infrastructure is a source of security against risks: Supermarkets are well positioned to deliver ethical beef to ethical eaters now and in the future. In business terminology, this interpretation is reflective of supermarkets' social license to operate.

Defined as "an informal agreement that is granted by communities and relevant stakeholders to an organization or industry working in the local area" (Rooney et al., 2014, p. 209), a social license ostensibly signifies that the public trusts a particular company and consents to the procedures that the company has put in place to manage risk. According to the CCFI (2016), the public uses social licensing to regulate food industry actors by extending or withholding trust. Whereas social license earned from public trust involves "the privilege of operating with minimal formalized restriction" (p. 5), when public trust is

lost, “social license is replaced with social control”, which the CCFI defines as “regulation, legislation, litigation or market demands designed to compel the organization to perform to the expectations of its stakeholders” (p. 6; stakeholders are other entities affected by the actions of the organization). Working to re-establish certainty under evolving conditions of risk (Beck, 2007/2009), a social license thus operates as a neoliberal version of a social contract, in that private companies take the place of governments as entities that are supposed to protect members of the public in exchange for adherence to social norms.

In the Lockean models of the social contract that are at the basis of liberal democracies, autonomous individuals choose to enter into contractual relations with one another out of mutual interest; to ensure that fundamental freedoms are not impinged upon, they consent to be regulated by a government that can be replaced as necessary (Locke, 1689/1980). Likewise, eaters in risk society secure protections against potential consequences of risks by giving experts social license to manage risks on behalf of the public (Beck, 2007/2009; Giddens, 1999). After the outbreak of BSE in Canada, for instance, the beef industry retained a social license from a large slice of the Canadian public who trusted that the industry had put measures in place to track and to eliminate contaminated beef from the country’s food supply (Blue, 2009). As critical theorists have pointed out, however, the validity of the social contract as a model for stable governance rests on divisions that cohere the concerns of certain groups according to class, gender, race, and other forms of distinction; when a group in power elects a government, their interests come to stand in for the will of the public as a whole (Held, 1993; Macpherson, 1973; C. Mills, 1997). Similarly, the legitimacy of social licensing is premised on conflating “public trust” with the interests of a specific segment of the population that benefits equally from industry plans for risk

distribution. Implying that the public shares a common set of ethical standards, for instance, the CCFI (2016) defines "public trust" as "a belief that activities are consistent with social expectations and the values of the community and other stakeholders" (p. 5).

Industry practices of "stakeholder mapping" illustrate how this public is constructed. Business scholars Johnson, Scholes, and Whittington (2008) recommend the "power/interest matrix" as a tool for "classifying stakeholders in relation to the power they hold and the extent to which they are likely to show interest in supporting or opposing a particular strategy" (p. 156). In other words, stakeholders with the most power and the most interest are the individuals and/or groups on whom companies should focus their attention during the "stakeholder engagement" processes through which they gather a collection of perspectives to inform their activities (i.e., "materiality assessments"). Conducted in 2021, Loblaw's most recent materiality assessment charts where issues (e.g., climate change and emissions, responsible sourcing, food access, etc.) sit on the intersection between the axes of "impact on business" and "importance to stakeholders" (Loblaw Companies Limited, 2023a, p. 8). The company uses the results of these evaluations to guide its risk management priorities.

In theory, the concept of social license implies that the public has regulatory power over companies. In practice, social license is achieved when a company has effectively prioritized certain stakeholders to avoid regulation from a wider swath of the public. I observe that empowered food industry actors concentrate social licensing efforts on aligning their activities with the values of individuals who have established "trust capital" (Grudzewski et al., 2008, p. 20). Bringing a critical perspective to this business concept, I build on Bourdieu's (1979/1984) sociocultural extension of Marxist economic capital to define trust

capital as the accumulated resources that contribute to the trustworthiness of an entity (i.e., a person, organization, business, etc.), which thereby elevate the entity's position of societal influence.

In risk society, one accrues more trust capital if one is socially and economically secure. Trustworthy shoppers are those who can afford to "purchase safety" and security from retailers by buying premium products (Beck, 1986/1992, p. 35). These shoppers can also concentrate their capital elsewhere if they are dissatisfied with a particular retailer's offerings (Parsons & Moffat, 2014). Given that food is an essential part of life, shoppers with fewer resources often have little choice but to continue to support practices that involve greater degrees of risk for themselves and the socio-ecologies in which they are embedded. As Charlebois (2016b) summarizes: "The haves can afford to recognize market failures and social licensing breaches… However, the have-nots are often forgotten. For them food is essentially a question of survival and the quest for a social license by industry is inconsequential" (paras. 11–12). While shoppers with disposable income can boycott certain stores or products based on criteria like environmental responsibility or fair labour practices, other shoppers must base shopping decisions mostly on price if they want to have food to eat.

These strategies siphon the most valuable shoppers toward supermarkets while perpetuating the illusion that the marketplace affords everyone equal opportunities. In a particularly brazen illustration of this pattern of preferential treatment, which is worth quoting at length, management consultant James Lam (2014) outlines recommendations for how companies should handle customers as part of "stakeholder management":

> Good customer management does not mean that a company should attempt to obtain *all* possible customers in an effort to maximize revenues. Rather, companies need to identify and retain the *right* customers, who will help the company to increase its overall profitability, and not necessarily total revenues.
>
> Consider a supermarket chain—at first sight a volume business, if ever there was one, which makes winning customers seem all-important. However, not every customer is profitable to the store. In fact, even customers who buy a great deal are not profitable if they "cherry-pick"—seek out deeply discounted items. The supermarket doesn't particularly want to retain these customers' business and so it might, for example, increase its range of luxury goods to attract shoppers who do not mind paying a premium, and scale back discounting campaigns. (p. 162)[86]

The process of securing social license is thus dependent on catering to the beliefs, interests, and capacities of a small slice of society. Rather than providing a mechanism for collaborative policymaking between the public and industry, social licensing offers opportunities for "reflexive regulation" wherein a company regulates itself in the interest of evading the obstacles that may emerge from public consultation or government policy (Matten, 2004, p. 384). Further entrenching existing power relations, the accountability between industry actors and the privileged stakeholders that grant social license is premised on maintaining the trust capital of these groups by disengaging them from their relationships with the broader public.

[86] In the context of post-COVID inflation, however, companies like Loblaw have turned attention to their discount divisions (Saba, 2024d).

Loblaw's Trusted Identities

The remainder of the chapter draws on my case study research to explore how trust is manufactured between Loblaw and the shoppers who are primed to perceive a preferred reading of Loblaw's cryopolitical mediation in the cattle-beef infrastructure (Hall, 1973). As discussed in Chapter 2, supermarkets play significant roles in coordinating the ways in which eaters encounter and form attachments to other actors across Canadian meatscapes. Beef shoppers are disembedded from reciprocal connections with the diverse people, organisms, and landscapes that nourish them, and they are re-placed into shopping environments that reorganize these relationships according to hierarchical distributions of security (Beck, 1986/1992; Loon, 2002).

On the surface, Loblaw calls forth an inclusive public by providing a forum for all eaters to engage with food system actors who have been distributed across space and time. Tacitly, the company curates access to these experiences by reinforcing hierarchies that maintain distinctions between shoppers and respected experts. Through this push and pull between connection and disconnection, Loblaw courts and shapes a trustworthy public that can add maximum trust capital to the brand.

I examine three adaptable identities that Loblaw takes on to create simultaneously relatable and aspirational appeals to shoppers with accumulated trust capital. First, Loblaw acts as a tastemaker that elevates the quality of food in the neighbourhood according to patriarchal family values. Second, Loblaw adopts colonial responsibilities as a Canadian company that supports the Canadian people and economy. Third, Loblaw offers advice as a wellness authority that promotes individualism as a guiding principle for responsible health choices. By maintaining these values and the respectability of the public that

supports them, Loblaw retains a social license to operate as a beef distributor, which shields the company and the cattle-beef infrastructure from government regulation and wider public scrutiny. As opposed to guaranteeing that the risks of beef are ethically distributed, manufactured public trust conceals the implicit hierarchies upon which this social licensing is based.[87]

Shopping for a Sunday Roast with a Neighbourhood Tastemaker

From "buying meats the Loblaw way" alongside the modern women of 1930s "meateterias" (Bradburn, 2019) to slathering PC Memories of Dad's Grill barbecue sauce on 21st century steaks (President's Choice [PC], 2003, p. 1), beef shopping at Loblaw's supermarkets has appealed to dominant family norms throughout the company's history. When supermarket chains gained popularity in the mid-20th century, they "bid…aggressively for the favor of the Canadian housewife" (Thomas, 1961, p. 3) by offering to take on the labour of food provisioning. At Loblaw's stores, shoppers collected Lucky Green Stamps with purchases and exchanged them for items from a dedicated catalogue. As journalist Alan Phillips (1960) describes, using the company's promotional words, the catalogue featured: "Full page spreads [that] show[ed] the housewife…'wonderful, wonderful gifts…absolutely free'" including "electric mixers, aluminum ware", and other

[87] Since I completed my case study research and drafted this chapter, a tide of ill will toward Loblaw has been growing in the Canadian public, culminating in a boycott, which is discussed briefly in Chapter 8. The findings in the chapter remain relevant as indications of how Loblaw built itself as a trusted brand. Expressing a desire to keep shoppers satisfied, Loblaw CEO Per Bank stated: "We don't have a contract with our customers. They can choose to shop elsewhere tomorrow, if they don't like the offer that we're giving" (as cited in Lord, 2024, para. 22). As this chapter demonstrates, however, Loblaw does hold a form of a contract with (some) shoppers, which it relies on for ethical legitimacy.

household gadgets to ease her workload and to wow her guests (para. 6).[88] Promising to alleviate further the hard work of impressing the neighbours and feeding the family, Loblaw later introduced a line of microwavable roasts in its promotional flyer, the *President's Choice Insider's Report*:

> Those of you who grew up with the microwave probably have no idea how long it took your mother and grandmother to prepare those wonderful Sunday meals!... Back in the '50s, television had three black and white channels and comfort food was a three-hour pot roast… Knowing that today most people don't have time to think about supper until late afternoon… new President's Choice Fully Cooked Roasts are ready in just 5 to 6 minutes!... They're so homey, tender and flavourful, you'll think they cooked for hours—and they did!! Just not on *your* stove!" (PC, 2001, p. 5)

The reproductive labour that Loblaw and home cooks perform together relies on the work of unacknowledged participants. As the promotion implies, the slow-cooked roasts still require stoves, even though the large-scale appliances that are used in industrial settings differ from the familiar apparatuses of a family kitchen. The flexibility and convenience of prepared foods depends on "commercial food labor", which tends to be undertaken by "women, people of color, immigrants, and working-class individuals" (Julier, 2013, p. 21). These same individuals are often painted as ineffective caregivers in relation to their own families, given that they do not have as many options for offloading reproductive labour (Cairns & Johnston, 2015b). In contrast to such "families who do not sit

[88] Encouraging shoppers to visit and to return to Loblaw's stores, Lucky Green Stamps can be considered a forerunner to Loblaw's PC Plus and PC Optimum loyalty programs. As in the Lucky Green Stamps program, shoppers collect points through the contemporary PC Optimum program that they can use toward purchases. Rather than accruing credit uniformly based on total store purchases, however, customers gather points according to how their purchases align with customized lists of products.

down to 'home-cooked' meals together" (Julier, 2013, p. 20), the middle-class, cis-heteronormative family is part of the trustworthy public that can help to establish Loblaw as a pillar of the community. Picking up on values that appeal to this demographic, Loblaw pledges to contribute to good homemaking by making domestic entertaining accessible—at least for the shoppers who rely on its curated products.

Loblaw's apparent commitment to communal caretaking is thus underpinned by a hierarchical cultivation of culinary tastes. At first glance, the whole neighbourhood seems to be welcomed into the Loblaw family. Former Loblaw president and "unlikely tastemaker to a nation" (Kingston, 2013, para. 1) Dave Nichol (1993) shares in his cookbook: "I've even persuaded my wife, Terri, to divulge some of the very special, never-before-revealed dishes that she lovingly prepares on special occasions for family and friends" (p. 19). At the same time, to gain access to the Loblaw family is to be part of an inner circle of good taste, which distinguishes one from others in the neighbourhood. *Dave Nichol's Insider's Report* reminds readers: "You are what you serve!!…If what you serve is mediocre and boring, your guests will spread the word that YOU'RE mediocre and boring!" (PC as cited in Kingston, 1994, p. 75).

Adopting the role of a neighbourhood tastemaker, Loblaw secures social license from trustworthy families by demonstrating and defining desirable hospitality in the following manner.

Unpretentious

To begin, Loblaw displays trendy but unpretentious tastes. Unlike the archetypical "Joneses" themselves who remain ever out of reach, Loblaw is akin to a fellow neighbour

with whom shoppers can gossip about the frivolous luxuries of the Joneses while secretly envying the family's status and style. In the brief for an advertising spot that accompanied the release of the 2001 holiday edition of the *President's Choice Insider's Report*, the wardrobe for the character "Mom" is described as "nice Wal-Mart" (Ammirati Puris, 2001, talent section). The phrase is an apt portrayal of the aesthetic that has maintained Loblaw's appeal as an accessible trendsetter. Nestled comfortably between the impersonal homogeneity of Walmart and the unattainable luxury of Whole Foods, Loblaw creates self-contained shopping neighbourhoods according to a middle-class imaginary.

Retired Loblaw executive Adrian describes his former role at the company in down-to-earth terms during our interview, despite his high-profile position: "I really regard myself as a shopkeeper more than anything else, trying to do the right thing." Loblaw has leveraged such an image of the honest, neighbourhood grocer to market Loblaw's executive chairman, former president, and billionaire Galen Weston Jr. as an approachable member of the community.[89] Weston was introduced as a spokesperson for the brand in a 2007 campaign that focused on corporate social responsibility (CSR), which sought to align Loblaw's image with growing public interest in companies that support the wellbeing of surrounding communities (Loblaw Companies Limited, 2007).

Weston's place in the neighbourhood was solidified in a 2011 campaign that featured "pop-up parties" in which he and passers-by conversed about the newest products from President's Choice. Initially, the parties were scripted, but after observing Weston's comfortable demeanor in front of the camera, the ad team decided to harness Weston's

[89] As inflation rose after the COVID-19 pandemic, the utility of Galen Weston as a company spokesperson faded, as the disjuncture between his everyman persona and the reality of his company and family fortunes became more glaring (P. Evans, 2023; Guadagnolo, 2023).

"greatest asset—his authenticity" (World Advertising Research Council [WARC], 2013, p. 4).[90] Through clouds of smoke from the grills placed temporarily at the corner of Queen and Bay Streets in Toronto, Weston invited the gathering crowd to sample burgers that he lightheartedly described as: "so good they're making me cry!" (p. 6).

Even after becoming Canada's largest grocery company, Loblaw has not lost touch with its roots according to Weston's statement in a CSR report:

> Through 100 years, Loblaw has always been a family business, and I am proud to be the third generation of my own family's leadership of a company that puts first the needs and well-being of Canadians. (Loblaw Companies Limited, 2019a, p. 4)

Effortless

Next, Loblaw models the duties of a good host (or more specifically, hostess). According to No Frills owner Ben, service is the value that distinguishes the store from its discount competitor Walmart, as he explained during our interview:

> I think for me, it comes down to people. The people that are in the store make the difference. So, if you shop my store on a weekly basis, and, you know, I'm providing great customer service, and you're comfortable talking to the people who are in the store, and it's a great environment when you're shopping. And you go into Walmart

[90] In an email to the team behind the advertising campaign for the holiday edition of the *President's Choice Insider's Report* in 2010, the director writes:

> We're starting to go through all the Galen stuff you recorded on set to make sure it's good… One thing I am certain of is that the "off camera" lines will never match his performance "on camera"—his deliveries are dynamically very different—he projects quite a bit more on camera than off camera. That said, I don't mind it—if we try and make it one continuous monologue I think it will feel too fake or slick and as a result, lose it's [*sic*] "real" quality. (Pirate Group Inc., 2010, para. 1)

> where it's a little bit more sterile, you may not find somebody on the sales floor when you're looking.

While catering to others is essential to hosting (and customer service), doing so must appear to be effortless and enjoyable. The ideal hostess appears in the *PC Insider's Report* in the form of the character Penny. With oven mitt-clad hands planted on her hips, Penny is introduced as: "Wife, mother of three, habitual volunteer" who has "the 20-Minute-to-the-Table dinner down to a fine art" (PC, 2002, p. 3). By using Loblaw products, Penny performs all her homemaking duties without appearing to break a sweat. Describing her typical Wednesday of volunteering, childcare, elder care, and errands, "Penny" reports:

> I'm so good at hustling away the packaging before my family gets home, they actually think I'm a real good cook… I open a bag of President's Choice Organics Baby Spinach, lift a loaf of PC Splendido Rustico bread from the freezer, pop four individual PC Meat Lasagna Pies into the microwave, shake up a bottle of PC Balsamic Vinaigrette, and then sit at the kitchen table reading a cookbook as the Lord of the Manor bursts through the door, looks at me and says, "Geez Penny, I thought you'd have dinner all ready."
>
> And I say, "Oh honey, it's ready. I was just planning for tomorrow night." (p. 3)

While the reference to aristocracy is tongue-in-cheek, the family roles in this scene correspond clearly to heteronormative distributions of labour. Similarly, a two-page spread of "Quick! Home Comforts" presents a series of family "scenarios" and accompanying PC meal "solutions" including PC Club Pack Penne Rigate with Meat Sauce for when "You forgot that it's your turn to feed your son's entire hockey team and they've just arrived an hour early" (PC, 1997, p. 17). The "you" toward whom PC directs the mealtime fixes is coded as

the maternal hostess who balances the demands of other members of the family. Depicted beside the other boys on the hockey team, a cartoon son shouts: "Mom…We're home!!" (p. 17), while on the opposite page, a woman enjoys a glass of wine in a bathtub beside a block of text that outlines a scenario for a rare night when "you're home alone" (p. 16).

As pre-prepared fresh foods have since then become trendier than frozen foods, Loblaw has introduced home meal replacements in delis, sushi stations, salad bars, and canteens, which allow shoppers to continue family mealtime customs without relying on industrially processed foods. The PC Chef meal kit delivery website proclaims: "We're on a mission to make dinnertime feel effortless. Our subscription-free meal kits simplify the planning and prep with pre-portioned ingredients and step-by-step instructions, so you have more time to eat together more often" (PC, 2021, About section).[91] Such arrangements prioritize the traditions of some families over others, as Naccarto and LeBesco (2012) observe:

> While meal assembly businesses and e-grocers allow middle-class consumers to continue seeing themselves as good citizens who "cook" and "shop" for their families, they do so by shifting much of the actual work to staff who remain largely invisible. (p. 15)

Tolerant

Finally, Loblaw exhibits a conditional form of tolerance by accommodating the diverse preferences of neighbourhood shoppers as guests in its stores. In keeping with the conceit of exploration around which the original *Trader Joe's Insider's Report* was organized, Loblaw has consistently translated global culinary traditions into products for white,

[91] The PC Chef service has been discontinued.

middle-class, Canadian consumers. By buying foodstuffs sourced from around the world, shoppers have participated in "kitchen table tourism" (G. Bell & Valentine, 1997, p. 202) wherein they are "transport[ed]…to any place in the world" (p. 20) through their meals, as Nichol (1993) boasts in his cookbook. Since the 1980s, the patriarchal role of Nichol as "Trader Dave" (an alias used in *Dave Nichol's Insider's Report*) has been dispersed throughout a team of product developers and transferred to shoppers themselves who create content for Loblaw's online platforms in the form of tagged social media posts.[92]

Although deriving trends from shoppers seems to signal the democratization of good taste, the *PC Insiders Report* and the online resource *PC Insiders Project* construct their statuses as communities of "cultural insiders" by maintaining boundaries that demarcate "cultural outsiders" (Guptill, et al., 2013, p. 35). Even as Loblaw's representations of families have diversified to incorporate people of colour and queer family members into the nuclear model,[93] the patriarchal ideals of the self-sufficient, upwardly mobile family remain central. In order for "culinary tourism" to maintain its "exotic" appeal, ethnic products must continue to be marked as "other" (Guptill, et al., 2013, p. 36). Whereas white-coded Euro-American foods like hamburgers and pierogies are named specifically in the signage that labels the contents of Loblaws frozen foods aisles, for instance, I found in my observations of Loblaws that various foods from racialized cultural traditions (e.g., potstickers, samosas) were positioned under signs that either listed ethnicities (e.g., "South Asian", "East Asian"), or lumped them together under "International Frozen Entree".

[92] See, for example, Loblaw's *#HeyPC* campaign.
[93] See, for example, Loblaw's *Eat Together* and *Food Lovers Unite* campaigns. Also of note: the sauce that was formerly named PC Memories of Dad's Grill is now called PC Memories of Backyard Grilling.

The implicit norms of Loblaws' freezer geographies were reflected in focus group discussions on the challenges of juggling dietary needs at social events. While the groups appreciated the diversity of dishes at a potluck setting, they valued guests who are flexible in their food choices:

Patrick: It's do you bring a salad appetizer, do you bring meat, or do you bring dessert? Because, I mean, maybe I'm a bit ignorant, but once you get into vegetarian, and then vegan.

Shane: Yeah.

Patrick: And then, you know, with the nuts, and then, who knows what other allergies.

Carolina: Oh yeah. It's a nightmare [*group laughter*].

Patrick: Like, it seems like every few months there's some new thing that everybody's allergic to, and it's just a headache. So, if there's a lot of vegetarians…they'll be eight different salads that they can pick from. I'm gonna bring my skewers. They'll be vegetables on those [*group laughter*]. I know people who won't even— Like, a buddy of mine, when we ordered pizza, I was gonna get half and half. Like, I get meat lovers and he gets vegetarian. But we had to order two separate pizzas because his vegetables couldn't be…

Carolina/

Shane/Patrick: Touching the—/ Touching the meat. /Touching the meat.

Patrick: It's a religious thing for him, which is fine, but… You know, at a potluck [*light group laughter*] just be glad I brought something.

While Patrick demonstrates outward tolerance, the exasperation about catering to his friend's religious beliefs on meat restriction also comes through in his story. As this conversation suggests, a real "foodie" is a chameleon who seeks out and can blend into any culinary setting. As opposed to the prestige once reserved for the gourmets who could gain access to specific culinary spaces, "openness" to all foods is a "mark of distinction" in the contemporary foodscape (Naccarato & LeBesco, 2012, p. 9). While this trajectory is suggestive of a turn away from culinary elitism toward inclusiveness, Naccarato and LeBesco point out that access to a diversity of food choices is also correlated with privilege. The economic freedom to pick and choose foods and the cultural freedom to move between cuisines while retaining one's social status is not available to all people. In sum, even as all families are invited to visit the "neighbourhoods" of Loblaw's stores, only some are accepted as full-time residents.

Shopping for a July 1 Barbecue with a Canadian Company

Loblaw's first CSR report (2008) emphasized:

> One thing we've always been proud of at Loblaw is the fact that, from the beginning, we've always been an all-Canadian company. We're deeply proud of our Canadian identity, and we believe that it is also increasingly important to our customers. (p. 30)

Adrian predicts that Canadian identity will continue to be significant to Canada's food industry, as climate change and other environmental issues threaten global food systems:

> The world will look increasingly for its food to be as safe as possible, and to trust that it's coming from acceptable sources. And I think increasingly the spotlight will be on Canada as that trusted source […] and this is what is important about maintaining the [Canadian] brand: it is a trusted brand, and it will increasingly be an expectation that we are the trusted brand for food for the future.

The trustworthiness of the Canadian "brand" relies on the simultaneous conjuring and obfuscation of Canada's ongoing colonial history (Berland, 2019). In the most publicized version of the story of the Canadian nation, Canada welcomes newcomers into a multicultural country in accordance with a tradition that began with Indigenous peoples and the original European settlers. As a dominant discourse, multiculturalism recognizes neither the violence of colonial invasion nor the distinctions between Indigenous peoples' relations with the Canadian nation versus the experiences of other racialized peoples (Thobani, 2007). In honour of the 25th anniversary of PC, a special issue of the *President's Choice Insider's Report* celebrates the incorporation of multiple cultures into "1,000 tastes of Canada". Galen Weston elaborates in an introductory message:

> We've spent years searching the world for interesting new President's Choice tastes. This year, we found our inspiration right here at home in some of the country's most diverse communities. From city to city, you can find different groups with a love of food and a willingness to share it. This is Canada. (PC, 2009, p. 2).

In order for Canada to be a source of value that differentiates Canadian products from international offerings, however, patriotic narratives of Canadian exceptionalism need to be maintained even as Canada is open to the world. Positioning the "national subject" as "ontologically and existentially distinct from strangers to this community" (Thobani, 2007,

p. 5), Canadian national identity is premised on processes of preserving the central place of white settlers by excluding Indigenous peoples from the nation and including people of colour conditionally. An image of ribs coated in PC Smokin' Stampede sauce appears as the focal point of the special issue's cover, while the left side of the page is lined with pairings of other products and national flags, including PC Tandoori Chicken wings beside India's flag and Rooster[94] Rice beside China's flag. Even as these countries are invited to be part of Canada's diverse flavour profile, the narrative of the cowboy pioneer who settled the "untamed" landscape remains predominant. While shoppers from the margins are included to add character to shopping spaces, centralized national subjects are at the heart of the intertwined Canadian and PC brands, as the members of the public who bolster the brands' trust capital.

By buying Canadian-made products, shoppers are encouraged to connect to the legacy of land cultivation and nation building to which Loblaw claims first-hand access as a direct patron of Canadian farmers. While Canada's natural resources are thus allegedly available to all who live there, they are doled out through hierarchical systems of land ownership that are justified as legitimate because of a re-constituted continuity of intergenerational inheritance. At the opening of a Toronto Loblaws that I attended, a celebratory cake positioned the supermarket as a beneficiary of this history; edible reproductions of black and white pastoral photos were printed below a frosting heading that read: "Past 1901—farmland" and "Present 2016—Loblaws".

Attracting social license from patriotic shoppers by leaning into its position as a Canadian company, Loblaw re-performs a trustworthy version of Canadian identity.

---

[94] The Rooster Brand is owned by Loblaw Companies Limited.

Homegrown

First, Loblaw takes pride in its status as a homegrown company. Naming barbecue as "an example of original Canadian cookery" (PC, 1984b, p. 12), Loblaw's product developer Jim White charts in *Dave Nichol's Insider's Report* a trajectory of cooking innovations that claims ownership of Indigenous peoples' traditional food practices on behalf of contemporary Canadians: "Outdoor cooking techniques developed hundreds of years ago by *our* [emphasis added] native peoples are now commonplace on apartment balconies and backyard patios all over the world. Canadians, however, more than anyone else, really take barbecuing seriously" (p. 12).

Rotz's (2017) interactions with Canadian farming communities indicate that this type of "pride in settler endurance" (p. 162) emerges out of a selective telling of history that conceptualizes colonization as an extension of mutually beneficial trade partnerships with Indigenous peoples. With colonial power evacuated from these relationships, the perseverance of settlers' ways of life is attributed to superior work ethic and resourcefulness. Taking its place as part of a curated history of industrious, humble individuals who transformed the raw materials of the Canadian landscape into a diverse civilization, Loblaw similarly celebrates in the *PC Insider's Report* its legacy of "invent[ing] fire and 14 different burgers":

> We're not claiming to have come up with the notion of rubbing two sticks together and getting a flame. But we are darn proud of the fact that we've perfected more ideas of what to cook on it than just about anyone. (PC, 2003, p. 3)

Alongside burgers, Loblaw invents and reinvents Canadian identity, such that: "to be Canadian is to barbecue", as summarized in the *President's Choice Insider's Report* (PC,

2007b, p. 4). Interviewees and focus group participants confirmed this perception of barbecued burgers as a national dish that connects them with other Canadians and the Canadian environment. During Focus Group 2's conversation, a hypothetical post-session barbecue emerged as a conceit that was referenced as an in-joke throughout the discussion. Referring to his own experience of standing over a grill in the snow during the week prior to our interview, Loblaws store manager Jonas proclaimed: "Canadians barbecue all year round."

Introduced in the *PC Insider's Report* as "A Barbecue Stampede", PC Thick & Juicy Bison Burgers collapse colonial history into a single product and timeless image of Canadian nationhood:

> We love beef, but we have to admit—bison offers an irresistible new twist on big burger flavour. Our new PC Thick and Juicy Bison Burgers are so absolutely delicious, we think they're the ideal addition to our incredible burger line up! Made with farmed bison from the Canadian prairies (where else), they're extremely full of flavour." (PC, 2004, p. 4)

Both recalling and ignoring the buffalo who inhabited the land before the arrival of colonial settlers, PC Thick & Juicy Bison Burgers cite a reconstructed history in which Canadian farmers inherit stewardship of the prairie landscape, while contemporary product developers discover the flavours of buffalo-based cuisine.

Local

Second, Loblaw promotes the growth of the Canadian economy alongside the cultivation of domestic foodstuffs. During my store visits, I saw banners lining the glass of Loblaws

fresh meat cases that read: “Ranchers near you. Ask us what’s in”, and posters beside delis that advertised: “Artisans near you”. Other informational signage explained: “Whenever we can, we support local growing using sustainable farming methods. Look for our Meet the Grower bios of local suppliers and meet the people behind the great taste”.

As it turns out, “near you” is often representative of Canada in general, rather than specific places on the land. Noting that sourcing is important to customers, Loblaws managers and No Frills owners stressed during our interviews that the beef products in their stores are Canadian. Conflating Canadian products with local food, Loblaws store manager Danielle observed:

> I think you’re seeing a lot more people interested in where their food is coming from. I certainly have way more discussions now than I would have ten years ago about where a product came from, how it was sourced. […] They’re definitely more interested in *product from Canada*, versus the U.S.—certainly a lot more interest in *locally grown food* [emphasis added].

Canada’s physical geography and national economy come together as “here” in the No Frills *Haul Canadian* campaign as well. Symbolized by maple leaf icons in flyers, “produced here…means that the product was made or grown in Canada. Or…98% of the costs required to make or grow the product were covered by Canada”; and “made here…means that the product was made or grown in Canada from domestic and/or imported ingredients. Or…at least 51% or the costs required to manufacture or produce the product were covered by Canada” (No Frills, 2020, difference section). Canadian products are blanketed with a wholesome sheen even when they are several degrees removed from the landscape via processing. Stewardship is thus associated with a duty to contribute to the nation’s

economy (e.g., buying products that national companies paid for) rather than a responsibility to care for the animate land (Ellis, 2013).

Provincial and federal sourcing is also presented as interchangeably virtuous in much of Loblaw's marketing. The Ontario Corn Fed Beef (OCFB) program is promoted heavily in Loblaw's stores and flyers. In my perusals of Loblaws and No Frills meat refrigerators, I came across countless beef packages sporting stickers of the OCFB logo, which depicts the outline of a cow silhouetted against a background array of ears of corn. At the same time, I saw signage above No Frills meat refrigerators that emphasized: "All of our meat is federally inspected". This claim requires that Loblaw's stores source meat from Canada's concentrated collection of large-scale, federally inspected plants (19 in total; AAFC, 2022), as opposed to the diminishing network of small- to medium-scale provincially certified abattoirs (84 for beef processing in Ontario; Ontario Ministry of Agriculture, Food and Rural Affairs [OMAFRA], 2024). Loblaw's partnership with OCFB leverages positive associations between local foods and small-scale farms for promotional efforts, as encapsulated in the OCFB tagline: "From our family to yours" (Loblaw Companies Limited, 2012; OCFB, 2014). And yet, Canadian regulations are organized such that the OCFB cattle that supply Loblaw's meat cases are funneled into a consolidated federal network of feedlots and slaughterhouses regardless of the size of the operation on which calves are born (Finnigan, 2021; NFU, 2008).

Sovereign

Third, Loblaw confirms the settler colonial subject as a sovereign of the Canadian nation. In the summer of 2010, Loblaw undertook "Canada's Biggest BBQ Tour", a series of

cross-country tasting events that ended in the nation's capital on Canada Day (July 1; Loblaw Companies Limited, 2010). Inspired by Queen Elizabeth II's "whistle stop tours" of Canada in the 1950s (Flavelle, 2010, p. B1), the tour transferred symbolic sovereignty over Canada from the monarch to the Canadian people who were positioned as "King[s] or Queen[s] of the Q" (Loblaw, 2010, para. 1). As a national pastime, barbecuing reaffirms the formation of the Canadian people as a unified group along with the identification between these national subjects and the geographic land over which they reign.

Despite the discriminatory Potlatch ban that was in place from 1884 to 1951 (Noakes, 2023), Potlatches are situated in Nichol's retelling as a uniquely Canadian ritual that Loblaw's shoppers maintain in the present through the repeated performance of the barbecue:

> To me, a barbecue is a form of gastronomic potlatch: a potlatch, as I'm sure you know, was a ceremonial rite, or feast, practiced by Pacific coast Indians [*sic*]. At a potlatch, the host gave copiously of spirit, lavishly of food and generously of himself. In some instance, the "potlatcher" gave away everything he possessed to the "potlatches." Now, we don't get carried away to this extent, but the fact remains that when you hold a barbecue, what you're essentially doing is inviting friends to your home for a ritual. At a barbecue, as at a potlatch, you are expected to give generously of yourself and of your possessions, and it's a very serious responsibility because your guests have, for the duration of their visit, essentially put their happiness in your hands. (PC, 1984b, p. 1)

Whereas Potlatches care for lands and communities by redistributing wealth, the ceremony is mis- and re-interpreted by Nichol as an opportunity for the host to "dazzle [their]

barbecue guests" with a display of the land's riches (purchased from Loblaw's stores, of course).

As a conduit between the land and the people of Canada, Loblaw takes over the role of early trading posts by supplying resources with which contemporary explorers can lay claim to the nation. Six men are pictured posing behind a canoe as part of an *Insider's Report* feature:

> The Hide-Away Canoe Club, formed by Michael Peake and his brothers, organizes an annual month-long canoe trip to expand the members' horizons! They always pack PC memories sauces and a wide assortment of PC products to help them through adventures, such as their expedition north of the Arctic Circle! (PC, 1995, p. 14)

Erickson (2013) and Berland (2009) characterize the canoe as a vehicle that traverses not only waterways, but also the disjuncture between the traditional cultures of Indigenous peoples and the activities of contemporary white vacationers. The image of the Canadian wilderness as an "uninhabited" space of discovery legitimizes the initial and ongoing occupation of land (Erickson, 2013, p. 24).

With Indigenous peoples relegated to the past, aspects of other cultures are partially accepted into the nation in the form of products that can enrich Canada's cultural landscape, rather than as representations of peoples who might make political demands (Thobani, 2007). Illustrating this move, Loblaw details the culinary prowess of the canoe trippers:

> "We always eat real food on our canoe trips," says Michael Peake, "and we use PC Memories sauces ON EVERYTHING!"... One of the gang's most successful recipes is a fish chowder based on fresh-caught Arctic char. (PC, 1995, p. 14)

Wild animals, traditional foodways of northern Indigenous communities, and cultures of immigrants are available to the canoe trippers for consumption. Including PC Memories of Kobe tamari garlic sauce, PC Memories of Korea Korean barbecue sauce, and several other globally inspired sauces, the PC Memories line allows Canadians to add "exotic" flair to their Western meals. While ethnicity is "reduced down to a sauce" (Elliot, 2008, p. 185), whiteness stretches across the "great white north" (Baldwin et al., 2010) with the canoeists. Like the Ontario flag that is pictured fluttering behind the expedition's members, "The words President's Choice…'stand' before every exotic place being sold in the Memories Of… collection" (Elliott, 2008, p. 184) of sauces, such that various cultural dishes are marked as part of the culinary offerings of a Canadian company.

While usually less blatant than the appropriation on display in 20th century *Insider's Reports*, cultural hierarchies persist in the 21st century editions.[95] Created for the 150th anniversary of Canada's federation, the PC Loads of Canadiana burger features cheese curds, back bacon, and Montreal-style steak spice. As such, the burger centres the cuisine of French and English settlers as "Canada's favourite flavours" (Yealland, 2017, 0:02), which is how the ingredients are described by Galen Weston in a voiceover for a video advertisement. By celebrating this "Proud Canadiana" (PC, 2017, title) alongside Loblaw, white settlers experience the comfort of belonging to a nation-state that centres their cultural identity.

---

[95] The Summer 2022 *PC Insiders Report* provides a literal illustration of hooks' (1992) observation: "Within commodity culture, ethnicity becomes spice, seasoning that can liven up the dull dish that is mainstream white culture" (p. 21). Including a "colour-coded scale" to label "heat level", the report introduces PC Hot Peppers:

> Didn't you say you wanted a little adventure this summer? Heat lovers, experimental home cooks and even the spice hesitant—this one's for you. Our new PC Hot Peppers collection can take you out of your comfort zone. We've curated this range of…medium to scorching hot peppers from around the world, including popular varieties from Southeast Asia, Mexico and Jamaica. (PC, 2022c, p. 20)

Shopping for a New Year's Diet with a Wellness Authority

Loblaw's senior vice-president of health and wellness Michael Lovsin was quoted in a 2012 *Canadian Grocer* article announcing: "By the year 2020, supermarkets will become the health-care centres for Canadians" (as cited in Felix, 2012, para. 16). This prediction proved to be more accurate than could have been imagined, as supermarkets' double duties as food purveyors and wellness destinations became especially pertinent during the pandemic. Galen Weston's first COVID-19 update recognized these intersecting responsibilities: "We know you're relying on us for the comfort and necessity of food, pharmacy and wellness in almost every community nationwide" (Loblaw Companies Limited, 2020a, para. 2).

Loblaw's all-encompassing approach to health is reflective of public concerns about the uncontainable risks of modern foods. Adrian elaborated on this pattern:

> I think generally increasingly consumers […] want to trust what's going on in the food. […] Consumers are moving from—very consciously—away from the chemical feast. So, they are moving away from the foods that were created in the 50s and the 60s that were all about longevity; they were, you know, how do you preserve stuff on the grocery aisle for as long as possible? Increasingly I think we're realizing that fresh foods are very key to our diet […] and this is all being driven by a consumer who wants to understand their foods and wants to trust what's in their foods.

Whereas freshness was guaranteed by additives in the mid-20th century, contemporary shoppers search for different markers to determine the freshness of their foods. The positive connotations between freshness and health have persisted, nonetheless.

As a wellness provider, Loblaw presents transparent information in place of the "long lists of unpronounceable ingredients" (p. 33) that food writers like Michael Pollan (2009) reference as a sign of contemporary food systems' overreliance on manufactured food additives (e.g., "Ethoxylated diglyceride…xanthan gum…ammonium sulfate", etc., p. 9). Posted on a pillar between a produce department and a meat department in a Loblaws, I saw a promotional sign for the Guiding Stars nutrition program that featured text printed above an image of grilled beef: "Can't decide? Lean toward the stars". Launched in the United States 2006 and adopted by Loblaw's stores in 2012, the program displays ratings out of three stars according to algorithmic calculations on ratios of encouraged versus discouraged nutrients (Canadian Grocer staff, 2012; Guiding Stars, 2012).

Programs like Guiding Stars foist upon shoppers the responsibility to regulate their own diets while simultaneously suggesting that shoppers will perpetually be a step removed from the untranslated expertise from which public nutrition tools are made. Especially since the neoliberal dissolution of the welfare state, health has become a "super-value" (R. Crawford, 1980, p. 379) that individuals are meant to manage in the interest of protecting themselves against contemporary risks. Illustrating the ideology that R. Crawford names "healthism", an article on the *PC Insiders Project* website frames the mindfulness of cooking and eating at home during the pandemic as an unexpected method to gain "greater control over what we're putting in our bodies" (PC, 2020b, para. 6). The neoliberal individual adopts wellness as "a personal identity [that] matches dominant social expectations and stands in opposition to the identity of [the] deviant" (R. Crawford, 1980, p. 382) who is ostracized for failing to care for themselves.

The "moral duty…to correct unhealthy habits" (R. Crawford, 1980, p. 380) has become particularly pressing in relation to beef. Red meat consumption has been linked to the "four leading chronic health conditions—heart disease, obesity, diabetes and cancer" that Galen Weston identifies in a CSR report as "placing a worrisome financial burden on our healthcare system, and impacting quality of life" (as cited in Loblaw Companies Limited, 2011, p. 2).[96] A health-focused edition of the *President's Choice Insider's Report* suggests that shoppers "should enjoy leaner proteins more often" (PC, 2011, p. 9) to mitigate these consequences. More than an indicator of reduced nutritional risk for the individual eater, leanness is prized as a value across a political economic system that encourages austerity in the form of "trimming the fat" and "stopping the gravy train"[97] in regard to government spending on social programs (Guthman, 2003; P. L. Price, 2000). The bodies of eaters thus become manifestations of ideological leanness and sites for fat phobic social policing (Brady et al., 2016). Regardless of budgetary restraints, location limitations, and other constraining factors, eaters who make decisions that do not align with dominant healthy eating criteria—or whose bodies are judged to signify such "poor" choices—are classified as part of an irresponsible segment of society that takes up government resources, which could go toward others who are pulling their "appropriate" weight (figuratively and literally).

As implied in the company's intentions to "help…Canadians live life well" (Loblaw Companies Limited, n.d.-b, Section 1), Loblaw participates in the neoliberal project of

[96] See, for example: Popkin, 2009; Sinha et al., 2009; Talaei et al., 2017; and You & Henneberg, 2016. See Note 56 in Chapter 3 for critiques on the positioning of obesity as a "burden".
[97] "Stop the gravy train" was a campaign slogan of former Toronto Mayor Rob Ford. Former President Donald Trump also used the phrase during his campaign in 2016 (Dale, 2016).

redesigning individual behaviour to make up for a lack of systemic change. These arrangements serve the eaters of a trustworthy public that practices "medical self-competence" (R. Crawford, 1980, p. 374) by successfully performing self-care through the marketplace.

Transforming from grocer to pharmacist to healthcare provider, Loblaw earns social license as a wellness authority by celebrating the achievements of shoppers who "live life well" according to tacit standards of wellness.

Objective

To start, Loblaw presents itself as an objective party in debates on health and wellness. Focus group participants indicated that they trust nutritional advice from entities that appear uninvolved more than messaging from sources that are explicitly aligned with or against the beef industry. Nadira (Group 1) commented:

> I think there's a hidden agenda between like, pro-beef and anti-beef. Probably [you] need to do a little bit of digging, and like, maybe go through both, and form your own judgement and what you're comfortable with. For example, I was just reading through PETA [People for the Ethical Treatment of Animals]—they had like, ten reasons why the beef industry is trying to really get you to buy beef. I'm sure if I went to like, the Canadian Beef website [there would be information] on how beef is important in your diet, and the benefits for it. So, it's sort of like a personal judgement at the end of the day.

As opposed to organizations that attempt to win people over to their sides, Loblaw ostensibly allows shoppers to make up their own minds about the practices that they would

like to support. Adrian credited Loblaw's success in managing shifting dietary guidelines to its ability to shape the way that information is taken up as common sense:

> I mean, it's a tough—there are a lot of expectations. There are societal expectations, there's government. […] But [for] the guys that are really ahead of [societal trends], it's a great opportunity. I mean that to me, was always my philosophy. Do the tough stuff that your competitors aren't either willing or aren't able to go to, and that gives you the edge because, you know, you're ahead of the game, rather than chasing it.

By the time new wellness recommendations take hold as dominant prescriptions, Loblaw has secured a position as a trusted advisor to the public. Adrian told the story of how the fat content of PC products evolved to anticipate changing regulations:

> [PC] Organics required there could be […] no hydrogenated fats in your foods. So, once we had implemented that, we then turned around and said, "Well we're going to take hydrogenated fats out of all of our PC products", which was before the government came along—about three or four years before they even legislated it. […] So, the interesting thing is if you do something right, you often find you land up with a template. […] If you do the right thing, you can tell the consumers that what they're [eating], that it can be trusted.

As opposed to imposing its own guidelines, Loblaw appears to facilitate consensus between experts and the public about the meanings of "eating right". An article for a PC nutrition program in the *President's Choice Insider's Report* expresses: "You tell us dieting doesn't always work and the experts agree. *They say the best way to manage your weight is to eat better every day*" (PC, 2007a, p. 17). Menu plans, recipes, and grocery lists for healthy eating take the form of helpful tips, rather than restrictive orders. PC released an

advertisement in the summer of 2007, for example, which "challenged Canadians to eat a little healthier and switch to [the] PC Blue Menu Thick and Juicy Lean Beef Burger" (PC, 2008, p. 2). The new product quickly became PC's bestselling burger.

Scientific

In addition, Loblaw emphasizes that its communications on wellness are informed by facts as vetted by "partner[ships] with scientific advisors" (Loblaw Companies Limited, 2015b, p. 9). According to Adrian's analysis of the history of healthy eating: "what has happened, again in the last seven/eight years, maybe ten, is that […] science is giving us a better idea about really what is puffery and what isn't." Posted above Loblaws meat refrigerators, I saw signs highlighting the scientific rationale that situates beef as a healthy choice: "Beef is an excellent source of iron, zinc and vitamin B12." Underneath this statement, the signs offered suggestions that shoppers could use to capture these nutritional benefits in practice: "Leftover roast beef and steak can be added to stir-frys, salads, pizzas and pasta dishes." The marketing function of signage, labels, and similar materials is obscured by the inclusion of scientific content.

Loblaw's promotional use of scientific tidbits is illustrative of the tendencies of "scientism"—the valorization of the Western scientific method as a process that produces static facts free from all forms of subjective framing (Hayek, 1942). Whereas science itself is an iterative, uncertain process of testing and retesting, *scientism* conflates evidence with certain truth. Dovetailing with healthism as a prescriptive approach to nutrition (R. Crawford, 1980), scientism constructs a "deficit model of the public" (Biltekoff & Guthman, 2022 p. 6). This perspective assumes that public concerns about food systems emerge out

of misunderstandings that can be corrected through clearer communication. At the same time, scientism's conceptualization of expert knowledge makes its commitments to transparency nonsensical because the different epistemological levels that lay persons and scientists inhabit in its formulation are such that the public will never be able to understand scientific findings fully (Biltekoff & Guthman, 2022).

Unlike collective cultural knowledge, scientistic information can be packaged and sold to individual shoppers as contained units. Here, healthism takes the form of "nutritionism" (Scrinis, 2008), which describes a tendency to conceive of diets as a compilation of separate nutrients as opposed to an interaction of biological, social, and cultural contexts. Loblaw's health-focused PC Blue Menu line was formulated in 2005 with the intention to identify in each product a specific nutritional benefit from a limited list.[98] PC Blue Menu products feature clear nutritional labelling because: "The way we see it, to make healthier choices you need easy access to nutritional information. That's why we make easy label reading a priority" (PC, 2006, p. 16). Even as systemic dietary issues cannot be contained on a label, PC Blue Menu promises to "mak[e] healthy choices a whole lot easier" (PC, 2022a, header) with a combination of scientifically formulated products and educational materials.

Personalized

Lastly, Loblaw pairs neutral, scientific information with a personalizable approach to wellness. The surveillance of foods and bodies intersects, as shoppers match their physiological functions with targeted nutrition attributes. In the *President's Choice Healthy Insider's Report*'s promotion of the Heart and Stroke Foundation's "Healthy Waists"

[98] The original nutritional attributes were lower fat, lower calories, and high fibre (PC, 2005, p. 3).

initiative, shoppers are instructed to make use of a "handy dandy tool" that is available exclusively at Loblaw's pharmacies: "Wrap the…special tape measure around your waist and if you're in the red zone, it's time to find out what you can do." PC suggests: "Start by watching your portion sizes and choosing low fat products more often" (PC, 2008, p. 15). The Heart and Stroke's pedagogical imperative to "Know your fats" (PC, 2005, p. 4) in the sense of the differences between saturated and unsaturated fats thus slips into an implication to: Know *you're* fat. Conveniently, "lower fat" is one of the featured nutritional properties of PC Blue Menu products.

The field of "personalized nutrition" aims to quantify eating decisions even further by designing foods and diets to correspond to particular nutritional needs "based on [an individual's] specific genetic profile, metabolism, microbiome, and lifestyle" (McClements, 2020, p. 1939). Dixon (2009) describes personalized nutrition as "the ultimate in product differentiation scenarios" (p. 329), which makes it well suited to the move toward niche marketing in the food retail industry. Launched by Loblaw in 2020, the PC Health App fits under this umbrella. The app collects a network of healthcare providers, wellness programs, and a PC Health Shop into one digital space. Expanding data collection beyond purchasing habits, the app gives "users...the opportunity to earn PC Optimum points by completing daily goals and activities" (Loblaw Companies Limited, 2020e, para. 2).

The "personalized" aspects of personalized nutrition do not take into account differences of social positioning, which affect the extent to which individuals are able to access nutritious foods, healthcare services, and digital technologies. Even as risk society highlights "many things that affect…health [that] are beyond…individual control", the singular eater is still "held responsible for managing those collective situations

individually" (Shotwell, 2016, p. 30). As long as the individual can be pressured to manage their own relationships with food, supermarkets' roles in public health remain limited to compiling a range of products and information.

During our January interview, Loblaws manager Danielle described the seasonal makeup of the contents of meat cases:

> Danielle: Come a time like January, most people tend to be a little more budget conscious, so we find definitely this time of year, we skew to the cheaper cuts and to whatever is a promotional item. […] Ground beef always will do well no matter what. And then, depending again, time of year, customers will skew to the extra lean, or they're buying the full fat version [*chuckles*].
>
> Kelsey: New Year's resolution stuff?
>
> Danielle: Yeah. Definitely [*laughs*]. It's amazing how much you feel that in the grocery store. It totally skews what customers are purchasing for the first like six to eight weeks of the year.

Responding to such patterns, Galen Weston emphasizes in a winter issue of the *President's Choice Insider's Report*: "Making small changes to the way we eat and our day-to-day activities can make a big difference. It's not about making resolutions, it's about making a commitment to live life well" (PC, 2011, p. 2). This discourse moves away from the explicit disciplinary framework of New Year's resolutions while re-embedding wellness as an implicit obligation that the neoliberal individual polices in all aspects of their life.

“The right things”

During my focus groups, I asked participants to list words or phrases that they would want to see in an advertisement for beef. A descriptor that came up in all four focus groups was “fresh”. When the group was discussing the various options they listed, Mel and Blaike (Group 3) provided a notable caveat:

> Mel: Well, you’re going to bank on the fact that it’s fresh already, period. So, I don’t need to see [the word] because if I can’t bank on it…
>
> Blaike: Cause if they’re not going to sell fresh...

Social license is implied in the ellipses that trail off at the end of Mel and Blaike’s sentences. They do not need to see textual confirmation of the freshness of the beef for sale at supermarkets because they trust (or at least they want to trust or have to trust) that the supermarkets they patronize are meeting their expectations in this regard.

Galen Weston’s first pandemic-related statement closes: “we promise to serve our customers and communities as best we can, and to simply do the right things in a complicated time” (Loblaw Companies Limited, 2020a, para. 9). The pledge begs the question: what are the right things? While seemingly inclusive, the commitments to accessible eating that Loblaw puts forward through the discourses of home entertainment, multiculturalism, and wellness also provide cover for the tacit hierarchies of Canada’s meatscape.

In the case of beef, Loblaw and the trustworthy public that bolsters its brand identity endorse and normalize shopping practices that support the dominant cattle-beef infrastructure despite environmental, health, and animal welfare risks. Even as calls for ethical beef grow, the mutually reinforcing trust capital between Loblaw and select

shoppers will continue to shape the directions that ethical beef consumption takes unless feedback loops of privilege are interrupted. Through these exchanges of trust, the values of privileged shoppers are elevated for preservation in the infrastructure of feeling that guides the ways in which members of the public experience the meanings and sensations of ethical beef consumption. Excluding actors and ideas that would pose a threat to the dominant cattle-beef infrastructure, trust capital circulates between subjects who practice beef consumption that is coded as family friendly, patriotic, and rational. These relationships of trust contribute to a regulatory environment that deflects external oversight and strengthens Loblaw's social license in the likely event that the cattle-beef infrastructure finds itself in perceptible crisis again. The infrastructure's capacity to deal with such challenges is the topic of the next chapter.

Chapter 6: Choice

"The greatest contemporary challenge faced by the cattle and beef industry, its regulators, and public policy makers, is risk management" (MacLachlan, 2009, p. 30).

Cashing in on Crisis

After March 2020, grocery shoppers encountered extensive safety measures in Loblaw's supermarkets including enhanced sanitation, store capacity limits, and physical distancing protocols (Loblaw Companies Limited, 2020a). Meanwhile, the Cargill meatpacking plants that provide fresh beef to Loblaw stores became hot spots for COVID-19 transmission (Neustaeter, 2020). In an outbreak at Cargill's High River plant, about half of the facility's approximately 2,000 employees tested positive for the virus. Three deaths were linked directly to the outbreak: Hiep Bui and Benito Quesada were long-time employees at the plant and Armando Sallegue was visiting his son who worked on the production line (Guenther, 2020).

Despite these circumstances, profits continued to grow to record levels for Loblaw and its beef supplier Cargill. Loblaw recorded first quarter profit growth of almost 40% in 2022 compared with the previous year (Loblaw Companies Limited, 2022d), and Cargill reported the largest profit in its history in 2021 (Blas, 2021). The same day that Loblaw's first quarter results were made available, the company also released its *2021 Environmental, Social and Governance (ESG) Report* (Loblaw Companies Limited, 2022c). While eaters were struggling to put food on the table as prices reached new highs (Press, 2022; Statistics Canada, 2022), the ESG report claimed: "We have always supported our communities" (Loblaw Companies Limited, 2022a, p. 3). Cargill announced in its 2021 annual report that

its "teams…customers, [and] partners…[came] out of th[e] extraordinary year stronger together" (p. 2), even as 2021 included the opening of an RCMP investigation into Quesada's death and the continued threat of a class-action lawsuit proposed on behalf of community members who were in contact with Cargill employees (Dryden & Reiger, 2021). Commenting on the pandemic's manifestation in the beef industry, Spencer (2021) summarizes: "The COVID-19 impact on [the] beef industry hurt consumers and producers, while other select parts of the industry greatly benefited" (p. 2). How are such discrepancies possible? How can companies like Loblaw and Cargill achieve and publicly celebrate successes in the wake of global crises, particularly when they had a hand in causing such circumstances? [99]

Bringing this question into conversation with the theme of choice as it emerged in my case study data, I explore how Loblaw contains the damage that critiques of beef may cause to the dominant cattle-beef infrastructure by adding options to its portfolio of investments in corporate social responsibility (CSR). CSR refers to activities companies undertake to demonstrate their positive contributions to the world beyond the provision of goods and services to the capitalist marketplace. Positioning Loblaw as a broker of risk management arrangements in the cattle-beef infrastructure, I begin by highlighting "private insurance society" (Hadziabdic & Kohl, 2021, p. 800) as a complement to "risk society" that organizes predictions about the future into sellable packages, offering security to those who can afford to buy them. In this context, the meaning of investing in the future has spread beyond activities in the financial sphere to inform how responsibility is defined in relation to

[99] The COVID-19 pandemic is not the first crisis during which large meatpackers have profited. When BSE was found in Canada in 2003, Cargill, Lakeside, and XL Foods saw their profits nearly triple (CBC News, 2004).

everyday practices including the retail activities in which supermarkets and shoppers participate.

In the heart of the chapter, I analyze three CSR initiatives that respond to public concerns about the environmental, social, and economic sustainability of the beef industry. First, I consider Loblaw's participation in the Canadian Roundtable for Sustainable Beef (CRSB) as an answer to criticisms of the environmental repercussions of beef production. Second, I evaluate the President's Choice (PC) Free From line of antibiotic-free meats as a tool to address alarm about the healthfulness of beef consumption. Third, I assess Loblaw's promotion of plant-based proteins as an avenue to allay fears about the economic state of Canada's farming communities. Together, these initiatives reveal that public critiques of the cattle-beef infrastructure's capacities to manage the "protein crisis" can be transformed into profitable opportunities for Loblaw. When Loblaw's social license is threatened by "negotiated" readings (Hall, 1973) of cryopolitical mediation that find misalignment between Loblaw's management of semi-living tissues in the present and the flourishing of human populations in the future, the discourse of free choice restabilizes the status quo by redirecting attention from the underlying weaknesses of infrastructure to the shortcomings of individuals.

(Ir)responsibility and Private Insurance Society

Although consensus has not been reached, most scientific evidence supports the theory that the SARS-CoV-2 virus made the leap from animals (potentially bats) to humans, likely through an intermediate animal host (Gostin & Gronvall, 2023; Worobey et al., 2023). After Wuhan, China was identified as a likely epicentre, much (frequently Sinophobic)

speculation pointed to a "wet market"[100] as the source of infection, given that multiple species of animals are brought into close contact in such spaces (Fearnley & Lynteris, 2020). The human-animal interactions in these markets are just the tip of the iceberg, however. In the face of "land grabs" and associated pressure to conform to models of industrial agriculture, small-scale farmers have moved to less arable land closer to wildlife, and/or they have geared production toward niche markets for specialty animal products (Akram-Lodhi, 2020). The genetically homogenous, globally connected animal production systems that have replaced traditional farming practices promote the transmission of virulent pathogens (Wallace, 2020).

And yet, dominant legal systems cannot assign culpability to the entire global meat system, given that they are premised on holding individuals, like wet market vendors or particular animal species, accountable for harm (Bowness et al., 2020). The situation demonstrates the "organized irresponsibility" (Beck, 2007/2009, p. 24) that is characteristic of risk society wherein the complexity of systemic interconnections has enabled powerful actors, like large meat companies and food retailers, to dodge accountability for the repercussions of their actions. Because the virus traverses the borders of nation-states and institutional jurisdictions, responsibilities for causing and/or handling the crisis cannot be delegated to a single party. In the context of risk society, no one is legally responsible by virtue of everyone being materially responsible.

The task of managing the fallout of the pandemic has been more costly for some than others. The conditions of COVID-19 exacerbated existing inequalities; privileged individuals

[100] The English term "wet market" is misleading. Emerging as a way "to distinguish daily fresh produce markets with independent vendors from supermarkets", the term encompasses a variety of different market spaces, not all of which sell live animals (Fearnley & Lynteris, 2020, para. 10).

and entities often saw their wealth multiply as they were able to use savings and investments to ride out economic volatility and to take advantage of rising asset prices (Oxfam, 2022; Sidik, 2022; Sippel, 2022). Commenting on Loblaw's first quarter results in 2022, executive chairman and former president Galen Weston alluded to diversified assets as a central source of the company's resilience: "Loblaw demonstrated consistent operating and financial results, reflecting the strength of its *portfolio of businesses* [emphasis added] and the ability to provide service and value" (as cited in Loblaw Companies Limited, 2022d, para. 3). Loblaw's varied business interests have allowed the company to absorb economic shocks. As shoppers have moved out of lockdown and inflation has risen, for instance, the slack in sales at Loblaw's higher end "Market" division stores (e.g., Loblaws) has been picked up by its budget "Hard Discount" division stores (e.g., No Frills). And while shoppers have no longer been stocking up on hand sanitizer and toilet paper, Weston reported that the "cough and cold [category] has strengthened significantly" (as cited in Bundale, 2022, para. 14) in the company's drug stores as people have resumed more social activities. Rather than sharing risks and security across foodscapes, companies like Loblaw can hedge against the risk of adverse events to guard their own security.

This situation is reflective of the stratified insurance structures that underpin risk society. Although insurance does not prevent catastrophes, it manages uncertainty by translating possibilities into economic ratios that compare present contributions to potential future withdrawals, such that risk is distributed "over space and time" (Lübken & Mauch, 2011, p. 9). Insurance began to emerge as an institution during the 14th century in relation to marine expeditions out of Italy. Merchants entered into contracts that stipulated that one party would cover the costs of the value of a cargo (which might include enslaved

people) in the event that they did not reach a destination provided that the other party paid a percentage of this value up front (i.e., a premium; Cevolini, 2016). Insurance took on a greater role in providing social security as ideas of self-determination evolved in conjunction with modernity. Whereas early modern societies understood the future to be predetermined by divine powers, belief in an indeterminate future that individuals could influence through free choice became increasingly prevalent as the authority of the church waned through the 17th century (Cevolini, 2016; Lübken & Mauch, 2011).

Insurance arrangements have evolved in a couple of directions. On one hand, social insurance has balanced modern capitalism's tendencies to elevate the security of a limited number of enterprising individuals. Coalescing in the construction of the welfare state from the late 19th to mid-20th centuries, social insurance involves a combination of mandated and subsidized contributions to state-managed funds on which members of society can draw to support their food, shelter, medical, and other basic requirements in times of need. [101] On the other hand, private insurance has extended from early marine insurance arrangements into a fully-fledged industry that offers the promise of compensation in various scenarios (e.g., life insurance, property insurance, weather insurance, etc.) in exchange for payment installments (Clapp & Isakson, 2018b; Gibson-Graham et al., 2013; Hacker, 2019).

Unlike a common pool of public insurance resources to which everyone is entitled depending on need (although access to state-provided insurance is still guarded by barriers like citizenship requirements), privatized insurance offers varying degrees of protection according to individual contributions. Under social insurance arrangements, risk and

[101] Social insurance need not be tied to the state exclusively. Human (and more-than-human) communities also find security outside of state programs by provisioning one another with necessary supports during and beyond times of crisis (Gibson-Graham et al., 2013; Spade, 2020).

security are tied: Security for an individual is premised on accepting collective risk, which is distributed throughout the group such that no singular person faces disastrous outcomes. Under private insurance arrangements, risk and security are detached: An individual achieves security by offloading risk onto others even when that action results in greater risk to society overall (Curran, 2018; Hacker, 2019).

While private insurance schemes have existed in some form since the 14th century, as outlined above, the neoliberal decline of the welfare state in concert with the rise of increasingly unpredictable risks have facilitated the emergence of a broader "private insurance society" (Hadziabdic & Kohl, 2021, p. 800) as a discernable sociological configuration. "Private insurance society" describes not only the proliferation of insurance products specifically, but also the general sense that individuals must continuously make responsible choices to invest in themselves through various mechanisms (e.g., education, friendships, health, etc.) in the present in order to find (and to deserve) security in the future.[102]

On the surface, Loblaw's participation in "private insurance society" is evident in its horizontal integration into the financial sector. Since 2010, PC Insurance has operated as a "'large-scale full service brokerage' for home and auto insurance" (Canadian Underwriter, 2010, para. 1). Partnering with several insurance providers, PC Insurance promises to act as an intermediary to find the best coverage to suit customers' individual needs (PC Insurance, n.d.). On a deeper level, one can compare Loblaw's mediating activities in the

[102] Illustrating a notable example of the intersection between food, biopolitics, and insurance, the Body Mass Index (BMI) was initially applied as a metric of human health by life insurance companies in the late 19th and early 20th centuries in the interest of determining levels of risk associated with their prospective clients. Their data was drawn from studies conducted by Lambert Adolphe Jacques Quetelet that sought to determine the physical form of the "average man" based on height and weight measurements from a sample of white, European men (Czerniawski, 2017; Strings, 2019).

foodscape to those of an insurance broker, in that Loblaw facilitates matches between food industries (i.e., the insurers) and shoppers (i.e., the insured), such that varying levels of food security are achieved for the different pairings. Unlike public approaches to insurance that supposedly bog down policyholders with costs for coverage that they will not use, Loblaw's privatized approach to insurance provides its customers with choice.

Negotiated Readings and Corporate Social Responsibility (CSR)

When President's Choice was launched in 1984, it was promoted as a platform that shoppers and Loblaw could use to negotiate their interests with one another through the marketplace. In dialogue with Loblaw, the middle class could wrest control over the food system away from mutually beneficial partnerships between dominant national brands and "intrusive…governments" (Kingston, 1994, p. 73). Former Loblaw President, Dave Nichol—the "president" for whom the President's Choice brand was named—was billed as an underdog of the food industry who could guide the middle class through this food reclamation. *Dave Nichol's Insider's Report* shared musings from Nichol about his upbringing in rural Ontario where his "lifelong devotion to food [had been] born at [his] grandmother's table" (as cited in Kingston, 1994, p. 77). Biographer, Anne Kingston (1994) writes: "Nichol's amiable, common-man public persona gave many people the impression that he was eager to entertain new product ideas from the public" (p. 108).

For retired Loblaw executive Adrian, this orientation toward the public has been key to the success of the President's Choice and Loblaw brands. In response to a question that I posed during our interview about the challenges retailers face in balancing

recommendations to reduce beef consumption (e.g., Canada's Food Guide) with the need to main a certain level of sales, Adrian proposed:

> I think that's where a company like Loblaw is on the leading edge of so much innovation. They have such an important tool in their own private label, so something like PC that has its various different platforms—whether it's Blue Menu, or whether it's Free From, or you know, whether it's vegetarian options—they will increasingly ensure that they are developing products there from a consumer point of view.

Loblaw's appeals to the public align with the neoliberal transformation of the public sphere wherein individuals have been encouraged to articulate political interests predominantly through the marketplace instead of through democratic activities like voting (Bauman, 2007; Cohen, 2004). The conflation of citizen and consumer identities is communicated clearly in the idiom "vot[e] with your dollar" and its food-centric reimagining, "vote with your fork" (Johnston, 2008, p. 244), which presents food shopping as the primary way for individuals to participate in constructing the food system that they would like to see in the future. Considering the intensifying trajectory of financialization in the 21st century, I include "the *investor*" (R. Martin et al., 2008, p. 123) as an additional identity that the "citizen-consumer hybrid" (Johnston, 2008, p. 229) expresses in private insurance society. Not limiting the term to its associations with financial instruments, I define "investment" broadly as any activity that a citizen-consumer-investor undertakes to insure themselves. In particular, I consider how shopping is increasingly organized according to the paradigms of responsible investing, in that buying goods signals not only a vote for a product category, but also an investment in a vision of the future.

This attitude appears, for instance, in a *Healthy Insider's Report* profile on the partnership between nonprofit organization Breakfast for Learning, and Loblaw's charity organization President's Choice Children's Charity. On a page full of pictures and descriptions of PC products, including cereal, oats, yogurt, and juice, text from the President and CEO of Breakfast for Learning, Wendy Wong, emphasizes the importance of providing children with healthy breakfasts:

> Eating with your kids is the best way to make sure they start the day right, but it's just not always possible. To make healthier breakfast easy for your kids, keep simple options on hand… Breakfast is an *investment* [emphasis added]. You're helping to ensure your kids will eat right, now and when they become adults. (as cited in PC, 2010, p. 7)

The investment framework positions the surrounding PC breakfast products as a portfolio of assets that parents can use to set up their children for success.

While Loblaw presents investment opportunities, shoppers are ultimately in charge of making their own food decisions. According to the ideals of private insurance society, social insurance arrangements (e.g., public health programs) are seen to increase the likelihood of reckless behaviours because they offer a safety net to catch people who make irresponsible decisions (even as these assumptions are not borne out in empirical data; Hadziabdic & Kohl, 2021). To guard against such "freeloading", responsible food choices act as a form of insurance premium that food system participants are expected to pay before earning security from the common infrastructure.

In the contemporary cattle-beef infrastructure, freshness comes at a premium. Focus group participants associated freshness with the ethical ideal of "knowing where beef

comes from". Comparing a meat counter at a butcher's shop with a self-serve display case at a supermarket, Rosa, Nadira, and Brianna (Group 1) explained:

Rosa: Like, it's not frozen as much.

Nadira: Mmhmm.

Rosa: So, you can like, take it out and then you put it in the freezer.

Nadira: Yeah. Yeah, I think there's—

Rosa: It's like the meat is softer.

Nadira: Yeah. There's a certain set of— like, it's more fresh compared to the ones that's been sitting there for a while. So, it's like, "Oh we just cut it up this morning."

Brianna: And [the butchers] know more, too, about the different kinds of beefs, and exactly where it came from, and all of those questions we wanted to ask No Frills or Loblaws [during our earlier discussion about asking staff for help].

With Loblaw acting as an insurance broker between shoppers and industry, I see CSR as an insurance policy that lists the coverage on offer at Loblaw's stores, elaborating the details of beef sourcing and other elements of responsible practice. While companies interpret CSR in multiple ways, the concept tends to be associated with "voluntary and discretionary" undertakings that "'exceed' a corporation's legal responsibilities" (Banerjee, 2008, p. 60). For Loblaw (2023a), CSR is encapsulated in its "company purpose—helping Canadians Live Life Well", which signals its "responsibility to make a positive impact in the communities [it] serve[s]" (p. 4).

First appearing as a term in the 1950s (Bowen, 1953), "corporate social responsibility" was the topic of debates in the charged political climate of the 1960s (Agudelo et al., 2019):

Was the purpose of the corporation to increase profit (Friedman, 1962), or to serve society (Committee for Economic Development, 1971)? In conjunction with neoliberal models of the 1970s that positioned unregulated economic growth as a vehicle for widespread prosperity, CSR offered an increasingly popular framework for reconciling the tensions. Rather than pursuing profit or social good as mutually exclusive goals, corporations were encouraged to work toward these objectives in tandem (Elkington, 1998).

In the face of financial struggles in the mid-2000s, Loblaw (2007) initiated a "turnaround plan to Make Loblaw the Best Again" (p. 19).[103] Loblaw sought to recapture the appeal of "an affordable taste of the good life" (WARC, 2010, p. 4) upon which the PC brand had capitalized in the 1980s under Dave Nichol. Loblaw's (2007) risk analyses indicated that shoppers displayed a desire to support retailers that "source[d] ethically and in a way that demonstrate[d] care for the environment and the community" (p. 27). Leaning into these sentiments, Loblaw developed its first CSR platform in 2007, which outlined five "pillars": "1. Respect the environment; 2. Source with integrity; 3. Make a positive difference in our community; 4. Reflect our nation's diversity; 5. Be a great place to work" (Loblaw Companies Limited, 2008, p. 1). In 2021, Loblaw translated its CSR activities into a "environmental, social, and governance" (ESG) framework, which includes several specific objectives under two larger umbrellas of "fighting climate change and advancing social equity" (Loblaw Companies Limited, 2022a, p. 4).

CSR considerations have been increasingly formulated as ESG (environmental, social, and governance) issues since the 2000s. During a series of conferences on ESG between

[103] Politicians have used similar slogans (i.e., "Make America great again") to invoke nostalgia for an imaginary, wholesome past that was experienced as idyllic if only for a select group of people (Solnit, 2018; Tumulty, 2017).

2004 and 2008, a United Nations (UN) initiative proposed: "consideration of environmental, social and governance issues will ultimately lead to better investment decisions, create stronger and more resilient financial markets, and contribute to the sustainable development of societies" (Kyte et al. 2009, p. 3). Taking further CSR's function of communicating to employees and the public a company's positive engagements with society, ESG presents measurable evidence of such activities. This data is geared especially toward the growing field of ESG investing. Of relevance to cattle-beef infrastructures, for example, the Farm Animal Investment Risk and Return (FAIRR) Initiative describes itself as "a collaborative investor network that raises awareness of the environmental, social and governance (ESG) risks and opportunities in the global food sector." It operates with a "mission to build a global network of investors who are aware of the issues linked to intensive animal production and seek to minimise the risks within the broader food system" (FAIRR, 2023, para. 2).

Reflecting the growing influence of ESG investing, Loblaw sought out the opinions of such investors in its 2021 materiality assessment (discussed in Chapter 5). The 2022 ESG report summarizes: "Recognizing the increasing interest that investors have in sustainability agendas, we also conducted targeted interviews with this stakeholder group to understand the financial sector's material topics of concern" (Loblaw Companies Limited, 2023a, p. 8). Extending from the role of the middle-class "citizen-consumer" public of the 1980s, the contemporary "citizen-consumer-investor" public is invited to negotiate with Loblaw on issues of public concern via the marketplace.

Because ESG investing purports to manage risk, it is often fallaciously conflated with disaster prevention. In reality, ESG investing is mostly focused on handling financial

portfolios so that they are resilient to such catastrophes (Brice et al., 2022). The former chief investment officer for sustainable investing at investment management corporation BlackRock Tariq Fancy[104] (2021) comments: "They're selling fire insurance rather than helping to stop the fire; and even worse, given how poorly that fact is understood, exaggerating their work publicly runs the risk of crowding out government regulation that could actually fight the fire" (p. 12).

ESG investing and its communications through CSR frameworks present a commodified form of security to investors who can afford to diversify their investments (Haiven, 2013, p. 254), rather than an overall reduction in risk to people, organisms, and the planet. These logics extend across the spaces of private insurance society to inform the ways in which choices become available to citizen-consumer-investors in daily life. Stabilizing the dynamics of social licensing in the dominant cattle-beef infrastructure, the responsibility embedded in CSR is accountable mostly to a particular segment of society that protects the interests of the corporation in turn (i.e., the trustworthy public outlined in Chapter 5), while risk is offloaded onto other participants whose needs do not align with current infrastructural arrangements.

CSR at Loblaw

Through an analysis of Loblaw's CSR platforms as encountered in my case study, the next section of the chapter examines how Loblaw engages with shoppers who enact "negotiated" readings of the dynamics of cryopolitical mediation in the cattle-beef

[104] After leaving BlackRock, Tariq Fancy came forward to criticize the company's misleading emphasis on ESG issues. Notably, BlackRock is a major investor in "nearly all of the largest firms in the meat, dairy, and animal feed sectors" (IPES-Food, 2022, p. 14; see also Watanabe, 2021).

infrastructure (Hall, 1973). To incorporate these negotiated perspectives back into a "preferred" reading of the company as a source of protein security, Loblaw offers insurance options to shoppers (as citizen-consumer-investors) from its position as a broker. Responding to concerns about the disconnect between the activities of the current cattle-beef infrastructure and the abatement of the impending protein crisis, these options take the form of CSR initiatives that demonstrate Loblaw's (2023a) stated "commitment to environmental, social and economic sustainability in the Canadian beef industry" (p. 22).

Participants in the cattle-beef infrastructure are invited to buy into these options depending on the level of protein security in which they are interested, such that the uninsured of private insurance society bear the weight of future crises in terms of both negative consequences and blame. On the whole, the security that Loblaw offers as a broker of private insurance society appears to be a "temporary measure" (Blanchette, 2022, p. 166) that preserves for as long as possible the hierarchical distribution of risks and benefits that an ethic of freshness encourages in the cattle-beef infrastructure.

Environmental Sustainability and the "Ecological Hoofprint"[105] Critique

Within the past two decades, an increasingly prevalent "'common sense'" (Katz-Rosene, 2020, p. 44) narrative has emerged: "Livestock production is incompatible with climate and sustainability goals" (IPES-Food, 2022, p. 33). Especially since the publication and media uptake of the United Nations report *Livestock's Long Shadow* (Steinfeld et al., 2006),

[105] Drawing on the concept of the "ecological footprint", Weis (2013) uses the term "ecological *hoof*print" (p. 51) to name livestock's tolls on the environment.

information and misinformation has spread about the relationships between animal agriculture and environmental problems. As detailed in Chapter 1, beef is frequently positioned as the top contributor to these issues. Not only are large amounts of land and water used for raising cattle and growing feed, but these practices also degrade landscapes and waterscapes through heavy use of chemical inputs and ineffective disposal of waste (Qualman & NFU, 2019; Weis, 2013). Moreover, cattle-related industries "are the largest source of Canadian agricultural GHG emissions" (Qualman & NFU, 2022, p. 6).

In light of these circumstances, Charlebois (2016a) observes: "beef is literally going through an identity crisis in the western world", in that the "resource intensive" (para. 9) nature of beef production does not align with public perceptions of environmental sustainability. Focus group participant Harry (Group 1) confirmed: "Yeah, I heard that beef is pretty much the worst type of meat when it comes to sustainability." Given such perceptions, how does Loblaw (2023a) reconcile its continued beef offerings with its pledge to "fight…climate change" (p. 5)?

Canadian Roundtable for Sustainable Beef (CRSB)

Loblaw monitors "at-risk commodities" (2023a, p. 61) and adjusts the suppliers it supports in the service of "offering customers product choices that fit their values" (2015b, p. 16), as stated in a CSR report. In the case of beef, Loblaw has partnered with the Canadian Roundtable for Sustainable Beef since 2014. Loblaw (2023a) indicates that its support of the CRSB sends a "positive signal to farmers and ranchers" via the marketplace, indicating that its customers "value…sustainable, climate-protecting practices" (p. 21).

The CRSB is a national chapter of the Global Roundtable for Sustainable Beef (GRSB; 2023), which is driven by a "mission…to advance, support, and communicate continuous improvement in sustainability of the global beef value chain" in the interest of manifesting its vision of a future "where beef is a trusted part of a thriving food system" (p. ii). In short, the GRSB and CRSB seek to repair the beef industry's social license in the face of mounting questions about beef's sustainability.

The GRSB and CRSB's membership includes beef producer associations, processors (e.g., Cargill), retail and food service operators (e.g., Loblaw), non-governmental organizations, agri-food businesses, academic institutions, and others who are all committed to the survival of the industry (albeit to varying degrees and for differing reasons).[106] Adopting the "5 principles and criteria of sustainable beef" (p. 39) set out by the GRSB (2023)—natural resources, people and the community, animal health and welfare, food, and efficiency and innovation—the CRSB (2024d) "define[s] sustainable beef as a socially responsible, environmentally sound and economically viable product that prioritizes the planet, people, animals and progress" (para. 2). The organization undertakes activities under three main areas to work toward this continued viability: sustainability benchmarking, which assesses the sustainability of the industry and sets goals for improvement; sustainability projects, which put these goals into action in the form of research and innovation on sustainable practices; and the Certified Sustainable Beef Framework—a voluntary program through which farms, ranches, and processing facilities

[106] As Scott Taylor (2014), managing editor of Canadian Meat Business, assures readers: "Of course, it's important to note that The Global Roundtable for Sustainable Beef was not created by some eco-conscious committee at the United Nations" (p. 7).

are certified as sustainable by third parties with accreditations that are communicated to consumers through marketing and labeling claims (CRSB, 2024a).

After participating in committees that have been working to set and to refine verification standards and communication practices for sustainable beef since the organization's beginnings, Loblaw (2020d) became "the first Canadian retailer to purchase beef from CRSB Certified Sustainable farms and ranches" (title) in 2020. The purchasing arrangements are organized "using a mass balance system, whereby the beef sourced as CRSB Certified [is] incorporated into Loblaw's overall beef purchases" (para. 2). Loblaw (2023a) announced in its 2022 CSR report that it had achieved a year ahead of schedule its target to purchase three million pounds of CRSB-certified beef (p. 21).

Regenerative Agriculture and Insurance for Intensive Beef Production

In a press release on Loblaw's initial purchases of CRSB Certified Sustainable beef, Loblaw's Senior Director of Corporate Social Responsibility, Tonya Lagrasta, positions the company's participation in the CRSB as an "investment" in "a sustainable food future" (as cited in Loblaw Companies Limited, 202d, para. 3). Multistakeholder projects like the CRSB are meant to bring together the perspectives of affected parties—or "stakeholders"—from different groups in order to make decisions on common issues like protein sustainability. Critics observe, however, that multistakeholder processes do not always account for power differentials between participants, and thus provide an appearance of democratic legitimacy while pushing forward the normative agendas of the loudest voices in the room (Canfield et al., 2021; McKeon, 2017).

In relation to the cattle-beef infrastructure, the National Farmers' Union (NFU; 2008) identifies a series of interconnected changes in Canada's beef industry post 1989,[107] which shifted the "relative power balance between those who raise cattle and those who buy and process them…in favour of the latter" (p. 5). This trajectory has intensified since the NFU's 2008 analysis (Qualman & NFU, 2109; Qualman et al., 2020). Loblaw (2017) presents its work with the CRSB as a "shared journey to sustainable beef production" (p. 10) from which all participants in the cattle-beef infrastructure will benefit equally. At the same time, the partnership frames beef unsustainability as an issue that can be addressed without reversing the patterns of corporate concentration that have led to uneven influence throughout the beef industry.

Harnessing public attention on beef and climate change, the CRSB redirects anxieties about beef's role in the protein crisis toward arguments *for* beef consumption. Under the heading "Why you should buy it", the CRSB (2024e) writes on its website:

> It's no secret that the world population is growing. In fact, experts predict the global population to be over 10 billion by 2050. We have to be able to produce more food out of fewer resources. It's one of the big reasons why beef sustainability is important for our food system.

In communications about the CRSB, Loblaw (2017) acknowledges beef's environmental footprint: "We understand that beef production contributes to environmental concerns such as greenhouse gas (GHG) emissions and a greater water footprint relative to other livestock" (p. 10). In doing so, Loblaw establishes a contrast between the unsustainable

[107] These developments include: the opening of a Cargill meatpacking plant in High River; the intensification of trade and exports in conjunction with the Canada-US Free Trade Agreement; and increasing levels of captive supply (i.e., cattle committed to a specific processor) in Canadian feedlots (NFU, 2008).

beef in these narratives and the beef from CRSB Certified Sustainable operations—described in the same CSR report as "beef production done well" (p. 10).

As spotlighted in the consumer-facing website *Beef for the Planet*[108] the CRSB (2024b) positions beef production as a practice that can come with significant environmental benefits. Specifically, the organization points to research on extensive agricultural practices like regenerative agriculture to paint a picture of beef production's environmental potential to "store…carbon, support…biodiversity and provide…habitat for over 1,000 plants and animals" (p. 21), as Loblaw (2023a) summarizes beef's benefits in an ESG report. While scientific consensus is unclear on the degree to which regenerative agriculture might contribute to climate change mitigation, notable potential for agricultural soils to sequester carbon has been identified (FAO, 2023b; IPES-Food, 2022).

Applying these principles to beef production, regenerative grazing works with the theory that cattle can contribute to carbon sequestration if their grazing patterns are carefully managed so that they mirror the ecological services of wild ruminants like bison. When ruminants move around a landscape and do not overgraze, they deposit organic waste, trim plants, and trample patches of earth. Mixed by ruminant hooves, manure and decomposing roots add nutrients and fertility to soil (Fairlie, 2010; Qualman & NFU, 2019). A tagline for a CSRB-supported documentary (*Guardians of the Grasslands*) on the beneficial relationship between cattle ranching and plains ecosystems encapsulates the perspective

[108] The website provides a collection of curated information on sustainable beef such as: "Canadian beef production contributes only 2.4% of Canada's overall GHG emissions, and only 0.04% globally" (CRSB, 2024b, Facts section).

on sustainable beef that Loblaw emphasizes through its CSR platforms: “Sometimes what you thought was the problem, is really the solution” (Wray & Ben Wilson, 2020).

From one angle, Loblaw’s recognition of variation amongst beef producers brings some welcome nuance to discussions on beef and sustainability, which tend to conflate all forms of beef production as equally pernicious (IPES-Food, 2022; S. J. Martin & Katz-Rosene, 2020). By putting forward an outcome-based framework (i.e., sustainability indicators) rather than a prescriptive set of steps that must be met for sustainable certification, the CRSB enables operations of different sizes to apply principles in ways that are appropriate to their unique contexts. Given that “the CRSB Certified program is voluntary and application is open to all Beef Producers and Primary Processors and Participating Operators [i.e., secondary processors, retailers, and food service companies]” (CRSB, 2023a, p. 7) the CRSB is ostensibly set up to offer a wide variety of actors the choice to adopt environmentally friendly practices.

The freedom to participate in the program is not equally available to all participants in the cattle-beef infrastructure, however. The CRSB’s apparent appreciation of context and flexibility serves large processors and retailers more than the small farmers and ranchers upon whom Loblaw relies to illustrate beef’s environmental potential with reference to regenerative grazing. During the CRSB 2017 Semi-Annual Meeting that I attended, the power discrepancies embedded in the multistakeholder process were made apparent in the form of a debate about how the Certified Sustainable Framework would be financed. While all CRSB members were adamant that farmers and ranchers should not bear the brunt of the costs, food processing and food service representatives added the caveat that expenses

should still be charged to all members of the supply chain since the program adds value to the entire industry.

In the end, financial support for the CRSB's programs does indeed come from multiple segments of the cattle-beef infrastructure. Producers and primary processors pay for the certification and auditing of their operations, and participating operators (i.e., secondary processors, retailers, and food service companies) cover the expenses to audit and to certify the chains of custody of which they are a part (CRSB, 2023a). Furthermore, if producers and processors choose to sell beef with sustainability claims directly to consumers (e.g., farm gates sales), they also must shell out for a chain of custody audit (CRSB, 2024f). Audits are "risk based" in that participants are placed in categories based on their performance in relation to CRSB indicators; higher risk participants face more frequent audits and fuller records assessments (CRSB, 2023a, p. 12).

In comparison to other participants in the cattle-beef infrastructure, large processors, big retailers, and chain food service companies have more capital to invest in certification in terms of paying for audits and any subsequent revisions or repairs that might be requested in audits, especially if the operation is placed in a high-risk category. With the financial capacity to pay for costly technology updates (e.g., energy efficient refrigeration) and supply chain overhauls (e.g., electrified transportation),[109] capital-rich participants can also mitigate costs upfront by aligning their practices with certification standards prior to auditing (CRSB, 2023a). With the certification of two large meatpacking plants (JBS in

[109] The frameworks for both processors and producers, for instance, include indicators that encourage participants to pursue innovative technologies. An indicator for certified sustainable beef processors specifies: "Energy is used efficiently and innovative options are considered" (CRSB, 2023b, p. 27). Similarly, an indicator for certified sustainable beef producers reads: "Innovation and technology are utilized to improve responsible production" (CRSB, 2023c, p. 45).

Brooks and Cargill in Guelph) in 2020, for instance, the CRSB (2020a) reported that "over 85% of the [beef] processing capacity in Canada" (p. 9) had become certified sustainable.[110] By contrast, a 28% increase in producer certification in 2020 resulted in a new total of "nearly 1,300 CRSB Certified farms and ranches", which "manage approximately 16% of the Canadian herd" (p. 9). Despite the promotional emphasis on regenerative grazing as evidence of beef production's sustainability, the farming and ranching sector (at 16%) in which such practices take place is certified as less sustainable than the processing sector (at 85%).

While Loblaw relies on the work of small farmers and ranchers to demonstrate that beef can be sustainable, it therefore does not enable investments in these operations through the CRSB-certified beef options that it presents as a broker. Instead, these small operators subsidize the reputation and profits of the rest of the industry while facing greater levels of risk as larger players gain more power. This dynamic is apparent in the "snapshot of the Canadian Beef industry" that is included in a report on the CRSB's (2016) *National Beef Sustainability Assessment and Strategy*. Descriptive text is printed above an image of a cow grazing under a wide-open sky: "Over 98% of beef farms are family owned and operated" (p. 6). Cattle do not stay on these kinds of pastures for their entire lives, however. Indeed, the passage continues: "The Canadian beef industry predominately produces a grass fed, *grain finished* [emphasis added] product" (p. 6). After grazing on the cow-calf operations that are common in promotional imagery, cattle are disembedded from their direct connections with grass-based ecosystems and moved to concentrated feedlots where they

[110] Recall the percentage of the beef processing industry in Canada that experienced COVID-19 outbreaks, as discussed in Chapter 2.

are fed on grain.[111] When the CRSB (2024b) invokes regenerative grazing on the *Beef for the Planet* website with claims such as: "beef cattle production helps preserve approximately 1.5 BILLION tonnes of carbon in Canadian soil" (Questions section), it concentrates measurements on one part of the cattle-beef infrastructure without accounting for the emissions from external inputs like feed (Fairlie, 2010). While cow-calf operations may store carbon as cattle graze on grass, this sequestration may not be enough to offset the carbon that is released during the practice of cultivating industrial grain for cattle feed (IPES-Food, 2022).

Still, the Ontario Corn Fed Beef Quality Assurance program was "approved as a Certification Body for the *Certified Sustainable Beef Framework's* Sustainable Beef Production Standard for beef feedlot operations in Ontario" in 2020 (CRSB, 2020b, para. 1). Diverging from the ecological principles of regenerative grazing, feedlots can be seen to be sustainable only according to technological principles of "sustainable intensification". Promoting the decreased impacts on the environment that come from "efficiency improvements made over time" (Scott, 2020, p. 76), practices of sustainable intensification involve increasing yield per unit of land while taking environmental stability into account (Petersen & Snapp, 2015). Innovations in "precision livestock farming" for instance, promise to use data and digital technologies to monitor and to administer targeted inputs to specific animals in the interest of improving animal health and reducing waste (IPES-Food, 2022; Mosby et al., 2020).

[111] Canada has over fifty thousand cow-calf operations, but less than four thousand feedlots (Canfax Research Services, 2022).

Consistent with these approaches, the *CRSB Production Standard* (2023c) that is used to certify "beef producers" (defined as "cow-calf, backgrounding, feedlot and dairy beef operations", p. 5) features "efficiency and innovation" indicators, which direct producers and operators to "improve production efficiency" (p. 45). A measurement under this umbrella specifies, for instance: "Operation shall have animal and land productivity goals" (p. 45). According to the CRSB's (2019) *Interpretive Guide* to these indicators, metrics to assess productivity (i.e., a ratio of inputs to outputs) might include: "pregnancy rates, abortion rates, body weights, mortality rates, [and] ADG [average daily grain]/DMI [dry matter intake]/DMC [dry matter conversion]" (p. 71).

According to these definitions of sustainability, blame can be placed on operators who are lagging behind the continual technological improvement of the industry, as well as on cattle themselves who have "inefficient" digestive systems in terms of the speed at which they can convert feed to muscle without waste (Fairlie, 2010; K. C. L. Lee et al., 2015). As such, "sustainable intensification" replicates the ideologies of agricultural modernization that have justified the expansion of the cattle-beef infrastructure across Turtle Island since the 16th century.

In short, the approaches to sustainability that the CRSB outlines in its Certified Sustainable Beef Framework are at odds with the approaches to sustainability that it presents in the promotional materials that it shares through public-facing institutions like Loblaw. In order for regenerative agriculture to be part of a sustainable system, beef consumption needs to be *decreased* in high income countries like Canada, so that enough land is available to support extensive grazing (IPES-Food, 2022; Fairlie, 2010; Katz-Rosene, 2020; Qualman & NFU, 2019). Aiming for the inverse of this situation, "Goal #10" from the

CRSB's *Sustainability Strategy* states: "*Increase* [emphasis added] demand for Canadian beef through consumer awareness of sustainable beef production" (CRSB, 2020c, p. 11). This mismatch is representative of the caution that the International Panel of Experts on Sustainable Food Systems (IPES-Food; 2022) expresses in relation to the meat industry's increasing use of "regenerative livestock" in its communications: "discourse around regenerative livestock solutions may simply serve to justify high levels of production/consumption of animal source foods into the future" (p. 69). Although Loblaw uses examples of regenerative agriculture as proof of beef's sustainability, if its partnership with the CRSB was successful in achieving the aim of creating high demand for beef, regenerative agricultural practices would not actually be feasible in the beef industry.

As an insurance option, CRSB-certified beef protects the investments of large players in Canada's cattle-beef infrastructure that are committed to growing markets for increased beef output. To build the value of these investments, the program takes security from the social insurance that smaller players (in conjunction with nonhuman organisms) provide by maintaining the plains ecosystems on which the industry relies. Overall, the CRSB reassures shoppers that buying beef at Loblaw's stores is an environmentally friendly choice and that the source of the protein crisis is elsewhere: "You should feel good about choosing beef as part of a healthy, sustainable diet. If you want to make an impact, consider reducing the amount of food waste in your household rather than the amount of beef you eat" (CRSB, 2024c, Did you know section).

Social Sustainability and the Antimicrobial Resistance (AMR) Critique

Based on Adrian's past experiences tracking trends for Loblaw, he predicted: "I think one of the most critical issues the food system will face, even before water, and arguably along with carbon footprint, is the whole antimicrobial issue." As an industry that currently relies on antimicrobials, "beef will be very much in the crosshairs" of the issue, according to Adrian, as public health is threatened by unreliable access not only to nutritious proteins but also efficacious drugs.

Used to treat bacterial infections, antibiotics are a type of antimicrobial—a "natural or synthetic substance…that can kill or block the growth of microorganisms" (Public Health Agency of Canada, 2017, p. 1). Introduced to agriculture during the 1930s, antibiotics facilitated the productivist strategy of increasing animal population densities to boost commodity output through three interrelated applications: targeted disease treatment for individual sick animals, prophylactic use for entire animal populations, and dietary supplementation to improve feed conversion rates (Kirchhelle, 2020).

In its 2022 survey of antimicrobial resistance, the Public Health Agency of Canada found "approximately 82% of antimicrobials were sold for use in production animals" (p. 80) in 2020. Even after adjusting for biomass, considering that the population of agricultural animals (not including fish) to humans in Canada is 22:1, this data showed that 1.8 times more antibiotics were destined for animals than humans. A study of antibiotic use in Canadian feedlots found that "nearly all feedlot cattle received antibiotics" with 73% of cattle receiving antibiotic injections and 97% ingesting antibiotics through feed (Bergen,

2018). These antibiotics were generally administered for the prevention of diseases, including respiratory disease and liver abscesses.

As living beings, microbes contain implicit evolutionary potential to overcome antimicrobials.[112] Antimicrobial resistance (AMR) describes a situation that emerges when microorganisms become unresponsive to medicines (WHO, 2020). The over-use of antimicrobials accelerates these processes of microbial evolution by familiarizing microbes with antimicrobials. In particular, the routine, frequently subtherapeutic use of antibiotics in the homogenous genetic environments of factory farms provides the perfect conditions for creating AMR (UNEP, 2016). In these breeding grounds, bacteria spread resistance both vertically and horizontally.[113] Resistant bacteria then come in contact with humans through multiple pathways, including the food supply, waste from farms and processing, and direct horizontal transfer of genes between farm animals and human workers as bacterial hosts (Public Health Agency of Canada, 2023). Livestock are ideal "epidemiological bridge[s] between wildlife and human infections" because they live close to humans and "are bred for production characteristics rather than disease resistance" (UNEP, 2016, p. 18). As livestock operations encroach further on wild habitats, the construction of such cross-species passageways becomes increasingly likely. The global integration of the food system and rapid movement of people, animals, and microbes across borders offer resistant bacteria

[112] Concerns about AMR emerged alongside the initial development of antibiotics in the 1930s and 1940s. Alexander Fleming, for instance, famously warned about the need for caution with antimicrobials when he accepted the Nobel Prize in 1945 for his work on penicillin (Wallinga, et al., 2015).
[113] Resistance spreads vertically between generations when tolerance is selected as an advantageous characteristic for the organism. Bacteria pass resistance horizontally within a single generation even more rapidly through three biological processes (transformation, transduction, conjugation; Mason & Lang, 2017); this information can also be communicated across bacteria species. The practice of treating animals with multiple drugs thus creates situations in which bacteria can share various resistances with each other, leading to multi- and pan-resistant bacteria (WHO, 2020).

opportunities to reproduce and to mutate to an extent that is not possible when microorganisms are contained within a small population of hosts.[114]

Major international organizations have cited as a cause for alarm a dangerous convergence of increasing AMR and stagnating development of new antibiotic classes (FAO, 2021; Organisation for Economic Co-operation and Development [OECD] et al., 2017; WHO, 2015). Under the moniker of "antimicrobial stewardship", the global health community has called for "coordinated interventions designed to promote, improve, monitor and evaluate judicious AMU [antimicrobial use] to preserve their future effectiveness and protect human and animal health" (Public Health Agency of Canada, 2017, p. 18). Given its support of the beef industry, to what extent does Loblaw demonstrate contributions to these efforts?

PC Free From

Loblaw brokers between dedicated farmers and eaters to offer the PC Free From line of antibiotic-free meats as an investment in antimicrobial stewardship. Under the heading, "Antibiotics", Loblaw's (n.d.-a) ESG website explains:

> That's why we've partnered with farmers who are innovative in raising animals without the use of antibiotics and share our vision of making meaningful progress towards a solution. Together we are giving you a choice you can feel good about. (para. 3)

Since introducing PC Free From chicken products in 2007, the PC Free From line has expanded to include more than 200 "beef, pork, poultry and lamb products across [the]

[114] D. H. Crawford (2007) compares the contemporary environmental situation to a magnified version of the conditions of "10,000 years ago when animal domestication prompted a spate of new human infections" (p. 184).

fresh, frozen, grocery, deli and prepared-item departments" (Loblaw Companies Limited, 2022a, p. 19) of Loblaw's stores. While pigs, lambs, chickens, and turkeys are all raised without hormones in Canada, PC Free From beef includes the attribute of no added hormones alongside the antibiotic-free guarantee (PC, 2022b).[115]

Adrian described Free From as a variation on the goals of Loblaw's organic line, PC Organics. Whereas organic certification involves a comprehensive (and costly) overview of multiple aspects of production systems (including limitations on antibiotics), antibiotic-free certification focuses on a subset of these regulations. Consumers, however, display comparable levels of interest in organic and antibiotic-free as health-promoting products. Focus group participants conflated antibiotic-free, hormone-free, free range, and organic as equally desirable characteristics that distinguished conventional beef from beef that was "conscientiously raised" in participant Keith's (Group 4) words. For Adrian, such lack of differentiation signaled an opportunity to address an area of concern about beef and health with relative ease with the development of PC Free From in the 2000s:

> Organic protein wasn't really too much of [an option] because it was nearly twice the price of regular protein. But […] there was a lot of talk about what hormones were doing [and] there was a lot of discussion around, you know, we're getting too many antibiotics in the system.

Adrian reviewed the lessons Loblaw learned about supply chain segregation through the development of PC Organics:

[115] Trade association Canadian Animal Health Institute (2024) reports: "In Canada, hormones have been safely used in beef cattle since the 1960s to direct growth toward muscle, rather than fat" (para. 2).

> [We] knew what it was like to do chain of custody. And to do it in a very rigid way. So, that's what we did of course with Free From. We actually said, "Ok, we will create a stable of producers who will produce food for us, which never ever has had hormones or antibiotics." And we got a third-party certifier.

At the same time, he indicated that a trustworthy face was worth just as much to bolster the products' public legitimacy as the technical processes that took place behind the scenes:

> One of the most successful things [we] did [with] Free From, is put a photograph of the farmer on the package. And […] Loblaws has [since] put it onto produce among other things, because you can identify with the farmer and it helps you trust the sourcing.

Indeed, the Canadian Centre for Food Integrity (CCFI) has consistently confirmed in its research on public trust that Canadians have more confidence in farmers than any other food system actors (CCFI, 2019, 2020, 2022, 2023). I frequently encountered a portrait of two people adorning packages of Free From beef in Loblaws and No Frills, one of whom was sporting a cowboy hat. Text beside the image informed me that the pair was "ranch managers Lennie and Jim Phillips" who are "among [PC's] dedicated suppliers of Free From beef."

By developing antibiotic-free products, food retail companies like Loblaw can comfort concerned domestic consumers with the "purity" of traditional husbandry. Placed under the heading "products that can build a healthier conscience" (PC, 2010, pp. 21–22), a statement from the Phillips affirms in a *Healthy Insider's Report* profile on PC Free From: "We're doing what's right for our cattle. Our ranch was built on the philosophy of growing the best beef possible" (p. 21). As an additional benefit, following rigorous protocols gives

suppliers opportunities to access international markets where certain antibiotics are banned for use in agriculture (CBC News, 2019). Meanwhile, retailers can continue to offer conventional products through parallel supply chains. As sales of antimicrobials to beef operations in Canada grow (Public Health Agency of Canada, 2022), antibiotic-free products supplement rather than overtake the products from conventional operations. In the words of PC Free From chicken grower Rae Fischer: "By developing an antibiotic-free program on our farms, we can offer consumers another choice" (as cited in PC, 2010, p. 21).

Antibiotic Residues and Insurance for Antimicrobial Use

As expressed by the PC Free From slogan "all the meat you love, without the stuff you don't" (PC, 2022b, header), Loblaw positions antibiotics as a food system ingredient that eaters can choose whether or not to "put in and on their bodies" (Loblaw Companies Limited, 2023a, p. 23). Under the heading "Responsible antibiotic use", Loblaw (2023a) assures shoppers in a CSR report: "Animal welfare experts and the Government of Canada approve the use of antibiotics to treat sick animals, and they regulate the safe return of those animals to rearing programs" (p. 23). The PC Free From line simply offers another layer of insurance in relation to "growing evidence and concern around anti-microbial resistance" (p. 23).

On one hand, PC Free From demonstrates important acknowledgement of under-recognized connections between human and animal health (Wallinga et al., 2015). Noticing a growing number of products targeted toward microflora, Adrian emphasized: "gut health is a very key part of our own health system. And gut health in humans and gut health in animals is very interlinked." The overuse of antibiotics threatens the microbiomes on which

humans and animals rely for all our bodily functions from digestion to immune responses (Gilbert, 2017). On the other hand, as a strategy to address AMR, the line suffers from the limitations of "the residue-focused risk episteme" (Kirchhelle, 2020, p. 143). This regulatory approach concentrates on measuring and defining the levels of antibiotic residues that are tolerable for human consumption, and thus "normaliz[es the] risk[s]" of the general practice of using antibiotics as a routine part of meat production (p. 59).

According to the residue-focused perspective, antibiotics are value-neutral technologies "rendered 'good' or 'bad' only by human choice" (Wallinga et al., 2015, p. 1320). In Canada, protocols for handling antibiotics are focused on regulating choices about antibiotic use at the individual level. Since December 2018, for instance, Canada's livestock producers have been required to hold a prescription from a veterinarian with whom they have a valid veterinary-client-patient relationship before they can access medically important antibiotics. Together, the producer and veterinarian must make determinations about necessary antibiotic procedures (Public Health Agency of Canada, 2021). While this process involves more coordination than previous regulations that allowed for individual liberties like the importation of antibiotics for "own use" (Ad-Hoc Committee for Antimicrobial Stewardship in Canadian Agriculture and Veterinary Medicine, 2014, p. 274), critics argue that guidance from national governing bodies and organizations is insufficient. Without international oversight, policies on responsible antimicrobial use encourage a "race to the bottom", as national policymakers must balance public health concerns about AMR with the economic disadvantages that their domestic agricultural sectors face if they do not have access to standard industry antibiotic infrastructures (Kirchhelle, 2018).

With coordinated international regulations lacking for the agricultural spaces where the threat of AMR development is most prevalent, additional security is unevenly available through the purchase of specialty products at retailers like Loblaws and No Frills. Referencing the PC Free From line, Loblaw assures shoppers: "PC lets you feed your family with confidence, knowing your meat is raised without antibiotics" (PC, 2022b, para. 2). Meanwhile, shoppers who choose conventional products ostensibly agree to accept riskier foods for themselves and those in their care (Kirchhelle, 2020). Even though prices for PC Free From products are not as steep as premiums for organic products, PC Free From remains more available to affluent shoppers. My observations indicated that PC Free From products were noticeably more prevalent and advertised in stores that served Toronto's more affluent neighbourhoods (Canadian Urban Institute, 2016).

Despite the insistence that "PC Free From products means you're free to choose" (PC, 2022b, para. 3), dedicated supply chains do little to slow antimicrobial resistance when antibiotic use is still the norm across the cattle-beef infrastructure. Instead, the beef industry remains locked in a self-defeating "war on bugs" (Wallinga et al., 2015, p. 1319). To triumph in this conflict, industry actors and policymakers are compelled to attempt to control microbes through new antimicrobial "weapons" (Thacker, 2008), while individuals are encouraged to seal themselves off by eating only the "purest" of foods (Katz, 2012). Bacteria respond to this short-sighted approach by emerging as super-microorganisms that reset the process of searching for and developing new drugs (Anomaly, 2020).

Providing privatized insurance to protect against the continued use of antibiotics, PC Free From detracts from the possibility of social insurance arrangements like a transnational precautionary approach that would limit antibiotic use before specific strains

of resistant microbes emerge (Kirchhelle, 2020). Furthermore, although PC Free From offers affluent shoppers the opportunity to regulate the residues that they ingest to an extent, this protection is limited in terms of the larger dangers of AMR. Unlike antibiotic-free products, microbes cannot be contained in dedicated sections of supermarkets. Even if one consumes exclusively organic or antibiotic-free meats, resistant microbes can still make their way into one's diet through various other vectors (e.g., contaminated waterways) and can even infect these niche products themselves (e.g., through contaminated fertilizers; Centers for Disease Control and Prevention [CDC], 2021; L. B. Price et al., 2022). In any case, scientists indicate: "the [antibiotic] residues in meat should be of least concern to most people" (Kirchhelle, 2020, p. 155), given the larger-scale threats associated with diminishing treatment options for once curable diseases (WHO, 2020). In sum, PC Free From offers a false sense of control over an issue that is very much out of the hands of singular individuals (even as individual hands may very well carry the microbes that accelerate the dangers).

Economic Sustainability and the Farm Crisis Critique

Canada is experiencing a "farm crisis" (Qualman & NFU, 2019, p. 5). After almost doubling since 2000, farm debt has reached $106 billion. Combined with stagnating net income, these high levels of debt have forced increasing numbers of farmers to supplement their earnings by seeking additional employment off farms (St. Pierre & McComb, 2022). Other farmers have made the difficult decision to give up their farms entirely in an exodus that has included approximately one third of farm families "in just one generation" (Qualman & NFU, 2019, p. 13). Moreover, these patterns are affecting younger farmers most

severely, with farmers under the age of 35 abandoning farms at double the national rate due especially to the high costs of agricultural land (Qualman & NFU, 2019; Qualman et al., 2020). The beef industry in particular carries risk as a volatile economic space in which to invest time and money, especially for farmers who are just starting their careers (Qualman et al., 2020), given growing operating expenses (St. Pierre & McComb, 2022), deteriorating environmental conditions (Qualman & NFU, 2022), and falling levels of domestic beef consumption (AAFC, 2021). Some analysts suggest that thousands of jobs and billions of dollars of revenue will be lost in the sector over the next two decades (Tubb & Seba, 2019).

In place of a diverse network of small operators, fewer, bigger farms and slaughterhouses are responsible for raising and processing larger numbers of cattle. Canada's remaining cattle farms put out greater total volumes of beef today than twice the number of farms did three decades ago (Qualman & NFU, 2019; Qualman et al., 2020). Furthermore, these operations are increasingly lopsided in terms of their geographic spread. The heart of the cattle-beef infrastructure is in Alberta where more than 40% of beef cattle in Canada are raised (St. Pierre & McComb, 2022).

In addition to effects on farmers themselves, the loss of farms has left other significant holes in the socioeconomic fabric of surrounding communities. As farmers migrate away from communities throughout the country, rural infrastructure deteriorates. With fewer customers and taxpayers to serve, local businesses shutter, and social services like schooling, transportation, and healthcare are increasingly unavailable (Qualman et al., 2020; Roppel et al., 2006). As multinational companies (i.e., Cargill, JBS) become increasingly major players in Canada's beef industry, do Loblaw's beef sales still

demonstrate that the company is "investing in Canada's farming communities" (Loblaw Companies Limited, 2023a, p. 61)?

Plant-Based Meats

Brokering between the current cattle-beef infrastructure and its potential future, Loblaw proposes flexitarianism as a "lifestyle" (PC, 2020c, subtitle) in which both producers and consumers can invest to insure their involvement in Canada's anticipated green economy (PIC, 2022). In the spring of 2020, Galen Weston empathized with shoppers in one of the company's updates on pandemic-related operations:

> This large-scale slowdown can give us new perspective. We can imagine what we might do differently or better once this all passes. Many of us have become more focused on what we're eating—what's essential, what we could do without, or do with a little less of. In my case, I'm a bit of a carnivore, and I'm trying to eat less meat and more vegetables. I know many of you are too. (Loblaw Companies Limited, 2020c, para. 3)

Through such characterizations of the connections between reflecting on personal health and wellness and reducing meat eating, Loblaw situated the company's offerings of "flexitarian choices for our changing lifestyles" as a response to an improving "new us" that would emerge from the pandemic (PC, 2020c, subtitle, para. 3). Describing flexitarianism as "a style of eating" that focuses on plant-based foods and includes animal-based foods "in moderation" (PC, 2020c, para. 7), Loblaw invited "future flexitarian[s]" (PC, 2020a, subtitle) to experiment with the plant-based options available in Loblaw's stores, including products from its private label line President's Choice (PC) Plant Based. Piggybacking on Beyond

Meat's success in Canada, the PC Plant Based line debuted in 2019 with PC's answer to the Beyond Meat burger at the forefront: the pea protein-based PC Beefless Undeniable Burger. In addition to the 95 products that are now part of the line (Loblaw Companies Limited, 2023a, p. 20), Loblaw also sells a range of plant-based products from other brands (e.g., Beyond Meat, Lightlife, Sol Cuisine, etc.) that are part of a "new generation" (Zhao et al., 2022, p. 2) of plant-based substitutes (referenced in Chapter 2).

While a concentration on plants typifies the diets of a large proportion of the world's population for whom animal foods are not widely accessible, the term "flexitarianism" combines "flexible" and "vegetarian" to describe patterns of eaters primarily in the global North who have been moving away from animal foods since the late 20th century because of concerns about animals, health, and the environment (Flail, 2011; OED, 2023). Loblaw's promotion of flexitarianism reflects deliberations that are taking place in academic, industry, and policy circles about a potential "protein transition" from food systems' overreliance on intensive animal agriculture to more sustainable, ethical forms of protein provisioning (IPES-Food, 2022; Katz-Rosene et al., 2023). Flexitarianism is cited specifically as a consumption practice that might carry forward the "protein transition" in Canada (Ernst & Young LLP & PIC, 2023), as it is more accessible and attractive than other forms of meat restriction (Dakin et al., 2021). While the vegetarian and vegan percentage of the population in Canada holds steady, eaters indicate growing interest in reducing their consumption of meat, particularly beef (Charlebois et al., 2018; Charlebois & Music, 2021; Doucette, 2019). Catering to this emergent group, new and increasingly meaty plant-based substitutes like PC Plant Based are highlighted as significant "transition" foods (Canadian Press, 2018c) that can ease dietary adjustments for eaters accustomed to meats.

In conjunction with these changes, industry commentators propose that investments in plant-based proteins can help to strengthen Canada's economic position as a manager of the protein crisis (Al-Katib, 2020; Canadian Grocer, 2021). As referenced in Chapter 2, multistakeholder organization Protein Industries Canada (PIC) has launched a plan for "Canada to seize a $25 billion annual economic opportunity" (PIC, 2023a, para. 2) along with "the addition of nearly 17,000 jobs nationwide" (PIC, 2023, p. 2) by positioning itself as a "global leader in plant-based food" (PIC, n.d., subtitle). PIC thus foresees economic opportunities for rural communities despite changes in Canada's cattle-beef infrastructure.

Loblaw is a participant in PIC's research project on regulatory modernization, which aims to update Canada's food policies to permit faster innovations in the plant-based market (PIC, 2022a). In a press release on the project, Loblaw's Vice President of Product Development and Innovation, Kathlyne Ross, states:

> Our goal when developing products is to provide customers with choice up and down our aisles. Today, we're seeing more and more demand for plant-based options, as customers are searching for meat and dairy alternatives that taste great… We want to be part of the group that's leading the way when it comes to plant-based and we're proud to collaborate on impactful elements as we grow this industry. (PIC, 2022a, para. 11)

The inclusivity of flexitarianism allows Loblaw to benefit from a full range of choices that shoppers might make as the meatscape evolves. With the launch of the PC Blue Menu flexitarian burger in 2020, Loblaw gave shoppers the opportunity to enjoy the "best of both burgers" (PC, 2020e, 0:04) by combining beef and vegetables into a single patty. This

burger "hack" is representative of how flexitarianism appears as an insurance option at Loblaw's stores.

Flexitarianism and Insurance for Meat Economies

Having observed the plant-focused market since the first explicitly labelled vegetarian products were introduced to the PC lineup in the 1990s,[116] Adrian forecasted:

> There will always be the hardcore vegetarian […] like three to five percent of the market […] [which is] an important piece of the equation. But I think actually a bigger piece of the equation is the omnivore […] a large percentage of the everyday consumer who just is eating less meat. And that will make up ten times what the vegetarian piece is. And if you can offer that consumer who wants to eat less meat good vegetarian options, then you're really hitting the ball out of the park.

Echoing Adrian's words, Loblaw assures potential flexitarians: "This food philosophy embraces flexibility. In other words, no one's going to mistake you for a hardcore vegan" (PC, 2020a, para. 2). As opposed to invoking meat reduction as a sacrifice, Loblaw presents flexitarianism as an expansion of options to "suit any palate" (PC, 2020c, para. 13). During my store observations, I visited an interactive display that was part of Loblaw's *Taste the New Next* campaign on emerging food trends. It invited shoppers to "tap into the ongoing revolution in protein possibilities and take your palate beyond traditional options" by "swing[ing] by for a sample" of "alternative proteins you didn't know you'd love." The setup

[116] Loblaw has been tracking vegetarian products as an emerging trend for years. The *Dave Nichol's Insider's Report*, named tofu "the food of the future" (PC, 1984a, p. 12) in the 1980s and "food for the new millennium" (PC, 1999, p. 6) in the 1990s. It presented "wholesome and delicious" vegetarian patties and sausages as indicative of "a state of mind beyond meat" (PC, 1998, p. 8) well before the Beyond Meat brand name became a catchall moniker for plant-based substitutes.

included bowls and decorative jars filled with protein-packed legumes, grains, and insects. Referencing this diversity of proteins as well as the importance of food waste reduction, a chalkboard-style sign read: “Eat it all”.

As a flexible framework, flexitarianism holds potential to encourage eaters to respond contextually to the needs of varying food networks in Canada. In some situations, meat reduction might be warranted (e.g., the diets of high-income settlers in urban areas), and in other situations, it might not be appropriate (e.g., the diets of Inuit living in the north). A variety of flexitarian enactments could add strength to food systems overall, since they could draw on a diversity of food sources rather than overtaxing singular pathways from land to table (Dagevos, 2021). If flexitarianism is associated with a defined consumer demographic that companies can match with a new set of products, however, the benefits of its flexibility can be rerouted away from diverse food systems toward adaptable investments, which would insulate financial portfolios from the risks of intensive animal agriculture without requiring meaningful changes within those industries (Brice et al., 2022). Beside nine risk factors for animal protein companies, for instance, the investor network, Farm Animal Investment Risk and Return (FAIRR; 2024) lists “sustainable proteins” as a key opportunity factor. FAIRR (2016) suggests: “Forward-looking investors and large food companies” (p. 3) can turn economic risks into opportunities for “competitive advantage” (p. 5) by “tapping in to a growing consumer base” (p. 10) that is looking for plant-based options.

PC Plant Based products are interchangeable with the animal products they imitate on multiple levels. On one level, animal-derived foods remain the assumed norm against which “alternative” protein options are positioned. The “5 satisfying ways to eat more plant-based

foods" (Sibonney, 2020, title) listed in an article on the *PC Insiders Project* website all involve replacing animal products with PC Plant Based substitutes. From PC Plant Based Beefless Broth to PC Plant Based Coconut Milk Frozen Dessert, the design of plant-based products consistently references animal-based foods. Breaking out of segregated health food departments, the new plant-based substitutes "are also merchandised adjacent to their animal-based counterparts, making it convenient for…customers to find plant-based alternatives" (Loblaw Companies Limited, 2023a, p. 20). On another level, profits are increasingly funneled toward the same narrow set of actors regardless of whether shoppers choose meat-based or plant-based products. Large meat and dairy companies are gaining an increasingly powerful hold over opportunities in the alternative protein space by "investing in or developing plant-based substitutes" (p. 1) in the pattern of "'protein' industry convergence" (Howard et al., 2021, p. 1) discussed in Chapter 2. As Cargill's Chief Operating Officer, Brian Sikes, summarizes in a press release: "Whether you are eating alternative or animal protein, Cargill will be at the center of the plate" (Cargill, 2020c, para. 10).

Rather than disrupting eating habits, flexitarianism as implemented in Loblaw's stores maintains this "centre of the plate" approach to protein (IPES-Food, 2022, p. 48). When flexitarian reimaginings are restricted to variations on the Western culinary format of meat, potato, and side, protein retains valuable real estate as a dining focal point. In other words, meals are still organized around a central protein even if a beef product is swapped out for a plant-based product. In seeking to replicate meats, companies often fall back on such discourses to demonstrate the meat-like authenticity and nutritional legitimacy of their products (Broad, 2020). The values attached to protein are a notable component of this

process, as actors like Cargill reposition themselves as “protein” companies, which are, in the words of Cargill representative Jackson Chan: “taking an inclusive approach to the future of protein by investing in both animal and alternative protein” (Cargill, 2020b, para. 4). Unlike other macronutrients (i.e., carbohydrates, fats), protein has retained a reputation as a healthy, essential part of the human diet. When meats are redefined as proteins, they can be positioned alongside plant-based products as solutions (rather than contributors) to food insecurity (Guthman et al., 2022). Illustrating this point, I noticed signs above meat display fridges in a Loblaws that reminded shoppers that meat is a “good protein”.

As meats are reconceptualized as “substrate[s] carrying information” (Muhlhauser et al., 2021, p. 2), which can be broken down and refabricated as plant-based substitutes, they become further distinguished from the bodies of animals. PC Plant Based products thus extend the PC tradition of differentiating protein foods from evident traces of animality. A pitch for Jack Kwinter’s hot dogs in *Dave Nichol’s Insider’s Report* reads: “Kwinter’s dogs are made with skeletal beef; you won’t find any cheeks, tripe, hearts or tongue trimmings as permitted in the manufacture of ordinary hot dogs” (PC, 1984b, p. 12). A decade later, the report introduces PC vegetarian frankfurters, emphasizing: “You’ll love our new meatless hotdogs because of what they *aren’t*—they aren’t made from meat byproducts” (PC, 1992, p. 13). Certified vegan by third-party VegeCert, PC Plant Based products are similarly desirable because they “contain no animal by-products” (Loblaw Companies Limited, 2023a, p. 20).

Regardless of the actual origins of the ingredients, the de-animalized form is appropriate for the creation of self-contained commodities that can be shipped through supply chains on a “just-in-time” basis—an arrangement that continues to advantage

partnerships between large packers and retailers like Cargill and Loblaw. In comparison with smaller operators, large meatpackers face fewer barriers in transporting products to profitable markets, and they can thus extract economic value from every part of the cattle they process. The infrastructure for commercial use of animal byproducts (e.g., rendering plants, tanneries) has been disappearing in Canada since the late-20th century, as meatpacking plants have consolidated in ownership and geography, as discussed in Chapter 2. Whereas large-scale packers have moved much processing work on-site through "boxed beef" arrangements (Bisplinghoff, 2006), small-scale packers have continued to rely on diminishing local options for byproduct processing. Because food safety regulations prohibit the movement of non-federally inspected animal products across national and provincial borders, regional abattoirs have a limited market even for the sale of popular cuts of beef (Brynne, 2020; Rude, 2020). In contrast, multinational companies like Cargill have opportunities to export their products to countries where the markets for byproducts are more lucrative and demand for beef is growing (Hicks et al., 2018; Luckmann, 2021; National Beef Strategic Planning Group [NBSPG], 2022).

Drawing on agricultural materials available in different geographies, flexitarianism could support a range of actors in an equitable "protein transition", but it is instead being co-opted as private insurance for meat companies to weather profit losses that might come from changing dietary patterns. Loblaw participates in sculpting the seemingly indefinable boundaries of a diet premised on flexibility into a niche market that fits comfortably within existing food system logics. An article on the *PC Insiders Project* website explains the rationale behind the introduction of the PC flexitarian burger: "The company already had a robust line of frozen burgers on offer, from all-beef to fully vegetarian, but they wanted to

create a product for those who are more conscious about the amount of meat they're eating right now" (PC, 2020d, para. 5). Like the beef, flexitarian, and veggie burgers that sit side by side on Loblaw's store shelves, flexitarianism exists between vegetarianism and omnivorism as another dietary choice from which profits can be gathered.

"There's no end to it"

Choice operates through Loblaw's CSR initiatives as an influential but unstable regulatory mechanism to negotiate risks in the cattle-beef infrastructure. CSR presents choice as a freedom that is available to all food system stakeholders: Suppliers participate in free market competition by choosing to adopt voluntary industry standards, while shoppers express consumer sovereignty by choosing to buy ethically branded products. A significant degree of power remains with Loblaw as a broker to delineate who has access to the insurance that one can purchase through "responsible" investments, however. In the context of private insurance society, public input, critiques, and even resistance can offer invaluable information that Loblaw can use to recalibrate insurance opportunities such that the existing arrangements of the cattle-beef infrastructure are strengthened. Nevertheless, the options that CSR initiatives put forward are also underpinned by unfulfilled promises and unexpressed possibilities for a more ethical cattle-beef infrastructure.

CSR must work to define and to redefine the boundaries around responsible choices because these spaces are fundamentally porous. Although the CRSB's Certified Sustainable Beef Framework situates sustainable intensification as a responsible production method, it is unable to fully square this approach with the regenerative agricultural principles that it relies on for validity. While PC Free From positions antibiotic-free beef as a method of

responsible containment, the microbes that spill out from conventional systems question neat boundaries between production methods. Even as plant-based proteins promise possibilities for a responsible economic transition for the meat industry, animal byproducts are a visceral reminder of the surplus that is created if local processing options disappear. Multiple pathways thus linger around the edges of the singular directions toward which citizen-consumer-investors are marshaled to take advantage of private insurance.

Illustrating CSR's inability to contain various facets of choice, Laura named a common feeling that focus group participants admitted to experiencing when confronted with the liveliness of meatscapes:

> Laura: Any [animal] imagery gives me extreme guilt. […]
>
> Kelsey: What are you feeling the guilt about, do you think?
>
> Laura: Guilt because I know... not even the animals, but the environment? I know I don't lead a lifestyle of caring about the environment as much as I'd like to one day? So, I kind of wish that I could eat more—like, I know this is a meat session or whatever—but I wish I could eat less meat? And I'm hoping to transition to that one day?
>
> Kenneth: Mmhmm.
>
> Laura: But yeah, being reminded of the animals dying and the earth dying isn't my favorite, not to get morbid.

By defining choices that one can make to exercise control over food system practices, CSR offers security to soothe guilt's nagging insistence that one should take accountability for one's food-related actions. Given that organized irresponsibility is embedded into this very

same system, however, the ethical certainty that CSR offers is fleeting and illusory. The focus group discussion continued:

Kelsey: Does anybody else have those sorts of feelings of guilt […] that [Laura] was talking about?

Blaike: You can't. You can't be. Because you would feel guilty about everything you eat.

Kenneth: Yeah.

Laura/Blaike: Everything you do. / Everything you—

Laura/Blaike: Everything you wear. / Everything you—

Kenneth: Yeah.

Laura/Blaike: Yeah, trust me, I do. / It's, you know.

Kenneth: Yeah.

Blaike: There's no end to it.

While the options presented by CSR promise to protect citizen-consumer-investors through privatized insurance, the messy materiality of eating foils such attempts at detachment. Focus group members displayed different reactions to the fruitless search for security in the contemporary meatscape. Blaike resigned himself to the unethical system because of the impossibility of making sense of the complexity of eating from the subjective position of an individual. Laura, in comparison, sat with her feelings of "ethical indigestion" (Blue, 2020, p. 156), which prompted her to turn toward her responsibility to others despite the uncertainties and imperfections in her present practices (an experience that resonates with the ethic of decay discussed in Chapter 8). This relational approach makes

space for choices to act as multiplying possibilities, rather than predetermined options into which actors are hierarchically slotted.

Calling for more research on the small-scale, inter-relational dynamics that shape how CSR emerges in practice, Aguinis and Glavas (2012) ask:

> Do emotions…mediate the relationship between CSR initiatives and outcomes? Is there a construct that we can label "CSR emotions"? If yes, what are the CSR emotions that internal and external stakeholders experience as a consequence of CSR initiatives (or lack thereof)? (p. 965)

Extending consideration to affect, I identify "CSR emotions" in the cattle-beef infrastructure not as defined emotional states experienced by individuals, but as part of the emergent "social formations" (Williams, 1980) that arise as part of the growing "infrastructure of feeling" (Gilmore, 2022) between the ethical options that Loblaw presents and the sense that more needs to be done. I explore these lingering feelings alongside the ghosts of the next chapter.

Chapter 7: Ghosts

"It is one thing to worry about the death of others in a distant land and quite another to suddenly become aware of one's own putrescence, to be forced to live intimately with one's own death, contemplating it as a real possibility" (Mbembe, 2021, p. 58).

Milk and Meat

Delicate, pink strips sat on a black foam tray in the meat case of a Loblaws supermarket. Affixed to the plastic that wrapped them together was a label, which read: "Milk Fed Veal". My eyes moved from the packaging to the contents, and I felt a slight twinge in my stomach, as the words on the sticker and the milky flesh began to blend together.

Referencing a calf's past meals to invoke desire for a human's future meals, milk fed veal collapses together multiple timeframes. In the slow-motion world of the refrigerator, it occupies a space of extended death between life and decay, embodying an intersection between two significant substances that Kristeva (1980/1982) theorizes as abject: milk and corpses. For Kristeva, the abject refers to visceral materials that unsettle the boundaries of the self when they are encountered. As a "medium that is common to mother and child" (p. 100), milk sustains the organism's growth from birth into life, whereas the corpse is "transitional matter" (p. 109) that ferries the body from death into decay. As a piece of a corpse that references the nourishment of newborn life, the liminal existence of milk fed veal exhibits an uncanny force that disrupts the frozen temporality of the meat department. When I moved through the aisles lined with wrapped calf parts during one of my store observations, I experienced an eerie sense that the other shoppers and I were not alone. My field notes on the "surprisingly varied" veal selection in one Loblaws read: "I had some thoughts about supermarkets as haunted spaces."

Turning attention to problems in Canada's dominant cattle-beef infrastructure that remain unaddressed despite corporate social responsibility (CSR) interventions, this chapter theorizes supermarkets as mediums in the sense of the word that refers to entities that channel communications between the living and the dead. I characterize supermarkets as mediums with the understanding that they have the capacity to host multi-vocal dialogues across time, space, species, and animacy. This interpretation follows from C. Massicotte's (2017) feminist analysis of 19th to 20th century mediumship, which positions mediums' nonlinear communications as assertions of uncontainable agency that challenge the suppressive categorizations of patriarchal culture.

As a mediator that regulates the movement of commodities, Loblaw pushes the messiness of death to the borders of retail spaces such that its stores remain appealing to "citizen-consumer-investors" (defined in Chapter 6). In its doubled role as a medium, however, it permits additional passengers through supermarket doors (walls, ceilings, and floors) unintentionally. I position these hitchhikers as the affective entities—the ghosts—who communicate ethical concerns to Laura (Group 3), Blaike (Group 3), and other shoppers (see the conclusion of Chapter 6). Ghosts encourage "oppositional" readings (Hall, 1973) of Loblaw's cryopolitical mediations, which find that Loblaw's management of the flows of life and death in the cattle-beef infrastructure takes away from possibilities of protein security in the future. Through varied practices of haunting (including those explored in this chapter), ghosts call attention to the lives that have been devalued in the interest of preserving beef's identity as a viable commodity within Canada's meatscape. They complicate any claims to physical or moral purity Loblaw may have engineered for its meat departments through CSR initiatives. Returning as evidence of the marginalized actors

onto whom risks have been deferred and displaced in the service of maintaining the cattle-beef infrastructure, ghosts reveal that private insurance policy holders remain entangled in collective conditions of risk even if they experience temporary reprieve.

I begin the chapter by analyzing the identities of the "uninsured" participants in the cattle-beef infrastructure in conversation with scholarship of the "spectral turn" (Blanco & Peeren, 2013c). Positioning ghosts as signs of emergent "social formations" (Williams, 1980) that have not been co-opted into the dominant "infrastructure of feeling" (Gilmore, 2022), I explore how they might be "guide[s]" for navigating the ethics of beef consumption beyond the ethic of freshness (Swanson et al., 2017, p. M2). The remainder of the chapter draws on my case study research to dialogue with four sets of ghosts who represent the externalities that make fresh beef profitable for the beneficiaries of Canada's dominant cattle-beef infrastructure. These ghosts have haunted my other chapters as the actors whose relationships with the infrastructure have been coordinated to craft the cryopolitical pause at the shopper-supermarket interface: animals, workers, eaters, and environments. I ask: When, where, and how do these ghosts make themselves known? What do they say? And ultimately, how do we all live together? I propose that such spectral encounters carry potential to attune shoppers to the responsibilities that are embedded within the intertwined vulnerabilities of eating and being eaten.

Cryogenic Culture and Spectral Mediation

Underpinning the ethic of freshness that normalizes current beef consumption practices are "cryogenic cultures" that "produce and are produced by cold" (Friedrich, 2017, p. 60). As discussed in Chapters 1 and 2, beef distribution was foundational to the formation of

these "cryogenic cultures" in the 19th century. By slowing organic decay, refrigeration promised to provide a solution to the problem of "how to get the bounty of the Southern Hemisphere to the waiting, hungry consumers in the metropole" in order to address the so-called "meat famine" (Woods, 2017, p. 99). Eaters in Britain were initially cautious about the temporal and geographic abstractions of shipped meat, wondering whether an animal who had been slaughtered across the world weeks or months previously would remain edible (Woods, 2017). Over time, they learned to associate "freshness" with shelf life rather than animal lives. The empire's ability to conquer time and space by moving beef in a state of arrested decay from the colonies to the mainland became an emblem of societal progress (Freidberg, 2010).

Working with recapitulated colonial logics, today's version of the "meat famine" has been reinvented as the projected protein crisis and the related assertion that protein production must increase to meet the needs of a growing human population (Guthman et al., 2022; IPES-Food, 2022). The enactment of cryopolitical power ("cryopower") has intensified as cryogenic infrastructure has expanded to encompass more places and technologies. While cryopower was initially directed toward "non-human animal and plant life" in the form of "fresh edibles" like cattle/beef (Friedrich, 2017, p. 63), it has extended to the microscopic entities that participate in the composition of these beings, including genetic material stored for planned and/or hypothetical use in seed banks and cryobanks. Global networks house and circulate organic matter in the form of "*controllable potential*" (Friedrich, 2017, p. 63), functioning as "a kind of insurance" (Radin & Kowal, 2017, p. 9) to protect future populations against the risk of running out of food. As discussed in Chapter 6, Loblaw's CSR initiatives provide opportunities for citizen-consumer-investors to support

this insurance scheme by buying into a dominant approach to beef sustainability that operates according to an ethic of freshness to postpone the deconstruction of risky practices (e.g., high levels of beef consumption per capita, routine antibiotic use, centralized slaughter, etc.) so that the life of the industry is extended.

A closer look at the circuitry reveals that the cattle-beef infrastructure's cryopolitical insurance arrangements are more effective for preserving the potential flourishing of capital rather than that of human and nonhuman lives. The cold chain has been refined with ever-growing externalized environmental and social costs to create beef products that reach peak value when they are displayed in supermarkets as pre-cut, individually wrapped, pieces of bright red flesh. Before beef reaches shelves, cattle's lives and workers' labour are assessed in relation to retail specifications: Their worth is dependent on the curation of their bodies such that nothing is extraneous to the production of homogenous, packaged units. In refrigerated limbo, the value of meat depreciates as it browns; the logistical and liability expenses of donating meat to emergency food services are weighed against the environmental costs of disposing of meat in landfills, even as hungry eaters multiply (Hisano, 2019; R. Horowitz, 2006).

The private insurance arrangements of Loblaw's CSR platforms leave out many of the actors who enable the practice of beef shopping to occur at Loblaw's stores. To create beef as a commodity that appears (at least for the time being) to be environmentally, socially, and economically sustainable, Loblaw participates in divesting the cattle-beef infrastructure's risks onto actors who do not have the capacity to pay insurance premiums. When cattle's digestive systems are cited as a primary cause of greenhouse gas emissions, cattle experience increased demands on their bodies to keep up with the pace of

"sustainable intensification". Even as low-income eaters are chastised for the irresponsible "votes" that they place with their forks, they are priced out of organic, antibiotic-free, and other specialty markets. While small- and medium-scale farm operators and workers are positioned as failing to keep up with transitions toward plant-based economies, local avenues for processing, storing, and marketing their products evaporate. Underpinning all these circumstances, environments are charged with supporting perpetual economic growth at the same time as organic materials (e.g., fossil fuels) are mined from deeper within their histories. As discussed in Chapter 5, these bearers of risk are deprioritized in conversations on the governance of the meatscape, while economically and socially secure actors are prioritized as trustworthy stakeholders whose interests should guide decision-making processes on the development of ethical beef consumption.

Intertwined with "cryogenic culture", the future of the cattle-beef infrastructure is unstable. Friedrich (2017) summarizes: "without constant cooling, a cryogenic culture collapses" (p. 60). Cryopolitical strategies maintain the freshness of beef in the sense of both material palatability and ethical credibility, in that they limit direct public interactions with the cattle-beef infrastructure to a specific time and place. If stores of resources are available in an undefined elsewhere and elsewhen, one is not called to be accountable for one's actions in the here and now. Since the early imperial beef trade, artificially manipulated cold temperatures have promised to "liberate" eaters not only from seasonal time and geographic space (Woods, 2017, p. 90), but also from responsibilities to the temporally and physically "distant others" who participate in feeding them (Shotwell, 2016, p. 107).

Unearthed as fossil fuels, ancient matter has been mobilized to keep the freshness of the cattle-beef infrastructure afloat. While the combustion of fossil fuels powers the machinery of the cold chain temporarily, it also produces greenhouse gases that warm the Earth (Radin & Kowal, 2017). These fossilized plants and animals can be seen as ghosts that haunt the cattle-beef infrastructure, revealing the hubris of human attempts to pause cycles of life and death indefinitely. Notably, "iceberg calving" is the term for the "detachment of ice blocks from ice sheets and glaciers" (Alley et al., 2023, p. 190), which is happening at an increasing rate as the climate changes. While the etymological origins of the term are uncertain,[117] iceberg calves and bovine calves haunt one another in linguistic and material senses regardless, considering the cryopolitical networks in which they are both entangled.

My engagements with such ghosts of the cattle-beef infrastructure build on the scholarship of the "spectral turn" (Blanco & Peeren, 2013c). This collection of cross-disciplinary explorations invokes spectrality as a "conceptual metaphor" (Blanco & Peeren, 2013b, p. 1) to grapple with postmodern experiences of liminality. Although locating a starting point for a theory of the between is somewhat counterintuitive, Derrida's (1993/1994) *Specters of Marx* has been cited as a defining text of the spectral turn. Written at the end of the Cold War and the supposed "death" of communism (Fukuyama, 1989), the text complicates a linear conceptualization of life and history. As a counterpoint to ontology, Derrida puts forward the concept of "hauntology" to name the study of potentialities that

[117] Alley et al. (2023) indicate that the term "is likely from analogy to a cow giving birth to a calf." They expand: "Mariners probably borrowed the term from farmers to refer to whales giving birth, and then whalers applied the term to icebergs. The term may be related, however, to use in parts of England of the term calve-in for cave-in of excavations" (p. 191).

precede, surround, and follow Being. Rather than banishing ghosts, Derrida recommends that humans "learn to live *with* ghosts…more justly" (pp. xvii–xviii).

Decolonial, feminist scholars trouble the assumption that responses to hauntings should centre the achievement of justice as an ethical goal, given that the dominant justice system operates according to colonial understandings of justice, which position crime as an individual perpetration and punishment as the closure of harm (see Chapters 3's discussion of justice and Chapter 5's discussion of organized irresponsibility). Breaking from the reconciliatory frameworks of social justice, for example, Tuck and Ree (2013) propose that haunting is necessarily ongoing in its demands for continued accountability. As opposed to Derrida's conjuring of an "undifferentiated spectral mass" (Blanco & Peeren, 2013d, p. 311) in his references to ghosts, scholars have called for work that recognizes the historical, sociocultural specificity of ghosts, hauntings, and the traumas with which they are associated (Mbembe, 2003; Spivak, 1995).

I align my ghostly investigations with these interrogations of the spectral turn, which point out that Western scholarship's "new" interest in liminality relies on non-linear concepts of space-time and relational concepts of being that are already embedded in non-Western praxes (as referenced in Chapter 3; Todd, 2016). Recognizing spectrality as unfinished, I draw on Gordon's (1997/2008) notion of haunting as "mediation" (p. 19) to conceptualize the diverse, semi-visible exchanges across cattle-beef infrastructures and associated infrastructures of feeling. For Gordon, hauntings are interactive connections between "systemic structures" and "everyday life" (p. 19). While reality is therefore always already haunted by the ongoing interplay between historical infrastructure and contemporary agency, ghosts act as "empirical evidence" (p. 8) to make hauntings apparent.

Since ghosts signal possibilities for transformation by moving fluidly between apparently fixed poles of life and death, haunting invokes "an ethics" (Blanco & Peeren, 2013e, p. 33), which Gordon (1997/2008) labels as a "something-to-be-done" (p. xiv) in reference to the responses that ghosts demand in place of further repression.

Oppositional Readings, Ghostbusters, and Mediums

In the dominant cattle-beef infrastructure, ghosts provide material indications of the effects of externalities on marginalized actors by jumping across and filling in the spaces between the supposedly linear sequences of steps in supply chains. In the process, they elucidate and frustrate the cryopolitical alignments that the infrastructure attempts to create between economic flows and the organic changeability of flesh. Encouraging shoppers to perform "oppositional" readings of these processes (Hall, 1973), ghosts disrupt Loblaw's attempts to use private insurance arrangements to re-normalize beef consumption as an ethical practice.

According to the Marxist analysis discussed in Chapter 2, the fetish nature of the commodity is responsible for hiding exploitative relations of production and disposal. To implement remittances that account for the true price of beef, one must defetishize the commodity. The practices of CSR outlined in Chapter 6 reveal the limitations of this fetishizing-defetishizing dialectic as a strategy for liberatory change. When the public defetishizes beef by revealing a problem in the current infrastructure, Loblaw finds an opportunity to provide sellable insurance options to protect against the issue, refetishizing beef in the process.

In this chapter, I use the metaphor of "ghostbusting" to theorize further this dynamic of incorporation, and I explore the spectral signals that defy CSR's attempts to individualize responsibility. As depicted in the media franchise *Ghostbusters*, ghostbusting strategies corral boundary-threatening ghosts into manageable categories such that a stable future of progress is maintained. *Ghostbusters* takes inspiration from the American Society for Psychical Research (ASPR; Matloff, 2014), an organization that has sought to prove or to disprove spiritual phenomena using scientific methods. The ASPR was founded in 1885 at a time of proliferating movements like Spiritualism, which promoted the existence of a contactable spirit realm and thereby threatened the colonial insistence that Western societies had advanced beyond "primitive" beliefs in animism (Puglionesi, 2020).

As established in the original film, the Ghostbuster team is formed by a trio of parapsychology professors who are fired from their university positions as the administration doubts the sincerity of their paranormal research. Billing themselves as an extermination service, the Ghostbusters hunt and capture ghosts by using "proton packs" to freeze ghosts in particle beams, traps to catch and to transport them, and a "containment unit" in which to hold them indefinitely (Reitman, 1984). This process is illustrative of a pattern that Tuck and Ree (2013) observe in mainstream American films' treatment of ghosts: "The hero spends the length of the film righting wrongs, slaying the monster, burying the undead, performing the missing rite, all as a way of containment" (p. 641).

Despite the promises of resolution that such narratives present, threats do not remain bounded whether in containment units or in insurance schemes. Indeed, ghost escapees are a conceit of the *Ghostbuster* series. In an episode of the animated television show *The Real Ghostbusters*, the Ghostbusters encounter and trap a ghost in the Grocery Delicatessen

supermarket. As the Ghostbusters' ghost trap turns out to be broken, ghostly essence leaks from it and possesses objects nearby, including the containment unit (Allee et al., 1989). In the most recent installment of the films, *Ghostbuster: Frozen Empire*, the near-capacity containment unit is opened by a demon who embodies what I might imagine cryopower to look like if it was a superpower (the demon seeks to take over the world by using people's negative emotions to drop temperatures; Kenan, 2024).

Likewise, in the cattle-beef infrastructure, risks cannot be offloaded onto marginalized actors indefinitely. Responsible private insurance investments do not diffuse risks, but rather redistribute them temporarily. As Loblaw and privileged shoppers gain trust capital through the positive feedback loops of stakeholder management (outlined in Chapter 5), shadow feedback loops also materialize. The more Loblaw tries to control stakeholders and the risks they represent, the more risks and side effects of risks are created. As risks multiply, the possibility of a "boomerang effect" (Beck, 1986/1992, p. 37) intensifies, wherein the consequences of risks also affect actors who initially profited off their production. Demonstrating that borders can act as connecting bridges as well as separating walls, the abject (dis)appearances of ghosts in supermarkets are a reminder of the "perpetual danger" (Kristeva, 1980/1982, p. 9) that all participants face as risks develop in the contemporary cattle-beef infrastructure.

While I follow a ghost-*hunting* approach by interrogating the material contexts of power in which beef is embedded, I do not ascribe to the ghost*busting* impulse to evacuate fetishes of all their power (Shukin, 2009). Instead of defetishizing commodities, I am interested in finding other ways to listen to the multi-vocal stories that pieces of beef carry with them. I am inspired by Gordon's (1997/2008) insistence: "We will have to learn to talk to and listen

to ghosts, rather than banish them as the precondition for establishing our scientific or humanistic knowledge" (p. 23).

Taking the animacy of the fetish seriously, I consider limitations of Western ontological attempts to police clear boundaries between the living and the dead. This paucity has always been apparent from Indigenous and other non-Western perspectives that do not ascribe to binary, hierarchical divisions between life and death (Radin & Kowal, 2017). Whereas Western epistemological presumptions about the emptiness of unoccupied space and the linearity of developing time have justified countless imperial projects, various Indigenous and other non-Western cultures have long recognized the liveliness of absence and the circularity of experience (D. B. Rose, 2017). As discussed in Chapter 3, these theorizations intersect with proposals in quantum physics, which show that nothingness is a "constitutive part of every 'thing'" (Barad, 2007, G113). As such, Barad argues:

> Hauntings…are not mere rememberings of a past (assumed to be) left behind (in actuality) but rather the dynamism of ontological indeterminacy of time-being/being-time in its materiality. *And injustices need not await some future remedy, because 'now' is always already thick with possibilities disruptive of mere presence.* (p. G113)

These insights on the ghostliness of matter expand the focus of the "spectral turn" beyond the metaphorical to consider how liminal traces might be witnessed in material encounters.

I examine spectral manifestations to get a sense of the emergent social formations that organize how risk is experienced in the infrastructure of feeling connected to "CSR emotions" (Aguinis & Glavas, 2012, p. 965), as referenced in Chapter 6. Gordon (1997/2008) cites Williams' (1977) concept of "structure of feeling" to describe "how hauntings are transmitted and received" (p. 18) in semi-tangible exchanges at the borders

of perception. Complicating the historical materialist conceptualization of the dominant and oppositional forces that give rise to distinct periods of history, Williams (1977) writes:

> Yet the actual alternative to the received and produced fixed forms is not silence: not the absence, the unconscious, which bourgeois culture has mythicized. It is a kind of feeling and thinking which is indeed social and material, but each in an embryonic phase. (p. 131)

Proliferating around the edges of shifts from old to new social formations are countless un- or differently-expressed possibilities. In Loblaw's supermarkets, ghosts are a reminder of the uncaptured potential that lingers between criticisms of cattle-beef infrastructures and the institutionalization of these critiques in CSR initiatives.

Diverging from the Ghostbusters' quantitative approach to measuring paranormal activities, a soft focus is needed to search the liminal spaces of apparent nothingness without predetermining the forms that might arise from their depths (Bateson, 2016; Gordon, 1997/2008). The tools of mediums are more appropriate for tuning into ghosts' ethical guidance on living with risk in Canada's meatscape. With this reading of mediumship, I refer to C. Massicotte's (2017) analysis of mediums in 19th and 20th century Canada. C. Massicotte extends feminist accounts that reveal mediumship as a veiled form of feminine empowerment, given that women mediums were permitted increased leeway to express opinions in the public sphere when they attributed their ideas to (masculine) spirits (Braude, 1989; Owens, 1989). More fundamentally, C. Massicotte argues, these mediums questioned the patriarchal stability of the rational, unified subject by expressing "collective authorship with the dead" (p. 16). Whether or not the supernatural elements were contrived, historical séances provided platforms for marginalized subjects to express

themselves in languages that were not easily categorized. These opportunities created fissures in social structures, which allowed reshuffled forms of agency and power to seep beyond the lecture halls and salons in which séances were held.

As a medium, Loblaw is susceptible to the unpredictable, creative process of collaborating with the dead, which undercuts its ghostbusting fantasies of control. Because CSR foregrounds responsibility, it invites responses to ghosts' provocations. In Loblaw's explicit role as mediator of food system stakeholders, it acts as a Ghostbuster to contain ghosts in CSR frameworks. In its implicit role as a spectral medium, however, Loblaw contains potential to be undone and remade through the abeyant response-ability embedded in CSR.

Encounters with ghosts open up shoppers to heightened experiences of sensation through which they come in contact with their involvements in the ongoing inequities of the cattle-beef infrastructure. As in the abjection of milk fed veal, ghosts appear through uncanny reminders of shoppers' bodily entanglements with the other contributors who make beef shopping possible. Insisting on the inevitable collectivity of food system risk, ghosts' intimate appeals do not allow for the sense of security that private insurance arrangements afford through deferral.

A Supermarket Séance

Applying the spirit of feminist mediumship to my research, I join figurative hands with the case study's participants to perform a kind of supermarket séance that brings to the centre of attention ghosts who inhabit "thermal margins", spaces between established cryogenic cultures that Radin and Kowal (2017) describe as: "zones of precarity, ambiguity,

and unexpected generativity that also reorganize ideas about what it means to be and to remain alive" (p. 5). In doing so, I map a "spectrography" of Loblaw supermarkets that explores the resistances ghosts inspire in shoppers who tune into "oppositional" readings of Loblaw's cryopolitical mediations (Hall, 1973). As described by Blanco and Peeren (2013a), spectrography is a self-reflexive, historical and geographical method of "gathering…stories around a location." These stories contain "subjects' [past] relationships to that place" (p. 483) and to each other, which shape the present and future transformations of the locale.

I am informed in my map-making by the ethological strategies of "embodied empathy" (p. 61), which contribute to constructing Despret's (2013) "affected perspective" (p. 56), as described in Chapter 4. In these practices, researchers open themselves up to "'responsible' relation[s]" with nonhuman organisms by "making their bodies available for the response[s] of…other being[s]" (p. 70). By observing animals in situ, ethologists have experimented with using their bodies to approximate animals' activities in ways that may elicit responses from the animals.

With embodied empathy, translation between humans and nonhumans (animal, plant, microbial, spectral, etc.) remains productively partial. As opposed to being subsumed into the researcher's experience of the encounter, distorted connections allow for nonhuman entities to retain their agency to speak through/with the researcher. While the researcher cannot fully inhabit the position of the ghostly subject, they can become "*as if*" (70) they are this actor. Acting *as if* one is someone else can orient one to encounter sensations that the other entity might also experience. Despret clarifies: "Empathy is not, in this case, experiencing with one's body what the other experiences: it is creating the possibilities of

an embodied communication" (p. 71). In the language of this chapter, the encounter is less like entering another body through spiritual possession and more like mediumship. Whether mediumship is real or acting, the medium's body is available to behave *as if* they are voicing the perspectives of another being. In the craft of acting, Despret writes, "if we want to feel an emotion, we can dispose our body to produce it, and we will feel it" (p. 71). To enact embodied empathy in a meat department, the human shopper or researcher might tune into their own body's meatiness to make themselves available to ghostly responses.

Infecting the manufactured stagnancy of meat departments with abject demonstrations of organic transmutation, ghosts haunt Loblaw's supermarkets from all sides of the cattle-beef infrastructure. The ghosts of animals and workers re-member the shifts from life to death involved in previous moments of slaughter, while the ghosts of eaters and environments anticipate the conversions from death to decay that evolve after beef leaves stores. Together, they make present the webs of ethical relations from which beef products are cryopolitically displaced.

Purge and the Ghosts of Infrastructures Past

Retired Loblaw executive Adrian shared with me "two golden rules" about meat packaging from his time at Loblaw. The first was: "don't put something that looks warm and fuzzy on the package…which," he continued, "is unfortunately what animals are in their real-life forms." In contrast, he pointed to the "enormous success" of the PC Free From program's strategy of including pictures of farmers on meat packaging (as discussed in Chapter 6). Smiling at the camera from under the brims of cowboy hats, the snapshots of "dedicated suppliers of PC Free From beef" (as labels describe them) present in meat

departments imaginaries of beef products' origins in wide-open landscapes populated by bovine animals and ranchers.

Unlike the static representations in the photographs that are pasted to package exteriors, the captured contents of beef packages do not retain their forms. Sensitive to fluctuations in temperature, airflow, moisture, and other conditions of meat cases and packaging, "the complex matrix of postmortem skeletal muscle is biochemically active during retail", as meat scientists explain (Suman & Joseph, 2013, p. 93). In various stores, I observed juices clinging to the edges of labels and puddling under the metal grates at the bottom of refrigerators. Sandwiched between package and muscle, the juice created an extra, semi-translucent layer behind the film of the plastic wrap that blurred slightly the text on the sticker. In the form of partially dried droplets, it stained the white shelf of a refrigerator like spilled rooibos tea, lending sense to the black garbage bags that I had seen lining the bottoms of other meat cases. Inhabiting the elusive space of transformation between ranch and store, the ghosts of animals and workers speak through the uncanny force of the slurry of water and proteins that leaches out of beef, which is known in industry terms as "purge."

While purge is not blood, it acts eerily as a bloody remnant in beef. Beyond sanitary, culinary, or traditional reasons, "blood must be separated from…meat" (Vialles, 1994, p. 74) during slaughter, so that a differentiation exists between edible meat and inedible flesh. Signs of blood in stores can shift the identity of beef from meat toward corpse—a site of "the utmost of abjection" (p. 4) according to Kristeva (1980/1982), since one is brought face to face with the borders of one's own life through recognizing the corpse's prior animation. As the morally ambiguous actions of the slaughterhouse collapse into the

cryopolitical space of the supermarket, purge troubles the distinctions between living animal and dead body that assure shoppers of their ethical and material distinction from pieces of beef.

Purge demonstrates the liveliness of organic tissue by introducing disorder to carefully arranged meat cases. The vitality of animal tissue has posed challenges since retailers first experimented with self-service meat in the late 1920s and 1930s, as discussed in Chapter 2. In the beginnings, self-service meat departments ironically "required constant supervision" (Hisano, 2019, p. 176) as clerks monitored cases for leaks, tears, and other signs that meats were escaping their packaged confines.

No Frills store owner Nicholas told me that contemporary boxed beef products contain "less liquid" than the cuts that used to come from sides of beef butchered in stores. Nevertheless, staff must remain vigilant, as Loblaws manager Danielle explained:

> So segregating species, obviously, is always number one for us—keeping in mind they always have to have beef above pork, above chicken. We try and keep those categories as separate as possible. So sometimes you'll see that categories blend a little bit when you have prepared foods. […] So, in there, they have to be very cautious to keep that lineup, with the chicken always on the bottom, obviously, to avoid cross-contamination issues.

These rules are essential for marketing as well as food safety. Industry organization Canada Beef (n.d.) recommends to retailers on its website: "Keep displays orderly and clean at all times by removing leaking packages and regularly cleaning refrigeration cases. A single damaged package can destroy the effectiveness of an entire display" (para. 7).

Focus group participants Nadira and Brianna (Group 1) corroborated this advice in their description of a presentable beef display:

> Nadira: I think it's […] the cleanliness and the packaging. It's sort of very like, you know, if you're grabbing frozen peas on the shelf, whereas if you go into like, more special[ized meat departments], you can't package it as well. Or yeah, I don't know […] like, this nice kind of tray package, or like, saran wrap over them. It's […] organized and neat. […]
>
> Brianna: And blood not leaking everywhere.

As Nadira implied in the contrast between frozen vegetables and offal, supermarkets "vegetalise" (Vialles, 1994, p. 23) the unruly animality of meat such that beef remains palatable. In orderly packages, beef becomes analogous to the fibres of a plant rather than the sinews of an animal.

When purge seeps beyond these confines, it mirrors the bloodshed of slaughter. For focus group participants Laura and Kenneth (Group 3), evidence of material labour confers a sense of responsibility on those who bear its traces. When the group discussed the advice they seek from grocery staff members, Laura proposed: "I think there should be a difference in expectations between the people with the bloody coats [*Mel laughs*] and the people who are like, stocking the shelves, right?" Kenneth agreed: "If it's a clean coat, that means that they're not doing nothing [*group laughter*]." Although Laura and Kenneth adopted light-hearted tones, their comments were suggestive of the gravity of the fatal activities that are required to fill meat cases, and the laughter of other participants diffused this tension. Momentarily revealing supermarkets as extensions of slaughterhouses, purge

threatens to break down the "disaggregat[ion]" (Otter, 2008, p. 96) between slaughter and butchery developed over the 19th and 20th centuries (elaborated in Chapter 2).

Ultimately, the uncontainable messiness of purge can transmogrify beef into a piece of a body encased in a plastic casket. This characterization emerged in focus group participant Rosa's (Group 1) description of the appeal that supermarkets strive to create in meat departments: "No Frills and the bigger brands, they want to make it seem as if, you know, we're selling meat—it's an animal; it's a human life—but they want to present it as dignifi[ed] as possible." Though presumably unintentional, Rosa's slippage between animal and human is notable in that it highlights a common mortality that is deserving of respect.

Through purge, animal ghosts insist on a dignified passage from life to decay, which is currently lacking in their existences as commodities. These demands are intertwined with worker ghosts' calls for decent labour conditions. As Purcell (2011) points out, the "disproportionate amount of risk" borne by animals and meatpacking workers is currently constructed as a "zero-sum game of speed and survival" (p. 72) wherein cattle and marginalized humans are pitted against one another. To exist within the dominant cattle-beef infrastructure, these actors are pushed into enacting violence against one another (e.g., when cattle resist with kicks or headbutts, workers may respond with electrified prods), rather than turning against the system that makes spectres of them all.

Rot and the Ghosts of Infrastructures Future

The second "golden rule" Adrian learned was: "meat should never be in green packaging." He continued: "And the only reason why you don't want meat in green

packaging is when meat starts to go bad, it goes green [*chuckles*]. Now I'm not certain of that […]. But there was always that theory: don't put meat in green packaging."

While participants did not mention green specifically, all four focus groups identified colour as the primary attribute that they use to determine beef's "freshness". No Frills owner Will and meat department manager Lucas named shelf life as one of the most common topics about which they receive customer questions, particularly in relation to the colour of ground beef. Mei (Group 4) illustrated such a tendency in her description of how she selects beef:

> I try to look at the underside as much as I can…because […] it's usually when you come home and you take it out of the package and you see the underside… It's not grey, but you know what I mean—it's not as "fresh-looking" as the tops are.

Sharing similar stories of "get[ting beef] home and find[ing] it's already rotten when you open it up", in Shane's (Group 2) words, participants revealed that they search meat cases for signs of how a piece of beef may behave after its time on the shelf. The ghosts of eaters and environments haunt this impending space between meat and digested organic matter, materializing in the oozes and spots that erupt on beef.

The sensory barriers that surround packaged beef can complicate the task of assessing the meat's quality, as Blaike (Group 3) explained in relation to smell. The group worked together to describe the scent of fresh beef:

> Blaike: Well, I think there's a sense/degree of whether it actually smells... relatively fresh, whatever fresh means in terms of meat.
>
> Kenneth: Yeah. You get used to the smell.

Blaike: If there's a rancid smell, there, you know, if there's, there's you know...

Mel/ Laura/Blaike: It shouldn't have—/ I think it, I think it—/ It shouldn't, it shouldn't even—

Laura: I think it's more like an absence of smell.

Kelsey/Mel/Blaike: Ahhh./ Exactly./ It's an absence of smell.

Kenneth: Yeah.

Mel: Exactly.

To accompany this absent scent, shoppers expect beef to look like a similarly blank canvas underneath its packaging. While multiple tones and textures are a regular feature of edible beef, they also prefigure the microbes that will turn beef inedible as it returns to earth (whether through a digestive system or garbage disposal). If the corpse performs abjection to an extreme, "food loathing is perhaps the most elementary and most archaic form of abjection" (p. 2) in Kristeva's (1980/1982) schema. The mere possibility of ingesting rotten meat can appear as nausea in the guts and/or reappear as expulsions from the body.

The cryopolitical framework attempts to enclose safely the hygienic insides of supermarkets from threats outside, including not only the literal microbes that decompose meats, but also the growing populations of humans who are positioned in protein crisis narratives as a kind of pathogen that could erode future food supplies. On the interior walls of refrigerators in Loblaws stores, I saw posted notices warning shoppers: "Watch your purse! Please be advised, our store has surveillance equipment designed for our customers'

protection and to help keep prices low." The animacy of beef is held in waiting for a specific cross-section of eaters who can afford admittance into supermarkets as paying customers.

Through rot, ghosts perform supermarkets' continual exchanges with the infrastructure beyond their walls. The evident porosity of Loblaw supermarkets' physical and social barriers accumulates on shelves alongside packages of beef. No Frills owner Ben described the life cycle of products in the meat department:

> We reduce [the product] as it gets close to code—so a day or two out, you know. We'll put a 30% off sticker on it. If it's the day of, we go to 50% […] and right on the sticker it says that it needs to be consumed immediately or frozen. […] With produce, we do give some to food shelters and missions and stuff like that. […] Rather than reducing it, they'll come and pick it up if it's going to be thrown out. Although that has gotten a little bit… […] With changing times, you know, ten years ago, they'd just come and pick it up. Now they gotta sign release forms, and… So, it's a bit more complicated. […] For meat, you get to a point when even once it's been reduced, it doesn't sell, then it goes in the garbage, right? Which is a shame.[118]

The cryopolitical management of microbial ecosystems expands the opportunity for beef to accrue value as a commodity before it is discarded as economic waste and/or donated as a potential financial liability. Discount stickers mark packages as "coffins of decay" (D. Evans, 2012 p. 1132) in which beef is displayed for a final viewing before being ferried into the waste stream (M. Marshall, 2022). The ghosts of hungry eaters shimmer through greying flesh to signal other ends toward which beef's extended potential could be

[118] A proposed change to Loblaw's policies on discounted products that would have discontinued the use of "30% off" and 50% off" stickers was quickly reversed after public backlash in 2024 (Patil, 2024).

directed if it was not held in retail purgatory.[119] The ghosts of degraded landscapes further emphasize that organic "waste" is not only a value subtracted from a ledger; it can also hold a different kind of value for nourishing bodies and landscapes if it does not become trapped in trash bags.

In conversation with fellow focus group participant Craig, Ji-hun (Group 4) provided an example of how nourishment once available for local communities has been oriented toward economic surplus for retailers:

> Ji-hun: My mom and me as Koreans, we sometimes buy, like a beef horn, from the store, and actually make it like a stew. […] It's funny, that they used to be—all those Canadian [supermarkets], like Loblaws, No Frills—they gave us [bones] for free, for many, many years—
>
> Craig: Oh yeah. Those bones.
>
> Ji-hun: But now, they are kind of selling it.
>
> Craig: They are selling it.
>
> Ji-hun: Cause they realized, that there is people sort of asking for the bones.

When the circularity of socio-ecological sustenance is made to fit into a pattern of linear economic gain, eaters and environments become another pair of zero-sum opponents (like animals and workers). According to the Malthusian logics that organize these dynamics, populations of eaters can grow either at the expense of the environment, or environmental resources can be replenished after people have starved (Stone, 2022). Meanwhile, masses

---

[119] Loblaw's partnership with startup company Flashfood (since 2019) performs a similar function. Through the Flashfood app, customers purchase discounted food that is close to expiry and then pick it up from dedicated refrigerators in stores. After learning alarming statistics about how much food is thrown out in food retail and food service, Flashfood CEO and founder Josh Domingues came up with the company model, which he summarizes as: "take the discount food rack, make it look sexy and put it on your cellphone" (as cited in Silcoff, 2019, para. 12).

of food waste demonstrate that the Earth's landscapes and waterscapes produce more than enough food to feed the world's hungry people, but economic growth is prioritized over both eaters and environments. Agriculture and Agri-Food Canada (2023) shares: "over a third of Canada's food supply is never eaten" (para. 7) and "food waste…represents the single largest percentage (23%) of Canadian municipal solid waste disposed" (para. 23). The results of the food system's over-production thus lie "embalmed" (Rothman, 2014, title) in landfills as toxic evidence of ghostly nourishment that could have fed both humans and the Earth.

Responding to Ghosts

The cattle-beef infrastructure has long operated on credit. Running out of capacity to carry risks on behalf of others, the ghosts of animals, workers, eaters, and environments emerge from the cracks of the crumbling infrastructure. What might responses to ghostly demands involve?

Ghost Stories

The initial reaction to hauntings from both the public and the food industry is to bust the ghosts who disturb the supply chain's cryopolitical order. Rather than spectres of death or decay, industry deception is the primary phantom in the "ghost stories" that focus group participants relate. Taking emphasis away from blood's animal origins, participants characterized blood as an "additive" that the beef industry uses "to make…[beef] look really red" (Blaike, Group 3). The reason Mei (Group 4) said she searches the undersides of beef

for rot is "because it's a trick that they do is they dip it in blood to make it look fresh." Brianna (Group 1) described a similar process:

> Brianna: There are tales of people saying that [meat department staff] usually, like, cut the beef and then they, like…wash down blood on the meat and so it feels fresh, but it's actually not fresh. But I don't know how factual that is, but…
>
> Kelsey: Has anyone else heard those types of things […]? [*light group laughter*]
>
> Rosa: Yeah.
>
> Brianna: You cut the meat, and then you pour blood on it, and so it feels— it looks fresh because it's red—like there's a lot of blood—so you think it's fresh, but it might not actually be fresh.

Variations on this alleged industry tactic of "dye[ing beef] red" (Logan, Group 2) came up in every focus group.

To the meat industry, these stories of trickery are just tall tales. Trade association North American Meat Institute (NAMI, now called the Meat Institute) released a video web series (with supporting articles) called *Meat Mythcrushers* dedicated to dispelling such beliefs. Two episodes tackle concerns about blood and rot. Dismissing as "myth" the rumours that describe "the liquid at the bottom of a meat package [as] blood", NAMI (2016) labels the substance as "purge": "a combination of water and meat proteins" (para. 1). Along the same lines, NAMI uses the chemistry of meat proteins to debunk the perception: "if meat turns brown that means it is spoiled" (Meat Institute, 2015, title). Explaining that browning meats are still "well within their shelf life", NAMI (n.d.) presents colour changes as indicative of "oxygen exposure" rather than rot (p. 23).

In the face of the ghosts that accompany beef through its changing states, shoppers and industry participants blame one another for deception and ignorance. They thereby perform exorcisms that attempt to preserve not only the desirability of beef dishes, but also the boundaries around the relationships that have potential to form in retail spaces. As signified by the placards I saw hanging above meat counters that announced each Loblaws as "Your Neighbourhood Butcher", shoppers and retailers are imagined as existing together in marketplace simulacra where they are responsible only for the transactions at the meat counter; the past or future ghosts that enable these exchanges are not included as neighbours.

Ghost Struggles

These strategies of ghostbusting and mythcrushing do not result in a full exorcism, however. Throughout rationalized explanations of purge and rot, ghosts continue to haunt beef affectively and materially as a remembrance of the blood of life and a premonition of the microbes of decay. In the process, they persist in cultivating the emergent sense that the idyllic neighbourhoods of Loblaw's supermarkets are a little off.

In addition to mimicking the appearance of blood, purge retains in the muscles after death the performance of blood during life. The myoglobin in muscle is related to the hemoglobin in blood. Both proteins contain iron, which binds with oxygen and creates red pigmentation. Hemoglobin is responsible for transporting oxygen through the circulatory systems of live animals, while myoglobin stores this oxygen in muscle tissues for use in cellular respiration (Suman & Joseph, 2013). After cattle are bled during slaughter, little hemoglobin remains in beef, but the processes in which hemoglobin is involved continue

for a time after slaughter, as "the muscle attempts to maintain all normal activities" (Savell, 2013, para.1).[120] When the circulatory system stops delivering fresh oxygen, muscle cells metabolize stored oxygen (along with glycogen) and convert to anaerobic respiration. The lactic acid that builds up as a result drops the pH in beef to an extent that myoglobin (in the form of deoxymyoglobin) can bind to oxygen in the atmosphere when beef is cut (forming oxymyoglobin), which changes the colour of the meat from dark to bright red (Suman & Joseph, 2013).

The colour changes in beef also perform an anticipatory decay. As oxygen supplies diminish over time, the iron in myoglobin oxidizes (forming metmyoglobin) and beef browns. After further exposure to oxygen, microbial decomposition materializes as the rancid odours and slimy textures that characterize beef that is no longer fit for human consumption (Suman & Joseph, 2013). In short, myoglobin takes over from hemoglobin to supply oxygen for the period when muscles are in a spectral state between life and decay, and purge and discolouration are indications of this transition.

Reflective of the affect that stretches between actors and temporalities in cattle-beef infrastructures, beef contains chemical signatures of how an animal lived and died and how they will return to earth. When cattle are stressed before slaughter, their depleted muscles do not contain enough fuel for anaerobic respiration, which means that the pH in beef does not drop. As a result, the meat does not "bloom" into the cherry red colour that focus group members associate with blood; instead, it remains a dark, purplish colour (Bruce, 2023). Undesirable to shoppers, this "dark, firm, and dry (DFD)" beef is known as a "dark cutter" or "dark cutting" in industry parlance (MacLachlan, 2001, p. 248). In comparison, the pallid

[120] The semantics of meat science afford cellular life with a notable degree of agency.

meat of veal comes from underdeveloped, under-worked muscles that contain less myoglobin (Keeton & Dikeman, 2017).

The further interactions that beef displays with oxygen are indicative of its necrobiome's[121] requirements. To accommodate retail display, beef is packaged carefully using materials that are relatively impermeable to contain moisture but also sufficiently permeable to allow the airflow that encourages "blooming" (Hisano, 2019). For additional cellular activities to be slowed—if beef were to be donated to emergency food services, for instance—the meat would need to be frozen. For the processes to be sped up—if beef were to be composted, for example—the meat would need to be removed from the regulated environment of its plastic packaging. When organic matter is dumped into landfills in plastic, the anaerobic decomposition it slowly undergoes produces greenhouse gasses like methane (Rothman, 2014).[122]

The lives and deaths of animals, workers, eaters, and environments are thus encoded into beef. While ghosts' perspectives generally are not sought in stakeholder consultations on beef ethics, they express themselves through purge and rot. Their unsettling communications show material and affective evidence of how they are kept in perpetually marginalized states to provide the cattle-beef infrastructure with inputs and to absorb its negative outputs.

Animals. A telling list of potential causes of the "pre-slaughter stress syndrome" that results in DFD beef include: growth-promoting hormone implants, long transport times,

[121] The necrobiome is: "the community of species (e.g., prokaryotic and eukaryotic) associated with decomposing remains of heterotrophic biomass, including animal carrion and human corpses" (Benbow et al., 2013, p. 440).
[122] Poore and Nemecek (2018) calculate: "distribution and retail losses contribute 12 to 15% of emissions" (p. 4) attributed to beef.

exposure to extreme temperatures, inadequate rest, rough treatment (e.g., cattle prods), overcrowding, contact with unfamiliar animals, dehydration, "pain, hunger, excessive noise, [and] smell of blood" (BC Cook Articulation Committee, 2015, p. 20). While such conditions are not intended to be routine, they are still representative of the risks that cattle face in a system that "treat[s]…animals as 'zombified' flesh while they are still living" (Catts & Zurr, 2013, p. 102).

Framing challenges relating to the traumas of slaughter in predominantly economic terms, for example, the Beef Cattle Research Council warns: "Carcasses that 'cut dark' are assigned a grade of Canada B4 and their value is reduced by up to 50 cents per pound" (Bruce, 2023, para. 1). Related industry studies that aim to "identify cattle at heightened risk of dark cutting" (para. 18) appear to do so in the interest of mitigating harm to beef (as a product) more so than cattle (as an animal), even as improved animal welfare may be a byproduct of these goals.

Workers. Meatpacking workers are under pressure to make necessary adjustments to the handling of animals and carcasses to deliver desirable products all while keeping lines moving. According to Food Processing Skills Canada (2019), meatpacking "employers must hire approximately 1.4 people for every job opening" (p. 9). This 0.4 of a person is a spectral anticipation of the notoriously difficult and dangerous working conditions in meatpacking plants, which contribute to the annual turnover rate of 41% (FPSC, 2019; Montford & Wotherspoon, 2021; Richardson, 2020).

Adding to the workforce's transient nature, a proportion of jobs are filled by participants in Canada's migrant labour programs who come to Canada on temporary contracts (FPSC, 2019). Given the difficulties that workers have with turning these

positions into permanent pathways to citizenship, critics describe the programs as creating a "captive migrant workforce" (United Food and Commercial Workers [UFCW] Canada & Agricultural Workers Alliance [AWA], 2020, p. 44), which "can be easily moved in response to market demand and then 'returned' when they are no longer needed" (Lenard & Straehle, 2012, p. 14).[123]

Eaters. Some discoloured meats like DFD or browning beef can be eaten safely, but they are not appealing to eaters who have come to associate red colour with freshness (BC Cook Articulation Committee, 2015; Savell, 2013). In response, the cattle-beef infrastructure spreads "surplus death" (Blanchette, 2020, p. 214) throughout its networks, in that value is extracted from every variation of cattle flesh that diverges from the homogenous standard around which the system is arranged. Dark cutting beef can be used for sausages and cooked foods wherein the colour of raw flesh will not be visible (BC Cook Articulation Committee, 2015), while browning beef can be discounted with the assumption that some eaters will prioritize price over visual appearance. To maintain profitably the current scale of production for choice cuts of fresh beef, the cattle-beef infrastructure, like the pig-pork infrastructure Blanchette (2020) outlines, "relies on gradients of human buyers who are unable (or unwilling) to pay more for food" (p. 228).

In addition to the shoppers who buy off-cuts and discounted meats, the recipients of emergency food services are depended on to shore up the status quo. While emergency food programs were initially intended to be temporary measures when they were introduced to Canada in the 1980s (Riches, 2018), they have since become primary

[123] The economics of the cattle-beef infrastructure position similarly these workers and the "captive supply" of cattle that meatpackers leverage to influence market prices (National Farmers Union [NFU], 2008).

mechanisms to address hunger, especially as state-funded social services have disappeared. Even as these charities do important work to respond to symptoms of food insecurity, underlying inequities remain unaddressed. Fed with liminal foods that are nearing decay, hungry eaters are neither satiated nor starved, such that the project of decoupling nutrition and capital is continuously deferred.

Environments. Even as more than six million people in Canada remain undernourished (Li et al., 2023), human stomachs do not have the capacity to digest the cattle-beef infrastructure's excess. As ecological materials are depleted, waste and pollution accumulate in every part of the beef production, consumption, and disposal process. Along with non-biodegradable materials like plastic, the infrastructure creates organic matter like animal flesh and excrement, which turns toxic because it overwhelms the Earth's capacity to absorb and to recirculate outputs (FAO, 2023b). In the wake of the discarded remnants of over-production, spectral ecologies emerge, including desertified lands,[124] "dead zones" in water,[125] and "ghost forests".[126] McClintock (2018) describes such spaces as "'ghostscapes': damaged landscapes where traces of disavowed violence haunt the margins of the visible and can now be read to animate forgotten histories and envision alternative futures" (para. 7).

[124] Deforestation, over-grazing, and over-cultivation can lead to the transformation of land ecosystems into deserts with degraded, depleted soils and minimal to no vegetation (UN Convention to Combat Desertification, 2022).
[125] Dead zones are a term for aquatic ecosystems where water has become hypoxic, meaning that "[over-]abundant plants and algae [have] die[d] and decompose[d], consuming oxygen and depriving other aquatic life of oxygen" (Searchinger et al., 2019, p. 341).
[126] Ghost forests are collections of dead trees that have been overtaken by rising salt water (Kirwan & Gedan, 2019).

In Canada, ecologies once nurtured by buffalo have been denuded and repopulated with the cattle who settler colonialism makes and remakes as ghosts to maintain claim to the land (Belcourt, 2015; Tuck & Ree, 2013). While narratives on "regenerative grazing" suggest that the settler-cattle pairing can replicate the care performed by intertwined relations between buffalo and Indigenous peoples, the land's eroded fertility demonstrates otherwise (Kessler et al., 2016). Illuminating the intertwined lives and deaths of all the cattle-beef infrastructure's spectres, Weis (2018) invokes "imagery of animal ghosts haunting impoverished landscapes" (p. 137) to describe the extinctions and otherwise depleted ecosystems that manifest from the over-production of commodified livestock.

Empty Chairs at Empty Tables?[127]

Supermarkets are haunted by the ghosts who the cattle-beef infrastructure creates and preserves to secure the finances and food supplies of the privileged: cattle who are perpetually killable, workers who are endlessly expendable, eaters who are continually hungry, and ecosystems that are persistently unbalanced. Ghosts do not accept the ethical hierarchies that position them as categorically disposable, however. In their resistance, they encourage an oppositional reimagining of the multistakeholder refrain to "invite others to the table" (Guthman, 2008a, p. 388) as a strategy for food system change.

To navigate this figurative "table" where discussions about future food systems are taking place, mediums may make better guides than Ghostbusters. Marx (1867/1889) compares the fantastical powers a wooden table appears to acquire when it is displayed in

[127] Song from the musical *Les Misérables* (Schönberg, 1985).

a store as a commodity to the turns of a table during a séance. For the Ghostbuster, both kinds of animacy (the spectral and the commodified) are illusory. For the medium, an unpredictable dialogue is opened through the table's vitality. Whereas the Ghostbuster replaces one fetishized narrative on the magical source of the table's value with another singular defetishized account of the labour power that constructs the table's worth, the medium allows the table's meaning to remain ambiguous.

Mediumship's radical power is not to reveal a hidden truth behind commodification, but rather to channel multiple perspectives in a way that complicates hierarchies of truth. The scarcity on which private assets depend in zero-sum models of security is undercut by mediumship's multi-vocal, positive-sum model, which uncovers ongoing relations in place of severed externalities. In conjuring the mediated relationships that already exist across cattle-beef infrastructures, a supermarket séance notices that the seats around the table that may have appeared to be empty have actually long been occupied.

Reflective of my own séance experience in a Loblaws meat department, squeamishness emerged in all four focus groups' discussions of veal. Soft laughs, whispers, and hesitations bubbled up as participants attempted to define the meat and to explain how it differs from beef. Harry (Group 1) dwelt on the pale (indeed ghostly) quality of calf flesh:

> Like, well, veal is like, um... it's sort of like a baby cow that's fed on milk only. And it's, like, slaughtered before a certain age, like a very young age. So, it's… Like, if you see it in a supermarket it's— it usually looks really pale, almost like pork-like—barely red

at all. And yeah. And I guess people have...issues with...the fact that it's sort of chained up and not allowed to move[128] to keep them—like, the meat extra tender, I guess.

In comparison to the ghosts that haunt beef's bloody appearance with evidence of slaughter, the ghosts that haunt veal's milky complexion evoke an additional, budding form of liveliness that mixes together even further the divides between sustaining and terminating life.

All focus groups used the word "baby" in their descriptions of veal, which brought into the rooms the unsettling, unavoidable vulnerability that is at the heart of eating. In response to my prompt about describing human customs to aliens, Mei (Group 4) explained how she would define veal: "Just show a picture of like a cow and calf, and then you'd be like, 'Beef is the cow and veal is the…baby.' Yeah. As inhumane as it is, but that's…life." The pauses in Mei's delivery tie together the responsibility and the culpability that is involved in eating and being flesh. While infants display evident reliance on others to eat, this dependence does not disappear in adulthood—all organisms are fed through intimate interdependencies.

Even as cryopolitical techniques attempt to contain ghosts so that retail spaces are free from messy responsibilities, the ongoing animacy of flesh shows that life, death, and decay inevitably leak into one another. To tune into the spectral frequencies of beef is to experience the unavoidable blood that one gets on one's hands when living in an eating and edible body. While assuring shoppers that purge is "no big deal" (3:24), the expert in the *Meat Mythcrushers* video on purge admits to a level of discomfort when describing the

[128] The tethering of calves has been prohibited in Canada since December 31, 2020 (National Farm Animal Care Council, 2022).

moisture-wicking pads at the bottom of foam trays: “The last thing folks wanna do is grab a hold of a package of meat […] and you get that on you, and it’s kind of sticky as well” (Rentfrow in NAMI, 2016, 2:31).

Sticking to beef, ghosts create bumpy moments in the experiences of beef shopping, which carry emergent potential to lead to larger blockages. Whereas the cattle-beef infrastructure aims for smooth movement(s) as beef travels through supply chains and digestive tracts, ghosts “nourish…indigestion” (p. 285) in Haraway’s (2008) terms, which references attention to the relations through and with which one becomes an embodied being. Tompkins (2012) analyzes indigestion as a form of haunting in relation to Black subjects’ refusals to be made edible for incorporation into the white body politic of 19th century America: “We might think of intestinal distress as an introjected gothic; in particular, indigestion becomes the return of the repressed as the indigestible black subject pushes back against her consumer” (p. 117). Emerging from the colonial architecture of the cattle-beef infrastructure that is constructed on the ongoing theft of Indigenous lands, ghosts prevent the ethics of beef from going down easy; they urge participants to tend to (in)digestion as an ongoing process that produces transformation without reaching a final settlement. The next chapter concludes with reflections on the potential for an ethic of decay to coalesce around the paradoxical security that emerges from openness to the vulnerability of being haunted.

Chapter 8: Ethical Expiry?

"The poetry of earth is ceasing never:
On a lone winter evening, when the frost
Has wrought a silence, from the stove there shrills
The Cricket's song, in warmth increasing ever."
(Keats, 1817)

"Anything can happen"

No Frills owner Ben alluded to the volatile infrastructure on which his store relies to put together the contents of a successful beef display:

> I believe that you want to mass things. You want to let people know that when you have something on special, you're not hiding it from them. […] It should be prominent. There should be quantities of it, and they should be able—regardless of the time of day that they come in—they should be able to try and get it.
>
> Now, that's become more and more of a challenge these days with the amount of tonnage that we go through. You've got weather, you've got trucking, and you've got all kinds of things that could happen. And we're planning this stuff—I'm ordering six and seven weeks out. And especially with beef, and any of the meat items, or produce, we're talking about living, breathing things. Anything can happen in six weeks that might fracture the flow of product coming in. And I'm just one store out of [many] No Frills stores that are running the same items. Sometimes stock can get a little bit tight. And it happens that when we're standing in front of the customer explaining to them why we don't have it, sometimes they're patient, sometimes they're not. We try and do the best we can. And we offer substitutes where we can, and it's become more and more challenging.

My conversation with Ben took place before outbreaks of COVID-19 demonstrated in spectacular fashion his assertions about the unpredictable realities of working with organic matter, despite cryopolitical attempts to regulate the rhythms of life and death. Previewed during the pandemic, the prospect of empty shelves is a looming risk that informs contemporary practices of buying and selling beef in Canadian supermarkets. Cases of abundant, fresh beef provide a sense of security for shoppers and supermarket operators by affirming that the anticipated scarcities of the protein crisis have not (yet) materialized.

The dissertation has looked in and beyond beef cases in order to assess the extent to which supermarkets promote ethical beef consumption in the context of the intensifying risks to which the dominant beef industry contributes. Alongside the products that constitute the contents of supermarkets, it has considered supermarkets' formal properties as media environments that organize relationships among participants in a larger infrastructure of beef provisioning. This concluding chapter reviews the themes from the dissertation's central case study on shopping for beef in supermarkets owned by Loblaw Companies Limited. The study finds that displays of fresh beef are supported by an overall ethic of freshness that permeates Canada's dominant cattle-beef infrastructure.

In addition, the chapter outlines the implications of these findings for future food scholarship and evolving practices of (more) ethical food provisioning. By studying mediation as an organizing dynamic of the cattle-beef infrastructure, the dissertation has brought attention to ongoing entanglements between practices of production and consumption, even as actors are distributed further across time and space. In contrast to the ethic of freshness that is maintained through practices of beef shopping in Loblaw's supermarkets wherein populations are suspended between life and death to act as reserves

for future growth, I advocate for an ethic of decay that embraces flourishing as a nonlinear, reciprocal process of re-formation.

Ethic of Freshness: Review

The dissertation has found that Canadian supermarkets like Loblaws and No Frills are situated at the helm of a cryopolitical form of food systems governance that arranges the cattle-beef infrastructure to extend, shorten, and otherwise manipulate spaces between life and death. Ben referenced the maintenance of freshness as the primary goal toward which the duties of meat department staff are now oriented:

> The meat managers' […] job is simplified—dramatically, in the sense that all they're worrying about is just maintaining customer demand—that's pretty much it. We do merchandising at the store. We make sure that product is maintained fresh. […] Butchers don't exist in the stores. You're dealing more with clerks. If you're lucky enough to find somebody who cooks themselves, they may offer [advice]. […] Our folks are trained in how to maintain optimal freshness, you know, making sure the cold chain is maintained—that stuff. But when it comes to cooking and that sort of thing, no.

As discussed in Chapter 2, the contemporary preoccupation with freshness is a legacy that supermarkets have inherited from ongoing histories of "thermal colonialism" (Hobart, 2022, p. 10) on Turtle Island in which beef provisioning has played a significant role. Cattle ranching has been used to claim land for the construction of productive landscapes to produce prosperous citizens for settler colonialism. In the 19th century, frozen beef promised to deliver overseas abundance to Britain's nationals to maintain the strength of

the empire in the face of alleged meat shortages (Woods, 2017). In the 21st century, similar principles have continued to organize beef distribution infrastructures in preparation for the growing populations of the future.

Driven by more than a series of technical innovations for maintaining material freshness, the expansion of the dominant cattle-beef infrastructure has also responded to evolving cultural reverence for freshness as an indicator of food safety and security, as these facets of food systems have come into question. As articulated in Chapter 3, contemporary approaches to ethical food systems governance have taken shape in conjunction with the formation of risk as a predominant "structure of feeling" (Williams, 1977) since the late 20th century. Although all four focus groups listed "fresh" as a descriptive word that would attract them to advertisements for beef in supermarkets, they were also skeptical of mainstream supermarkets' abilities to provide beef that embodies all the desirable qualities they associated with freshness in practice. In particular, focus groups correlated freshness with "local" beef, which was antithetical to their understandings of supermarkets' beef supply chains, as summarized by Patrick, Shane, and Elison's (Group 2) comparison of neighbourhood butchers and supermarket meat departments:

Patrick: For the most part, you would assume that the butcher has a relationship with the farmers. Maybe there's one intermediary, like a distributor between [them]. I would think for the most part, [for] the employees at a supermarket, it's just an eighteen-wheeler kind of thing.

Shane: True. They're far removed from—

Patrick: Yeah.

Shane/Patrick: where everything comes from. / Probably like five or six steps removed.

Elison: Yeah, like their main priority is just to stock the shelves, right? So, it doesn't matter if it's beef or cereal boxes.

While this characterization of staff responsibilities aligns with Ben's description of simplified labour in meat departments, its conflation of beef and cereal diverges from Ben's insistence on the unique infrastructures that are required to maintain perishable versus shelf-stable foods. One might wonder whether focus group members would fall into Ben's "patient" or "impatient" camps during their encounters with bare shelves. How might their interactions with the "living, breathing" supermarket staff in front of them shape their extended relationships with the "living, breathing things" outside of the store that Ben references?

Questioning the neoliberal discourse that elevates individuals' shopping decisions as transparent enactments of their values, the dissertation's case study has examined the supermarket-shopper interface as a single (though powerful) node in the tangle of relations that constitute beef ethics. This larger "infrastructure of feeling" (Gilmore, 2022) emerges from the interplay between the existing ideological/physical arrangements of the cattle-beef infrastructure and the shifting sociocultural expectations surrounding ethical risk management (including how such regulations manifest in stores). My exploration of ethical beef consumption has thus considered not only the (mis)alignments between the purchase of beef products and the promotion of ethical goals (e.g., economic, social, and environmental sustainability), but also the processes by which particular elements of the shopping experience (e.g., markers of freshness) are positioned as evidence of such ethical

trajectories. As outlined in Chapter 4's descriptions of the dissertation's methodology, my case study on Loblaw's supermarkets approached ethical beef consumption as a set of practices that arise within the interactions between material and affective structures, rather than an intervention that can be assessed or imposed from a detached perspective.

Representative of multiple situated perspectives, significant participants in beef provisioning—animals, eaters, environments, workers—were depicted in various ways in the case study materials I examined. A discourse analysis of the data's macro themes revealed three overarching interpretations of the (un)ethical nature of the relationships that Loblaw promotes as a cryopolitical mediator of the cattle-beef infrastructure.

According to a "preferred" reading (Hall, 1973) of Loblaw's cryopolitical mediation of the cattle-beef infrastructure, the company has successfully delivered fresh beef to deserving people in the past and will continue to do so, even if environments and populations change in the future. In Chapter 5, I examined how Loblaw manufactures trust in the cattle-beef infrastructure by securing social license from a curated version of the public. Appealing to the values of privileged shoppers, Loblaw situates itself as a responsible food industry leader and a source of security in the face of risks that threaten to upend the status quo in food systems.

The ethics of Loblaw's beef distribution systems are up for debate in "negotiated" readings (Hall, 1973). In Chapter 6, I assessed how Loblaw handles cracks in the feedback loops of manufactured trust by using corporate social responsibility (CSR) initiatives to create a sense that shoppers can opt in or out of beef's risks through their choices. With Loblaw situating itself as an apolitical broker between suppliers and shoppers, onus falls on

other actors to stabilize the surrounding cattle-beef infrastructure by making responsible investments in the future.

An "oppositional" reading (Hall, 1973) observes that the CSR initiatives Loblaw has used to patch holes in public trust do not hold; instead, this perspective asserts that the existing cattle-beef infrastructure is not set up to handle ethically the food system's evolving risks. In Chapter 7, I outlined the stories of some of the ghosts precluded from flourishing within Canada's contemporary meatscapes: cattle, meatpacking workers, low-income eaters, and surrounding ecologies. These actors haunt meat cases through material reminders of the ethical connections that cohere in supermarkets including the traces of blood and signs of rot that demonstrate the cattle-beef infrastructure's insistent animacy.

Overall, the case study finds that the ethical beef consumption that Loblaw promises exists on an ever-receding horizon. Loblaw's version of a vanishing point differs dramatically from the utopian speculations of decolonial-feminist-queer futures that are discussed in Chapter 3, however. Experienced as "the warm illumination of a horizon imbued with potentiality" (Muñoz, 2009, p. 1), the latter utopian imaginaries prompt active attention to the expansion of nourishing relations in the present based on ongoing cultivations of community. In contrast, the frozen horizon of Loblaw's cryopolitically-promoted beef ethics encourages a contraction inward and away from relationality, as in the slowing movements of molecules in a freezer. Opportunities for reformulated ethical relationships are contained within a defrosted world of the future that is forecasted to take shape only after impending risks have been abated.

In the meantime, Loblaw's ethic of freshness finds security in preserving masses of valued resources. Preservation processes in fields including cryogenics and heritage have

drawn comparisons with the biblical story of Noah's Ark. In the story, Noah collects pairs of animals in an ark so that their populations can be replenished after a divine flood cleanses the world of sin.[129] Using this model, Choay (1992/2001) describes as a "Noah complex" (p. 141) heritage efforts to categorize and to conserve records of the past in the face of an uncertain and threatening future. Similarly, "frozen zoos" like the "Frozen Ark" attempt to save select plant and animal species from extinction by freezing genetic materials (Chrulew, 2017; Frozen Ark, n.d.).[130] Research projects like Gareth Sullivan's "Frozen Farmyard" have also been experimenting with the creation of cell lines that could be used in cellular agriculture (discussed in Chapter 2) to reduce or eliminate the need for tissue samples harvested from live animals (DiMaio, 2019). While pieces of beef sold in Loblaw's stores are not imagined to be self-regenerating, the infrastructures in which they are embedded are expected to expand (even if they ultimately end up feeding on themselves to do so, as in the case of BSE; LaDuke & Cowen, 2020).

Beyond physical materials that hold potential for biological reproduction, the ethic of freshness attempts to preserve ingredients for the sociocultural and political economic reproduction of existing systems (e.g., colonial capitalism). While motivated by apocalyptic scenarios, enactments of the "Noah complex" simultaneously rely on the belief in a time after disaster when chosen, preserved pieces of the past will be resuscitated. In the interim, other parts of the past and present can be washed away or ignored in favour of shepherding treasured elements through the emergencies that will make way for this better future. As

[129] A simplified version of the tale circulates in popular discourse, but it is not the only interpretation of the text (see, for example, Browne, 2003).
[130] In 2018, a wood bison calf was born at the Toronto Zoo from a frozen embryo that had been shipped from the University of Saskatchewan. As wild wood bison populations are threatened by diseases, the team at the Toronto Zoo describes frozen specimens as "insurance material" (Mastromonaco as cited in James, 2018, para. 121) that can protect the species.

illustrated by shoppers' "panic buying" or "hoarding" responses to meat shortages (and multi-panics about these occurrences) during COVID-19's sample of the protein crisis (Jazemi et al., 2024), this compartmentalized approach to security can prompt snowballing scarcity and combative relations between infrastructural participants.

Implications for Scholarship and Practice

The stories that are told about beef and risk are relevant for food scholarship and food systems. The frameworks researchers use to analyze meatscapes shape the kinds of issues that they identify as problems. In turn, these problems inform the tasks that policymakers, activists, industry participants, and other actors select as priorities when working toward practical improvements.

Currently, the ethic of freshness is embedded in the approaches that are used to study ethical meat consumption as a communication issue in Canada, in that research is interested in isolating key factors that influence ethical decision-making so that these pieces of infrastructure can be preserved and elevated to prompt action in the future. As part of efforts to transition Canada's foodscape away from over-reliance on meat (particularly beef), researchers consider the motivations and obstacles that people experience in making changes to their diets (Bateman et al., 2019; Charlebois et al., 2018; Charlebois & Music, 2021; Kennedy et al., 2024; Kevany et al., 2022; Oleschuk et al., 2019). Such findings add up a picture of the elements of eating that are most significant to members of the Canadian public (e.g., animal welfare, environmental sustainability, personal health, price, taste, etc.), which subsequently become targets for intervention. In other words, the research asks: is there something that people care about protecting (e.g.,

the environment, animals, the children of future generations, their own health, etc.) to an extent that they would be willing to change their behaviours and/or back structural changes to promote its preservation?

In my case study, all four focus groups displayed clear preference for beef that would support their personal health alongside the wellbeing of environments, farmers, and animals, even as individual focus group participants differed in their capacities to access such options. Encapsulating the gap that the groups identified between these ethical desires and the actual practices of mainstream beef systems, Laura (Group 3) articulated how she would explain "organic" and "conventional" to someone encountering the terms for the first time:

> I feel like you'd originally explain the process of organic, and then they'd say: "Ok, then what's organic?" And then you'd say: "Oh, shit. Never mind. Let me explain to you conventional cause it's awful, and then organic was what I just told you the normal process was." […] Because if someone's going to ask you for the first time, "where does beef comes from?", you don't off the top of your head think of the awful stuff, like the force-fed and confined [animals]. So, you explain the organic process to them without realizing it, cause that's what you want to believe. […] But then conventional is like, "ok, here's the dark side."

The focus group participants seemed to be under no illusions that the beef options they currently find in Canada's supermarkets are consistent with the qualities they would ideally like to see in an ethical beef system. At the same time, all participants shopped for beef (as was a requirement for recruitment), and various participants' descriptions of beef dishes were met with choruses of "Mmm!" from around the room. Craig's (Group 4) introduction

to his favourite method of beef preparation conveys the general enthusiasm that focus groups had for beef as a culinary ingredient: "I like any kind of beef [*group laughter*]: steaks, roast, ground up, tartar, raw [*group laughter*]—spiced nicely, […] horseradish-ed up, medium rare, rare… Oh! [*lips smacking*] Let's go! [*loud group laughter*]." Although focus group participants were disturbed by current beef industry practices and were often supportive of other people's choices to be vegetarian, Mel (Group 3) expressed a common sentiment about personal eating habits: "I couldn't go without eating my beef. I mean, I just couldn't do it."

The seeming inconsistencies between focus group participants' beliefs and activities demonstrate the "tension between exploiting animals and loving/caring for animals" (p. 172) that Loughnan and Davies (2020) define as the "meat paradox". A series of recent studies on the sociology of meat in Canada has identified the "meat paradox" as a consistent pattern in eaters' experiences of buying and consuming meat (Bateman et al., 2019; Kennedy et al., 2024; Oleschuk et al., 2019). Reflecting the media discourses that present meat as alternately "risky" and "benign" (Kennedy et al., 2024, p. 23), eaters in Canada experience meat in contradictory manners as a vehicle for both enjoyment and unease (Oleschuk et al., 2019). After surveying perspectives on meat consumption across partisan groups, Kennedy et al. (2024) observe:

> People of all political persuasions find meat delicious, but they also have important reservations about meat. First, people across the political spectrum appear to recognize a connection between meat consumption and health risks. Second, a majority of our respondents want animals to be raised in humane conditions, and have concerns about animals that spend much or all of their lives indoors. Finally, well

> over half of our respondents feel better about meat production that is local and comes from small farms. (p. 22)

While my study's focus groups were not a representative sample of the Canadian population, I saw similar patterns in the data. Focus group participants expressed care about ethical issues related to beef consumption, even though the shopping activities they described did not always display such concern.

The "meat paradox" is often seen as a barrier to transforming meat-eating practices concretely, as muddied perspectives on meat ethics dampen senses of urgency to make change. Conflicting impressions of meat leave eaters "without a clear imperative to change their consumption practices or otherwise engage democratically to alter how meat is collectively produced and consumed" (Bateman et al., 2019 p. 10). The "meat paradox" therefore also presents an "opportunity" (Loughnan & Davies, 2020, p. 179) for changemakers; to address the "meat paradox" is to tackle a foundational principle that normalizes meat consumption in its current form.

Some changemaking strategies leverage the paradox by highlighting the dissonance that it represents between individuals' attitudes and behaviours, and offering alternative actions that would result in resonance instead (e.g., eating vegan foods). On one hand, revealing the details of "where meat comes from" sometimes creates pressure to eat differently (Loughnan & Davies, 2020). On the other hand, as referenced in Chapter 2, this information can also have the opposite effect, as materials that are shocking to some people might become routine to those who have prolonged exposure to them. For maximum impact, Loughnan and Davies therefore advise activists to "target…people with little

contact" with animals (e.g., urban dwellers), as such eaters are most likely be "affected by having this [meat-animal] link drawn to their attention" (p. 179).

Other changemaking strategies look to a societal level for a resolution to the "meat paradox". For Kennedy et al. (2024): "Accounting for the meat paradox is an essential prerequisite to developing sound policy" (p. 11); sufficient agreement that meat is a problem must exist in public discourse in order for government interventions in the meat industry to be implemented in liberal democracies like Canada. Finding "promising areas of consensus" (p. 12) on meat ethics including concerns about animal welfare and health, Kennedy et al. (2024) see opportunities for: "municipal, provincial and territorial, and federal governments to design policies that make it easier for Canadians to purchase meat deemed healthy and humane, for animals, people, and the planet" (p. 25). Rather than expecting individuals to refrain from buying products that do not align with their beliefs, this approach encourages industry practices to change to align with public expectations.

These recommendations beg the questions: who decides what "meat [is] deemed healthy and humane", and how do they do so? The answers are worth pausing on as they dig into the heart of the assumptions that hold up meat ethics as an infrastructure not only of practices (what people do), but also of feelings shaped by sociocultural moods, (un)available materials, and uneven power (why people do things). As outlined in Chapter 5's discussion of social licensing, public support for an issue does not equate to widespread benefit for diverse members of the public. Especially given the limited channels currently available for participation in Canada's political economic systems (e.g., voting, shopping, investing), I agree that individual dietary changes and new government policies are worthwhile actions to take as part of a broader project of transforming meatscapes. At the

same time, I amplify the critiques of Indigenous and decolonial scholars to offer a note of caution about the perspectives that can be suppressed during attempts to reconcile paradoxes (Belcourt, 2019; Tuck & Yang, 2012; Whyte, 2021b).

Noticing that "paradox is singled out as an impasse to political action" in conversations on the ethics of meat, Belcourt (2019) argues that related attempts to eradicate paradox can favour the continued comfort of those in power at the expense of: "flourishing worlds for those who have historically been and continue to be made into surplus populations" (p. 235), notably, Indigenous peoples and their "tentacle-like connectedness" (p. 237) with the animals they eat. As "surplus populations" of the cattle-beef infrastructure, the ghosts discussed in Chapter 7 have less opportunity to voice their ethical terms as noticeable members of the public. To "deem" certain meats as "healthy and humane" in alignment with public opinion may therefore resolve the "meat paradox" in ways that diminish even further (or "ghostbust") the ongoing return to ethical revisions that ghosts demand through their hauntings (Tuck & Ree, 2013).

Preferring to keep ghosts out of the present, Loblaw's ethic of freshness relies on "linear time" to rid the cattle-beef infrastructure of paradox. Defined by Whyte (2021b) as "the narration of duration, span, or movement through identical units such as years or centuries" (p. 41), linear time is embedded in problem-solving approaches that work toward a rectified future by leaving behind past wrongs (see also, Bastian's, 2012, concept of clock time). When faced with the uncertain temporality of risks, a commitment to linear time evokes a sense of urgency that manifests in the implementation of "taken-for-granted strategies…to protect the taken-for-granted state of affairs from disruption" (p. 45). The CSR initiatives discussed in Chapter 6, for example, offer niche market solutions that soothe

the discomfort of paradox for beef shoppers without disrupting flows of capital to the current central beneficiaries of the cattle-beef infrastructure (see also, Ahmed's, 2006, concept of non-performativity). Whereas a universalized definition of "ethical beef consumption" sets out a pathway toward a singular future in which the implicit ranking of priority actors in the cattle-beef infrastructure aligns with the present, paradox allows for pluriversal futures that take account of shifting, contextual needs.

Ethic of Decay: Revisions

Decay frustrates cryopolitical attempts to colonize spaces between life and death by occupying both life and death simultaneously. Defining decay as "the always already becoming of things into one another" (p. 213), M. Jackson (2013) positions it as an ontological foundation for life on Earth, which modernity attempts to circumvent by constructing and preserving "ostensibly timeless spaces" (p. 213) that remain perpetually fresh. While an ethic based on freshness pursues immortality for select items of value (Holtorf, 2012), an ethic based on decay surrenders to collaborative processes of transformation. Different from apathy, this practice of surrender relinquishes control over outcomes while embracing responsibility to tend to the material processes in which one is entangled such that they can continue to transform into new iterations (DeSilvey, 2017; M. Jackson, 2013; Sandilands, 2021a).

This kind of ethic might learn from communities who have long cultivated forms of security by working to sustain relationships. Speaking from her perspective as a Michi Saagiig Nishnaabeg person, Simpson (2021) describes the (ongoing) practices of her ancestors:

> We did not bank capital to protect us against hard times. We had interdependent relationships with animal and plants nations, other human families and neighbouring Indigenous nations. In times of difficulty, we relied upon this practice of relational diplomacy and the words it creates to survive, with the understanding that in return we would in also take care of their worlds. (p. 5)

Here, animal, plants, and others are not stowed away for safe keeping in frozen vaults and are instead part of the systems of governance that make decisions before, during, and after times of crises.

In relation to cryogenic infrastructures, Hobart (2022) advocates for engagements with "melt" (p. 144), which she describes, like decay, as "a phase state change that does not shatter but re-forms bonds at a molecular level" (p. 146). The cryopolitical preoccupation with freezing insists that preservation is the only way to protect valued elements of the past for hypothetical use in the future, even though future landscapes may be so altered that these original items cannot be re-placed within them. In comparison, an accepting engagement with melt accompanies diverse relationships through changes so that they can adapt in kind.[131] This approach resonates with Whyte's (2021b) articulations of the dynamics of "kinship time": "Duration is perceived according to the degree of current kinship relationships, the history of kinship relationships, and future possibilities of kinship relationships" (p. 49). Unlike in "linear time", urgent action within "kinship time" is motivated not by a sense of scarcity akin to the disappearing grains of sand in an hourglass, but rather by recognition that the network of relationships and responsibilities that make

[131] See also, Hobart's discussion with Yates-Doerr for another articulation of this argument (Durocher & Knezevic, 2023c).

up kinship (like but not limited to the Anishinaabeg practices Simpson describes above) is in danger of coming undone.

Drawing on Gilmore's (2020) identification of the many potential arrangements that simmer within the existing form that "infrastructures of feeling" take, Hobart (2022) argues: "infrastructures need not overdetermine the limits of our world-making" (p. 145). When empires expand across time and space via infrastructures, they build not only one-way avenues for amassing power, but also multidirectional channels for exchanging support (Towns, 2022). Hobart describes, for instance, how artificially manufactured ice—a material at the centre of the imperial infrastructures that have fed Hawai'i's intertwined colonial military and tourist industries—was also part of the cooler infrastructure that nourished the resistance enacted at Pu'uhonua o Pu'uhuluhulu, a living space and blockade "established by kia'i with the support of the Royal Order of Kamehameha 'Ekahi for the purpose of protecting sacred Maunakea" (Pu'uhonua o Pu'uhuluhulu, 2019, para. 1). Repurposing networks meant for the movement of capital, communities share information, supplies, and fellowship. An emergent "ethic of decay" can thusly take hold through existing infrastructures dedicated to the preservation of freshness, rearranging them in the process. Rather than understanding an ethic of decay as a binary opposition to the ethic of freshness then, I see it as a pluriversal entanglement with the ethic of freshness, which interacts with the materials and sensations of freshness without centring them as the only hope for future food security.

An example of disruption in beef provisioning's ethic of freshness, cattle ranching infrastructure is being converted to infrastructure for buffalo restoration on the Great Plains with the support of organizations like the InterTribal Buffalo Council. While

modifications are necessary to account for size and behavioural differences between cattle and buffalo (particularly in terms of fencing[132] and animal handling facilities), the InterTribal Buffalo Council (2022) reports: "the management resources and equipment are similar for both animals" (p. 3). As both species graze in herds, for instance, the maintenance of healthy pasture is essential in each case. In support of such buffalo resurgence, the United States Department of Agriculture (USDA) committed to a pilot program in 2023 that involves purchasing meat from bison farms located on Indigenous reserves for distribution through the government's Food Distribution Program on Indian Reservations (FDPIR).

Rather than conforming to the bulk-based acquisition methods of large retailers, the pilot aligns its purchasing schedule with Indigenous "tradition [that] dictates that buffalo is only to be harvested once a year and field-killed" (Schafer, 2023, para. 13). By enacting such place-based food practices to supplement the packaged frozen, dried, or canned commodities typically offered through government-subsided programs (see also, Nutrition North in Canada), Plains Indigenous peoples reclaim "thermal sovereignty" (Hobart, 2022, p. 137) in conjunction with buffalo. Rejecting the anthropocentric rhythms of a singular, linear supply chain coordinated to the demands of continual economic growth, these practices are attuned to multispecies, multi-material temporalities that require patience and diversity as various places of nourishment are cultivated and allowed alternating times to grow and to decay (Bastian, 2012; Kirskey & Helmreich, 2010).

[132] As tools of colonial cattle ranching, fences play an ambiguous role in buffalo reintroduction efforts, which ultimately advocate for buffalo to act as free-roaming animals (Netz, 2004; Shamon et al., 2022).

The bison pilot program is not without its contradictions. The USDA's involvement in buffalo food systems can be seen as an extension of the state's paternalistic relationships with Indigenous communities, and does not fit with principles of Indigenous self-determination. At the same time, as buffalo are reintegrated into the plains according to diverse Indigenous cosmologies that respect cycles of life and death, decolonial worlds can be perceived seeping through the colonial stronghold of the cattle-beef infrastructure.

An ethical framework of decay can find value in such emergent worlds without desiring to delimit the ways in which they flourish in order to protect them for the future. According to an ethic of freshness, risk takes the form of discoverable *information* about the future to which actors must respond within a set timeline. The task of ethical beef consumption is to fill in appropriately the gap between the present and the future by determining the set of actions to take in the present so that desired outcomes are achieved. According to an ethic of decay, risk takes the form of a set of existing *relationships* between the actors of the past, present, and future. The imbalanced exchanges that constitute risk are already happening in the present, and they can be reconstituted by leaning into the nurturing connections that have long been in process.

The dissertation's lens of mediation can assist with tuning into these relationships, as it brings attention to the interactions between the actors and spaces that have been labelled as distinct (if related) components of food systems analysis (e.g., farmers and farms, shoppers and stores, diners and tables, etc.). Informed by decay and mediation, research on beef consumption is not focused on gathering missing data to rank the ethical priorities that should receive attention in innovative food projects; rather, it is oriented toward shifting perceptions to foster appreciation for food system collaborations that are already

happening alongside the ongoing ethical disjunctures that require continuous accountability. More than a visually oriented lens then, mediation in the dissertation has acted as a multisensory engagement with meatscapes that encourages both an awareness of how one's own perceptual limitations shape the ways in which one experiences the world and a respectful curiosity about the experiences of human, more-than-human, and collectively constituted others.[133]

Limitations and Reformulations

Organized around a singular case study, the dissertation is fundamentally limited in scope and generalizability. Even as I have considered the global flows in which the Canadian food retail and beef industries are entangled, my findings on the ethics of shopping for beef in Toronto locations of Loblaws and No Frills cannot be applied to different foodscapes or other cryopolitical situations without significant adjustments.

The ethical contestations surrounding beef in India, for instance, present a notable contrast to my dissertation's Canadian context, which is worth highlighting. Whereas adopting a vegetarian or vegan diet in Canada tends to be associated with left-leaning ideologies of environmentalism and animal rights, abstaining from meat, particularly beef, in India can carry right-leaning ideological connotations of caste purity and superiority. Under the Hindutva (or Hindu nationalist) Bharatiya Janata Party (BJP, in power since 2014), widespread restrictions on the sale of cattle and beef have been put in place, which have spurred the development of cow vigilante groups that have been carrying out violence

[133] See, for example, Kirksey & Helmreich, 2010 and Paxson, 2023 for more on practices of multi-perceptual noticing.

toward people involved in the beef trade, especially those of the Muslim faith and/or Dalit caste (Ahuja, 2019, 2021; Dave, 2014).

In the context of my study, I agree with various activists, scholars, and policymakers who have argued that reductions in beef consumption in Canada are necessary to support the wellbeing of humans, organisms, and environments, as well as the diversity of small-scale growers and processors involved in beef provisioning (e.g., Katz-Rosene & S. J. Martin, 2020b; Health Canada, 2022; Qualman & NFU, 2019). That said (and as recognized by several of the above actors), the call for such changes must be contextual. Acknowledging opportunities for meat reduction to be leveraged by both "progressive" and "regressive" politics, Ahuja's (2019) articulation is apt: "I think of veganism as an important yet limited tactic for people in countries where there is an advanced factory-farming system that is industrialized" (pp. 161–162).

While supported by empirical details, the dissertation's contribution centres on a way of noticing, rather than a set of specific calls to action. Subsequent studies may seek to speak more directly to the "ghosts" of the cattle-beef infrastructure about their experiences with supermarkets. Although the actors appeared as spectres in my study as I was focused on perceptions of them that emerged during the practice of beef shopping, they can be encountered in embodied form elsewhere (e.g., on ranches, in slaughterhouses, at food banks, etc.).

Future research may also be interested in examining the intersections between supermarkets' positions as mediators of food infrastructure and their involvement in other essential infrastructure like housing. Illustrated by the neighbourhood development project for which I attended a "Community Networking Event" at Choice Properties Real REIT's

now-shuttered Community Idea Centre, supermarkets are getting more directly involved in the planning of essential infrastructure through their horizontal integration into real estate.[134] Choice Properties is owned primarily by Loblaw Companies Limited: The companies enjoy a strategic partnership wherein Loblaw businesses occupy the majority of Choice Properties' units. Not limiting their sights (or sites) to retail developments, supermarkets' real estate partners are also undertaking residential and mixed-use projects. In addition to the development for which the Community Idea Centre was built (public consultations continue online), Choice Properties has plans in the works to develop other neighbourhoods around the expanding transit infrastructure in Toronto and the Greater Toronto Area (GTA).[135] The dissertation's exploration of Loblaw's interactions with the cattle-beef infrastructure thus may offer an instructive sense of the priorities and norms that may radiate outward as Loblaw and similar companies positions themselves at the centre of developing infrastructural networks.

Toward the end of my focus group sessions, I prompted the groups for their takeaways from our conversations by asking: "If you were opening a beef store and you were invited to come here and sit on the sidelines and listen to what all of us are saying, what do you think […] you might have learned from the discussion today?" (as I phrased it during Group 1). Brianna's (Group 1) response is suggestive of the lessons in paradox that might be taken from the dissertation: "Contrary to what people may think about society, we do care about

---

[134] In addition to Choice Properties, notable REITs associated with grocery stores in Canada include Crombie REIT (partially owned by Empire Company Ltd.; Crombie, 2024) and SmartCentres REIT (a partner of Walmart; SmartCentres Real Estate Investment Trust, 2024).

[135] The neighbourhoods include a development situated along the new Eglinton Crosstown Light Rail Transit (LRT) line where the Golden Mile Plaza in Scarborough is currently located, and a development anchored by a station of the new rapid transit Ontario Line where the Riverdale Shopping Centre at Gerrard Street and Carlaw Avenue is currently located (Choice Properties, 2021; Choice Properties & Government of Ontario, n.d.).

where our beef is coming from. […] Even though […] we're asking too much of them, we do care about where it's coming from." Both insistent and apologetic, Brianna's statement imagines a beef provisioning system in which care matters.

To examine such articulations of ethical beef consumption with an ethic of decay is to be interested not only in whether eaters care, or what eaters care about, but also *how* they care. Arranged according to an ethic of freshness, Canada's dominant cattle-beef infrastructure enacts a version of care that relies on continuous extraction from collective socio-ecologies to funnel resources toward limited individual actors. Inspired by an ethic of decay, might infrastructures be reoriented to facilitate care that is not "asking too much"?

In the following section of the chapter, I point to some examples of infrastructural reorganization that are underway, offering a provisional exploration of possibilities to inspire further related actions. Comparing the relationships that coalesce around supermarkets and buffalo as central mediators, I find hope in relational mediation in place of extractive mediation as an organizing principle for ethical infrastructures of nourishment.

Supermarkets, Extractive Mediation, and the Grocery Code of Conduct

Siphoning value from life as it moves from land to landfill, supermarkets act as extractive centralized nodes that hold onto—or freeze—the power that they pull from their connections with other network participants, thus constructing an expansive (though fragile) infrastructure around themselves. The unevenness of food distribution infrastructures has been the subject of recent government investigations and industry reform measures in Canada, which have experimented with possibilities for divvying up

centralized power. Initiated by a call from Federal-Provincial and Territorial Ministers in July of 2021, an industry-led steering committee and working group[136] was established to put together a grocery code of conduct. A draft was released for consultation in May of 2023 (Canadian Code, 2024).

The Code offers intriguing potential scaffolding on which to build infrastructural diversity into food distribution systems. It is supposed to address mounting issues between food suppliers and retailers, particularly in relation to the volatile fee structures that large retailers have imposed on suppliers—an issue that was brought to the public's attention in 2020 when Walmart and Loblaw increased the fees they charged their suppliers to account for expenses that would be accrued by the shift to more online shopping during the pandemic (Bundale, 2023). In addition, the Code is intended to level the playing field between retailers of varying sizes. Despite contentious interactions, suppliers currently prioritize their relationships with large retailers; small retailers may be left in the lurch as a result if shortages or other supply issues emerge. Under the Code, all parties would instead work with transparent agreements on product forecasting and delivery based on the specificities of their operations (Canadian Grocery Code, 2024).

As it is currently structured in the finalized version that was presented to the Federal, Provincial, and Territorial Ministers in late 2023, the Code is voluntary: Food distributors can choose whether to participate. The limitations of this model became apparent when Walmart and Loblaw expressed reservations about signing onto the Code, thus stalling the meaningful implementation of the Code at the industry level and eliciting warnings from

[136] While food retail representatives from Metro and Sobeys were part of the working group, Loblaw representatives were not involved.

the federal government about mandated participation (Bill Wilson, 2024). After holding out for months, Loblaw agreed in May 2024 to participate with the condition that other industry players do the same (Saba, 2024c). While Walmart and Loblaw cited concerns that the Code would result in increased prices for consumers, supporters of the Code have been skeptical of this rationale for the companies' hesitation (Aziz, 2024; Edmiston, 2023; Saba, 2024b). Charlebois comments:

> At the end of the day, it's hard to force the hand of very powerful companies like Walmart and Loblaw… Loblaw can make or break companies. They can pick vendors they want to deal with and push away other vendors they don't want to deal with… That's why we're even having a conversation about a code of conduct. (as cited in Cadloff, 2022, para. 23)

As a code of conduct would introduce and enforce more dynamics of exchange between food provisioning participants, it would interfere with large retailers' abilities to draw in value from the fringes of food system networks without returning support in kind.

The implementation of a grocery code of conduct is supported in a related report on the Canadian grocery market by Canada's Competition Bureau (2023b), which was initiated in response to the rapid inflation of grocery prices after the heart of the pandemic. Especially in light of the bread price-fixing scandal that made headlines in 2017,[137] the public in

[137] Loblaw Companies Limited and parent company George Weston Limited received immunity in exchange for tipping off Canada's Competition Bureau about their involvement in an industry-wide bread price-fixing scheme from 2001 to 2015 (Canadian Press, 2017a). In an arrangement known as the "7/10 convention", wholesalers Canada Bread Company Limited and George Weston Limited allegedly arranged to increase bread prices simultaneously by about seven cents in conjunction with an agreed upon ten cent boost in prices at the stores of retailers Loblaw Companies Limited, Walmart Canada Corporation, Sobeys Incorporated, Metro Incorporated, and Giant Tiger Stores Limited (Canadian Press, 2018a). Canada Bread was fined $50 million after it plead guilty to its role in the scheme in 2023 (Competition Bureau Canada, 2023a). The investigation is ongoing.

Canada has been well aware of the negative repercussions of an overly concentrated food retail industry. In addition to the potential for illegal activities like collusion, the report revealed the insidious, legal ways in which concentration affects the equity of food distribution. Demonstrating the intertwined nature of the essential infrastructure that supports food provisioning, for example, the Competition Bureau identified "property controls" as a key problem in the industry, and it has since launched a separate investigation into the issue (Competition Bureau Canada, 2024). The original report recommends:

> Provincial and territorial governments should take measures to limit property controls in the grocery industry, which could include banning their use. Property controls limit how real estate can be used by competing grocers. They make it difficult, or even impossible, for new grocery stores to open, which reduces competition in communities. (p. 2)

Property controls can take the form of restrictions on sales that prevent a new owner of a property from opening a competing business, or clauses on leases that stipulate a landlord's loyalty to a singular food retail company within a certain development radius (recall the growing partnerships between food retailers and real estate companies discussed above). Overall, the report found: "Canada needs more grocery competition" (p. 3) if the public is to have access to better quality, more affordable foods.

As in the case of Walmart and Loblaw's hesitancies about the code of conduct, some of Canada's larger grocers (the Bureau is prohibited from disclosing specific names) were less than cooperative with the investigations. As the broad study was not investigating specific allegations of wrongdoing, the Competition Bureau did not have the authority to compel

private companies to disclose information (Blois, 2023). As a result, the Bureau (2023b) reports: "the level of cooperation varied significantly, and was not fulsome. In many instances, the Bureau was not able to obtain complete and precise financial data, despite its repeated requests" (p. 24).

In response to such findings on the outsized influence of large food retailers, the Government of Canada introduced in 2023 the *Affordable Housing and Groceries Act* (Bill C-56). Among other goals, the legislation: "amend[s] the *Competition Act* to enhance competition…particularly in the grocery sector" (Department of Finance Canada, 2023, point 2). The act increases the purview of the Competition Bureau, thereby representing a reversal of the neoliberal tendency to erode antitrust measures. Troubling a foundational principle by which extractive mediators operate, it removes "the efficiencies defence" (point 4), a justification for otherwise anti-competitive mergers based on improvements in cost, distribution coverage, or further metrics that may result from economies of scale. Moreover, the act troubles the symbiotic relationship between supermarkets and urban developers with language that will: "empower the Bureau to block collaborations that stifle competition and consumer choice, particularly in situations where large grocers prevent smaller competitors from establishing operations nearby" (point 5).

As property controls are rolled back, space might become available for more food provisioners to participate in shaping the fabric of food and urban infrastructure, as in the gardens, farmers' markets, and food hubs[138] that gained attention during the pandemic.

[138] While food hubs take multiple forms and are discussed in various ways in academic literatures (Fischer et al., 2015), a frequently cited definition comes from the National Food Hub Collaboration: "A regional food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand" (Fischer et al., 2013, p. 6).

Rosol et al. (2022) describe such initiatives as "the germs cells of a renewed public sphere" (pp. 20–21) that is taking shape as more diverse food movement actors become involved in food provisioning activities, influencing governance beyond the confines of the mainstream political economic avenues referenced earlier in this chapter. The resilience of such a model was demonstrated during the pandemic when outbreaks stalled the movement of commodities through the main arteries of the cattle-beef infrastructure. In this climate, increased interest was generated in local food infrastructure like gardening and farmers' markets (Lowitt et al., 2021), as well as food "infrastructure of the middle" (Stahlbrand, 2016), including online marketplaces and in-person hubs for coordinating sales between regional growers and eaters. In comparison to the global supply chains that must anticipate demand based on patterns abstracted from large sets of data, these initiatives were in already dialogue with more acute needs of their communities and could therefore respond more flexibly and quickly to deviations from the norm (Lowitt et al., 2021; Regnier-Davies et al., 2022).

At the same time, the opportunities that property controls open could be filled by a different set of actors. Alongside its advice on property controls, the Competition Bureau (2023b) recommends: "Federal, provincial, and territorial support for the Canadian grocery industry should encourage the growth of independent grocers *and the entry of international grocers into the Canadian market* [emphasis added]" (p. 2). Citing Walmart's introduction to the Canadian grocery market as a constructive example, the Competition Bureau arrives at a logical conclusion considering its mandated commitment to the innovative potential of capitalism:

> Perhaps most interesting is the idea of attracting new businesses to come to Canada and compete. The successful entry of international grocers into the Canadian industry may be the best option to bring about lower prices, greater choice, and increased levels of innovation for the benefit of all Canadians. (p. 39)

Even if regulatory measures encourage an initial wave of diverse ownership of the properties that make up the distribution foodscape, private property itself continues to exist as an arrangement on which extractive mediators can prey to reassert the construction of a freshness-oriented food provisioning infrastructure. The beneficiaries of such infrastructures do not gain authority solely by virtue of their centralized positions within a network of other actors. Their (ultimately cannibalistic) power also emerges from their extractive engagements with other participants, which stem from an ownership orientation to land. As referenced in Chapters 2 and 3, the settler colonial occupation of land is predicated on a Western ontology that positions land as property. As a private possession, land is earned through particular types of productive labour, including a lineage of activities as seemingly diverse as warfare, mechanized agriculture, and condominium development. In liberal societies, land comes with bundles of rights that allow owners to extract and to hold onto value from their properties (including both the land itself and the materials on/within it) and to exclude others from doing so (Wittman & James, 2022). The structures of private property are thus entangled with an ethic of freshness that encourages actors to compete over prime places in the distribution infrastructure, so that they can control flows of potential nutrition to ensure their security as more actors participate.

Buffalo, Relational Mediation, and the Buffalo Treaty

If supermarkets are a significant mediator of the dominant cattle-beef infrastructure, buffalo are situated in a comparable place in other ruminant infrastructures that have persisted as intersecting counterpoints. Performing relational mediation, buffalo enact an ethic of decay that circulates nourishment through systems from which they are inseparable. In the process, they demonstrate that central network nodes need not be inherently extractive in their relationships to the places around them.

Drawing on Leroy Little Bear's model, Crosschild et al. (2021) describe buffalo as a "keystone" (p. 6). Located at the centre of an arch, a keystone is a mediating piece of technology that "connects, and holds up, [the] two halves" (p. 9) of the structure by keeping all other stones in place. Similarly, buffalo are responsible for bringing together multiple relationships that constitute the cultures and ecologies of the prairies. Environmentally, buffalo are a "keystone species", in that they cultivate essential components of rich ecological niches through behaviours like grazing, wallowing, and stomping. Economically, buffalo have been at the basis of systems of material exchange including ranching and food sharing, which have intersected with but not been limited to participation in the capitalist marketplace. Politically, buffalo are "keystone teachers" who model directions on how to live well in the world, thereby acting as "research partners" (p. 15) in projects of adapting to contemporary conditions like climate change.

Buffalos' world-making capacities are recognized in the Buffalo Treaty—an ongoing agreement on the cooperative renewal and restoration of buffalo-based socio-ecologies, which was first signed in 2014 at the Blackfeet Reservation in Montana by the following nations: Blackfeet Nation, Kainai/Blood Tribe, Siksika Nation, Piikani Nation, the

Assiniboine and Gros Ventre Tribes of Fort Belknap Indian Reservation, the Assiniboine and Sioux Tribes of Fort Peck Indian Reservation, the Salish and Kootenai Tribes of the Confederated Salish and Kootenai Indian Reservation, and Tsuut'ina Nation (Buffalo Treaty, n.d.). The Treaty now has over 30 signatories from across the northwest Plains.

Through a process of "buffalo dialogues" during which elders and other community members engaged in intra- and inter-tribal discussions, the Treaty emerged as a recommitment to relationships with buffalo that have been threatened by settler colonialism. Summarizing the invitation the Treaty offers to buffalo, Crosschild et al. (2021) write: "Being good relatives [to buffalo] means more than physically restoring buffalo to the prairies; it also demands that we think about human-buffalo relations beyond settler-bounded conceptions of property, land, and animals" (p. 18). As indicated, the work of the Treaty extends beyond projects that support the reintroduction of buffalo within bordered areas (like the USDA's bison pilot project referenced above) to enact the deeper, multidimensional efforts of decolonization that ripple throughout the prairies.

Unlike the proposed grocery Code of Conduct, the Buffalo Treaty does not depend on the participation of large food retail companies like Loblaw and Walmart in order to undertake its remaking of ethical relations in food provisioning systems. At the same time, it does not foreclose possibilities for the involvement of such entities. The Treaty reads:

> WE, collectively, invited NON-Governmental organizations, Corporations and others of the business and commercial community, to form partnership with the signatories to bring about the manifestation of the intent of this treaty. Organizations and Individuals may become signatories to this treaty as partners and supporters, providing they perpetuate the spirit and intent of this treaty. (Article VIII)

Expressing an Indigenous approach to treaty-making, the Buffalo Treaty is a mechanism of "reach[ing] out to others" (Crosschild et al., 2021, p. 19) across food provisioning infrastructures, rather than an attempt to bind participants to a singular set of rules.

Little Bear emphasizes the importance of renewing and revising the Treaty's terms as relationships change: "'You cannot look at these treaties as frozen in time. They are living documents'" (as cited in Crosschild et al., 2021, p. 22). The Treaty's opening statement on the "relationship to buffalo" articulates a model for such ongoing collaboration through dynamic periods of "melt" (Hobart, 2022, p. 144), which are becoming increasingly prevalent as the climate changes:

> Since time immemorial, hundreds of generations of the first peoples of the FIRST NATIONS of North America have come and gone since before and after the melting of the glaciers that covered North America. For those generations, BUFFALO has been our relative. BUFFALO is part of us and WE are part of BUFFALO culturally, materially, and spiritually. Our on-going relationship is so close and so embodied in us that Buffalo is the essence of our holistic eco-cultural life-ways. ("Relationship to buffalo")

As keystones, buffalo circulate nurturance through infrastructures that stretch across geographies and generations.

Rejecting a romanticized view of pre-colonial harmony, Crosschild et al. (2021) emphasize that buffalo were "a source of conflict in the past" (p. 19) between various Indigenous nations who all depended on their relations with the animals. Nonetheless, these conflicts have been representative of an intersection between lifeways that has been continually negotiated because of the common "concern for buffalo" (p. 19). As a contemporary expression of this inter-tribal dialogue, the Buffalo Treaty rejects a colonial

"zero-sum" approach to resource division, finding instead that buffalo keystones open out to a "multitude of portals" (p. 19) that are responsive to one another's unique engagements with shared places. Whereas extractive mediators like large-scale supermarkets elevate capital as a singular form of value to be mined from divergent materials (made hierarchically comparable via price tags), relational mediators like buffalo multiply value by animating divergent interactions with singular materials.

In life and death, buffalo feed biological and spiritual lives at multiple scales. As explained by Joely BigEagle-Kequahtooway, for example, the practice of: "burying buffalo skulls near anthills was an effective way of cleaning the bone before using them in Sundance and Sweat Lodge ceremonies: the ants eat the flesh without damaging the structure" (Sawatzky, 2021, para. 34). BigEagle-Kequahtooway imparts this knowledge during a community gathering facilitated by the Treaty Land Sharing Network (TLSN)—an initiative started by a group of farmers, ranchers, and other landholders on Treaty 4 and Treaty 6 territories (Saskatchewan). Begun in 2019, the project works to respect the treaties by "welcom[ing] First Nations and Métis people…to practice their way of life" (Treaty Land Sharing Network [TLSN], n.d.-a, para. 1) on lands farmed by members of the network.[139] In the face of the increasingly harsh approach to trespassing that is supported in provincial legislation (e.g., Trespass to Property Amendment Act; Guenther, 2022; Sciarpelletti, 2022), the TLSN chooses instead to join landholders with people who are interested in hunting, gathering plants and medicines, practicing ceremonies, and

[139] The necessity of ensuring safe land access became particularly pressing after Coulten Boushie, a 22-year-old Cree man, was shot and killed in 2016 on the property of white farmer, Gerald Stanley, who was acquitted in 2018. The events were surrounded by public discourse on the rights and limits that one should have to defend private property (TLSN, n.d.-a).

otherwise exercising their inherent and treaty rights to lands (TLSN, n.d.-c). As network participants, landholders share information about the features of the land they work on, and those accessing land agree to abide by collectively determined norms, such as traversing land by foot rather than motorized vehicles (TLSN, n.d.-b).

After learning from BigEagle-Kequahtooway and fellow TLSN participants about evidence of former buffalo hunts (along with related ceremonies and ant habitats) on his farm, Joel Mowchenko encourages other settlers to see and to share the nested worlds of the land, as opposed to "assum[ing]…someone else will get more and they will have less" (as cited in Sawartzy, 2021, para. 35) if they welcome the movements for land restitution, including food sovereignty, that are the foundation for Indigenous self-determination. As relational mediators, buffalo encourage these kinds of pluriversal engagements with the land. Rather than the opportunity to parcel out further private properties to new owners, as is promised if property controls are removed around urban supermarkets, the TLSN's approach to land sharing embraces porosity. In place of ubiquitous "no trespassing" signs, TLSN members post notices of welcome, recognizing that the wealth of the land cannot be distributed in perpetuity as a set of frozen resources; it is instead emergent only from ongoing cycles of decay (Guenther, 2022; Sawartzy, 2021).

As illuminated by Simpson (2021), the practices of another animal who has been enrolled into the foundations of Canadian settler colonialism (Berland, 2015) are instructive in understanding how the TLSN's approach to land diverges from retailing property controls (and their proposed reforms): the beaver. Like the characterizations of the buffalo's relationship with grassland habitats outlined above, "biologists [also] call the beaver a keystone species" (Simpson, 2021, p. 15) because beavers build dams that create

pond ecosystems home to a diversity of organisms. Simpson draws parallels between the world-making functions of beaver dams and that of Indigenous blockades[140] by describing how each of the structures operate as "both a refusal and an affirmation" (p. 56). Although beavers block the flow of water with their dams—a refusal—they also "create *shared* worlds" (p. 14) in the form of diverse ecological niches as they do so—an affirmation. Beavers thus demonstrate the generative potential of a paradoxical ethic of decay, as they harvest some parts of the forest ecosystem while also facilitating a broader flourishing through these practices (Hamilton College, n.d.). Similarly, Indigenous blockades are not only a refusal to accept the ongoing structures of settler colonialism, but also "an affirmation of a different political economy [and a] world built upon a different set of relationships and ethics" (Simpson, 2021, p. 56). Not uniformly destructive like colonial capitalist land occupations, Indigenous land reclamation efforts target certain extractive ventures in the interest of building relational networks that can support more diverse life (Tallbear, 2019).

Bringing Simpson's (2021) analysis into conversation with communication studies' discussions of beavers as media (Innis, 1930; Berland, 2015; Young, 2017), I notice that beaver dams act as *mediators* from a media ecology perspective. When beavers build dams, they encourage the creation of multispecies publics who, in turn, shape the pond/forest ecosystems in which beavers live. While human dams impose strict borders on waters to create hydroelectricity for members of the human public who can afford it, beaver dams

[140] While part of a long and ongoing history (including Pu'uhonua o Pu'uhuluhulu referenced above), Simpson's comparison was inspired most directly by the actions of solidarity with the Wet'suwet'en people, who were (and still are) resisting construction of the Coastal GasLink pipeline on their lands, which included the activities at the Unist'ot'en camp and the blockades of Canada's railways during early 2020.

work with waters to divert them toward multiple forms of nourishment.[141] With these comparisons in mind, I see the boundaries around the private properties of food provisioning infrastructure acting like concrete dams to control capital accumulation, whereas the delineations surrounding the lands in the TLSN are beginning to become more akin to the chewed wood and mud of beaver dams—markers that signify the ongoing construction of shared life worlds and the collective responsibility to care for these places.

Addendum: Shoppers, Social Media(tion), and the Loblaw Boycott

As I am in the process of concluding my dissertation in May 2024, a boycott of Loblaw has just begun. Initiated by a Reddit group, "Loblaws is out of Control", which was originally established by Emily Johnson as a forum for shoppers to share frustrations about the rising cost of groceries in Canada, the boycott offers an opportunity to translate these critiques into more concrete actions. Encouraging residents of Canada to revoke financial support for all Loblaw-owned businesses to the extent that they are able, the group has also issued a list of demands addressed to Loblaw that currently reads:

- Signing the grocer code of conduct
- No further retailer-led price increases for 2024
- No further increases to dividends
- Increased cost transparency, i.e., identifying the items which have undergone "shrinkflation"

[141] Beavers and ranchers have had a notably fraught relationship historically, as beaver dams can flood fields and damage property. The ecological roles beavers perform (like helping to hydrate thirsty grasses) are becoming more appreciated, however, and they are starting to be welcomed back to farming communities (Charnley et al., 2020).

- A commitment to affordable pricing, i.e., price caps on essential items
- A commitment to ending price gouging, with prices quickly reflecting the market. (Emmibolt, 2024d)

The organizers appear to be acutely aware that some people's participation in the boycott will be hindered by structural realities like the limited non-Loblaw food retail options available in various neighbourhoods. For those unable to boycott, they recommend other actions like contacting MPs, writing to Loblaw customer support, and donating time or other resources to local food banks (Emmibolt, 2024a). Their efforts have been gaining media attention, and organizer Emily Johnson was invited to meet with Loblaw CEO Per Bank (Benchetrit, 2024).

Commentators are doubtful that the boycott will make significant dents to Loblaw's profits given the scale and ubiquity of Loblaw's businesses, but they indicate that it might be a notable blow to Loblaw's already faltering reputation (Lawson, 2024; Lord, 2024; Saba, 2024a). Rather than trying to predict whether a boycott will "work" in terms of its end goal of reducing food prices to increase food security, I am more interested in exploring the boycott process in terms of the relationships that are being formed and the emergent worlds that are shimmering at its edges. As in the case of abstaining from meat, for a boycott to be more than a refusal, it must generate actively relationships that can coalesce into other worlds alongside, within, and/or in intersection with the world it rejects.

In one direction, boycott organizers are promoting a "Local Grocer Day" on May 12 and directing supporters to resources like the newly launched digital platform *AltGrocery.ca* to find independent retailers and markets in their areas (Emmibolt, 2024b). In another direction, a group that has been condemned by boycott organizers has been promoting

"Steal from Loblaws Day", which, as the name suggests, encourages people to steal from Loblaw-owned businesses on May 12 (Emmitbolt, 2024c). Aligning more with an ethic of decay and an ethic of freshness respectively, these two directions demonstrate the potential for the activities and discourses surrounding the boycott to foster different kinds of politics: Local Grocer Day encourages people to give to others in the food provisioning infrastructure (albeit still mostly within the contexts of commodity capitalism), whereas Steal from Loblaws Day encourages people to take from the food provisioning infrastructure for themselves, which may end up harming others if Loblaw's prices rise or security becomes more militant to compensate for lost product revenue.

While acknowledging the utility of the internet and social media as an organizing tool, Simpson cautions that social movements must be grounded in relationships with place if they are to cultivate (like beaver dams) the reciprocal bonds that hold worlds together (Simpson et al., 2018). Beyond forming new relationships with a different set of food retailers, I hope that the boycott inspires participants and supporters to connect with each other, the relational infrastructures that nourish them, and the human and nonhuman communities who have long worked to tend to such connections.

Cricket Powder to Dust…

In the future invoked by the protein crisis, precious resources must be contained and kept fresh within the bowels of essential infrastructure to protect them from the demands of growing populations. Such dominant articulations of risk make extractive styles of development attractive for communities who are currently missing out on the slices of security that colonial capitalism doles out. Intensive industry developments, for instance,

offer much-needed job opportunities and social stability to Indigenous communities in exchange for access to the biodiversity that has been protected on their lands. An infrastructure that delivers widespread fortunes cannot be constructed from extractive mediation, however. As Crosschild et al. (2021) state: "The Buffalo Treaty is a reminder that one cannot simply swap out a buffalo keystone for an oil and gas keystone. Rather, human existence and prosperity are contingent upon our relations with land and more-than-human kin" (p. 25). Supermarkets do not replicate buffalo's roles as nutrient distributors, even as both mediators provide abundant food. Likewise, cattle do not stand in for buffalo despite the beef industry's contentions about sustainability. As webs of responsibilities form from living and dying together in places over time, parts of infrastructures cannot be substituted in for one another without repercussions to the larger network.

If, according to the dissertation's definitions, an ethical infrastructure is one that supports multi-relational flourishing, the relationships that surround malfunctioning components are just as important to examine as the faulty pieces themselves. The ethic of freshness emerges from the extractive pathways between beef and supermarkets, rather than from an inherent quality contained within either entity on their own. While lower levels of food retail concentration enabled by government-supported industry mechanisms like the Grocery Code of Conduct are promising elements of a more ethical food future, relationships of reciprocity between infrastructural participants must be renewed through multispecies commitments like the Buffalo Treaty to prevent vacuums from being filled by more extractive actors.

Loblaws manager Danielle describes during our interview the processes by which beef leaves supermarkets if it does not pass through the checkout:

> So, we essentially, we have—we call it the "bone can". We fill the "bone can" with [*laughs*] scraps and whatever product is no good anymore, and [a] third party comes a couple times a week and picks it up.

While Danielle is "not sure" about "what they do with it at that point", Loblaw's environmental, social, and governance (ESG) communications suggest that such collections of scraps may make their way into sustainability programs that turn food waste into animal feed (e.g., Loop Resource Ltd.) or energy captured by power grids (e.g., ZooShare Biogas; Burkhardt, 2020; Loblaw Companies Limited, 2023a).

Waste recovery programs mitigate pollution by diverting organic matter from landfills, but (in a manner akin to BSE-related feeding programs, albeit with contamination protocols in place) they also tighten the control that cryopolitical infrastructures have over the ways in which communities can be nourished by the lives and deaths of animals. Buried within the "bone can", the flesh surrounding bovine bones is not available as a source of nutrition for ant colonies, for example. Meanwhile, insects like crickets are fed into other apertures of the infrastructure as ostensible replacements for beef (see the Prologue). A separate receptable is not needed to carry crickets' bones past supermarket aisles, as crickets' exoskeletons are ground and packaged with the rest of their bodies. Like the "bone can's" regulated internment of beef bones, however, the President's Choice package that encases cricket exoskeletons limits the capacity of this powder to return to earth as dust.

References

Abbot, A. (1992). What do cases do? Some notes on activity in sociological analysis. In C. C. Ragin & H. S. Becker (Eds.), *What is a case? Exploring the foundations of social inquiry* (pp. 53–82). Cambridge University Press.

Abraham, L. (2016, April 13). Roasted crickets? Here's a product trend to hop on. *Canadian Grocer*. http://www.canadiangrocer.com/worth-reading/roasted-crickets-anyone-heres-a-product-trend-to-hop-on-63845

Adams, C. J. (1990). *The sexual politics of meat: A feminist-vegetarian critical theory*. Continuum.

Adams, C. J. (2018). *Burger*. Bloomsbury

Ad-Hoc Committee for Antimicrobial Stewardship in Canadian Agriculture and Veterinary Medicine. (2014). Stewardship of antimicrobial drugs in animals in Canada: How are we doing? *Canadian Veterinary Journal, 55*(3), 273–276. PMC3923486.

Affordable Housing and Groceries Act, Statutes of Canada (2023, C-56), 1st session, 44th parliament. https://www.parl.ca/documentviewer/en/44-1/bill/C-56/royal-assent

Agriculture and Agri-Food Canada. (2019). *Food policy for Canada: Everyone at the table*. Government of Canada. https://agriculture.canada.ca/sites/default/files/legacy/pack/pdf/fpc_20190614-en.pdf

Agriculture and Agri-Food Canada. (2021). *Protein disappearance and demand by species*. Government of Canada. https://agriculture.canada.ca/en/sector/animal-

industry/red-meat-and-livestock-market-information/protein-disappearance-and-demand-species#wb-auto-8

Agriculture and Agri-Food Canada. (2022). *Distribution of slaughtering activity and number of federally inspected plants*. Government of Canada. https://agriculture.canada.ca/en/sector/animal-industry/red-meat-and-livestock-market-information/slaughter-and-carcass-weights/distribution-slaughtering-activity

Agriculture and Agri-Food Canada. (2023). *Canada's national pathways*. Government of Canada. https://agriculture.canada.ca/en/department/initiatives/canadas-national-pathways/national-pathways-document

Agri-Food Analytics Lab at Dalhousie University. (2022). *Canada's food price report, 12th edition 2022*. Dalhousie University, University of British Columbia, University of Guelph, University of Saskatchewan. https://cdn.dal.ca/content/dam/dalhousie/pdf/sites/agri-food/Food%20Price%20Report%20-%20EN%202022.pdf

Agri-Food Analytics Lab at Dalhousie University. (2024). *Canada's food price report, 14th edition 2024*. Dalhousie University, University of British Columbia, University of Guelph, University of Saskatchewan. https://cdn.dal.ca/content/dam/dalhousie/pdf/sites/agri-food/EN_CANADA'S%20FOOD%20PRICE%20REPORT%202024.pdf

Agudelo, M. A. L., Jóhannsdóttir, L., & Davídsdóttir, B. (2019). A literature review of the history and evolution of corporate social responsibility. *International Journal of*

Corporate Social Responsibility, 4(1), 1–23. https://doi.org/10.1186/s40991-018-0039-y

Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of Management, 38*(4), 932–968. https://doi.org/10.1177/0149206311436079

Ahmed, S. (2006). The Nonperformativity of Antiracism. *Meridians*, *7*(1), 104–126. http://www.jstor.org/stable/40338719

Ahuja, N. (2019). Asking hard questions. In S. King, R. S. Carey, I. Macquarrie, V. N. Millious, E. M. Power, & C. Wolfe (Eds.), *Messy eating: Conversations on animals as food* (pp. 157–171). Fordham University Press.

Ahuja, N. (2021). On phooka: Beef, milk, and the framing of animal cruelty in late colonial Bengal. In B. Subramaniam & C. Sushmita (Eds.), *Meat! A transnational analysis* (pp. 213–240). Duke University Press.

Akram-Lodhi, A. H. (2013). How to build food sovereignty. *Proceedings for Food sovereignty: A critical dialogue*. Yale University.

Akram-Lodhi, A. H. (2021). Contemporary pathogens and the capitalist world food system. *Canadian Journal of Development Studies/Revue canadienne d'études du développement, 42*(1-2), 18–27. https://doi.org/10.1080/02255189.2020.1834361

Albritton, R. (2012). Two great food revolutions: The domestication of nature and the transgression of nature's limits. In M. Koç, J. Sumner, & A. Winson (Eds.), *Critical perspectives in food studies* (pp. 89–103). Oxford University Press.

Alder, P. A., & Adler, P. (1987). *Membership roles in field research.* Sage.

Alexander, P., Brown, C., Arneth, A., Dias, C., Finnigan, J., Moran, C., Rounsevell, M. D. A. (2017). Could consumption of insects, cultured meat or imitation meat reduce global agricultural land use? *Global Food Security, 15*, 22-32. http://dx.doi.org/10.1016/j.gfs.2017.04.001

Alger, J. M., & Alger, S. F. (1999). Cat culture, human culture: An ethnographic study of a cat shelter. *Society and Animals, 7*(3), 199–218. https://doi.org/10.1163/156853099x00086

Al-Katib, M. (2020, October 16). Opinion: How Canadian agriculture can help feed the world. *Regina Leader Post*. https://leaderpost.com/opinion/columnists/opinion-how-canadian-agriculture-can-help-feed-the-world

Allee, P., Hurst, B., & Aykroyd, D. (Writers), & Meuginot, W. (Director). (1989, December 16). Loose Screws (Season 5, Episode 10) [TV series episode]. In J. Medjuck & M. C. Gross (Executive producers), *The real Ghostbusters*. DIC Enterprises; Columbia Pictures Television.

Allen, C., & Bekoff, M. (1999). *Species of mind: The philosophy and biology of cognitive ethology*. The MIT Press.

Alley, R. B., Cuffey, K. M., Bassis, J. N., Alley, K. E., Wang, S. Parizek, B. R., Anandakrishnan, S., Christianson, K., DeConto, R. M. (2023). Iceberg calving: Regimes and transitions. *Annual review of earth and planetary sciences*, *51*(1), 189–215. https://doi.org/10.1146/annurev-earth-032320-110916

Ammirati Puris. (2001, November 30). *Script—President's Choice Insider's Report 'You can always tell—buffet'*. Record ID 2001.11.30.03. Pirate Archive, McMaster University, Hamilton, ON, Canada.

Anderson, C. R., Bruil, J., Chappell, M. J., Kiss, C., & Pimbert, M. P. (2021). *Agroecology now! Transformations towards more just and sustainable food systems*. Palgrave Macmillan.

Andrée, P., Ayres, J., Bosia, M. J., & Massicotte, M. (2014). Introduction: Crisis and contention in the new politics of food. In P. Andrée, J. Ayres, M. J. Bosia, & M. Massicotte (Eds.), *Globalization and food sovereignty: Global and local change in the new politics of food* (pp. 3–19). University of Toronto Press.

Andrée, P., Clark, J. K., Levkoe, C., Z., & Lowitt, K. (2019). Traversing theory and practice: Social movement engagement in food systems governance for sustainability, justice, and democracy. In P. Andrée, J. K. Clark, C. Z. Levkoe, & K. Lowitt (Eds.), *Civil society and social movements in food system governance* (pp. 1–18). Routledge.

Anomaly, J. (2020). Antibiotics and animal agriculture: The need for global collective action. In E. Jamrozik & M. Selgelid (Eds.), *Ethics and drug resistance: Collective responsibility for global public health* (pp. 297–308). Springer.

Anton C. (2016). On the roots of media ecology: A micro-history and philosophical clarification. *Philosophies, 1*(2), 126–132. https://doi.org/10.3390/philosophies1020126

Anzaldúa, G. E. (1999). *Borderlands/La Frontera: The new Mestiza*. Aunt Lute Books.

Appadurai. A. (1990). Disjuncture and difference in the global cultural economy. *Theory Culture Society, 7*, 295–310. https://doi.org/10.1177/026327690007002017

AquaBounty. (2024). *Why AquaBounty salmon?* https://aquabounty.com/our-salmon/why-aquabounty-salmon

Araghi, F. A. (1995). Global depeasantization, 1945–1990. *The Sociological Quarterly, 36*(2), 337–368. https://doi.org/10.1111/j.1533-8525.1995.tb00443.x

Arbulu, M. A., & Zimmerman, J. (2017). *Retail foods: The retail landscape of Canada* (Gain Report CA17002). USDA Foreign Agricultural Service Global Agricultural Information Network. https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_Ottawa_Canada_2-15-2017.pdf

Arcari, P. (2019). *Making sense of 'food' animals: A critical exploration of the persistence of 'meat'*. Palgrave Macmillan.

Aristotle. (1920). *The Poetics of Aristotle* (S. H. Butcher, Trans., 4th ed.). Macmillan and Co. (Original work ca. 350 BCE)

Arnaquq-Baril, A. (Director). (2016). *Angry Inuk* [Film]. National Film Board; EyeSteelFilm.

Asbed, G., & Hitov, S. (2017). Preventing forced labor in corporate supply chains: The fair food program and worker-driven social responsibility. *Wake Forest Law Review, 52*, 497-531. https://ciw-online.org/wp-content/uploads/HitovAsbedArticle_AuthorCopy.pdf

Athanasiou, T. (1996). The age of greenwashing. *Capitalism Nature Socialism*, *7*(1), 1–36. https://doi.org/10.1080/10455759609358660

Aziz, S. (2024, February 7). *Grocery code of conduct 'will not work' without Loblaw and Walmart, MPs told*. Global News. https://globalnews.ca/news/10276136/grocery-code-of-conduct-loblaw-walmart-canada/

Baker, S. E., & Edwards, R. (Eds.). (2012). *How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research*. National Centre for Research Methods.

Baldwin, A., Cameron, L., & Kobayashi, A. (2010). Introduction: Where is the great white north? Spatializing history, historicizing whiteness. In A. Baldwin, L. Cameron, & A. Kobayashi (Eds.), *Rethinking the great white north: Race nature, and the historical geographies of whiteness in Canada* (pp. 1–15). University of British Columbia Press.

Balibar, E. (2004). *We, the people of Europe? Reflections on transnational citizenship* (J. Swenson, Trans.). Princeton University Press.

Bancerz, M. (2016). New CSR in the food system: Industry and non-traditional corporate food interests. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *3*(2), 127–144. https://doi.org/10.15353/cfs-rcea.v3i2.171

Banerjee, S. B. (2008). Corporate social responsibility: The good, the bad and the ugly. *Critical Sociology, 34*(1), 51–79. https://doi.org/10.1177/0896920507084623

Banks, M. (2007). *Using visual data in qualitative research* (2nd ed.). Sage.

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.

Barad, K. (2017). No small matter: Mushroom clouds, ecologies of nothingness, and strange topologies of spacetimemattering. In A. Tsing, H. Swanson, E. Gan. & N. Bubandt (Eds.), *Arts of living on a damaged planet* (pp. G103–G120). University of Minnesota Press.

Barndt, D. (2008). *Tangled routes: Women, work, and globalization on the tomato trail* (2nd ed.). Rowman & Littlefield Publishers.

Bassi, E. M. (2017). *Social practices of animal husbandry in the Alberta cattle industry* [Master's thesis, University of Alberta]. Education and Research Archive. https://era.library.ualberta.ca/items/58e3c249-8753-4e32-b996-

43477614d9eb/view/e1690033-88da-4efb-a108-9cdf573e77fa/Bassi_Emilie_M_201709_MSc.pdf

Bastian, M. (2012). Fatally confused: Telling the time in the midst of ecological crises. *Environmental Philosophy, 9*(1), 23–48. http://www.jstor.org/stable/26169394

Bateman, T., Baumann, S., & Johnston, J. (2019). Meat as benign, meat as risk: Mapping news discourse of an ambiguous issue. *Poetics, 76*, 101356, 1–13. https://doi.org/10.1016/j.poetic.2019.03.001

Bateson, N. (2016). *Small arcs of larger circles: Framing through other patterns*. Triarchy Press.

Bauman, Z. (2007). *Consuming life*. Polity.

BC Cook Articulation Committee. (2015). *Meat cutting and processing for food service*. BCcampus. https://opentextbc.ca/meatcutting

Beck, U. (1992). *Risk society: Towards a new modernity* (M. Ritter, Trans.). Sage. (Original work published 1986)

Beck, U. (2009). *World at risk* (C. Cronin, Trans.). Polity. (Original work published 2007)

Beck, U., Giddens, A., & Lash, S. (1994). *Reflexive modernization: Politics, tradition and aesthetics in the modern social order*. Stanford University Press.

Beef Cattle Research Council. (2019, April 22). *Isn't beef Canada's ultimate plant based protein?* https://www.beefresearch.ca/blog/isnt-beef-canadas-ultimate-plant-based-protein/

Bekoff, M., & Pierce, J. (2009). *Wild justice: The moral lives of animals*. University of Chicago Press.

Belcourt, B. (2015). Animal bodies, colonial subjects: (Re)locating animality in decolonial thought. *Societies, 5(*1), 1–11. https://doi.org/10.3390/soc5010001

Belcourt, B. (2019). Thinking paradoxically. In S. King, R. S. Carey, I. Macquarrie, V. N. Millious, E. M. Power, & C. Wolfe (Eds.). *Messy eating* (pp. 233–241). Fordham University Press

Bell, A. (2011). Re-constructing Babel: Discourse analysis, hermeneutics and the interpretive arc. *Discourse Studies, 13*(5), 519–568. https://doi.org/10.1177/1461445611412699

Bell, G., & Valentine, G. (1997). *Consuming geographies: We are where we eat*. Routledge.

Benbow, M. E., Lewis, A. J., Tomberlin, J. K., Pechal, J. L. (2013). Seasonal necrophagous insect community assembly during vertebrate carrion decomposition. *Journal of Medical Entomology, 50*(2), 440–450. https://doi.org/10.1603/me12194

Benchetrit, J. (2024, May 1). Loblaw reports $14.58B in Q1 revenue, as Reddit group's boycott kicks off. *CBC News*. https://www.cbc.ca/news/business/loblaw-q1-revenue-boycott-1.7190272

Bergen, R. (2018, October 29). *Antibiotic use in Canadian feedlots*. Beef Cattle Research Council. http://www.beefresearch.ca/blog/antibiotic-use-in-canadian-feedlots/

Berger, A. A. (2000). *Media and communication research methods: An introduction to qualitative and quantitative approaches*. Sage.

Berland, J. (2009). *North of empire: Essays on the cultural technologies of space*. Duke University Press.

Berland, J. (2015). The work of the beaver. In T. Allen & J. Blair (Eds.), *Material cultures in Canada* (pp. 25–49). Wilfrid Laurier University Press.

Berland, J. (2019). *Virtual menageries: Animals as mediators in network cultur*es. The MIT Press.

Berners-Lee, M., Kennelly, C., Watson, R., & Hewitt, C. N. (2018). Current global food production is sufficient to meet human nutritional needs in 2050 provided there is radical societal adaptation. *Elemental Science of the Anthropocene, 6*(52), 1–14. https://doi.org/10.1525/elementa.310

Bilodeau, H., Kehler, A., & Minnema, N. (2021, June 24). *Internet use and COVID-19: How the pandemic increased the amount of time Canadians spend online* (Catalogue no. 45-28-0001). Statistics Canada. https://www150.statcan.gc.ca/n1/pub/45-28-0001/2021001/article/00027-eng.htm

Biltekoff, C., & Guthman, J. (2022). Conscious, complacent, fearful: Agri-food tech's market-making public imaginaries. *Science as Culture*, *32*(1), 58–82. https://doi.org/10.1080/09505431.2022.2090914

Bisplinghoff, F. D. (2006). History of North American rendering. In D. L. Meeker (Ed.), *Essential rendering: All about the animal by-products industry* (pp. 17–30). National Renderers Association.

Black, S. (2022). Essential but not empowered: Reflections on the working class in Canada under COVID-19. *Studies in Political Economy, 103*(2), 130–152. https://doi.org/10.1080/07078552.2022.2096781

Blanchette, A. (2020). *Porkopolis: American animality, standardized life, and the factory farm*. Duke University Press.

Blanchette, A. (2022). Afterword: Temporary measures. In V. Stead & M. Hinkson (Eds.), *Beyond global food supply chains: Crisis, disruption, regeneration* (pp. 165–170). Palgrave Macmillan.

Blanchette, A. (2023). The politics of palatability: Hog viscera, pet food, and the trade in industrial sense impressions. In H. Paxson (Ed.), *Eating beside ourselves: Thresholds of food and bodies* (pp. 89–110). Duke University Press.

Blanco, M., & Peeren, E. (2013a). Haunted historiographies. In M. Blanco & E. Peeren (Eds.), *The spectralities reader: Ghosts and haunting in contemporary cultural theory* (pp. 481–487). Bloomsbury.

Blanco, M., & Peeren, E. (2013b). Introduction: Conceptualizing spectralities. In M. Blanco & E. Peeren (Eds.), *The spectralities reader: Ghosts and haunting in contemporary cultural theory* (pp. 1–27). Bloomsbury.

Blanco, M., & Peeren, E. (Eds.) (2013c). *The spectralities reader: Ghosts and haunting in contemporary cultural theory*. Bloomsbury.

Blanco, M., & Peeren, E. (2013d). Spectral subjectivities: Gender, sexuality, race. In M. Blanco & E. Peeren (Eds.), *The spectralities reader: Ghosts and haunting in contemporary cultural theory* (pp. 309–316). Bloomsbury.

Blanco, M., & Peeren, E. (2013e). The spectral turn. In M. Blanco & E. Peeren (Eds.), *The spectralities reader: Ghosts and haunting in contemporary cultural theory* (pp. 31-36). Bloomsbury.

Blas, J. (2021). *Crop giant Cargill reports biggest profit in 156-year history*. Bloomberg. https://www.bloomberg.com/news/articles/2021-08-06/crop-giant-cargill-reports-biggest-profit-in-156-year-history

Blois, K. (2023). *Grocery affordability: Examining rising food costs in Canada* (Report of the Standing Committee on Agriculture and Agri-Food, 10th report, 44th Parliament, 1st Session). House of Commons Canada. https://publications.gc.ca/collections/collection_2023/parl/xc12-1/XC12-1-1-441-10-eng.pdf

Blue, G. (2008). If it ain't Alberta, it ain't beef: Local food, region identity, (inter)national politics. *Food, Culture & Society, 11*(1), 69–85. https://doi.org/10.2752/155280108X276168

Blue, G. (2009). Branding beef: Marketing, food safety, and the governance of risk. *Canadian Journal of Communication, 34*(2), 229–244. https://doi.org/10.22230/cjc.2009v34n2a2057

Blue, G. (2020). A feminist multi-species approach to green meat. In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 150–165). McGill-Queen's University Press.

Boothman, B. E. C. (2009). 'A more definite system': The emergence of retail food chains in Canada, 1919–1945. *Journal of Macromarketing, 29*(1), 21–36. https://doi.org/10.1177/0276146708327622

Boothman, B. E. C. (2011). Mammoth market: The transformation of food retailing in Canada, 1946–1965. *Journal of Historical Research in Marketing, 3*(3), 279–301. https://doi.org/10.1108/17557501111157742

Borras, S. M., Hall, R., Scoones, I., White, B., & Wolford, W. (2011). Towards a better understanding of global land grabbing: An editorial introduction. *The Journal of Peasant Studies, 38*(2), 209–216. https://doi.org/10.1080/03066150.2011.559005

Bowen, H. (1953). *Social responsibilities of the businessman*. Harper & Row.

Bowness, E., James, D., Desmarais, A. A., McIntyre, A., Robin, T., Dring, C., & Wittman, H. (2020). Risk and responsibility in the corporate food regime: Research pathways beyond the COVID-19 crisis. *Studies in Political Economy, 101*(3), 245–263. https://doi.org/10.1080/07078552.2020.1849986

Bourdieu, P. (1984). *Distinction*. (R. Nice, Trans.). Routledge & Kegan Paul. (Original work published 1979)

Bouvard, V., Loomis, D., Guyton, K. Z., Grosse, Y., El Ghissassi, F., Benbrahim-Tallaa, L., Guha, N., Mattock, H., & Straif, K. (2015). Carcinogenicity of consumption of red and processed meat. *The Lancet Oncology, 16*, 1599–1600. https://doi.org/10.1016/S1470-2045(15)00444-1

Bradburn, J. (2019, January 15). *How a radical idea turned Loblaw into a supermarket empire*. TVO. https://www.tvo.org/article/how-a-radical-idea-turned-loblaws-into-a-supermarket-empire

Brady, J., Power, E., Szabo, M., & Gingras, J. (2016). Still hungry for a feminist food studies. In M. Koç, J. Sumner, & A. Winson (Eds.). *Critical perspectives in food studies* (2nd ed., pp. 81–94). Oxford University Press.

Brand, E. A. (1963). *Modern supermarket operation*. Fairchild.

Brantz, D. (2008). Animal bodies, human health, and the reform of slaughterhouses in nineteenth-century Berlin. In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 71–85). University of New Hampshire Press.

Braude, A. (1989). *Radical spirits: Spiritualism and women's rights in nineteenth-century America*. Beacon Press.

Brice, J., Cusworth, G., Lorimer, J., & Garnett, T. (2022). Immaterial animals and financialized forests: Asset manager capitalism, ESG integration and the politics of livestock. *Environment and Planning A: Economy and Space, 54*(8), 1551–1568. https://doi.org/10.1177/0308518X221121132

Brinkmann, S., & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Sage.

Broad, G. M. (2020). Making meat, better: The metaphors of plant-based and cell-based meat innovation. *Environmental Communication, 14*(7), 919–932. https://doi.org/10.1080/17524032.2020.1725085

Broadway, M. (1997). Alberta bound: Canada's beef industry. *Geography, 82*(4), 377–379. https://www.jstor.org/stable/40572953

Bronson, K., & Knezevic, I. (2016). Big Data in food and agriculture. *Big Data & Society*, *3*(1), 1–5. https://doi.org/10.1177/2053951716648174

Bronson, K., & Knezevic, I. (2019). The digital divide and how it matters for Canadian food system equity. *Canadian Journal of Communication Policy Portal, 44*(2), 63–68. http://doi.org/10.22230/cjc.2019v44n2a3489

brown, a. m. (2017). *Emergent strategy: Shaping change, changing worlds*. AK Press.

Brown, D. (2018, September 7). Loblaw fills top digital role from within. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/loblaw-fills-top-digital-role-from-within

Brown, D. (2019, June 7). Metro launches e-grocery in Toronto. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/metro-launches-e-grocery-in-toronto-87770

Browne, J. (2003). Noah's flood, the ark, and the shaping of early modern history. In D. C. Lindberg & R. L. Numbers (Eds.), *When science and Christianity meet* (pp. 111–138). University of Chicago Press.

Bruce, H. (2023, March 9). *Dark cutting beef*. Beef Cattle Research Council. https://www.beefresearch.ca/research-topic.cfm/dark-cutting-beef-5

Brynne, A. (2020). The structural constraints on green meat. In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 185–205). McGill–Queen's University Press.

Buck-Morss, S. (1992). Aesthetics and anaesthetics: Walter Benjamin's artwork essay reconsidered. *October, 62*(Autumn), 3–41. https://doi.org/10.2307/778700

Buffalo Treaty. (n.d.). *The buffalo: A treaty of cooperation, renewal and restoration*. https://www.buffalotreaty.com/treaty

Bundale, B. (2022, May 4). *Canadian shoppers shift to discount stores, No Name brand amid high inflation: Loblaw*. CTV News. https://www.ctvnews.ca/business/canadian-shoppers-shift-to-discount-stores-no-name-brand-amid-high-inflation-loblaw-1.5887911

Bundale, B. (2023, May 4). *New 'code of conduct' pitches rules for grocers—but few details on punishment for breaking them*. CBC News. https://www.cbc.ca/news/business/grocery-code-of-conduct-1.6832120

Burch, D., & Lawrence, G. (2009). Towards a third food regime: Behind the transformation. *Agriculture and Human Values, 26*, 267-279. https://doi.org/10.1007/s10460-009-9219-4

Burkhardt, J. (2020, November 4). Turning food waste into livestock feed. *Canadian Cattlemen*. https://www.canadiancattlemen.ca/features/turning-food-waste-into-livestock-feed/

Busch, L. (2017). Is Resistance Futile? How Global Agri-Food Attempts to Co-opt the Alternatives. In A. Bonnano & S. A. Wolf (Eds.), *Resistance to the neoliberal agri-food regime* (pp. 21–34). Routledge.

Cadieux, K. V., & Slocum, R. (2015). What does it mean to do food justice? *Journal of Political Ecology, 22*, 1–26. https://doi.org/10.2458/v22i1.21076

Cadloff, E. B. (2022, November 25). Rising food prices: Could a grocer code of conduct help? *The Walrus*. https://thewalrus.ca/grocer-code-of-conduct/

Cairns, K., & Johnston, J. (2015a). Choosing health: Embodied neoliberalism, postfeminism, and the 'do-diet'. *Theory and Society, 44,* 153–175. https://doi.org/10.1007/s11186-015-9242-y

Cairns, K., & Johnston, J. (2015b). *Food and femininity*. Bloomsbury.

Cairns, K., McPhail, D., Chevrier, C., & Bucklaschuk, J. (2015). The family behind the farm: Race and the affective geographies of Manitoba pork production. *Antipode, 47*(5), 1184-1202. https://doi.org/10.1111/anti.12147

Calhoun, C. (1992). Introduction: Habermas and the public sphere. In C. Calhhoun (Ed.), *Habermas and the public sphere* (pp. 1–48). The MIT Press.

Canada Beef. (n.d.). *Merchandising matters in the meat department*. https://canadabeef.ca/merchandising-matters-in-the-meat-department/

Canada Beef. (2016). *Brand story.* https://canadabeef.ca/wp-content/uploads/2016/01/3047-CANBEEF-brand-story-book-F2web.pdf

Canadian Agri-Food Policy Institute. (2012). *Canada's beef food system: A roadmap for dialogue on strategy*. https://capi-icpa.ca/wp-content/uploads/2011/09/Canadas-Beef-Food-System-A-Roadmap-for-Dialogue-on-Strategy-2012.pdf

Canadian Animal Health Institute. (2024). *Hormones*. https://cahi-icsa.ca/hormones

Canadian Centre for Food Integrity. (2016). *2016 Canadian public trust research: With insights from moms, millennials and foodies.* https://www.foodintegrity.ca/research/

Canadian Centre for Food Integrity. (2020). *2020 public trust research: Trends in trust and the pathway forward*. https://www.foodintegrity.ca/research/

Canadian Centre for Food Integrity. (2021). *2021 public trust research*. https://www.foodintegrity.ca/research/

Canadian Centre for Food Integrity. (2022). *2022 public trust research*. https://www.foodintegrity.ca/research/

Canadian Centre for Food Integrity. (2023). *2023 public trust research report*. https://www.foodintegrity.ca/research/

Canadian Centre for Food Integrity. (2024, January). *Canadian CFI e-news | January 2024*. https://www.foodintegrity.ca/news-blog/current-newsletter/

Canadian Food Inspection Agency. (2023, September 14). *Search the list of federally registered meat establishment and their licensed operators*. Government of Canada. https://inspection.canada.ca/webapps/MeatList/?lang=e

Canadian Grocer. (2021, March 17). Meatless Farm opens plant protein production plant in Calgary. *Canadian Grocer*. https://www.canadiangrocer.com/top-stories/meatless-farm-opens-plant-protein-production-plant-in-calgary-101715

Canadian Grocer staff. (2012, August 7). Loblaw launches Guiding Stars nutrition labelling program. *Canadian Grocer*. https://www.canadiangrocer.com/top-stories/loblaw-first-to-launch-guiding-stars-nutrition-labelling-program-15073

Canadian Grocer staff. (2017, December 1). Maple Leaf expands further into alternative protein. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/maple-leaf-expands-further-into-alternative-proteins-77358

Canadian Grocery Code. (2024). *Canada Code*. https://canadacode.org

Canadian Press. (2017a, December 19). Loblaw, George Weston admit to bread price fixing. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/loblaw-george-weston-admit-to-bread-price-fixing-77745

Canadian Press. (2017b, November 8). Loblaw merging Shoppers Optimum and PC Plus loyalty programs. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/loblaw-merging-shoppers-optimum-and-pc-plus-loyalty-programs-76700

Canadian Press. (2017c, November 15). Loblaw partnering with Instacart on home delivery. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/loblaw-partnering-with-instacart-on-home-delivery-76888

Canadian Press. (2018a, January 31). Canada Bread, George Weston met with grocers on bread price increases: Competition Bureau. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/canada-bread-geo...ith-grocers-on-bread-price-increases-competition-bureau-78482

Canadian Press. (2018b, December 21). Grocers transforming themselves to adapt to shifting consumer demands. *Canadian Grocer*.

http://www.canadiangrocer.com/worth-reading/grocers-transforming-themselves-to-adapt-to-shifting-consumer-demands-84812

Canadian Press. (2018c, December 6). Vegan butchers serve up plant-based alternatives. *Canadian Grocer*. http://www.canadiangrocer.com/worth-reading/vegan-butchers-serve-up-plant-based-alternatives

Canadian Press. (2021, March 16). *Sobeys parent company to buy 51% stake in Longo's Grocery Gateway*. CBC News. https://www.cbc.ca/news/business/sobeys-stake-longos-1.5951288

Canadian Roundtable for Sustainable Beef. (2015). *Canadian Roundtable for Sustainable Beef (CRSB) Bylaws*. https://crsb.ca/assets/Uploads/About-Us/Council/280a49c5ca/CRSB-Bylaws_newlogo_nov20-2017.pdf

Canadian Roundtable for Sustainable Beef. (2016). *National beef sustainability assessment and strategy summary report*. https://crsb.ca/wp-content/uploads/2021/12/Assessment-and-Strategy_summary_report_2016.pdf

Canadian Roundtable for Sustainable Beef. (2017, November 29). *CRSB launches Certified Sustainable Beef framework* [Press release]. https://crsb.ca/news/crsb-launches-certified-sustainable-beef-framework/

Canadian Roundtable for Sustainable Beef. (2019). *CRSB interpretive guide: Sustainable beef production standard*. https://www.crsbcertified.ca/assets/Uploads/Framework-Documents/Production-Guide.pdf

Canadian Roundtable for Sustainable Beef. (2020a). *2020 annual report*. https://crsb.ca/about/resources/

Canadian Roundtable for Sustainable Beef. (2020b, December 14). *CRSB approves Ontario Corn Fed Beef as certification body for CRSB certified* [Press release]. https://www.crsbcertified.ca/blog/crsb-approves-ontario-corn-fed-beef-as-certification-body-for-crsb-certified/

Canadian Roundtable for Sustainable Beef. (2020c). *Interim progress report: National beef sustainability strategy*. https://crsb.ca/wp-content/uploads/2021/11/Interim-Report_CRSB-Sustainability-Strategy_Executive-Summary.pdf

Canadian Roundtable for Sustainable Beef. (2023a). *Assurance protocols for certification bodies, clients, and oversight body* (Version 2.0). https://www.crsbcertified.ca/assets/Uploads/Framework-Documents/Assurance-Protocol_v2.0_FINAL.pdf

Canadian Roundtable for Sustainable Beef. (2023b). *Sustainable beef processing standard* (Version 2.0). https://www.crsbcertified.ca/assets/Uploads/Framework-Documents/CRSB-Sustainable-Beef-Processing-Standard_v2.0.pdf

Canadian Roundtable for Sustainable Beef. (2023c). *Sustainable beef production standard* (Version 2.0). https://www.crsbcertified.ca/assets/Uploads/Framework-Documents/CRSB-Sustainable-Beef-Production-Standard-v2.0.pdf

Canadian Roundtable for Sustainable Beef. (2024a). *About us.* Canadian Roundtable for Sustainable Beef. https://crsb.ca/about/

Canadian Roundtable for Sustainable Beef. (2024b). *Beef for the planet*. https://beeffortheplanet.ca

Canadian Roundtable for Sustainable Beef. (2024c). *Beef sustainability and why it is important*. Canadian Roundtable for Sustainable Beef. https://www.crsbcertified.ca/about/beef-sustainability-and-why-it-is-important/

Canadian Roundtable for Sustainable Beef. (2024d). *Canadian Roundtable for Sustainable Beef*. https://crsb.ca

Canadian Roundtable for Sustainable Beef. (2024e). *Consumers.* Canadian Roundtable for Sustainable Beef. https://www.crsbcertified.ca/consumers/

Canadian Roundtable for Sustainable Beef. (2024f). *Producers—Chain of custody*. https://www.crsbcertified.ca/producers/chain-of-custody-requirements/

Canadian Underwriter. (2010, February 11). *PC Financial re-launches as a full-service brokerage*. https://www.canadianunderwriter.ca/insurance/pc-financial-re-launches-as-a-full-service-brokerage-1000359006/

Canadian Urban Institute. (2016, July 4). *TOcore Neighbourhood population profiles*. Prepared for City of Toronto, City Planning. https://www.toronto.ca/wp-content/uploads/2017/12/9386-city-planning-tocore-neighbourhood-population-profiles-aoda-07-04-2016.pdf

Canfax Research Services. (2022, July 15). *Canadian beef industry: 2021 Census of agriculture*. https://www.canfax.ca/uploads/2021_COA_Summary.pdf

Canfield, M., Anderson, D., & McMichael, P. (2021). UN Food Systems Summit 2021: Dismantling democracy and resetting corporate control of food systems. *Frontiers in Sustainable Food Systems, 5*, 1–15. https://doi.org/10.3389/fsufs.2021.661552

Cargill. (2020a, December 7). *Cargill expands opportunities for innovation in plant-based foods with addition of pea protein to European ingredient portfolio* [Press release].

https://www.cargill.com/2020/cargill-expands-opportunities-for-innovation-in-plant-based-food

Cargill. (2020b, June 30). *Cargill launches new plant-based protein brand PlantEver for consumers in China* [Press release]. https://www.cargill.com/2020/cargill-launches-new-plant-based-protein-brand-plantever

Cargill. (2020c, February 24). *Cargill launches plant-based patty and ground products* [Press release]. https://www.cargill.com/2020/cargill-launches-plant-based-patty-and-ground-products

Cargill. (2020d). *Fertile ground for innovation in plant protein*. https://www.cargill.com/doc/1432157752476/fertile-ground-for-innovation-in-plant-protein.pdf

Cargill. (2021). *Extraordinary times, solutions, partnerships, people: 2021 annual report*. https://www.cargill.com/sustainability/reporting-hub/annual-report-library

Carlson, C. J., Albery, G. F., Merow, C., Trisos, C. H., Zipfel, C. M., Eskew, E. A., Olival, K. J., Ross, N., & Bansal, S. (2022). Climate change increases cross-species viral transmission risk. *Nature, 607*, 555–562. https://doi.org/10.1038/s41586-022-04788-w

Carolan, M. (2015). Affective sustainable landscapes and care ecologies: Getting a real feel for alternative food communities. *Sustainability Science, 10*, 317–329. https://doi.org/10.1007/s11625-014-0280-6

Carter, S. (2016). *Imperial plots: Women, land, and the spadework of British colonialism on the Canadian prairies*. University of Manitoba Press.

Catts, O., & Zurr, I. (2013). Disembodied livestock: The promise of a semi-living utopia. *Parallax, 29*(1), 101– 113. https://doi.org/10.1080/13534645.2013.752062.

Cavalieri, P. (2001). *The animal question: Why nonhuman animals deserve human rights* (C. Woollard, Trans.). Oxford University Press.

CBC Archives. (2019, October 30). *The dawn of the Costco era in Canada*. CBC News. https://www.cbc.ca/archives/the-dawn-of-the-costco-era-in-canada-1.5328668

CBC News. (2004, August 3). *Alberta meat packers almost tripled profit over BSE: Report*. CBC News. https://www.cbc.ca/news/canada/alberta-meat-packers-almost-tripled-profit-over-bse-report-1.483983

CBC News. (2008, June 26). *Lakeside Packers sold to XL Foods*. CBC News. https://www.cbc.ca/news/canada/calgary/lakeside-packers-sold-to-xl-foods-1.723542

CBC News. (2019, October 7). *Canada-EU beef trade deal not working as well as hoped*. CBC News. https://www.cbc.ca/news/canada/calgary/ceta-beef-export-canada-europe-not-what-was-expected-1.5312594

CBC News. (2023a, August 30). *Grocery chain Metro reaches tentative deal with Unifor workers*. CBC News. https://www.cbc.ca/news/canada/toronto/metro-tentative-deal-1.6951621

CBC News. (2023b, November 18). *No Frills reaches tentative deal with Unifor workers, averts strike at 17 stores in Ontario*. CBC News. https://canadiangrocer.com/no-frills-reaches-deal-unifor-workers-avert-strike-17-ontario-stores

Cellular Agriculture Canada. (n.d.). *Cellular Agriculture Canada*. https://www.cellag.ca

Centers for Disease Control and Prevention. (2021, November 22). *Where resistance spreads: Food supply*. https://www.cdc.gov/drugresistance/food.html

Cevolini, A. (2016). Time construction in insurance society. *Journal of Historical Sociology, 29*(2), 160–181. https://doi.org/ 10.1111/johs.12079

Chandrasekaran, K., Guttal, S., Kumar, M., Langner, L., & Manahan, M. A. (2021, September 23). *Exposing corporate capture of the UNFSS through multistakeholderism*. Liaison Group of the People's Autonomous Response to the UN Food Systems Summit. https://www.foodsystems4people.org/multistakeholderism-report/

Charlebois, S. (2016a, May 2). Beef's identity crisis*. Canadian Grocer*. http://www.canadiangrocer.com/blog/beefs-identity-crisis-64404

Charlebois, S. (2016b, July 21). Social licensing in food. *Canadian Grocer*. https://www.canadiangrocer.com/blog/social-licensing-in-food-66625

Charlebois, S. (2019, May 23). Delivering the goods on grocery delivery. *Canadian Grocer*. http://www.canadiangrocer.com/blog/delivering-the-goods-on-grocery-delivery-87296

Charlebois, S., Somongyi, S., & Music, J. (2018). *Plant-based dieting and meat attachment: Protein wars and the changing Canadian consumer (preliminary results*). Dalhousie University. https://cdn.dal.ca/content/dam/dalhousie/pdf/management/News/News%20%26%20Events/Charlebois%20Somogyi%20Music%20EN%20Plant-Based%20Study.pdf

Charlebois, S., & Music, J. (2021). *COVID-19 beef consumption*. Agri-Food Analytics Lab at Dalhousie University. https://cdn.dal.ca/content/dam/dalhousie/pdf/sites/agri-food/COVID%20Beef%20consumption%20(May%209%202021)%20EN.pdf

Charnley, S., Gosnell, H., Davee, R., & Abrams, J. (2020). Ranchers and beavers: Understanding the human dimensions of beaver-related stream restoration on western rangelands. *Rangeland Ecology & Management, 73*(5), 712-723. https://doi.org/10.1016/j.rama.2020.04.008.

Chartrand, S., Hamel-Charest, L., Hassen, R., Hunt, H., nasser, n., Speakman, K., Szanto, D. (in press). Reimaging recipes for food studies: Enriching—not spoiling—the broth. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*.

Choay, F. (2001). *The invention of the historic monument* (L. M. O'Connell, Trans.). Cambridge University Press. (Original work published 1992)

Choice Properties. (2021, March 30). *Choice Properties Real Estate Investment Trust and The Daniels Corporation partner on first phase of Golden Mile shopping centre redevelopment in Toronto* [Press release]. https://www.choicereit.ca/news-releases/choice-properties-real-estate-investment-trust-and-the-daniels-corporation-partner-on-first-phase-of-golden-mile-shopping-centre-redevelopment-in-toronto/

Choice Properties & Government of Ontario. (n.d.). *Gerrard-Carlaw North*. https://engagegerrardcarlawnorth.ca

Chrulew, M. (2017). Freezing the ark: The cryopolitics of endangered species preservation. In J. Radin & E. Kowal (Eds.), *Cryopolitics: Frozen life in a melting world* (pp. 283-305). The MIT Press.

Clapp, J. (2016). *Food* (2nd ed.). Polity Press.

Clapp, J., & Isakson, S. R. (2018a). Risky returns: The implications of financialization in the food system. *Development and Change 49*(2), 437–460. https://doi.org/10.1111/dech.12376

Clapp, J., & Isakson, S. R. (2018b). *Speculative harvests: Financialization, food, and agriculture*. Practical Action Publishing & Fernwood Publishing.

Clapp, J., Moseley, W. G., Burlingame, B., Termine, P. (2022). Viewpoint: The case for a six-dimensional food security framework. *Food Policy, 106*, 102164, 1–10. https://doi.org/10.1016/j.foodpol.2021.102164

Coffey, A. (2013). Analysing documents. In U. Flick (Ed.), *The SAGE handbook of qualitative data analysis* (pp. 367–379). Sage.

Cohen, L. (2004). *A consumer's republic: The politics of mass consumption in postwar America*. Vintage Books.

Collins, P. H. (1990). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. Routledge.

Committee for Economic Development. (1971). *Social responsibilities of business corporations*. Committee for Economic Development of the Conference Board. https://www.conference-board.org/publications/social-responsibilities-of-business-corporations

Competition Bureau Canada. (2023a, June 21). *Canada bread sentenced to $50 million fine after pleading guilty to fixing wholesale bread prices* [Press release]. Government of Canada. https://www.canada.ca/en/competition-bureau/news/2023/06/canada-bread-sentenced-to-50-million-fine-after-pleading-guilty-to-fixing-wholesale-bread-prices.html

Competition Bureau Canada. (2023b, June 27). *Canada needs more grocery competition: Competition Bureau retail grocery market study*. Innovation, Science and Economic Development Canada. https://ised-isde.canada.ca/site/competition-bureau-canada/sites/default/files/attachments/2023/CB-Retail-Grocery-Market-Study-Report-EN-2023-06-23.pdf

Competition Bureau Canada. (2024, June 11). *Competition Bureau advances investigations into Sobeys and Loblaw's use of property controls* [Press release]. Government of Canada. https://www.canada.ca/en/competition-bureau/news/2024/06/competition-bureau-advances-investigations-into-sobeys-and-loblaws-use-of-property-controls.html#

Condon, G. (2018, April 10). The race for home delivery. *Canadian Grocer*. https://canadiangrocer.com/race-home-delivery

Corning, J. L. (1884). *Brain exhaustion with some preliminary considerations on cerebral dynamics*. D. Appleton and Company.

Corti, L. (2004). Archival research. In M. S. Lewis-Beck, A. Bryman, & T. F. Liao (Eds.), *The SAGE encyclopedia of social science research methods* (pp. 20–21). Sage.

Costco Wholesale. (2024). The Costco story. https://www.costco.ca/about-us.html

Coté, C. (2016). "Indigenizing" food sovereignty. Revitalizing Indigenous food practices and ecological knowledges in Canada and the United States. *Humanities, 5*(57), 1–14. https://doi.org/10.3390/h5030057

Coulter, K. (2016). *Animals, work, and the promise of interspecies solidarity*. Palgrave Macmillan.

Coulthard, G. (2014). *Red skin, white masks: Rejecting the colonial politics of recognition*. University of Minnesota Press.

Crawford, D. H. (2007). *Deadly companions: How microbes shaped our history*. Oxford University Press.

Crawford, R. (1980). *Healthism and the medicalization of everyday life, 10*(3), 365–388. http://www.jstor.com/stable/45130677

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist practice. *University of Chicago Legal Forum, 1*(8), 139–167. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Crombie. (2024). *Crombie*. https://www.crombie.ca

Crosschild, R., Starblanket, G., Voth, D., Hubbard, T., & Bear, L. L. (2021). Awakening Buffalo Consciousness: Lessons, Theory, and Practice from the Buffalo Treaty. *Wicazo Sa Review, 36*(1), 5–29. https://doi.org/10.1353/wic.2021.a903665.

Crowther, G. (2018). *Eating culture: An anthropological guide to food* (2nd ed.). University of Toronto Press.

Curran, D. (2018). The organized irresponsibility principle and risk arbitrage. *Critical Criminology, 26*, 595–610. https://doi.org/10.1007/s10612-018-9415-x

Czerniawski, A. M. (2017). The 200-year weight debate. *Contexts, 16*(3), 68–69. https://doi.org/10.1177/1536504217732057

Dagevos, H. (2021). Finding flexitarians: Current studies on meat eaters and meat reducers. *Trends in Food Science and Technology, 114,* 530–539. https://doi.org/10.1016/j.tifs.2021.06.021

Dakin, B. C., Ching, A. E., Teperman, E., Klebl, C., Moshel, M., & Bastian, B. (2021). Prescribing vegetarian or flexitarian diets leads to sustained reduction in meat intake. *Appetite, 164*, 1–10. https://doi.org/10.1016/j.appet.2021.105285

Dalby, S., Horton, S., & Mahon, R. (2019). Global governance challenges in achieving the Sustainable Development Goals. In S. Dalby, S. Horton, R. Mahon, & D. Thomaz (Eds.), *Achieving the Sustainable Development Goals: Global governance challenges* (pp. 1–18). Routledge.

D'Aliesio, R. (2013, October 15). *Feds discussed bailing out XL Foods to ease fallout from beef recall*. Globe and Mail. https://www.theglobeandmail.com/news/national/feds-discussed-aid-for-xl-foods-to-ease-fallout-from-beef-recall/article14864041/

Dale, D. (2016, May 6). *Donald Trump channels Rob Ford and vows to 'stop the gravy train'.* Toronto Star. https://www.thestar.com/news/world/donald-trump-channels-rob-ford-and-vows-to-stop-the-gravy-train/article_aae7d237-7e7f-5e06-8f63-9d76ccee0b55.html

Daschuk, J. (2013). *Clearing the plains: Disease, politics of starvation, and the loss of aboriginal life*. University of Regina Press.

Dave, N. N. (2014). Witness: Humans, animals, and the politics of becoming. *Cultural Anthropology, 29*(3), 433–456. https://doi.org/10.14506/ca29.3.01.

Debord, G. (1970). *Society of the spectacle* (F. Perlman & J. Supak, Trans.). Black and Red. (Original work published 1967)

Declaration of the International Forum for Agroecology, Nyéléni, Mali. (2015). *Development*, *58*, 163–168. https://doi.org/10.1057/s41301-016-0014-4

DeMello, M. (2012). *Animals and society: An introduction to human-animal studies*. Columbia University Press.

Denzin, N. K., & Lincoln, Y. S. (2011). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 1–20). Sage.

Department of Finance Canada. (2023, December 15). *Affordable housing and groceries act receives Royal Assent to build more rental homes and help stabilize grocery prices* [Press release]. Government of Canada. https://www.canada.ca/en/department-finance/news/2023/12/affordable-housing-and-groceries-act-receives-royal-assent-to-build-more-rental-homes-and-help-stabilize-grocery-prices.html

Derrida, J. (1994). *Specters of Marx: The State of the debt, the work of mourning, and the new international* (P. Kamuf, Trans.). Routledge. (Original work published 1993)

Derrida, J. (1998). *Archive fever: A Freudian impression* (E. Prenowitz, Trans.). University of Chicago Press. (Original work published 1995)

Derrida, J. (2002). The Animal That Therefore I Am (More to Follow) (D. Wills, Trans.). *Critical Inquiry*, *28*(2), 369–418. https://doi.org/10.1086/449046

Dery, M. (1994). Black to the future: Interviews with Samuel R. Delaney, Greg Tate, and Tricia Rose. In M. Dery (Ed.), *Flame wars: The discourse of cyberculture* (pp. 179–222). Duke University Press.

DeSilvey, C. (2017). *Curated decay: Heritage beyond saving*. University of Minnesota Press.

Desjardins, S. (2020, August 23). *6 things to know about crickets*. CBC News. https://www.cbc.ca/news/canada/prince-edward-island/pei-things-know-crickets-1.5691826

Desmarais, A. A. (2015). The gift of food sovereignty. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation, 2*(2), 154–163. https://doi.org/10.15353/cfs-rcea.v2i2.115

Despret, V. (2013). Responding bodies and partial affinities in human-animal worlds. *Theory, Culture & Society, 30*(7-8), 51–76. https://doi.org/10.1177/0263276413496852

Deutsch, T. (2010). *Building a housewife's paradise: Gender, politics, and American grocery stores in the twentieth century*. The University of North Carolina Press.

Dickau, J., Pilcher, J. M., & Young, S. K. (2021). If you wanted garlic, you had to go to Kensington: culinary infrastructure and immigrant entrepreneurship in Toronto's food markets before official multiculturalism. *Food, Culture & Society*, *24*(1), 31–48. https://doi.org/10.1080/15528014.2020.1860375

Dillon, G. (Ed.). (2012). *Walking the clouds: An anthology of Indigenous science fiction*. University of Arizona Press.

DiMaio, T. (2019, July 14). *This scientist is development new cell lines for slaughter-free meat*. Good Food Institute. https://gfi.org/blog/gareth-sullivan-cell-lines-research-grant/

Dixon, J. (2003). Authority, power and value in contemporary industrial food systems. *International Journal of Sociology of Agriculture and Food 11*(1), 31–40. https://doi.org/10.48416/ijsaf.v11i.327

Dixon, J. (2007). Supermarkets as new food authorities. In D. Burch & G. Lawrence (Eds.), *Supermarkets and agri-food supply chains: Transformations in the production and consumption of food* (pp. 29–50). Edward Elgar.

Dixon, J. (2009). From the imperial to the empty calorie: How nutrition relations underpin food regime transitions. *Agriculture and Human Values, 26*, 321-333. https://doi.org/10.1007/s10460-009-9217-6

Dixon, J., & Banwell, C. (2016). Supermarketisation and rural society futures. In M. Shucksmith & D. L. Brown (Eds.,), *Routledge international handbook of rural studies* (pp. 227–239). Routledge.

Dobak, W. A. (1996). Killing the Canadian buffalo, 1821–1881. *Western Historical Quarterly, 27*(Spring), 33–52. https://doi.org/10.2307/969920

Donald, D. (2009). Forts, curriculum, and Indigenous métissage: Imagining decolonization of Aboriginal-Canadian relations in educational contexts. *First Nations Perspectives: The Journal of the Manitoba First Nations Education Resource Centre*, *2*(1), 1–24. https://mfnerc.org/wp-content/uploads/2022/10/004_Donald.pdf

Donovan, J. (2006). Feminism and the treatment of animals: From care to dialogue. *Signs, 31*(2), 305–329. https://doi.org/10.1086/491750

Donovan, J. (2007). Attention to suffering: Sympathy as a basis for ethical treatment of animals. In J. Donovan & C. J. Adams (Eds.), *The feminist care tradition in animal ethics* (pp. 174–197). Columbia University Press.

Donovan, J., & Adams, C. J. (2007). Introduction. In J. Donovan & C. J. Adams (Eds.), *The feminist care tradition in animal ethics* (pp. 1–20). Columbia University Press.

Doucette, J. (2019). *Understanding the plant based protein shopper in Canada: Going beyond the hype*. Field Agent. https://www.fieldagentcanada.com/blog/shopper-insight-plant-based-protein

Douglas, M. (1972). Deciphering a meal. *Daedalus, 101*(1), 61–81. https://www.jstor.org/stable/20024058

Doyle, A. (2007). Introduction: Trust, citizenship and exclusion in the risk society. In Law Commission of Canada (Ed.), *Risk and trust: Including or excluding citizens* (pp. 7–22). Fernwood.

Dryden, J., & Rieger, A. (2021, February 6). *New COVID-19 outbreak declared at Cargill meat plant in Alberta—site of Canada's largest outbreak*. CBC News. https://www.cbc.ca/news/canada/calgary/cargill-high-river-outbreak-1.5904444

Dunlap, M. (2021). *Retail racism: Shopping while Black and Brown in America*. Rowman & Littlefield Publishers.

DuPuis, E. M. (2007). Angels and vegetables: A brief history of food advice in America. *Gastonomica: The Journal of Food and Culture, 7*(3), 34–44. https://doi.org/10.1525/gfc.2007.7.3.34

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat? Toward a reflexive politics of localism. *Journal of Rural Studies, 21*, 359–371. https://doi.org/10.1016/j.jrurstud.2005.05.011

Durocher, M., & Knezevic, I. (Eds.) (2023a). Food Matters and Materialities: Critical Understandings of Food Cultures [Special issue]. *Food, Culture & Society,* 26(4). https://doi.org/10.1080/15528014.2023.2246848

Durocher, M., & Knezevic, I. (2023b). "Healthy" food configurations: Critical analysis of power relations in context. *Food, Culture & Society*, *26*(4), 905–926. https://doi.org/10.1080/15528014.2022.2145060

Durocher, M., & Knezevic, I. (2023c). Ice, food matters, structures: An edited interview with Dr Hi'ilei Hobart and Dr Emily Yates-Doerr. *Food, Culture & Society, 26*(4), 856-866. https://doi.org/10.1080/15528014.2022.2159683

Dzamba, J. (2009). *3MF research brochure*. http://www.thirdmillenniumfarming.com/06.-Academic.Archive.html

Earle, R. (2010). "If you eat their food ...": Diets and bodies in early colonial Spanish America. *The American Historical Review*, *115*(3), 688–713, https://doi.org/10.1086/ahr.115.3.688

Earle, R. (2012). The Columbian exchange. In J. Pilcher (Ed.), *The Oxford handbook of food history* (pp. 341-357). Oxford University Press.

Edmiston, J. (2023, October 27). *Fate of Canada's first grocery code of conduct in doubt with 2 big players on the fence*. Financial Post. https://financialpost.com/news/retail-marketing/canada-grocery-code-conduct-in-doubt-2-retailers-fence

Ehn, B., Löfrgren, O, & Wilk, R. (2016). *Exploring everyday life: Strategies for ethnography and cultural analysis*. Rowman & Littlefield.

Ehrlich, P., & Ehrlich, A., (1981). *Extinction: The causes and consequences of disappearance of species*. Random House.

Eisenhauer, E. (2001). In poor health: Supermarket redlining and urban nutrition. *GeoJournal, 53*, 125–133. https://doi.org/10.1023/A: 1015772503007.

Elias, N. (2000). *The civilizing process: Sociogenetic and psychogenetic investigations* (E. Jephcott, Trans.). Blackwell. (Original work published 1939)

Elkington, J. (1998). *Cannibals with forks: The triple bottom line of the 21st century business*. New Society Publishers.

Elliott, C. (2008). Consuming the other: Packaged representation of foreignness in *President's Choice*. In K. LeBesco & P. Naccarato (Eds.), *Edible ideologies: Representing food and meaning* (pp. 179–198). State University of New York Press.

Ellis, C. (2013). The symbiotic ideology: Stewardship, husbandry, and dominion in beef production. *Rural Sociology, 78*(4), 429–449. https://doi.org/10.1111/ruso.12031

Ellison, J., McPhail, D., & Mitchinson, W. (Eds.) (2016). *Obesity in Canada: Critical perspectives*. University of Toronto Press.

Elton, S., & Cole, D. (2022). Is a vegetable garden essential? Toronto gardens as culinary infrastructure. *Food, Culture & Society*, *27*(1), 221–241. https://doi.org/10.1080/15528014.2022.2086786

Emmibolt. (2024a, March 15). *Boycott* [Reddit post]. r/loblawsisoutofcontrol, Reddit. https://www.reddit.com/r/loblawsisoutofcontrol/comments/1bff9rm/boycott/

Emmibolt. (2024b, April 22). *Local grocer day!* [Reddit post]. r/loblawsisoutofcontrol, Reddit. https://www.reddit.com/r/loblawsisoutofcontrol/comments/1cadmir/local_grocer_day/

Emmibolt. (2024c, April 22). *A statement on "Steal from Loblaws day"* [Reddit post]. r/loblawsisoutofcontrol, Reddit. https://www.reddit.com/r/loblawsisoutofcontrol/comments/1c7bvgf/a_statement_on_steal_from_loblaws_day/

Emmibolt. (2024d, April 25). *UPDATED DEMANDS* [Reddit post]. r/loblawsisoutofcontrol, Reddit.

https://www.reddit.com/r/loblawsisoutofcontrol/comments/1cd5fg6/updated_demands/

Encalada Grez, E., & Clarke, M. (2016). Evelyn Encalada Grez in conversation with Marlea Clarke. *Migration, Mobility, & Displacement, 2*(2), 76-89. https://doi.org/10.18357/mmd22201616156

Engels, F. (1935). Engels to Franz Mehring London, July 14, 1893. In D. Torr (Ed. & Trans.) *Karl Marx and Friedrich Engels, correspondence, 1846–1895: A selection with commentary and notes* (pp. 97–98). International Publishers.

Engström, A. (2020, July 5). *The big list of edible insect products!* Bug Burger. https://www.bugburger.se/foretag/the-eating-insects-startups-here-is-the-list-of-entopreneurs-around-the-world/

Engström, A. (2023, March 18). *The eating insects startups: Here is the list of entopreneurs around the world!* Bug Burger. https://www.bugburger.se/foretag/the-eating-insects-startups-here-is-the-list-of-entopreneurs-around-the-world/

Erens, J., Es van, S., Haverkort, F., Kapsomenou, E., & Luijben, A. (2012). *A bug's life: Large-scale insect rearing in relation to animal welfare*. Wageningen University. http://venik.nl/site/wp-content/uploads/2013/06/Rapport-Large-scale-insect-rearing-in-relation-to-animal-welfare.pdf

Erickson, B. (2013). *Canoe nation: Nature, race, and the making of a Canadian icon*. University of British Columbia Press.

Ernst & Young LLP, & Protein Industries Canada. (2023). *Market forecast and competitiveness study: Protein Industries Canada*.

https://www.proteinindustriescanada.ca/uploads/Market-Forecast-and-Competitiveness-Study-EY-for-Protein-Industries-Canada.pdf

Escobar, A. (2012). *Encountering development: The making and unmaking of the third world* (2nd ed.). Princeton University Press.

Escobar, A. (2020). *Pluriversal politics: The real and the possible* (D. Frye, Trans., pp. 13–30). Duke University Press.

Evans, D. (2012). Binning, gifting and recovery: The conduits of disposal in household food consumption. *Environment and Planning D: Society and Space, 30*(6), 1123–1137. https://doi.org/10.1068/d22210.

Evans, P. (2023, July 26). *Sales at Loblaw and Shoppers Drug Mart continue to grow, helping boost profit to $508M*. CBC News. https://www.cbc.ca/news/business/loblaw-earnings-1.6918130

Ewen, S. (2001). *Captains of consciousness: Advertising and the social roots of the consumer culture* (25th Anniversary ed.). Basic Books. (Original work published 1976)

Fairbairn, M. (2010). Framing resistance: International food regimes & the roots of food sovereignty. In H. Wittman, A. A. Desmarais, & N. Wiebe (Eds.), *Food sovereignty: Reconnecting food, nature and community* (pp. 15–32). Fernwood Publishing.

Fairlie, S. (2009). A short history of enclosure in Britain. *The Land,* 7(Summer). https://www.thelandmagazine.org.uk/articles/short-history-enclosure-britain

Fairlie, S. (2010). *Meat: A benign extravagance*. Chelsea Green Publishing.

Fancy, T. (2021, August 20). The secret diary of a "sustainable investor"—Epilogue. *Medium*. https://medium.com/@sosofancy/the-secret-diary-of-a-sustainable-investor

Farah, L. M. (2016). Meatscapes: Spaces and processes associated to subsistence livestock. *Cuizine, 7*(2). https://doi.org/10.7202/1038476ar

Farm Animal Investment Risk and Return Initiative. (2016, November 14). *Superbugs and super risks: The investment case for action*. https://www.fairr.org/article/superbugs-and-super-risks-the-investment-case-for-action/

Farm Animal Investment Risk and Return Initiative. (2023). *About us.* https://www.fairr.org/about-fairr/about-us/

Farm Animal Investment Risk and Return Initiative. (2024). *ESG factors overview*. https://www.fairr.org/tools/protein-producer-index#esg-factors

Fearnley, L., & Lynteris, C. (2020). Would shutting down China's wet markets be a big mistake? In In A. L. Tsing, J. Deger, A. K. Saxena, & F. Zhou. (Eds.), *Feral Atlas*. Stanford University Press. https://feralatlas.org/

Felix, S. (2012, June 12). Getting closer to their hearts. *Canadian Grocer*. https://www.canadiangrocer.com/top-stories/getting-closer-to-their-hearts-25961

Fern, E. F. (2001). *Advanced focus group research*. Sage.

Ferrero, S. (2002). Comida sin par. Consumption of Mexican food in Los Angeles: "Foodscapes" in a transnational consumer society. In W. Belasco & P. Scranton (Eds.), *Food nations: Selling taste in consumer societies* (pp. 194–219). Routledge.

Ficek, R. E. (2019). Cattle, capital, colonization: Tracking creatures of the Anthropocene in and out of human projects. *Current Anthropology, 60*(Supplement 20), S260–S271. https://doi.org/10.1086/702788

Finan, A. (2011). Productionism. In D. R. Mulvaney (Ed.), *Green food* (pp. 358–360). Sage.

Finnigan, P. (2021). *Room to grow: Strengthening food processing capacity in Canada for food*

security and exports. (Report of the Standing Committee on Agriculture and Agri-Food, 43rd Parliament, 2nd Session). House of Commons Canada. https://ourcommons.ca/Content/Committee/432/AGRI/Reports/RP11265969/agrirp04/agrirp04-e.pdf

Fischer, M., Hamm, M., Pirog, R., Fisk, J., Farbman, J., & Kiraly, S. (2013). *Findings of the 2013 national food hub survey*. Michigan State University Center for Regional Food Systems & The Wallace Center at Winrock International. https://www.canr.msu.edu/resources/2013-food-hub-survey

Fischer, M., Pirog, R., & Hamm, M. W. (2015). Food hubs: Definitions, expectations, and realities. *Journal of Hunger & Environmental Nutrition*, *10*(1), 92–99. https://doi.org/10.1080/19320248.2015.1004215

Fitzgerald, A. J. (2010). A social history of the slaughterhouse: From inception to contemporary implications. *Research in Human Ecology, 17*(1), 58–69. http://w.humanecologyreview.org/pastissues/her171/Fitzgerald.pdf

Flail, G. J. (2011). Why "flexitarian" was a word of the year: Carno-phallogocentrism and the lexicon of vegetable-based diets. *International Journal of Humanities and Social Science, 1*(12), 83–92. http://www.ijhssnet.com/journals/Vol_1_No_12_September_2011/12.pdf

Flavelle, D. (2010, July 14). Owning the barbecue. *Toronto Star*, B1.

Flew, T. (2017). The 'theory' in media theory: The 'media-centrism' debate. *Media Theory, 1*(1), 43–56. https://ssrn.com/abstract=3341569

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245. https://doi.org/10.1177/1077800405284363

Food and Agriculture Organization of the United Nations. (2001). *The State of Food Insecurity in the World 2001*. http://www.fao.org/docrep/003/y1500e/y1500e00.htm

Food and Agriculture Organization of the United Nations. (2003). *Trade reforms and food security: Conceptualizing the linkages*. https://www.fao.org/4/y4671e/y4671e00.htm

Food and Agriculture Organization of the United Nations. (2009). *How to Feed the World in 2050*. https://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf

Food and Agriculture Organization of the United Nations. (2016). *Environmental performance of large ruminant supply chains Guidelines for assessment*. https://openknowledge.fao.org/handle/20.500.14283/i6494en

Food and Agriculture Organization of the United Nations. (2018). *World Livestock: Transforming the livestock sector through the Sustainable Development Goals*. https://doi.org/10.4060/ca1201en

Food and Agriculture Organization of the United Nations. (2021). *The FAO action plan on antimicrobial resistance 2021–2025*. https://doi.org/10.4060/cb5545en

Food and Agriculture Organization of the United Nations. (2023a). *Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes*. https://doi.org/10.4060/cc3912en

Food and Agriculture Organization of the United Nations. (2023b). *Pathways towards lower emissions—A global assessment of the greenhouse gas emissions and mitigation options*

from livestock agrifood systems. Food and Agriculture Organization of the United Nations. https://doi.org/10.4060/cc9029en

Food and Agriculture Organization of the United Nations. (2023c). *Production: Crops and livestock products*. FAOSTAT. https://www.fao.org/faostat/en/#data/QCL

Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, United Nations Children's Fund, World Food Programme, & World Health Organization. (2023). *The state of food security and nutrition in the world 2023*. https://doi.org/10.4060/cc3017en

Food and Agriculture Organization of the United Nations & World Health Organization. (2019). *Sustainable healthy diets—Guiding principles*. https://www.who.int/publications/i/item/9789241516648

Food Processing Skills Canada. (2019). *Securing Canada's meat workforce*. https://fpsc-ctac.com/wp-content/uploads/2020/03/exec-summary-canadian-meat-and-poultry-lmi-final-report.pdf

Foster, J. E., Eccles, W. J. (2019). *Fur trade in Canada*. The Canadian Encyclopedia. https://www.thecanadianencyclopedia.ca/en/article/fur-trade

Foucault, M. (1978). *The history of sexuality: Volume 1, an introduction* (R. Hurley, Trans.). Vintage Books. (Original work published 1976)

Fouilleux, E., Bricas, N., & Alpha, A. (2017). 'Feeding 9 billion people': Global food security debates and the productionist trap. *Journal of European Public Policy, 24*(11), 1658–1677. https://doi.org/10.1080/13501763.2017.1334084

Francione, G. L. (2008). *Animals as persons: Essays on the abolition of animal exploitation*. Columbia University Press.

Franklin, A. (1999). *Animals and modern cultures: A sociology of human-animal relations in modernity*. Sage.

Freedman, P. (2008). *Out of the east: Spices and the medieval imagination*. Yale University Press.

Freidberg, S. (2009). *Fresh: A perishable history*. Harvard University Press.

Freidberg, S. (2010). Freshness from afar: The colonial roots of contemporary fresh foods. *Food & History, 8*(1), 257–278. https://doi.org/10.1484/J.FOOD.1.100983

Friedman, M. (1962). *Capitalism and freedom*. University of Chicago Press.

Friedmann, H. (1993). International political economy of food: A global crisis. *New Left Review, 1*(197), 29–57. https://newleftreview.org/issues/i197/articles/harriet-friedmann-the-political-economy-of-food-a-global-crisis

Friedmann, H. (2005). From colonialism to green capitalism: Social movements and the emergence of food regimes. In F. H. Buttel and P. McMichael (Eds.), *New directions in the sociology of global development. Research in rural sociology and development* (Vol. 11, pp. 229–67). Elsevier.

Friedmann, H. (2011). Food sovereignty in the golden horseshoe region of Ontario. In A. A. Desmarais, N. Wiebe, & H. Wittman (Eds.), *Food sovereignty in Canada: Creating just and sustainable food systems* (pp. 169–189). Fernwood Publishing.

Friedrich, A. (2017). The rise of cryopower: Biopolitics in the age of cryogenic life. In J. Radin & E. Kowal (Eds.), *Cryopolitics: Frozen life in a melting world* (pp. 59–69). The MIT Press.

Frozen Ark. (n.d.). *Frozen Ark*. https://www.frozenark.org

Fudge, E. (2002). *Animal*. Reaktion Books.

Fukuyama, F. (1989). The End of History? *The National Interest*, *16*, 3–18. http://www.jstor.org/stable/24027184

Gahukar, R. T. (2013). Insects as Human Food: Are They Really Tasty and Nutritious? *Journal of Agricultural & Food Information*, *14*(3), 264–271. https://doi.org/10.1080/10496505.2013.803418

Gauthier, D., & Sernyk, L. (2016). *The protein highway: A whitepaper for creating a regional approach to enable innovative agricultural technology solutions from plant proteins*. Consulate General of Canada in Minneapolis. https://img1.wsimg.com/blobby/go/6c998e47-d5ff-45b9-b6fc-8a6be541750c/Protein%20Highway%20White%20Paper%202016-0001.pdf

Geertz, C. (1973). *The interpretation of cultures*. Basic Books.

Gerber, E. (2020) Ableism and its discontents: Food as a form of power, control, and resistance among disabled people living in U.S. institutions*, Food and Foodways, 28*(1), 1-21. https://doi.org/10.1080/07409710.2020.1718273

Gerber, P. J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A., & Tempio, G. (2013). *Tackling climate change through livestock: A global assessment of emissions and mitigation opportunities*. Food and Agriculture Organization. http://www.fao.org/docrep/018/i3437e/i3437e.pdf

Gertel, J., & Sippel, S. R. (2016). The financialisation of agriculture and food. In M. Shucksmith & D. L. Brown (Eds.), *Routledge international handbook of rural studies* (pp. 215–226). Routledge.

Gibson-Graham, J. K. (2011). A feminist project of belonging for the Anthropocene. *Gender, Place and Culture, 18*(1), 1–12. https://doi.org/10.1080/0966369X.2011.535295

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013). *Take back the economy: An ethical guide for transforming our communities*. University of Minnesota Press.

Gibson-Graham, J. K., & Roelvink, G. (2009). An economic ethics for the Anthropocene. *Antipode, 41*, 320–346. https://doi.org/10.1111/j.1467-8330.2009.00728.x

Giddens, A. (1990). *Consequences of modernity*. Polity Press.

Giddens, A. (1999). Risk and responsibility. *Modern Law Review, 62*(1), 1–10. https://doi.org/10.1111/1468-2230.00188

Gilbert S. F. (2017). Holobiont by birth: Multilineage individuals as the concretion of cooperative processes. In A. Tsing, H. Swanson, E. Gan. & N. Bubandt (Eds.), *Arts of living on a damaged planet* (pp. M73-89). University of Minnesota Press.

Giles, D. B. (2022). The pandemic supermarket. In V. Stead & M. Hinkson (Eds.), *Beyond global food supply chains: Crisis, disruption, regeneration* (pp. 109–121). Palgrave Macmillan.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Harvard University Press.

Gilmore, R. W. (2022). *Abolition liberation: Essays towards liberation*. Verso.

Global Roundtable for Sustainable Beef. (2023). *2023 annual report*. https://grsbeef.org/wp-content/uploads/2023/12/GRSB_2023_Annual_Report.pdf

Godfray, H. C., Beddington, J, R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., Pretty, J., Robinson, S., Thomas, S. M., & Toulmin, C. (2010). Food security: The challenges of feeding 9 billion people. *Science, 327*, 812–818. https://doi.org/10.1126/science.1185383

Goeman, M. (2008). From place to territories and back again: Centering storied land in the discussion of Indigenous nation-building. *International Journal of Critical Indigenous Studies, 1*(1), 23–34. https://doi.org/10.5204/ijcis.v1i1.20

Goldberg, J. (2024, February 12). *Amazon dominates 2022 retail landscape with record Q4 earnings*. Forbes. https://www.forbes.com/sites/jasongoldberg/2024/02/12/amazon-dominates-2023-retail-landscape-with-record-q4-earnings/

Goldschmidt, B. (2024, April 5). Walmart once again leads NRF's 2024 top 50 global retailers. *Progressive Grocer*. https://progressivegrocer.com/walmart-once-again-leads-nrfs-2024-top-50-global-retailers

Goodall, J. (1971). *In the shadow of man*. Houghton Mifflin.

Good Food Institute. (2024a). *2023 State of the industry report—Cultivated meat and seafood*. https://gfi.org/state-of-the-industry-reports/

Good Food Institute. (2024b). *2023 State of the industry report—Plant-based: Meat, seafood, eggs, and dairy*. https://gfi.org/state-of-the-industry-reports/

Goodland, R., & Anhang, J. (2009). *Livestock and Climate Change: What if the key actors in climate change were pigs, chickens and cows?* WorldWatch Institute.

Goodman, M. K. (2016). Relational foodscapes and the busy-ness of being more-than-food. *Progress in Human Geography, 40*(2), 257–266. https://doi.org/10.1177/0309132515570192

Goodman, M. K., Johnston, J., Cairns, K. (2017). Food, media and space: The mediated biopolitics of eating. *Geoforum, 84*, 161–168. https://doi.org/10.1016/j.geoforum.2017.06.017

Goodman, M. K., Maye, D., & Holloway, L. (2010). Ethical foodscapes?: Premises, promises, and possibilities. *Environment and Planning A, 42*, 1782–1796. https://doi.org/10.1068/a43290

Goody, J. (1982). *Cooking, cuisine and class: A study in comparative sociology*. Cambridge University Press.

Gordon, A. F. (2008). *Ghostly matters: Haunting and the sociological imagination* (Rev. ed). University of Minnesota Press. (Original work published in 1997)

Gostin, L. O., & Gronvall, G. K. (2023, June 22). The origins of Covid-19—Why it matters (and why it doesn't). *The New England Journal of Medicine, 388*(25). https://doi.org/10.1056/NEJMp2305081

Gottlieb, R., & Fisher, A. (1996). "First feed the face": Environmental justice and community food security. *Antipode, 29*(2), 193–203. https://doi.org/10.1111/j.1467-8330.1996.tb00522.x

Gottlieb, R., & Joshi, A. (2010). *Food justice*. MIT Press.

Grey, S., & Patel, R. (2015). Food sovereignty as decolonization: From Indigenous movements to food politics. *Agriculture and Human Values, 32*, 431–444. https://doi.org/10.1007/s10460-014-9548-9

Grudzewski, W., M., Hejduk, I. K., Sandowska, A., & Wańtuchowicz, M. (2008). *Trust management in virtual work environments: A human factors perspective*. CRC Press.

Guadagnolo, D. (2023, February 22). Loblaw's PR response to consumer criticism shows in prioritizes profit over people. *The Conversation*. https://theconversation.com/loblaws-pr-response-to-consumer-criticism-shows-it-prioritizes-profit-over-people-199858

Guenther, L. (2020, June 11). Writing the handbook on COVID-19. *Canadian Cattlemen*. https://www.canadiancattlemen.ca/news/writing-the-handbook-on-covid-19/

Guenther, L. (2022, October 18). No trespass: Rebuilding treaty relationships. *Canadian Cattlemen*. https://www.canadiancattlemen.ca/news/no-trespass-rebuilding-treaty-relationships/

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Sage.

Guest, G., Namey, E., & McKenna, K. (2017). How many focus groups are enough? Building an evidence base for nonprobability sample sizes. *Field Methods, 29*(1), 3–22. https://doi.org/10.1177/1525822X16639015

Guiding Stars. (2012, January 14). *Understanding the science behind the Guiding Stars algorithm for Canada*. https://guidingstars.ca/science/

Gumbs, A. P. (2020). *Undrowned: Black feminist lessons from marine mammals*. AK Press.

Guptill, A. E., Copelton, D. A., & Lucal, B. (2013). *Food and society: Principles and paradoxes*. Polity Press.

Guptill, A. & Wilkins, J. L. (2002). Buying into the food system: Trends in food retailing in the US and implications for local foods. *Agriculture and Human Values, 19*, 39–51. https://doi.org/10.1023/A:1015024827047

Guthman, J. (2003). Fast food/organic food: Reflexive tastes and the making of 'yuppie chow'. *Social & Cultural Geography, 4*(1), 45–58. https://doi.org/10.1080/1464936032000049306

Guthman, J. (2008a). Bringing good food to others: Investigating the subjects of alternative food practice. *Cultural Geographies, 15*(4), 431–447. https://doi.org/10.1177/1474474008094315

Guthman, J. (2008b). “If they only knew”: Color blindness and universalism in California alternative food institutions. *The Professional Geographer, 60*(3), 387–397. https://doi.org/10.1080/00330120802013679

Guthman, J. (2017). Willing (white) workers on organic farms? Reflections on volunteer farm labor and the politics of precarity. *Gastronomica: The Journal of Critical Food Studies, 17*(1), 15-19. https://doi.org/10.1525/gfc.2017.17.1.15

Guthman, J., & Biltekoff, C. (2021). Magical disruption? Alternative protein and the promise of de-materialization. *Environment and Planning E: Nature and Space, 4*(4), 1583–1600. https://doi.org/10.1177/2514848620963125

Guthman, J., & Biltekoff, C. (2023). Agri-food tech’s building block: Narrating protein, agnostic of source, in the face of crisis. *BioSocieties, 18*, 656–678. https://doi.org/10.1057/s41292-022-00287-3

Guthman, J., Biltekoff, J., De Master, K., Fairbairn, M., Kish, Z., Reisman, E., Chiang, S., Butler, M., Sullivan, S., Kumar, A., Tavares, L., Sasson, T., Lamb, T., & Miranda., B. (2023). *The UC AFTeR Project: California agri-food technology research collaboration.* University of California. https://afterproject.sites.ucsc.edu/

Guthman, J., Butler, M., Martin, S. J., Mather, C., & Biltekoff, C. (2022). In the name of protein. *Nature Food, 3*(6), 391–393. https://doi.org/10.1038/s43016-022-00532-9.

Hacker, J. S. (2019). *The great risk shift: The new economic insecurity and the decline of the American dream* (2nd ed.). Oxford University Press.

Hadziabdic, S., & Kohl, S. (2022). Private spanner in public works? The corrosive effects of private insurance on public life. *The British Journal of Sociology, 73*(4), 799–821. https://doi.org/10.1111/1468-4446.12961

Haiven, M. (2013). Walmart, financialization, and the cultural politics of securitization. *Cultural Politics, 9*(3), 239–262. https://doi.org/10.1215/17432197-2346964

Hall, S. (1973). *Encoding and decoding in the television discourse.* Discussion Paper. University of Birmingham.

Halloran, A., & Vantomme, P. (2013). *The contribution of insects to food security, livelihoods and the environment.* Food and Agriculture Organization of the United Nations. https://www.fao.org/3/i3264e/i3264e.pdf

Hamilton College. (n.d.). *The Adirondack beaver: A natural paradox* [Student project]. https://courses.hamilton.edu/beavers/thesis

Hansen, A., & Jakobsen, J. (2020) Meatification and everyday geographies of consumption in Vietnam and China. *Geografiska Annaler: Series B, Human Geography, 102*(1), 21–39. https://doi.org/10.1080/04353684.2019.1709217

Hansen, J., & Mazerolle, J. (2021, January 13). *Pandemic expanded online grocery shopping but experts say in-store customers will be back*. CBC News. https://www.cbc.ca/news/business/grocery-delivery-pandemic-1.5869903

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies, Inc., 14*(3), 575–599. http://www.jstor.org/stable/3178066

Haraway, D. J. (2003). *The companion species manifesto: Dogs, people, and significant otherness*. Prickly Paradigm Press.

Haraway, D. J. (2008). *When species meet*. University of Minnesota Press.

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Harper, A. B. (Ed.). (2010). *Sistah vegan: Black female vegans speak on food, identity, health, and society*. Lantern Books.

Harris, M. (1987). *The sacred cow and the abominable pig: Riddles of food and culture*. Simon & Schuster.

Harris, R. (2022, May 12). Have Canadians lost their appetite for meal-kit delivery? *Canadian Grocer*. https://canadiangrocer.com/have-canadians-lost-their-appetite-meal-kit-services-survey

Harris, R. S., & Forrester, D. (2003). The suburban origins of redlining: A Canadian case study, 1935-54. *Urban Studies, 40*(13), 2661-2686. https://doi.org/10.1080/0042098032000146830

Harstock, N. M. (1983). The feminist standpoint. In S. Harding and M. B. Hintikka (Eds.), *Discovering Reality* (pp. 283–310). Kluwer Academic Publishers.

Hatanaka, M. (2019). Consuming food. In J. Konefal & M. Hatanaka (Eds.), *Twenty lessons in the sociology of food and agriculture* (pp. 3–19). Oxford University Press

Hawley, R. (2022, August 9). In inflationary times, Canadians are prioritizing value when it comes to grocery shopping. *Canadian Grocer*. https://canadiangrocer.com/inflationary-times-canadians-are-prioritizing-value-when-it-comes-grocery-shopping

Hayek, F. A. (1942). Scientism and the Study of Society. Part I. *Economica*, *9*(35), 267–291. https://doi.org/10.2307/2549540

Health Canada. (2016, May 18). *AquAdvantage salmon*. Government of Canada. https://www.canada.ca/en/health-canada/services/food-nutrition/genetically-modified-foods-other-novel-foods/approved-products/aquadvantage-salmon.html

Health Canada. (2022, May 3). *Canada's food guide—Eat protein foods*. https://food-guide.canada.ca/en/healthy-eating-recommendations/make-it-a-habit-to-eat-vegetables-fruit-whole-grains-and-protein-foods/eat-protein-foods/

Held, V. (1993). *Feminist morality: Transforming culture, society, and politics*. University of Chicago Press.

Heldke, L. M. (1992). Foodmaking as a thoughtful practice. In D. W. Curtin & L. M. Heldke (Eds.), *Cooking, eating, thinking: Transformative philosophies of food* (pp. 203–229). Indiana University Press.

Heldke, L. (2012). An alternative ontology of food: Beyond meataphysics. *Radical Philosophy Review, 15*(1), 67–88. https://doi.org/10.5840/radphilrev20121518

Heldke, L. (2018). It's chomping all the way down: Toward an ontology of the human individual. *The Monist, 101*, 247–260. https://doi.org/10.1093/monist/ony004

Herman, E. S., & Chomsky, N. (2002). *Manufacturing consent: The political economy of the mass media* (Rev. ed.). Pantheon Books. (Original work published 1988)

Hey, M. (2023). Communicating with the microbial other: Reorienting humans and microbes in polylogue. *Global Media Journal—Canadian Edition, 15*(1), 11–25. https://doi.org/10.17605/OSF.IO/CXM83

Hicks, T. M., Knowles, S. O., & Farouk. M. M. (2018). Global provisioning of red meat for flexitarian diets. *Frontiers in Nutrition, 5*(50), 1–11. https://doi.org/10.3389/fnut.2018.00050

High Level Panel of Experts. (2020). *Food Security and Nutrition: Building a Global Narrative Towards 2030* (A report by the High Level Panel of Experts on Food Security

and Nutrition of the Committee on World Food). http://www.fao.org/3/ca9731en/ca9731en.pdf

Hindman, M. (2018). *The internet trap: How the digital economy builds monopolies and undermines democracy*. Princeton University Press.

Hine, T. (1995). *The total package: The secret history and hidden meanings of boxes, bottles, cans, and other persuasive containers.* Little, Brown and Company.

Hisano, A. (2019). *Visualizing taste: How business changed the look of what you eat*. Harvard University Press.

Hobart, H. J. K. (2022). *Cooling the tropics: Ice, Indigeneity, and Hawaiian refreshment*. Duke University Press.

Hoekstra, A. Y. (2020). *The water footprint of modern consumer society* (2nd ed.). Routledge.

Holt-Giménez, E., & Shattuck, A. (2011). Food crises, food regimes and food movements: Rumblings of reform or tides of transformation. *The Journal of Peasant Studies,* 38(1), 109–144. https://doi.org/10.1080/03066150.2010.538578

Holt-Giménez, E., & Wang, Y. (2011). Reform or transformation? The pivotal role of food justice in the U.S. food movement. *Race/Ethnicity: Multidisciplinary Global Contexts 5*(1), 83–102. https://doi.org/10.2979/racethmulglocon.5.1.83

Holtorf, C. (2012) The heritage of heritage. *Heritage & Society, 5*(2), 153–174. https://doi.org/10.1179/hso.2012.5.2.153

hooks, b. (1992). *Black looks: Race and representation*. South End Press.

Horowitz, A. (2009). *Inside of a dog: What dogs see, smell, and know.* Scribner.

Horowitz, R. (2006). *Putting meat on the American table.* Johns Hopkins University Press.

Hosseini, S. A. (2019). Development as usual: Ethical reflections on the SDGs. In S. Dalby, S. Horton, & R. Mahon (Eds.), *Achieving the sustainable development goals: Global governance challenges* (pp. 190–205). Routledge.

Howard, P. H. (2016). *Concentration and power in the food system: Who controls what we eat?* Bloomsbury.

Howard, P. H., Ajena, F., Yamaoka, M., & Clarke, A. (2021). "Protein" industry convergence and its implications for resilient and equitable food systems. *Frontiers in Sustainable Food Systems, 5*, 1–15. https://doi.org/10.3389/fsufs.2021.684181

Huesemann, M., & Huesemann, J. (2011) *Techno-fix: Why technology won't save us or the environment*. New Society Publishers.

Huling, R. (2020, December 1). *BREAKING: World's first approval of cultivated meat sales*. Good Food Institute India. https://gfi-india.org/breaking-worlds-first-approval-of-cultivated-meat-sales/

Humphrey, K. (1998). *Shelf life: Supermarkets and the changing cultures of consumption*. Cambridge University Press.

Hutt, W. H. (1936). *Economists and the public: A study of competition and opinion*. Jonathan Cape.

Innis, H. A. (1930). *The fur trade in Canada: An introduction to Canadian economic history*. Yale University Press.

in 't Veld, R. J. (2013). Sustainable development within knowledge democracies: An emerging governance problem. In L. Meuleman (Ed.), *Transgovernance: Advancing sustainability governance* (pp. 3–35). Springer.

International Panel of Experts on Sustainable Food Systems. (2017). *Too big to feed: Exploring the impacts of mega-mergers, concentration, concentration of power in the agri-food sector*. https://www.ipes-food.org/_img/upload/files/Concentration_FullReport.pdf

International Panel of Experts on Sustainable Food Systems. (2020, April). *COVID-19 and the crisis in food systems: Symptoms, causes, and potential solutions*. https://ipes-food.org/wp-content/uploads/2024/03/COVID-19_CommuniqueEN3.pdf

International Panel of Experts on Sustainable Food Systems. (2022). *The politics of protein: Examining claims about livestock, fish, 'alternative proteins' and sustainability*. https://www.ipes-food.org/_img/upload/files/PoliticsOfProtein.pdf

International Panel of Experts on Sustainable Food Systems. (2024). *Land Squeeze: What is driving unprecedented pressures on global farmland and what can be done to achieve equitable access to land?* https://ipes-food.org/wp-content/uploads/2024/05/LandSqueeze.pdf

International Supermarket News. (2024, January 2). Top food retailers in the world by turnover 2023. *International Supermarket News*. https://internationalsupermarketnews.com/archives/14134#:~:text=Walmart%20remains%20the%20undisputed%20leader,11%2C500%20stores%20across%2027%20countries

InterTribal Buffalo Council. (2022). *Producer Handbook—Transition from cattle to bison: An introduction*. https://www.usda.gov/sites/default/files/documents/transitioning-cattle-bison-introduction.pdf

Isaacs, B. (2018). Supermarkets. In G. Ritzer & C. Rojek (Eds.), *The Blackwell encyclopedia of sociology*. https://doi.org/10.1002/9781405165518.wbeoss302.pub2

Isaacs, B., & Dixon, J. (2016). 'Making it local': The rural consumer, the supermarket and competing pedagogical authority. In R. Flowers & E. Swan (Eds.), *Food pedagogies* (pp. 149–182). Ashgate Publishing.

Islas, O., & Bernal, J. D. (2016). Media ecology: A complex and systemic metadiscipline. *Philosophies, 1*(3), 190–198. https://doi.org/10.3390/philosophies1030190

Jackson, J. I. (2020). *Becoming human: Matter and meaning in an antiblack world.* New York University Press.

Jackson, K. (1985). *Crabgrass frontier: The suburbanization of the United States*. Oxford University Press.

Jackson, M. (2013). Plastic islands and processual grounds: Ethics, ontology, and the matter of decay. *Cultural Geographies, 20*(2), 205–224. https://doi.org/10.1177/1474474012454998

James, H. (2018, February 14). Inside the Toronto Zoo's bison breakthrough. *Canadian Geographic*. https://canadiangeographic.ca/articles/inside-the-toronto-zoos-bison-breakthrough/

Jameson, F. (1991). *Postmodernism, or the cultural logic of late capitalism*. Duke University Press.

Jazemi, R., Farahani, S., Otieno, W., & Jang, J. (2024). Review on panic buying behavior during pandemics: Influencing factors, stockpiling, and intervention strategies. *Behavioral Sciences, 14*(3), 222, 1–17. https://doi.org/10.3390/bs14030222

Johnson, G., Scholes, K., Whittington, R. (2008). *Exploring corporate strategies* (8th ed.). Pearson Education Limited.

Johnston, J. (2008). The citizen–consumer hybrid: Ideological tensions and the case of Whole Foods Market. *Theory and Society, 37*(3), 229–270. https://doi.org/10.1007/s11186-007-9058-5

Johnston, J. & Baumann, S. (2015). *Foodies: Democracy and distinction in the gourmet foodscape* (2nd ed.). Routledge.

Johnston, J., & Goodman, M. K. (2015). Spectacular foodscapes: Food celebrities and the politics of lifestyle mediation in an age of inequality. *Food, Culture and Society, 18*(2), 205–222. https://doi.org/10.2752/175174415X14180391604369

Judge C., Spring, A., & Skinner, K. (2022). A comparative policy analysis of wild food policies across Ontario, Northwest Territories, and Yukon Territory, Canada. *Frontiers in Communication, 7*, 780391, 1–14. https://doi.org/10.3389/fcomm.2022.780391

Julier, A. (2013). *Eating together: Food, friendship, and inequality*. University of Illinois Press.

Juskaite, G., & Haug, R. (2023) Multiple meanings of "equitable food systems": Food systems and discursive politics of change. *Frontiers in Sustainable Food Systems, 7*, 1127562, 1–12. https://doi.org/10.3389/fsufs.2023.1127562

Kamberelis, G., & Dimitriadis, G. (2011). Focus groups: Contingent articulations of pedagogy, politics and inquiry. In N., K., Denzin, N.K. & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (pp. 545–561). Sage.

Kamberelis, G. & Dimitriadis, G. (2013). *Focus groups: From structured interviews to collective conversations.* Routledge.

Kanngieser, A. & Todd, Z. (2020). From environmental case study to environmental kin study. *History and Theory, 59*(3), 385-393. https://doi.org/10.1111/hith.12166

Kari-Oca 2 Declaration. (2012). *Indigenous Peoples Global Conference on RIO+20 and Mother Earth. Rio De Janeiro, Brazil*. https://www.ienearth.org/kari-oca-2-declaration/

Katz, S. E. (2012). *The art of fermentation.* Chelsea Green Publishing.

Katz-Rosene, R. M. (2020). How do livestock impact the climate? In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 43–63). McGill-Queen's University Press.

Katz-Rosene, R. M., Heffernan, A., & Arora, A. (2023). Protein pluralism and food systems transition: A review of sustainable protein meta-narratives. *World Development, 121*, 1–16. https://doi.org/10.1016/j.worlddev.2022.106121

Katz-Rosene, R. M., & Martin, S. J. (Eds.). (2020a). *Green meat? Sustaining eaters, animals, and the planet*. McGill-Queen's University Press.

Katz-Rosene, R. M., & Martin, S. J. (2020b). Which way(s) forward? In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 206–228). McGill-Queen's University Press.

Keats, J. W. (1817, September 21). On the grasshopper and the cricket. *The Examiner*.

Keeler, K. (2020, September 8). Colonial theft and Indigenous resistance in the Kleptocene. *Edge Effects*. https://edgeeffects.net/kleptocene/

Keeton, J. T. & Dikeman, M. E. (2017). 'Red' and 'white' meats—terms that lead to confusion. *Animal Frontiers, 7*(4), 29–33. https://doi.org/10.2527/af.2017.0440

Kenan, G. (Director). (2024). *Ghostbusters: Frozen empire* [Film]. Sony Corporation.

Kennedy, E., Baumann, S., & Johnston, J. (2024). Meat politics at the dinner table: Understanding differences and similarities in Canadians' meat-related attitudes, preferences and practices. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *11*(1), 9–29. https://doi.org/10.15353/cfs-rcea.v11i1.529

Kessler, A., Parkins, J. R., & Kennedy, E. H. (2016). Environmental harm and "the good farmer": Conceptualizing environmental sustainability in the beef industry. *Rural Sociology, 81*(2), 172–193. https://doi.org/10.1111/ruso.12091

Kevany K., English M., & Viana, L. (2022). Drivers and deterrents of Canadians adopting Canada's new food guide and using plant-based foods. *Journal of Food & Nutritional Sciences, 4*(1), 32–49. http://www.starlingscience.com/article/drivers-and-deterrents-of-canadians-adopting-canadas-new-food-guide-and-using-plant-based-foods.pdf

Killingsworth, S. (2013, August 21). Crickets for lunch. *The New Yorker*. http://www.newyorker.com/online/blogs/culture/2013/08/eating-crickets-energy-bar.html

Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teachings of plants*. Milkweed Editions.

King, S., Carey, R. S., Macquarrie, I., Millious, V. N., Power, E. M., & Wolfe, C. (Eds.). (2019). *Messy eating: Conversations on animals as food*. Fordham University Press.

Kingston, A. (1994). *The edible man: Dave Nichol, President's Choice & the making of popular taste*. Macfarlane Walter & Ross.

Kingston, A. (2013, September 26). Loblaw marketing genius Dave Nichol dies at 73. *Maclean's*. https://www.macleans.ca/politics/loblaw-marketing-genius-david-nichol-dies-at-73/

Kirchhelle, C. (2018). Pharming animals: A global history of antibiotics in food production (1935–2017). *Palgrave Communications, 4*(96), 1–13. https://doi.org/10.1057/s41599-018-0152-2

Kirchhelle, C. (2020). *Pyrrhic progress: The history of antibiotics in Anglo-America.* Rutgers University Press.

Kirksey, S. E., & Helmreich, S. (2010). The emergence of multispecies ethnography. *Cultural Anthropology, 25*(4), 545–576. https://doi.org/10.1111/j.1548-1360.2010.01069.x

Kirwan, M. L., Gedan, K. B. (2019). Sea-level driven land conversion and the formation of ghost forests. *Nature Climate Change, 9*, 450–457. https://doi.org/10.1038/s41558-019-0488-7

Kloppenburg, J., Hendrickson, J. & Stevenson, G. W. (1996). Coming in to the foodshed. *Agriculture and Human Values, 13,* 33–42. https://doi.org/10.1007/BF01538225

Koç, M. (2015). Crisis of legitimacy and challenges for food policy. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *2*(2), 17–22. https://doi.org/10.15353/cfs-rcea.v2i2.108

Koç, M. (2018). Food security discourse: Challenges for the 21st century. *Global Dialogue, 8*(3), 38-39. https://globaldialogue.isa-sociology.org/articles/food-security-discourse-challenges-for-the-21st-century

Koç, M., & MacRae, R. (Eds.) (2001). *Working together: Civil society working for food security in Canada*. Media Studies Working Group, Centre for Studies in Food Security.

Koch, S. (2018). Trends in food retail: The supermarket and beyond. In K. LeBesco & P. Naccarato (Eds.), *The Bloomsbury handbook of food and popular culture* (pp. 111–123). Bloomsbury.

Konefal, J., Bain, C., Mascarenhas, M., & Busch, L. (2007). Supermarkets and supply chains in North America. In D. Burch & G. Lawrence (Eds.), *Supermarkets and agri-food supply chains: Transformations in the production and consumption of food* (pp. 268–288). Edward Elgar.

Kneen, B. (1995). *From land to mouth: Understanding the food system* (2nd ed.). NC Press Limited.

Kneen, C. (2011). Food Secure Canada: Where agriculture, environment, health, food and justice intersection. In A. A. Desmarais, N. Wiebe, & H. Wittman (Eds.), *Food sovereignty in Canada: Creating just and sustainable food systems* (pp. 80–96). Fernwood Publishing.

Knezevic, I. & Durocher, M. (Eds.) (2023). Food matters and materialities: Critical understandings of food cultures [Special issue]. *Global Media Journal—Canadian Edition, 15*(1). ISSN: 1918-5901

Knezevic, I., Pasho, J., & Dobson, K. (2018). Seal hunts in Canada and on Twitter: Exploring the tensions between Indigenous rights and animal rights with #sealfie. *Canadian Journal of Communication, 43*(3), 421–439. doi:10.22230/cjc.2017v43n3a3376

Kolbert, E. (2014). *The sixth extinction: An unnatural history*. Henry Holt and Company.

Kowal, E., & Radin, E. (2020). Cryopower and the temporality of frozen Indigenous blood samples. In D. Edelstein, S. Geroulanos, & N. Wheatley (Eds.), *Power and Time: Temporalities in conflict and the making of history* (pp. 249–269). University of Chicago Press.

Kranjc, A. (2020). The save movement. In J. Hannan (Ed.), *Meatsplaining: The meat industry and the rhetoric of denial* (pp. 267–297). Sydney University Press.

Kristeva, J. (1982). *Powers of horror: An essay on abjection* (L. S. Roudiez, Trans.). Columbia University Press. (Original work published 1980)

Kuchler, F., & Tegene, A. (2006, December). *Did BSE announcements reduce beef purchases?* (United States Department of Agriculture, Economic Research Service, Report 34). https://www.ers.usda.gov/publications/pub-details/?pubid=45717

Kuchler, F., & Tegene, A. (2007, September 3). *U.S. consumers had short-term response to first BSE announcements*. United States Department of Agriculture, Economic Research Service. https://www.ers.usda.gov/amber-waves/2007/september/us-consumers-had-short-term-response-to-first-bse-announcements/

Kyte, R., Greminger, T., Kell, G. (2009). Foreword by the sponsoring institutions. In I. Knoeptel & G. Hagart, *Future proof? Embedding environmental, social and governance issues in investment markets—Outcomes of the who cares wins initiatives 2004–2008* (pp. 3–4). International Finance Corporation, Federal Department of Foreign Affairs (Switzerland), The Global Compact. https://digitallibrary.un.org/record/681662?ln=en&v=pdf

LaDuke, W., & Cowen, D. (2020). Beyond Wiindigo infrastructure. *South Atlantic Quarterly, 119*(2), 243–268. https://doi.org/10.1215/00382876-8177747

Laforge, J. M. L., Dale, B., Levkoe, C. Z., & Ahmed, F. (2021). The future of agroecology in Canada: Embracing the politics of food sovereignty. *Journal of Rural Studies, 81*, 194–202. https://doi.org/10.1016/j.jrurstud.2020.10.025

Laird, K. (2019, Feb. 22). Digital strategy paying off for Loblaw. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/headlines/digital-strategy-paying-off-for-loblaw-85814

Lam, J. (2014). *Enterprise risk management: From incentives to controls* (2nd ed.). Wiley.

Lang, T. (2010). From 'value-for-money' to 'values-for-money'? Ethical food and policy in Europe. *Environment and Planning A, 42*, 1814–1832. https://doi.org/10.1068/a4258

Latour, B. (1993). *We have never been modern* (C. Porter, Trans.). Harvard University Press. (Original work published 1991)

Latour, B. (1999). *Pandora's hope: Essays on the reality of science studies*. Harvard University Press.

Latour, B. (2004). How to talk about the body? The normative dimension of science studies. *Body and Society, 10*(2-3), 205–229. https://doi.org/10.1177/1357034X04042943

Lawrence, G., & Burch, D. (2007). Understanding supermarkets and agri-food supply chains. In D. Burch & G. Lawrence (Eds.), *Supermarkets and agri-food supply chains: Transformations in the production and consumption of food* (pp. 1-28). Cheltenham, UK: Edward Elgar.

Lawson, A. (2024, May 1). *Could a Loblaw boycott really work? Probably not, experts say*. McMaster University. https://brighterworld.mcmaster.ca/articles/could-a-loblaw-boycott-really-work-bradley-ruffle-francois-neville/

Leach, W. (1993). *Land of desire: Merchants, power, and the rise of a new American culture*. Pantheon Books.

Lee, K. C. L., Newell, J. P., Wolch, J. R., & Joassart-Marcelli, P. (2015). Cows, climate and the media. In J. Emel & H. Neo (Eds.), *Political ecologies of meat* (pp. 195–216). Routledge.

Lee, P. Y. (2008a). Conclusion: Why look at slaughterhouses? In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 237–243). University of New Hampshire Press.

Lee, P. Y. (2008b). Introduction: Housing slaughter. In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 1–9). University of New Hampshire Press.

Lee, P. Y. (2008c). Siting the slaughterhouse: From shed to factory. In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 46–70). University of New Hampshire Press.

Leiss, W. (2004). Two stinking cows: The mismanagement of BSE risk in North America. In W. Leiss & D. Powell (Eds.), *Mad cows and mother's milk: The perils of poor risk communication* (2nd ed., pp. 229–261). McGill-Queen's University Press.

Lenard, P. T., & Straehle, C. (2012). Introduction. In P. T. Lenard & C. Straehle (Eds.), *Legislated inequality: Temporary labour migration in Canada* (pp. 3–25). McGill-Queen's University Press.

L'Eplatteneir, B. E. (2009). An argument for archival research methods: Thinking beyond methodology. *College English, 72*(1), 67–79. https://www.jstor.org/stable/25653008

Lesnik, J. J. (2019). The colonial/imperial history of insect food avoidance in the United States. *Annals of the Entomological Society of America, 112*(6), 560–565. https://doi.org/10.1093/aesa/saz023

Levenstein, H. (1993). *Paradox of plenty: A social history of eating in modern America*. Oxford University Press.

Levenstein, H. (2012). *Fear of food: A history of why we worry about what we eat*. Chicago University Press.

Levkoe, C. Z. (2014) The food movement in Canada: A social movement network perspective. *Journal of Peasant Studies, 41*(3), 385–403. https://doi.org/10.1080/03066150.2014.910766

Levkoe, C. Z., & Wilson, A. (2019). Policy engagement as prefiguration: Experiments in food policy governance through the national food policy dialogue in Canada. In P. Andrée, J. K. Clark, C. Z. Levkoe, & K. Lowitt (Eds.), *Civil society and social movements in food system governance* (pp. 101–123). Routledge.

Lévi-Strauss, C. (1962). *Le totémisme aujourd'hui, Mythes et religions, Volume 42*. Presses Universitaires de France.

Lévi-Strauss, C. (1969). *The raw and the cooked: Mythologiques, Volume 1* (J. Weightman & D. Weightman, Trans.). University of Chicago Press. (Original work published 1964)

Levy, N. (2019, February 28). *Amazon ending sales of physical Dash Buttons, one of its wackiest smart home innovations*. GeekWire. https://www.geekwire.com/2019/amazon-ending-sales-physical-dash-buttons-one-wackiest-smart-home-innovations/

Li, T., Fafard St-Germain, A. A., & Tarasuk, V. (2023) *Household food insecurity in Canada, 2022*. Research to identify policy options to reduce food insecurity (PROOF). https://proof.utoronto.ca/

Livingstone, C., & Knezevic, I. (2020). From online cart to plate: What Amazon's retail domination means for the future of food. *Journal of Agriculture, Food Systems, and Community Development, 9*(4), 311–329. https://doi.org/10.5304/jafscd.2020.094.017

Loblaw Companies Limited. (n.d.-a). *Responsibility—Chemicals and antibiotics*. https://www.loblaw.ca/en/chemicals-and-antibiotics/

Loblaw Companies Limited. (n.d.-b). *Who we are*. https://www.loblaw.ca/en/who-we-are/

Loblaw Companies Limited. (2007). *Making Loblaw the best again: 2007 annual report*. https://www.loblaw.ca/en/investors-reports/

Loblaw Companies Limited. (2008). *The way we do business: Corporate social responsibility 2007 report*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2010, May 20). *Canadians, fire up your grill—The President's Choice 2010 Summer Insider's Report is here* [Press release]. https://investors.loblaw.ca/English/media-centre/press-releases/press-release-details/2010/Canadians-fire-up-your-grill---The-Presidents-ChoiceR-2010-Summer-

Loblaw Companies Limited. (2011). *The way we do business: 2010 corporate social responsibility report*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2012, May 4). *Loblaw increases offer of locally sourced beef in its Ontario banner stores* [Press release]. https://ontariocornfedbeef.com/dev/loblaw-increases-offer-of-ocfb/#

Loblaw Companies Limited. (2015a, November 12). *Launch of the first-ever PC Insiders Collection* [Press release]. https://investors.loblaw.ca/English/media-centre/press-

releases/press-release-details/2015/Launch-of-the-first-ever-PC-Insiders-Collection/default.aspx

Loblaw Companies Limited. (2015b). *The way we do business: 2014 corporate responsibility report*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2016, December 2). *Taste the new next: Loblaw challenges Canadians to try something unexpected in 2017* [Press release]. https://media.loblaw.ca/English/media-centre/press-releases/press-release-details/2016/Taste-The-New-Next-Loblaw-Challenges-Canadians-to-Try-Something-Unexpected-in-2017/default.aspx

Loblaw. (2017). *2016 Corporate social responsibility report*. Loblaw Companies Limited. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2018, March 6). *The President's Choice team gets innovative with insects* [Press release]. https://www.loblaw.ca/en/the-presidents-choice-team-gets-innovative-with-insects/

Loblaw Companies Limited. (2019a). *Corporate social responsibility report 2018*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2019b). *Loblaw Companies Limited 2019 annual report*. https://www.loblaw.ca/en/investors-reports/

Loblaw Companies Limited. (2020a, March 13). *A note from Galen Weston on what we're doing about COVID-19* [Press release]. https://www.loblaw.ca/en/a-note-from-galen-weston-on-what-were-doing-about-covid-19/

Loblaw Companies Limited. (2020b, March 16). *An update from Galen Weston on what we're doing about COVID-19* [Press release]. https://www.loblaw.ca/en/an-update-from-galen-weston-on-what-were-doing-about-covid-19/

Loblaw Companies Limited. (2020c, May 15). *Galen announces the return of a fond Canadian favourite* [Press release]. https://www.loblaw.ca/en/galen- announces-the-return-of-a-fond-canadian-favourite/

Loblaw Companies Limited. (2020d, December 18). *Loblaw becomes first Canadian retailer to purchase beef from CRSB Certified Sustainable Farms and Ranches* [Press release]. https://www.loblaw.ca/en/loblaw-becomes-first-canadian-retailer-to-purchase-beef-from-crsb-certified-sustainable-farms-and-ranches/

Loblaw Companies Limited. (2020e, November 23). *Loblaw brings digital healthcare and support to Ontario with launch of new health and wellness app* [Press release]. https://www.loblaw.ca/en/loblaw-brings-digital-healthcare-and-support-to-ontario-with-launch-of-new-health-and-wellness-app/

Loblaw Companies Limited. (2021a). *Corporate social responsibility report 2020*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2021b). *The holidays are back, and so is the PC Insiders Report* [Press release]. https://www.loblaw.ca/en/the-holidays-are-back-and-so-is-the-pc-insiders-report/

Loblaw Companies Limited. (2022a). *2021 Environmental, social, and governance report*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2022b, October 5). *Gatik and Loblaw make history with first fully driverless deployment in Canada* [Press release].

https://www.loblaw.ca/en/gatik-and-loblaw-make-history-with-first-fully-driverless-deployment-in-canada/

Loblaw Companies Limited. (2022c, May 4). *Loblaw issues 2021 ESG report, outlines plans to fight climate change and advance social equity* [Press release]. https://www.loblaw.ca/en/loblaw-issues-2021-esg-report-outlines-plans-to-fight-climate-change-and-advance-social-equity/

Loblaw Companies Limited. (2022d, May 4). *Loblaw reports 2022 first quarter results* [Press release]. https://www.loblaw.ca/en/loblaw-reports-2022-first-quarter-results/#

Loblaw Companies Limited. (2023a). *Environmental, social and governance report 2022*. https://www.loblaw.ca/en/esg-reports/

Loblaw Companies Limited. (2023b). *Loblaw Companies Limited 2023 annual report*. https://www.loblaw.ca/en/investors-reports/

Locke, J. (1980). *Second treatise of government* (C. B. Macpherson, Ed.). Hackett Publishing. (Original work published 1689)

Lofland, J. (2004). Field notes. In C. Seale (Ed.), *Social research methods* (pp. 232–235). Routledge.

Logan, J. (2021). Crushing unions, by any means necessary: How Amazon's blistering anti-union campaign won in Bessemer, Alabama. *New Labor Forum, 30*(3), 38–45. https://doi.org/10.1177/10957960211035082

Lombardo, C. (2024, March). *Supermarkets and grocery stores in Canada*. IBISWorld. https://www.ibisworld.com

Loon, J. (2002). *Risk and technological culture: Towards a sociology of virulence*. Routledge.

Looy, H., & Wood, J. R. (2006). Attitudes toward invertebrates: Are educational "bug banquets" effective? *The Journal of Environmental* Education, *37*(2), 37–48. https://doi.org/10.3200/JOEE.37.2.37-48

Lopez, A. C. (2011). Public Law 480, Food aid. In D. R. Mulvaney (Ed.), *Green food* (pp. 364–366). Sage.

Lord, C. (2024, May 2). *Loblaw boycott: Why has the grocer become a 'lightning rod' for frustrations?* Global News. https://globalnews.ca/news/10462877/loblaw-boycott-impact-groceries/

Louis, R. P. (2007). Can you hear us now? Voices from the margin: Using Indigenous methodologies in geographic research. *Geographical Research, 45*, 130–139. https://doi.org/10.1111/j.1745-5871.2007.00443.x

Loughnan, S., & Davies, T. (2019). The meat paradox. In K. Dhont & G. Hodson (Eds.), *Why we love and exploit animals* (pp. 171–187). Routledge.

Lowitt, K., Slater, J., Davidson, Z., & Food Matters Manitoba. (2022). COVID-19, a changing Canadian food-security landscape, and food movements: Findings from a literature scan. *Journal of Agriculture, Food Systems, and Community Development, 11*(3), 87–99. https://doi.org/10.5304/jafscd.2022.113.012

Lübken, U., & Mauch, C. (2011). Uncertain environments: Natural hazards, risk and insurance in historical perspective. *Environment and History*, *17*(1), 1–12. https://doi.org/10.3197/096734011X12922358301012

Luckmann, J. (2021). Meat waste: A lot less than the whole hog. In Heinrich Böll Stiftung, Friends of the Earth Europe, & Bund für Umwelt und Naturschutz (Eds.)*, Meat Atlas*

(pp. 22-23). https://eu.boell.org/sites/default/files/2021-09/MeatAtlas2021_final_web.pdf

MacDonald, K. M. (2016). *Corporate swine: A global value chain analysis of pork production, processing, and retailing in southwestern Ontario* [Doctoral dissertation, University of Guelph]. Atrium. https://atrium.lib.uoguelph.ca/items/92c492ac-5729-4110-bd29-6b25d58eb016

Machin, D. (2002). *Ethnography research for media studies*. Arnold.

MacLachlan, I. (2001). *Kill and chill: Restructuring Canada's beef commodity chain*. University of Toronto Press.

MacLachlan, I. (2006). *The historical development of cattle production in Canada* [Discussion paper]. University of Lethbridge. https://opus.uleth.ca/items/1cbd7ff1-1c55-493c-a9f0-fb90ff6c88d3

MacLachlan, I. (2008). Humanitarian reform, slaughter technology, and butcher resistance in nineteenth-century Britain. In In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 107–126). University of New Hampshire Press.

MacLachlan, I. (2009). Betting the farm: Food safety and the beef commodity chain. In A. Heintzman & E. Solomon (Eds.), *Food and fuel: Solutions for the future* (pp. 29–60). House of Anasi Press.

Macnaughten, P., & Myers, G. (2004). Focus groups. In C. Seale, G. Gobo, J. F. Gubrium, & D. Silverman (Eds.). *Qualitative research practice* (pp. 66–81). Sage.

Macpherson, C. B. (1973). *Democratic theory: Essays in retrieval*. Clarendon Press.

MacRae, R. (2011). A joined-up food policy for Canada. *Journal of Hunger & Environmental Nutrition*, *6*(4), 424–457. https://doi.org/10.1080/19320248.2011.627297

Madison, D. S. (2005). *Critical ethnography: Method, ethics, and performance*. Sage.

Malthus, T. R. (1798). *An essay on the principle of population*. J. Johnson.

Mandel, R., Bracke, M. B. M., Nicol, C. J., Webster, J. A., Gygax, L. (2022). Dairy vs beef production—expert views on welfare of cattle in common food production systems. *Animal*, *16*(9), 1751–7311. https://doi.org/10.1016/j.animal.2022.100622.

Maple Leaf. (2021, March 19). *Maple Leaf Foods completes purchase of Indianapolis plant* [Press release]. https://www.mapleleaffoods.com/news/maple-leaf-foods-completes-purchase-of-indianapolis-plant/

Marder, M. (2013). *Plant-thinking: A philosophy of vegetal life*. Columbia University Press.

Marshall, M. (2022). The refrigerator as a problem and solution: Food storage practices as part of sustainable food culture. *Food and Foodways, 30*(4), 261–286. https://doi.org/10.1080/07409710.2022.2124726

Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, *13*(6), 522–525. https://doi.org/10.1093/fampra/13.6.522

Martin, S. J. & Katz-Rosene, R. M. (2020). Introduction. In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 3–28). McGill-Queen's University Press.

Martin, R., Rafferty, M., & Bryan, D. (2008). Financialization, risk and labour. *Competition and Change, 12*(2), 120–132. https://doi.org/10.1179/102452908X314849

Marvasti, A. B. (2013). Analysing observations. In U. Flick (Ed.), *The SAGE handbook of qualitative data analysis* (pp. 354–366). Sage.

Marx, K. (1889). *Capital: A critique of political economy, vol. I* (S. Moore & E. Aveling, Trans.). Appleton & Co. (Original work published 1867)

Mason, P., & Lang, T. (2017). *Sustainable diets: How ecological nutrition can transform consumption and the food system*. Routledge.

Massicotte, C. (2017). *Trance speakers: Femininity and authorship in spiritual séances, 1850–1930*. McGill-Queen's University Press.

Massicotte, M. (2014). Feminist political ecology and La Vía Campesina's struggle for food sovereignty through the experience of the Escola Latino-Americana de Agroecologia (ELAA). In P. Andrée, J. Ayres, M. J. Bosia, & M. Massicotte, *Globalization and food sovereignty: Global and local change in the new politics of food* (pp. 255–287). University of Toronto Press.

Matloff, J. (2014, February 26). *An oral history of 'Ghostbusters'*. Longreads. https://longreads.com/2014/02/26/an-oral-history-of-ghostbusters/

Matten, D. (2004). The impact of the risk society thesis on environmental politics and management in a globalizing economy—principles, proficiency, perspectives. *Journal of Risk Research, 7*(4), 377–398. https://doi.org/10.1080/1366987042000208338

May, E. T. (2008). *Homeward bound: American families in the Cold War era* (20th Anniversary ed.). Basic Books.

Mbembe, A. (2003). Life, sovereignty, and terror in the fiction of Amos Tutuola. *Research in African Literatures, 34*(4), 1–26. https://doi.org/10.1353/ral.2003.0112

Mbembe, A. (2021). The universal right to breathe (C. Shread, Trans.). *Critical Inquiry, 47*(S2), S58–S62. https://doi.org/10.1086/711437

McCarty, M., Williams, M., Simonds, K., & Mears, J. (2012, July 20). *Resolution of the First Stewards Coastal Peoples Address Climate Change Symposium*. Washington, D.C.

https://nwifc.org/w/wp-content/uploads/2012/08/First-Stewards-Resolution-July-20-2012-signed.pdf

McClements, D. J. (2020). Future foods: A manifesto for research priorities in structural design of foods. *Food and Function, 11*, 1933–1945. https://doi.org/10.1039/c9fo02076d

McClintock, A. (1995). *Imperial leather: Race, gender and sexuality in the colonial context.* Routledge.

McClintock. A. (2018, July 11). Ghost forest: Diary of a drowning world. *e-flux Architecture*. https://www.e-flux.com/architecture/accumulation/440704/ghost-forest-atlas-of-a-drowning-world/

McElya, M. (2007). *Clinging to mammy: The faithful slave in twentieth-century America*. Harvard University Press.

McGregor, D. (2009). Honouring our relations: An Anishnaabe perspective on environmental justice. In by J. Agyeman, P. Cole, and R. Haluza-Delay (Eds.), *Speaking for ourselves: Environmental justice in Canada* (pp. 27–41). University of British Columbia Press.

McKeon, N. (2017) Are equity and sustainability a likely outcome when foxes and chickens share the same coop? Critiquing the concept of multistakeholder governance of food security. *Globalizations*, *14*(3), 379–398. https://doi.org/1080/14747731.2017.1286168.

McLuhan, M. (1964). *Understanding media: The extensions of man*. McGraw Hill.

McMichael, P. (2009). A food regime genealogy. *The Journal of Peasant Studies, 36*(1), 139–169. https://doi.org/10.1080/03066150902820354

McMichael, P. (2014). Conclusion: The food sovereignty lens. In P. Andrée, J. Ayres, M. J. Bosia, & M. Massicotte, *Globalization and food sovereignty: Global and local change in the new politics of food* (pp. 345–363). University of Toronto Press.

McNiven, I. J., & Russell, L. (2005). *Appropriated pasts: Indigenous peoples and the colonial culture of archaeology*. AltaMira Press.

Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). *The limits to growth*. Potomac Associates.

Meat Institute. (2015, March 19). *Myth: If meat turns brown that means it is spoiled* [Video]. YouTube. https://www.youtube.com/watch?v=V127Qr6VvyY&list=PLkBbso1kwZ3aVj0PWrkKkWzdDcwBoKL8b&index=43

Mepham, T. B. (1996). *Food ethics*. Routledge.

Merriam-Webster. (2023, September). *Words we're watching: 'Crickets'*. https://www.merriam-webster.com/wordplay/words-were-watching-crickets-silence/

Mignolo, W. D. (2000). *Local histories/Global designs: Coloniality, subaltern knowledges, and border thinking*. Princeton University Press.

Mignolo, W. D. (2018). On pluriversality and multipolarity. In B. Reiter (Ed.), *Constructing the pluriverse: The geopolitics of knowledge* (pp. ix–xv). Duke University Press.

Mignolo, W. D., & Tlostanova, M. V. (2006). Theorizing from the borders: Shifting to geo- and body-politics of knowledge. *European Journal of Social Theory, 9*(2), 205–221. https://doi.org/10.1177/1368431006063333

Mills, A. J., Durepos, G., & Wiebe, E. (2010). Introduction. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (Vol. 1, pp. xxxi–xxxiv). Sage.

Mills, C. (1997). *The racial contract*. Cornell University Press.

Mintz, S. W. (1986). *Sweetness and power*. Penguin Books.

Mishler, E. G. (1991). *Research interviewing: Context and narrative*. Harvard University Press.

Montford, K. S., & Wotherspoon, T. (2021). The contagion of slow violence: The slaughterhouse and COVID-19. *Animal Studies Journal, 10*(1), 80–113. https://ro.uow.edu.au/asj/vol10/iss1/7

Morales, A. (2011). Growing food *and* justice: Dismantling racism through sustainable food systems. In A. H. Alkon & J. Agyeman (Eds.), *Cultivating food justice: Race, class, and sustainability* (pp. 149–175). The MIT Press.

Morgensen, S. L. (2015). A politics not yet known: Imagining relationality within solidarity. *American Quarterly, 67*(2), 309–315. https//doi.org/10.1353/aq.2015.0023

Morrison, D. (2011). Indigenous food sovereignty: A model for social learning. In A. A. Desmarais, N. Wiebe, & H. Wittman (Eds.), *Food sovereignty in Canada: Creating just and sustainable food systems* (pp. 97–113). Fernwood Publishing.

Morrison, D. (2020). Reflections and realities: Expressions of food sovereignty in the fourth world. In P. Settee & S. Shukla (Eds.), *Indigenous food systems: Concepts, cases, and conversations* (pp. 17–38). Canadian Scholars Press.

Mosby, I., Rotz, S., & Fraser, E. D. G. (2020). *Uncertain harvest: The future of food on a warming planet*. University of Regina Press.

Mosco, V. (2009). *The political economy of communication* (2nd ed.). Sage.

Mottet, A., de Haan, C., Falcucci, A., Tempio, G., Opio, C., & Gerber, P. (2017). Livestock: On our plates or eating at our table? A new analysis of the feed/food debate. *Global Food Security, 14*, 1–8. http://dx.doi.org/10.1016/j.gfs.2017.01.001

Movimento dos Trabalhadores Rurais Sem Terra. (2024). *What is the MST?* Friends of the MST. https://www.mstbrazil.org/content/what-mst

Mousseau, F. (2005). *Food aid or food sovereignty? Ending world hunger in our time*. The Oakland Institute.

Muhlhauser, P., Drews, M., & Reitz, R. (2021). Grilling meataphors: Impossible™ Foods and posthumanism in the meat aisle. *Humanities, 10*(1), 49, 1–14. https://doi.org/10.3390/h10010049

Muñoz, J. E. (2009). *Cruising utopia: The then and there of queer futurity*. New York University Press.

Mutersbaugh, T., & Lyon, S. (2010). Transparency and democracy in certified ethical commodity networks. *Geoforum, 41*, 27–32. https//doi.org/10.1016/j.geoforum.2009.11.013

Naccarato, P., & LeBesco, K. (2012). *Culinary capital*. Berg.

Nalon, E., Contiero, B., Gottardo, F., & Cozzi, G. (2021). The welfare of beef cattle in the scientific literature from 1990 to 2019: A text mining approach. *Frontiers in Veterinary Science, 7*, 588749, 1–12. https://doi.org/10.3389/fvets.2020.588749

Nance, S. (2012). Jumbo: A capitalist creation story. *Antennae, 23*(Winter), 83-94. ISSN 1756-9575

Narayan, U. (1995). Colonialism and its others: Considerations on rights and care discourses. *Hypatia, 10*(2), 133–140. https://www.jstor.org/stable/3810285

Näser-Lather, M., & Neubert, C. (2015). Traffic—Media as infrastructures and cultural practices: Introduction. In M. Näser-Lather & C. Neubert (Eds.), *Traffic: Media as infrastructures and cultural practices* (pp. 1–27). Brill.

National Beef Strategic Planning Group. (2022). *Canada's national beef strategy, 2020–2024*. https://beefstrategy.com/pdf/2022/NBS%202020-24%20Updated%20Sept%2022%202022.pdf

National Farm Animal Care Council. (2022). *Veal cattle 5-year code review*. https://www.nfacc.ca/veal-cattle-5-year-code-review

National Farmers Union. (2008). *The farm crisis and the cattle sector: Toward a new analysis and new solutions*. https://www.nfu.ca/policy/the-farm-crisis-and-the-cattle-sector-toward-a-new-analysis-and-new-solutions/

National Renderers Association. (2019). *Rendered ingredients produced from cattle* [Infographic]. https://nara.org/wp-content/uploads/2019/10/rendering_ingredients_cattle.pdf

Natural Products Canada, Humane Society International Canada, Protein Highway, & Protein Industries Canada. (2022). *Game Changers: Canadian Opportunities in Alternative Protein*. https://www.alternativeproteinscanada.com/

Nature Food. (2020). From silos to systems. *Nature Food, 1*(1), 1. https://doi.org/10.1038/s43016-019-0027-8

Nealon, J. T. (2016). *Plant theory: Biopower and vegetable life*. Stanford University Press.

Netz, R. (2004). *Barbed wire: An ecology of modernity*. Wesleyan University Press.

Neuman, W. L. (1991). *Social research methods: Qualitative and quantitative approaches.* Allyn and Bacon.

Neustaeter, B. (2020, April 29). *These are the meat plant in Canada affected by the coronavirus outbreak*. CTV News. https://www.ctvnews.ca/health/coronavirus/these-are-the-meat-plants-in-canada-affected-by-the-coronavirus-outbreak-1.4916957

New York Law School Racial Justice Project. (2012). *Unshared bounty: How structural racism contributes to the creation and persistence of food deserts*. Racial Justice Project with American Civil Liberties Union, Book 3. http://digitalcommons.nyls.edu/racial_justice_project/3

Nibert, D. (2002). *Animal rights/Human rights: Entanglements of oppression and liberation*. Rowman & Littlefield Publishers.

Nichol, D. (1993). *The Dave Nichol cookbook*. Matthews Ingham and Lake.

Noakes, T. C. (2023, June 14). *Potlach ban*. Canadian Encyclopedia. https://www.thecanadianencyclopedia.ca/en/article/potlatch-ban/

No Frills. (2020). *We know local.* https://www.nofrills.ca/collections/Local%20Groceries/017876000000#local

North American Meat Institute. (n.d.). *Meat mythcrushers: Setting the record straight* [Brochure]. www.meatmythcrushers.com

North American Meat Institute. (2016). *Myth: The liquid at the bottom of a meat package is blood*. Meat mythcrushers. https://www.meatmythcrushers.com/myths/myth-the-liquid-at-the-bottom- of-a-meat-package-is-blood.php

Oleschuk, M., Johnston, J., & Baumann, S. (2019). Maintaining meat: Cultural repertoires and the meat paradox in a diverse sociocultural context. *Sociological Forum, 34*(2), 337–360. https://doi.org/10.1111/socf.12500

Ontario Corn Fed Beef. (2014). *Photo gallery*. https://ontariocornfedbeef.com/dev/media/photos/

Ontario Human Rights Commission. (2017, April). *Under suspicion: Research and consultation report on racial profiling in Ontario*. https://www3.ohrc.on.ca/sites/default/files/Under%20suspicion_research%20and%20consultation%20report%20on%20racial%20profiling%20in%20Ontario_2017.pdf

Ontario Ministry of Agriculture, Food and Rural Affairs. (2024, March 22). *Provincially license meat plants—Beef*. https://data.ontario.ca/dataset/provincially-licensed-meat-plants/resource/ae73ad1a-64a6-4408-a8f4-7213b32b1f57

Organisation for Economic Co-operation and Development & Food and Agriculture Organization of the United Nations. (2023). *OECD-FAO Agricultural Outlook 2023–2032*. OECD Publishing. https://doi.org/10.1787/08801ab7-en

Organisation for Economic Co-operation and Development, Food and Agriculture Organization of the United Nations, World Health Organization, World Organisation for Animal Health. (2017, June 29). *Tackling antimicrobial resistance and ensuring sustainable R&D*. https://www.oecd.org/health/health-systems/G20-AMR-Final-Paper-2017.pdf

Otter, C. (2008). Civilizing slaughter: The development of the British public abattoir, 1850–1910. In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 89–106). University of New Hampshire Press.

Owens, A. (1989). *The darkened room: Women, power, and spiritualism in late Victorian England*. University of Chicago Press.

Oxfam. (2022, May 23). *Profiting from pain: The urgency of taxing the rich amid a surge in billionaire wealth and a global cost-of-living crisis*. https://www.oxfam.org/en/research/profiting-pain

Oxford English Dictionary. (2023, July). Flexitarian. In *Oxford English Dictionary*. Retrieved April 2024 from https://doi.org/10.1093/OED/6774587575.

Oxford English Dictionary. (2024a, February). Cattle. In *Oxford English Dictionary*. Retrieved April 2024 from https://doi.org/10.1093/OED/5036159615.

Oxford English Dictionary. (2024b, March). Medium. In *Oxford English Dictionary*. Retrieved April 2024 from https://doi.org/10.1093/OED/6996634548.

Pachirat, T. (2011). *Every twelve seconds: Industrialized slaughter and the politics of sight*. Yale University Press.

Pacyga, D. A. (2008). Chicago: Slaughterhouse to the world. In P. Y. Lee (Ed.), *Meat, modernity, and the rise of the slaughterhouse* (pp. 153–166). University of New Hampshire Press.

Pacyga, D. A. (2015). *Slaughterhouse: Chicago's union stock yard and the world it made*. University of Chicago Press.

Parks, L., & Starosielski, N. (2015). Introduction. In L. Parks & N. Starosielski (Eds.), *Signal traffic: Critical studies of media infrastructures* (pp. 1–27). University of Illinois Press.

Parry, J. (2010). Gender and slaughter in popular gastronomy. *Feminism & Psychology, 20*(3), 381–396. https://doi.org/10.1177/0959353510368129

Parsons, R., & Moffat, K. (2014). Constructing the Meaning of Social Licence. *Social Epistemology, 28*(3-4), 340–363. https://doi.org/10.1080/02691728.2014.922645

Patel, R. (2007). *Stuffed and staved: Markets, power and the hidden battle for the world's food system*. Portobello Books.

Patel, R. (2009). What does food sovereignty look like? *The Journal of Peasant Studies, 36*(3), 663–706. https://doi.org/10.1080/03066150903143079

Patel, R. (2013). The long green revolution. *The Journal of Peasant Studies, 40*(1), 1–63. https://doi.org/10.1080/03066150.2012.719224

Patil, A. (2024, January 19). *Loblaw backs away from plan to end 50% discount on food nearing best-before date*. CBC News. https://www.cbc.ca/news/canada/nova-scotia/loblaws-backs-down-from-nixing-50-per-cent-discount-food-1.7089537

Patrice, T., & Lamboni, D. (2020). *COVID-19 and the beef supply chain: An overview*. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00086-eng.htm

Paxson, H. (2012). *The life of cheese: Crafting food and value in America*. University of California Press.

Paxson, H. (Ed.). (2023). *Eating beside ourselves: Thresholds of foods and bodies*. Duke University Press.

PC Insurance. (n.d.). *About PC Insurance.* https://www.pcinsurance.ca/en/about-us/

Peña, D. G. (2017). Autonomía and food sovereignty: Decolonization across the food chain. In D. G. Peña, L. Calvo, P. McFarland, & G. R. Valle (Eds.), *Mexican-origin foods, foodways, and social movements: Decolonial perspectives* (pp. 5–26). The University of Arkansas Press.

Peters, C. (2023, November 9). *You can now get Amazon's fast, affordable grocery delivery without a Prime membership*. Amazon.

https://www.aboutamazon.com/news/retail/amazon-expands-grocery-delivery-and-pickup

Peters, J. D. (2015). Infrastructuralism: Media as traffic between nature and culture. In M. Näser-Lather & C. Neubert (Eds.), *Traffic: Media as infrastructures and cultural practices* (pp. 31–49). Brill.

Petersen, B., & Snapp, S. (2015). What is sustainable intensification? Views from experts. *Land Use Policy, 46*, 1–10. https://doi.org/10.1016/j.landusepol.2015.02.002

Phillips, A. (1960, January 2). Is anybody winning the trading-stamp war? *Maclean's Magazine*, 9-11, 39–42.

Phillips, R. J., & Abergel, E. (2024). Introducing meat studies. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *11*(1), 1–8. https://doi.org/10.15353/cfs-rcea.v11i1.691

Pilcher, J. M. (2016). Culinary infrastructure: How facilities and technologies create value and meaning around food. *Global Food History*, *2*(2), 105–131. https://doi.org/10.1080/20549547.2016.1214896

Pirate Group Inc. (2010, October 19). Email. Pirate to Bensimon Byrne. Record ID 2010.11.17.01. Pirate Archive, McMaster University, Hamilton, ON, Canada.

Plantinga, T. (2003). Mad cow nationalism. *Myodicy, 20*(December). http://www.plantinga.ca/m/MCO.HTM

Plessis, P. (2021). When boreholes become herders, cattle menace grasslands. In A. L. Tsing, J. Deger, A. K. Saxena, & F. Zhou. (Eds.), *Feral Atlas*. Stanford University Press. https://feralatlas.org/

Pollan, M. (2001). *The botany of desire: A plant's-eye view of the world*. Random House.

Pollan, M. (2002, November 10). *An animal's place*. New York Times. https://www.nytimes.com/2002/11/10/magazine/an-animal-s-place.html

Pollan, M. (2009). *Food rules: An eater's manual*. Penguin.

Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science, 360*(6392), 987–92. https://doi.org/10.1126/science.aaq0216

Popkin, B. M. (2009). Reducing meat consumption has multiple benefits for the world's health. *Archives of Internal Medicine, 169*(6), 543–545. https://doi.org/10.1001/archinternmed.2009.2

Popkin, B. M., Horton, S., & Kim, S. (2001). The nutrition transition and prevention of diet-related chronic diseases in Asia and the Pacific. *Food and Nutrition Bulletin, 22*(4). United Nations University Press.

Poppendieck, J. (1998). *Sweet charity? Emergency food and the end of entitlement*. Penguin.

Porr, M. (2019). The temporality of humanity and the colonial landscape of the deep human past. In M. Porr & J. Matthews (Eds.), *Interrogating human origins* (pp. 184–207). Routledge.

Postman, N. (1970). The reformed English curriculum. In A. C. Eurich (Ed.), *High school 1980: The shape of the future in American secondary education* (pp. 160–168). Pitman.

Potter, L., Westall, C. (2013). Neoliberal Britain's austerity foodscape: Home economics, veg patch capitalism and culinary temporality. *New Format, 80*(81), 155–178. https://doi.org/10.3898/NeWF.80/81.09.2013

Powell, C. (2019, April 5). Loblaw debuts targeted advertising program. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/loblaw-debuts-targeted-advertising-program-86636

President's Choice. (1984a, April). *Dave Nichol's Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1984b, June.). *Dave Nichol's Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1986, June). *Dave Nichol's Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1992, November). *Dave Nichol's Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1995, June 3). *Summer Barbecue Edition Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1997, November). *Insider's Report: The Holiday Edition*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1998, June). *Insider's Report: The Summer Edition*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (1999, Summer). *Summer Insider's Report.* Copy in Possession of Loblaw Companies Limited.

President's Choice. (2001, November). *President's Choice Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2002, November). *PC Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2003, May). *PC Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2004, June). *PC Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2005, February). *PC Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2006, February). *President's Choice Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2007a, February). *President's Choice Healthy Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2007b, May). *President's Choice Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2008, February). *President's Choice Healthy Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2009, June). *President's Choice Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2010, February). *Healthy Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2011, February). *President's Choice Insider's Report*. Copy in Possession of Loblaw Companies Limited.

President's Choice. (2017, June 30). *Proud Canadiana* [Facebook post]. Facebook. https://www.facebook.com/presidentschoice/posts/10155375524398833

President's Choice. (2020a, May 15). *Five ways to bring summer food trends home.* Insiders Project. https://secure.pcinsiders.ca/insidersproject/en/read/article/five-ways-to-bring-summer-food-trends-home

President's Choice. (2020b, April 14). *How to shop smart and safely amid COVID-19*. Insiders Project. https://secure.pcinsiders.ca/insidersproject/en/read/article/april-14-covid-update

President's Choice. (2020c, May 15*). Let's crave more: Like many Canadians, we're trying something new.* Insiders Project. https://secure.pcinsiders.ca/insidersproject/en/read/article/flexitarian...tm_medium=internal-referral&utm_campaign=inspirationtiles_flexitarian-en

President's Choice. (2020d, June 3). *Meat meet veg: Introducing the new PC Blue Menu flexitarian burger with vegetables.* Insiders Project. https://insidersproject.ca/en/read/map/meet-our-flexitarian-burger

President's Choice. (2020e, May 26). *PC flexitarian beef burgers with vegetables* [Video]. YouTube. https://www.youtube.com/watch?v=O01v4fHfdaI

President's Choice. (2021). *PC Chef*. https://www.pcchef.ca/

President's Choice. (2022a). *PC Blue Menu*. https://www.presidentschoice.ca/products/pc-blue-menu

President's Choice. (2022b). *PC Free From*. https://www.presidentschoice.ca/products/pc-free-from

President's Choice. (2022c). *Summer Insiders Report*. https://www.presidentschoice.ca

Press, J. (2022, March 18). *Most Canadians are cutting back their food spending as inflation soars: Poll*. Global News. https://globalnews.ca/news/8692409/inflation-food-spending-canada/

Price, L. B., Rogers, L., & Lo, K. (2022). Policy reforms for antibiotic use claims in livestock. *Science*, *376*, 6589, 130–132. https://doi.org/10.1126/science.abj1823

Price, P. L. (2000). No pain, no gain: Bordering the hungry new world order. *Environment and Planning D: Society and Space, 18*, 91–110. https://doi.org/10.1068/d253

Probyn, E. (2016). *Eating the ocean*. Duke University Press.

Protein Industries Canada. (n.d.). *Protein Industries Canada*. https://www.proteinindustriescanada.ca

Protein Industries Canada. (2022a, April 5). *Canadian plant-based products ecosystem coming together to strengthen regulatory system* [Press release]. https://www.proteinindustriescanada.ca/news-releases/canadian-plant-based-products-ecosystem-coming-together-to-strengthen-regulatory-system

Protein Industries Canada. (2022b). *Corporate Plan 2022/2023*. https://www.proteinindustriescanada.ca/uploads/Corporate-Plan-2022-23.pdf

Protein Industries Canada. (2023a). *Canada's value-added journey to opportunity, progress and prosperity in ingredient manufacturing and food processing*. https://theroadto25billion.ca

Protein Industries Canada. (2023b, November 7). *Ingredient manufacturing, food processing and bio-products represent $25 billion a year opportunity for Canada* [Press release]. https://www.proteinindustriescanada.ca/news-releases/ingredient-manufacturing-

food-processing-and-bio-products-represent-25-billion-a-year-opportunity-for-canada

Public Health Agency of Canada. (2017). *Tackling antimicrobial resistance and antimicrobial use: A pan-Canadian framework for action*. Government of Canada. https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/tackling-antimicrobial-resistance-use-pan-canadian-framework-action.html

Public Health Agency of Canada. (2021, March 9). *Responsible use of medically important antimicrobials in animals*. Government of Canada. https://www.canada.ca/en/public-health/services/antibiotic-antimicrobial-resistance/animals/actions/responsible-use-antimicrobials.html#s8

Public Health Agency of Canada. (2022). *Canadian antimicrobial resistance surveillance system report*. Government of Canada. Government of Canada. https://www.canada.ca/en/public-health/services/publications/drugs-health-products/canadian-antimicrobial-resistance-surveillance-system-report-2022.html

Public Health Agency of Canada. (2023). *Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS): About CIPARS*. Government of Canada. https://www.canada.ca/en/public-health/services/surveillance/canadian-integrated-program-antimicrobial-resistance-surveillance-cipars/about-cipars.html

Puig de la Bellacasa, M. (2017). *Matters of care: Speculative ethics in more than human worlds*. University of Minnesota Press.

Puglionesi, A. (2020). *Common phantoms: A history of psychic science*. Stanford University Press.

Purcell, N. (2011). Cruel intimacies and risky relationships: Accounting for suffering in industrial livestock production. *Society and Animals, 19*(1), 59–81. https://doi.org/10.1163/156853011X545538

Puʻuhonua o Puʻuhuluhulu. (2019). *Puʻuhonua o Puʻuhuluhulu*. https://puuhuluhulu.com

Qualman, D. (2011). Advancing agriculture by destroying farms? The state of agriculture in Canada. In A. A. Desmarais, N. Wiebe, & H. Wittman (Eds.), *Food sovereignty in Canada: creating just and sustainable food systems* (pp. 20–42). Fernwood Publishing.

Qualman, D., Desmarais, A. A., Magnan, A., & Wendimu, M. (2020). *Concentration matters: Farmland inequality on the Prairies*. Canadian Centre for Policy Alternatives. https://policyalternatives.ca/publications/reports/concentration-matters

Qualman, D., & National Farmers Union. (2019). *Tackling the farm crisis and the climate crisis: A transformative strategy for Canadian farms and food systems*. https://www.nfu.ca/publications/tackling-the-farm-crisis-and-the-climate-crisis/

Qualman, D., & National Farmers Union. (2022). *Agricultural greenhouse gas emissions in Canada: A new, comprehensive assessment*. https://www.nfu.ca/wp-content/uploads/2022/06/Comprehensive-Ag-GHG-Emissions-EN-2nd-Ed.pdf

Quijano, A. (2000). Coloniality of power, Eurocentrism, and Latin America. *Nepantla, 1*(3), 533-580. https://doi.org/10.1177/0268580900015002005

Quilley, S., & Kish, K. (2019). The ecological limits of the Sustainable Development Goals. In S. Dalby, S. Horton, & R. Mahon (Eds.), *Achieving the sustainable development goals: Global governance challenges* (pp. 170–189). Routledge.

Radin, J., & Kowal, E. (2017). Introduction: The politics of low temperature. In J. Radin & E. Kowal (Eds.), *Cryopolitics: Frozen life in a melting world* (pp. 3–25). The MIT Press.

RAIR Collective (Boissoneau, D., Giacomini, T., Fenton, A., Kepkiewicz, L., Xavier, A. L., & Rotz, S. (2023). Field notes from RAIR: Putting relational accountability into practice. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation, 10*(1), 13–21. https://doi.org/10.15353/cfs-rcea.v10i1.565

Ranganathan, J., Vennard, D., Waite, R., Searchinger, T., Dumas, P., & Lipinski, B. (2016). *Shifting diets for a sustainable future*. World Resources Institute. https://www.wri.org/research/shifting-diets-sustainable-food-future

Reardon, T., Timmer, C. P., Barrett, C. B., & Berdegué, J. (2003). The rise of supermarkets in Africa, Asia and Latin America. *American Journal of Agricultural Economics, 85*(5), 1140–6. https://www.jstor.org/stable/1244885

Reese, A. M. (2019). *Black food geographies: Race, self-reliance, and food access in Washington, D. C*. University of North Carolina Press.

Reitman, I. (Director). (1984). *Ghostbusters* [Film]. Columbia Pictures.

Regan, T. (1983). *The case for animal rights*. University of California Press.

Regnier-Davies, J., Edge, S., Yu, M. H. M., Nasr, J., Austin, N., Daley, A., Koç, M. (2022). Towards equitable & resilient post-pandemic urban food systems: The role of community-based organizations. *Urban Governance, 2*, 336–346. https://doi.org/10.1016/j.ugj.2022.10.003

Richards, C., Lawrence, G., & Burch, D. (2011). Supermarkets and agro-industrial foods. *Food, Culture & Society, 14*(1), 29–47. https://doi.org/10.2752/175174411X12810842291146

Richardson, S. B. (2020). Worked to the bone: COVID-10, the agrifood labour force, and the need for more compassionate post-pandemic food systems. In C. M. Flood, V. MacDonnell, J. Philpott, S. Thériault, S. Venkatapuram, & K. Fierlbeck (Eds.), *Vulnerable: The law, policy and ethics of COVID-19* (pp. 501–509). University of Ottawa Press.

Riches, G. (2018). *Food bank nations: Poverty, corporate charity and the right to food*. Routledge.

Ritchie, H. (2022, February 15). *Daily calorie supply: Data sources and definitions*. Our World in Data. https://ourworldindata.org/calorie-supply-sources

Ritchie, H., Rosado, P., & Roser, M. (2023). *Meat and dairy production*. Our World in Data. https://ourworldindata.org/meat-production

Ritzer, G. (2001). *Explorations in the sociology of consumption: Fast food, credit cards and casinos*. Sage.

Robbins, P. (2012). *Political ecology: A critical introduction* (2nd ed.). Wiley-Blackwell.

Roediger, D. (2016). Making solidarity uneasy: Cautions on a keyword from Black Lives Matter to the past. *American Quarterly, 68*(2), 223–248. https://doi.org/10.1353/aq.2016.0033

Rooney, D., Leach, J., & Ashworth, P. (2014). Doing the social in social license. *Social Epistemology, 28*(3-4), 209–218. http://dx.doi.org/10.1080/02691728.2014.922644

Roppel, C., Desmarais, A. A., & Martz, D. (2006). *Farm women and Canadian agricultural policy*. Status of Woman Canada. https://publications.gc.ca/site/eng/9.667445/publication.html

Rosati, C. (2019). Infrastructures of feeling and the right to the city. *Asia Pacific Media Educator, 29*(2), 251–258, https://doi.org/10.1177/1326365X19896169

Rose, D. B. (2017). Shimmer: When all you love is being trashed. In A. Tsing, H. Swanson, E. Gan. & N. Bubandt (Eds.), *Arts of living on a damaged planet* (pp. G21–G63). University of Minnesota Press.

Rose D. C., & Chilvers, J. (2018.) Agriculture 4.0: Broadening responsible innovation in an era of smart farming. *Frontiers in Sustainable Food Systems, 2*(87). https://doi.org/10.3389/fsufs.2018.00087

Rose, G. (2001). *Visual methodologies: An introduction to the interpretation of visual materials*. Sage.

Rosol, M., Holt-Giménez, E., Kepkiewicz, L., & Vibert, E. (2022). Towards just food futures: Divergent approaches and possibilities for collaboration across difference. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation, 9*(2), 1–30. https://doi:10.15353/cfs- rcea.v9i2.598

Rosset, P., Martínez-Torres, M. & Hernández-Navarro, L. (2005). Zapatismo in the movement of movements. *Development, 48*, 35–41. https://doi.org/10.1057/palgrave.development.1100139

Rothman, L. (2014, January 28). *In today's landfills, food is embalmed for decades at a time*. Vice. https://www.vice.com/en/article/aeyxxz/in-todays-landfills-food-is-embalmed-for-decades-at-a-time

Rotz, S. (2017). "They took our beads, it was a fair trade, get over it": Settler colonial logics, racial hierarchies and material dominance in Canadian agriculture. *Geoforum, 82*, 158–169. https://doi.org/10.1016/j.geoforum.2017.04.010

Rotz, S., Duncan, E., Small, M., Botschner, J., Dara, R., Mosby, I., Reed, M., & Fraser, E. D. G. (2019a). The politics of digital agriculture: A preliminary review. *Sociologia Ruralis, 59*(2), 203–229. https://doi.org/10.1111/soru.12233

Rotz, S., Gravely, E., Mosby, I., Duncan, E., Finnis, E., Horgan, M., LeBlanc, J., Martin, R., Neufeld, H. T., Nixon, A., Pant, L., Shalla, V., Fraser, E. (2019b). Automated pastures and the digital divide: How agricultural technologies are shaping labour and rural communities. *Journal of Rural Studies, 68*, 112–122. https://doi.org/10.1016/j.jrurstud.2019.01.023

Rotz, S., & Kepkiewicz, L. W. (2018). Settler colonialism and the (im)possibilities of a national food policy. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *5*(3), 248–258. https://doi.org/10.15353/cfs-rcea.v5i3.275

Rubin, G. (1975). The traffic in women: Notes on the "political economy" of sex. In R. R. Reiter (ed.), *Toward an anthropology of women* (pp. 157–210). Monthly Review Press.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Sage.

Rude, J. (2020). *Resilience versus efficiency: The feasibility of small local meatpacking plants in Canada*. Canadian Agri-Food Policy Institute. https://capi-icpa.ca/wp-content/uploads/2021/03/2020-11-23-The-Feasibility-of-Small-Local-Meat-Packing-Plants-in-Canada-James-Rude.pdf

Saba, R. (2024a, April 29). *'Deeply unhappy' grocery shoppers plan to boycott Loblaw-owned stores in May*. CityNews. https://toronto.citynews.ca/2024/04/29/deeply-unhappy-grocery-shoppers-plan-to-boycott-loblaw-owned-stores-in-may/

Saba, R. (2024b, February 16). *House of Commons committee tells Loblaw and Walmart to sign grocery code or risk legislation*. CBC News. https://www.cbc.ca/news/politics/grocery-code-of-conduct-loblaw-walmart-1.7118261

Saba, R. (2024c, May 16). *Loblaw agrees to sign grocery code of conduct—but only if competitors do*. CBC News. https://www.cbc.ca/news/business/loblaw-signs-grocery-code-conduct-1.7206278

Saba, R. (2024d, February 22). *Loblaw profits and sales continue growing as shoppers look for more deals*. CTV News. https://www.ctvnews.ca/business/loblaw-profits-and-sales-continue-growing-as-shoppers-look-for-more-deals-1.6779604

Sagan, A. (2018, March 6). *Bugs in the grocery aisle; Loblaw adds cricket powder to its PC line*. CBC News. https://www.cbc.ca/news/business/cricket-powder-loblaw-1.4563956

Sage, C. (2012). *Environment and food*. Routledge.

Sandilands, C. (2017). Vegetate. In J. J. Cohen & L. Duckert (Eds.), *Veer ecology* (pp. 16–29). University of Minnesota Press.

Sandilands, C. (2021a). Humus. In J. Hausdoerffer, B. P. Hecht, M. K. Nelson, & K. K. cummings (Eds.), *What kind of ancestor do you want to be?* (pp. 177-181). University of Chicago Press.

Sandilands, C. (2021b). Plant/s matter. *Women's Studies, 50*(8), 776–783. https://doi.org/10.1080/00497878.2021.1983433

Savell, J. (2013, January 22). *Dark-cutting beef*. Meat Science, Agriculture & Life Sciences, Texas A&M University. https://meat.tamu.edu/2013/01/22/dark-cutting-beef/

Sawatzky, K. D. (2021, July 5). Sharing treaty land. *Briarpatch Magazine*. https://briarpatchmagazine.com/articles/view/sharing-treaty-land

Schafer, A. (2023, October 13). *USDA working with ranchers toward Indigenous food sovereignty*. ICT News. https://ictnews.org/news/usda-working-with-ranchers-toward-indigenous-food-sovereignty

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

Schneider, L. (2023). Decolonizing conservation? Indigenous resurgence and buffalo restoration in the American West. *Environment and Planning E: Nature and Space, 6*(2), 801–821. https://doi.org/10.1177/25148486221119158

Schönberg, C. (1985). Empty chairs at empty tables [Song]. On *Les Misérables*. CTS Studios.

Sciarpelletti, L. (2022, January 22). *New Sask. Trespassing legislation infringes on treaty rights, says Treaty Land Sharing Network*. CBC News. https://www.cbc.ca/news/canada/saskatchewan/treaty-land-sharing-network-opposition-trespassing-legislation-1.6323227

Scott, C. M. (2020). Does meat belong in a sustainable diet? In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat? Sustaining eaters, animals, and the planet* (pp. 64–89). McGill-Queen's University Press.

Scott-Reid, J., & White, C. (2019, May 18). Should plant-based foods use the word meat? *Toronto Star*. https://www.thestar.com/opinion/contributors/thebigdebate/2019/05/28/should-plant-based-foods-use-the-word-meat.html?rf

Scrinis, G. (2008). On the ideology of nutritionism. *Gastronomica, 8*(1), 39–48. https://doi.org/10.1525/gfc.2008.8.1.39

Searchinger, T., Waite, R., Hanson, C., Ranganathan, J. (2019). *Creating a sustainable food future: A menu of solutions to sustainably feed more than 9 billion people by 2050*. World Resources Institute. https://research.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf

Serpell, J. (1996). *In the company of animals: A study of human-animal relationships*. Cambridge University Press.

Settee, P., & Shukla, S. (Eds.). (2020). *Indigenous food systems concepts, cases, and conversations*. Canadian Scholars Press.

Shamon, H., Cosby, O. G., Andersen, C. L., Augare, H., BearCub Stiffarm, J., Bresnan, C. E., Brock, B. L., Carlson, E., Deichmann, J. L., Epps, A., Guernsey, N., Hartway, C., Jørgensen, D., Kipp, W., Kinsey, D., Komatsu, K .J., Kunkel, K., Magnan, R., … Akre, T. S. (2022) The potential of bison restoration as an ecological approach to future tribal food sovereignty on the Northern Great Plains. *Frontiers in Ecology and Evolution, 10*, 826282, 1–15. https://doi.org/10.3389/fevo.2022.826282

Sharma, S., & Singh, R. (Eds.). (2022). *Re-understanding media: Feminist extensions of Marhsall McLuhan*. Duke University Press.

Shilomboleni, H. (2018). African Green Revolution, food sovereignty and constrained livelihood choice in Mozambique. *Canadian Journal of African Studies, 52*(2), 115–137. https://doi.org/10.1080/00083968.2018.1483833

Shiva, V. (1991). *The violence of the green revolution: Third world agriculture, ecology and politics*. Zed Books.

Shiva, V. (2000). *Stolen harvest: The hijacking of the global food supply*. South End Press.

Shotwell, A. (2016). *Against purity: Living ethically in compromised times.* University of Minnesota Press.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes.* Sage.

Shukin, N. (2009). *Animal capital: Rendering life in biopolitical times*. University of Minnesota Press.

Sibonney, C. (2020, September 21). *5 satisfying ways to eat more plant-based foods.* Insiders Project. https://insidersproject.ca/en/read/article/4-satisfying-ways-to-eat-more-plant-based-foods

Sidik, S. M. (2022, June 23). How COVID has deepened inequality—in six stark graphics. *Nature, 606*. https://doi.org/10.1038/d41586-022-01647-6

Silbergeld, E. K. (2016). *Chickenizing farms and food: How industrial meat production endangers workers, animals, and consumers*. John Hopkins University Press.

Silcoff, S. (2019, June 12). *Toronto startup Flashfood announces major partnership with Loblaws*. The Globe and Mail. https://www.theglobeandmail.com/business/article-toronto-startup-flashfood-announces-major-partnership-with-loblaw-to/

Simpson, L. B. (2021). *A short history of the blockade: Giant beavers, diplomacy, and regeneration in Nishnaabewin*. University of Alberta Press.

Simpson, L. B., Walcott, R., & Coulthard, G. (2018). Idle No More and Black Lives Matter: An exchange. *Studies in Social Justice, 12*(1), 75–89. https://doi.org/10.26522/ssj.v12i1.1830

Sinclair, U. (2003). *The jungle* (C. V. Eby, ed.). Norton. (Original work published 1906)

Sinha, R., Cross, A. J., Graubard, B. I., Leitzmann, M. F., & Schatzkin, A. (2009). Meat intake and mortality: A prospective study of over half a million people. *Archives of Internal Medicine, 169*(6), 562–571. https://doi.org/10.1001/archinternmed.2009.6.

Singer, P. (1975). *Animal liberation: Towards an end to man's inhumanity to animals*. HarperCollins.

Singley, P. (2018). Procrustean boxes: Architecture and slaughter. In K. LeBesco & P. Naccarato (Eds.), *The Bloomsbury handbook of food and popular culture* (pp. 184–196). Bloomsbury.

Sippel, S. R. (2022). Agri-investment cashing in on COVD-19. In V. Stead & M. Hinkson (Eds.), *Beyond global food supply chains: Crisis, disruption, regeneration* (pp. 23–36). Palgrave Macmillan.

Sippel, S. R., & Dolinga, M. (2023). Constructing agri-food for finance: Startups, venture capital and food future imaginaries. *Agriculture and Human Values, 40,* 475–488. https://doi.org/10.1007/s10460-022-10383-6

Skerritt, J. (2018, Sept. 17). *A&W sold out of its new plant-based burger all across Canada in a matter of weeks*. Financial Post. https://financialpost.com/news/retail-marketing/canadian-burger-chain-sells-out-of-plant-based-patties

Slater, D. (1997). *Consumer culture and modernity*. Polity Press.

Slocum, R. (2006). Anti-racist practice and the work of community food organizations. *Antipode, 38*(2), 327–349. https://doi.org/10.1111/j.1467-8330.2006.00582.x

Slocum, R. (2007). Whiteness, space and alternative food practice. *Geoforum, 38*, 520–533. https://doi.org/10.1016/j.geoforum.2006.10.006

Slocum, R., & Cadieux, K. V. (2015). Notes on the practice of food justice in the U.S.: Understanding and confronting trauma and inequity. *Journal of Political Ecology, 22*, 27–52. https://doi.org/10.2458/v22i1.21077

Solnit, R. (2018). *Call them by their true names: American crises (and essays)*. Haymarket Books.

Smart, B. (2010). *Consumer society: Critical issues and environmental consequences*. Sage.

SmartCentres Real Estate Investment Trust. (2024). *SmartCentres*. https://smartcentres.com

Spade, D. (2020). Solidarity not charity. *Social Text, 38*(1), 131–151. https://doi.org/10.1215/01642472-7971S1o39c

Speakman, K. (2020). Whose land? Whose beef? Marketing beef in Canada. In J. Hannan (Ed.), *Meatsplaining: The meat industry and the rhetoric of denial* (pp. 103–134). Sydney University Press.

Speakman, K., Bancerz, M., & Koç, M. (2021). Finding food studies: A map of the field. In M. Koç, J. Sumner, & A. Winson (Eds.), *Critical perspectives in food studies* (3rd ed., pp. 3–17). Oxford University Press.

Specht, J. (2019). *Red meat republic: A hoof-to-table history of how beef changed America.* Princeton University Press.

Spencer, K. (2021). Agricultural policy trends: Did COVID support for beef cattle producers hit the mark? *School of Public Policy—University of Calgary, 14*(1), 1–4. https://journalhosting.ucalgary.ca/index.php/sppp/article/view/71731

Spivak, G. C. (1995). Ghostwriting. *Diacritics, 25*(2), 64–84. https://doi.org/10.2307/465145

Stahlbrand, L. (2016). A typology of “infrastructure of the middle” in university food

procurement in England and Canada: Elaborating the “to” in “farm to cafeteria”. *Raízes, 36*(2), 32-44. https://doi.org/10.37370/raizes.2016.v36.457

Stănescu, V. (2011). Green eggs and ham? The myth of sustainable meat and the danger of the local. In J. Sanbonmatsu (Ed.), *Critical theory and animal liberation (pp.* 239–255). Rowman & Littlefield.

Stănescu, V. (2017). The Whopper virgins*:* Hamburgers, gender, and xenophobia in Burger King’s hamburger advertising. In A. Potts (Ed.), *Meat culture* (pp. 90–108). Brill.

Stark, H. K. (2010). Respect, responsibility, and renewal: The foundations of the Anishinaabe treaty making with the United States and Canada. *American Indian culture and research journal, 34*(2), 145–164. https://doi.org/10.17953

Statistics Canada. (2021). *Toronto—Census of population*. https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/Page.cfm?lang=E&topic=1&dguid=2021A00033520#

Statistics Canada. (2022, May 18). *Consumer price index, April 2022*. Government of Canada. https://www150.statcan.gc.ca/n1/daily-quotidien/220518/dq220518a-eng.htm

Steel, C. (2009). *Hungry city: How food shapes our lives*. Vintage Books.

Steeves, P. F. C. (2021). *The Indigenous Paleolithic of the Western hemisphere*. University of Nebraska Press.

Stefanac, R. & Harris, R. (2018, March 29). Tech takeover. *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/features/tech-takeover-79612

Steinfeld, H., Gerber, P., Wassenaar, T., Castel, V., Rosales, M., & de Haan, C. (2006). *Livestock's long shadow: environmental issues and options*. Food and Agriculture Organization of the United Nations. https://www.fao.org/3/a0701e/a0701e.pdf

Stiegman, M. (2022). Seizing this COVID moment: What can food justice learn from disability justice? *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation*, *9*(1). https://doi.org/10.15353/cfs-rcea.v9i1.525

Stone, G. D. (2022). *The agricultural dilemma: How not to feed the world*. Routledge.

St. Pierre, M., & McComb, M. (2022). *Canadian agriculture at a glance: Alberta has the highest farm operating revenues in Canada*. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/96-325-x/2021001/article/00009-eng.htm

Strings, S. (2019). *Fearing the Black body: The racial origins of fat phobia*. New York University Press.

Suman, S. P., & Joseph, P. (2013). Myoglobin chemistry and meat color. *Annual Review of Food Science and Technology, 4*, 79–99. https://doi.org/10.1146/annurev-food-030212-182623

Swanson, H., Tsing, A., Bubandt, N., & Gan, E. (2017). Bodies tumbled into bodies. In A. Tsing, H. Swanson, E. Gan. & N. Bubandt (Eds.), *Arts of living on a damaged planet* (pp. M1–M12). University of Minnesota Press.

Tacon, C. (2016, January 26). *Grocery Code Adjudicator investigation into Tesco plc*. Groceries Code Adjudicator. https://assets.publishing.service.gov.uk/media/5a81a094ed915d74e33ff39b/GCA_Tesco_plc_final_report_26012016_-_version_for_download.pdf

Talaei, M., Wang, Y., Yuan, J., Pan, A., & Koh, W. (2017). Meat, dietary heme iron, and risk of type 2 diabetes mellitus: The Singapore Chinese health study. *American Journal of Epidemiology, 186*(7), 824-833. https://doi.org/10.1093/aje/kwx156

TallBear, K. (2019). Caretaking relations, not American dreaming. *Kalfou, 6*(1), 24–41. https://doi.org/10.15367/kf.v6i1.228

Taylor, D. (2003). *The archive and the repertoire: Performing cultural memory in the Americas*. Duke University Press.

Taylor, Scott. (2014). The sustainable beef industry: Canada's 'great' story. *Canadian Meat Business, July/August*, 6–9.

Taylor, Sunaura. (2017). *Beasts of burden: Animal and disability liberation*. New Press.

Thacker, E. (2008). *Uncommon life*. In B. da Costa & K. Philip, *Tactical biopolitics: Art, activism, and technoscience* (pp. 309–322). MIT Press.

Therrien, M. (2011). Changing trends in the Canadian "mallscape" of the 1950s and 1960s. *Journal of the Society for the Study of Architecture in Canada*, *36*(2), 13–26. https://dalspace.library.dal.ca/bitstream/handle/10222/65285/vol36_no2_13_26.pdf?sequence=1

Thobani, S. (2007). *Exalted subjects: studies in the making of race and nation*. University of Toronto Press.

Thomas, D. L. (1961, July 24). Canadian supermarkets: They are opening up new frontiers in food merchandising. *Barron's National Business and Financial Weekly*, *3*, 15–19, 34.

Thompson, P. B. (1995). *The spirit of the soil: Agriculture and environmental ethics*. Routledge.

Thorndike, E.L. (1920). A constant error in psychological ratings. *Journal of Applied Psychology, 4*(1), 25–29. https://doi.org/10.1037/h0071663

Tiffin, H. (2016). Do Insects Feel Pain? *Animal Studies Journal, 5*(1), 80–96. https://ro.uow.edu.au/asj/vol5/iss1/6

Todd, Z. (2016). An Indigenous feminist's take on the ontological turn: 'Ontology' is just another word for colonialism. *Journal of Historical Sociology, 29*(1), 4–22. https://doi.org/10.1111/johs.12124

Toller, C. (2015, June 12). Can shoppers be convinced to eat insects? *Canadian Grocer*. http://www.canadiangrocer.com/top-stories/can-shoppers-be-convinced-to-eat-insects-54492

Tortorici, Z. (2015). Animal archive stories: Species anxieties in the Mexican national archive. In S. Nance (Ed.), *The historical animal* (pp. 75–98). Syracuse University Press.

Towns, A. (2022). *On Black media philosophy.* University of California Press.

Treaty Land Sharing Network. (n.d.-a). *About us*. https://treatylandsharingnetwork.ca/about/

Treaty Land Sharing Network. (n.d.-b). *Access land*. https://treatylandsharingnetwork.ca/access-land/

Treaty Land Sharing Network. (n.d.-c). *Share land*. https://treatylandsharingnetwork.ca/share-land/

Trewavas, A. (2014). *Plant behavior and intelligence*. Oxford University Press.

Tribe, K. (1981). *Genealogies of capitalism*. Macmillan Press.

Tronto, J. C. (1993). *Moral boundaries: A political argument for an ethic of care*. Routledge.

Tubb, C., & Seba, T. (2021). Rethinking food and agriculture 2020–2030: The second domestication of plants and animals, the disruption of the cow, and the collapse of industrial livestock farming. *Industrial Biotechnology, 17*(2), 57–72. https://doi.org/10.1089/ind.2021.29240.c

Tuck, E., & Ree, C. (2013). A glossary of haunting. In S. H. Jones, T. E. Adams, & C. Ellis (Eds.), *Handbook of autoethnography* (pp. 639–658). Left Coast Press.

Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education, & Society, 1*(1), 1–40. https://jps.library.utoronto.ca/index.php/des/article/view/18630

Tumulty, K. (2017, January 18). How Donald Trump came up with "Make American great again". *Washington Post*. https://www.washingtonpost.com/politics/how-donald-trump-came-up-with-make-america-great-again/2017/01/17/fb6acf5e-dbf7-11e6-ad42-f3375f271c9c_story.html

Twine, R. (2012). Revealing the 'animal-industrial complex'—A concept and method for critical animal studies? *Journal for Critical Animal Studies 10*(1), 12–39. http://www.criticalanimalstudies.org/volume-10-issue-1-2012/

Tyler, I. (2020). *Stigma: The machinery of inequality*. Zed Books.

Uexküll, J. (2010). *A foray into the worlds of animals and humans* (J. D. O'Neil, Trans.). University of Minnesota Press. (Original work published 1934)

United Nations Convention to Combat Desertification. (2022). *The global land outlook, second edition*. United Nations Convention to Combat Desertification. https://www.unccd.int/sites/default/files/2022-04/UNCCD_GLO2_low-res_2.pdf

United Nations Department of Economic and Social Affairs. (2022). *World population prospects 2022: Summary of results*. UN DESA/POP/2022/TR/NO. 3.

United Nations Environment Programme. (2016). *UNEP frontiers 2016 report: Emerging issues of environmental concern*. https://www.unep.org/resources/frontiers-2016-emerging-issues-environmental-concern

United Nations Environment Programme. (2024). *Think, eat, save: Tracking progress to halve global food waste* (United Nations Environment Programme food waste index 2024). https://www.unep.org/resources/publication/food-waste-index-report-2024

United Nations General Assembly. (1948). *Universal declaration of human rights* (217 A [III]). United Nations.

United Nations General Assembly. (2015, October 21). *Transforming our world: The 2030 agenda for sustainable development* (A/RES/70/1). https://undocs.org/Home/Mobile?FinalSymbol=A%2FRES%2F71%2F313&Language=E&DeviceType=Desktop&LangRequested=False

United States Department of Agriculture. (2023, October). *USDA invests in bison purchase pilot incorporation Indian Country bison for tribal feeding programs* [Press release]. https://www.usda.gov/media/press-releases/2023/10/12/usda-invests-bison-purchase-pilot-incorporating-indian-country

United States Senate. (2018, March 14). *Food for peace modernization act* (S. 2551, 115th Congress). https://www.congress.gov/bill/115th-congress/senate-bill/2551/all-info

van Huis, A. (2021). Prospects of insects as food and feed. *Organic Agriculture, 11*, 301-308. https://doi.org/10.1007/s13165-020-00290-7

van Huis, A., Van Itterbeeck, J., Klunder, H., Mertens, E., Halloran, A., Muir, G., & Vantomme, P. (2013). *Edible insects: Future prospects for food and feed security*. Food and Agriculture Organization of the United Nations. https://www.fao.org/3/i3253e/i3253e.pdf

Varelas, V. (2019). Food Wastes as a Potential New Source for Edible Insect Mass Production for Food and Feed: A review. *Fermentation, 5*(81), 1–19. https://doi.org/10.3390/fermentation5030081

Veblen, T. (2007). *The theory of the leisure class.* Oxford University Press. (Original work published 1899)

Venne, S. H. (1998). *Our elders understand our rights: Evolving international law regarding Indigenous peoples*. Theytus Books.

Vía Campesina. (1996). *The right to produce and access to land*. Position of the Vía Campesina on Food Sovereignty presented at the World Food Summit. Rome.

Vía Campesina. (2002). *Gender*. https://viacampesina.org/en/gender/

Vía Campesina. (2021). *Vía Campesina: The global voice of peasants!* https://viacampesina.org/en/international-peasants-voice/

Vía Campesina. (2023, August 21). *Call to action: 10 September 2023—International Day of Action Against the WTO and Free Trade Agreements*. https://viacampesina.org/en/call-to-action-10-september-2023-international-day-of-action-against-the-wto-and-free-trade-agreements/

Vialles, N. (1994). *Animal to edible* (J. A. Underwood, Trans.). Cambridge University Press.

Viveiros de Castro, E. (2019). On models and examples: engineers and bricoleurs in the Anthropocene. *Current Anthropology, 60*(Supplement 20), S296–S308. https://doi.org/10.1086/702787

Voilà. (2023). *Welcome to Voilà*. https://voila.ca/content/about-us--a-propos-de-nous

Walker, P. (2000). Food residuals: Waste product, by-product, or coproduct. In M. L. Westendorf (Ed.), *Food waste to animal feed* (pp. 17–30). Iowa State University Press.

Wallace, R. (2020). *Dead epidemiologists: On the origins of COVID-19*. New York University Press.

Wallinga, D., Rayner, G., & Lang, T. (2015). Antimicrobial resistance and biological governance: Explanations for policy failure. *Public Health, 129*(10), 1314–1325. https://doi.org/10.1016/j.puhe.2015.08.012

Walmart Canada. (2024). *History*. https://www.walmartcanada.ca/about-us/history

Waltz, L. (2018). *Hog wild: The battle for workers' rights at the world's largest slaughterhouse*. University of Iowa Press.

Warde, A. (2005). Consumption and theories of practice. *Journal of Consumer Culture, 5*(2), 131–153. https://doi.org/10.1177/1469540505053090

Warnes, A. (2019). *How the shopping cart explains global consumerism*. University of California Press.

Washer, P. (2010). *Emerging infectious diseases and society.* Palgrave Macmillan.

Watanabe, M. (2021). Finance: Big bucks for big firms. In *Meat Atlas* (pp. 28–29). Heinrich Böll Stiftung, Friends of the Earth Europe, Bund für Umwelt und Naturschutz. https://www.boell.de/en/meat-atlas

Watson, R., & Blondheim, M. (2007). *The Toronto school of communication theory: Interpretations, extensions, applications*. University of Toronto Press.

Watts, V. (2013). Indigenous place-thought & agency amongst humans and non-humans. *Decolonization: Indigeneity, Education & Society, 2*(1), 20–34. https://jps.library.utoronto.ca/index.php/des/article/view/19145

Watts, V. (2020). Growling ontologies: Indigeneity, becoming-souls and settler colonial inaccessibility. In K. Montford & C. Taylor (Eds.), *Colonialism and animality* (pp. 115–128). Routledge.

Weir, L. (2013). "Time immemorial" and Indigenous rights: A genealogy and three case studies (*Calder*, *Van der Peet*, *Tsilhqot'in*) from British Columbia. *Journal of Historical Sociology, 26*(3), 383–411. https://doi.org/10.1111/johs.12028

Weis, T. (2007). *The global food economy: The battle for the future of farming*. Fernwood Publishing.

Weis, T. (2013) *The ecological hoofprint: The global burden of industrial livestock*. Zed Books.

Weis, T. (2018). Ghosts and things: Agriculture and animal life. *Global Environmental Politics*, *18*(2), 134–142. https://doi.org/10.1162/glep_a_00457

Weis, T. (2020). Confronting meatfication. In R. M. Katz-Rosene & S. J. Martin (Eds.), *Green meat?* (pp. 29–42). McGill-Queen's University Press.

Wells, J. (2019, April 2). *Beyond Meat's Canadian success will give the stock market something to chew on*. Toronto Star. https://www.thestar.com/business/opinion/2019/04/02/beyond-meats-canadian-success-will-give-the-stock-market-something-to-chew-on.html

Whatmore, S. (2002). *Hybrid geographies: Natures, cultures, spaces*. Sage.

Whole Foods Market. (2024). *Whole Foods Market history*. https://www.wholefoodsmarket.com/company-info/whole-foods-market-history

Whyte, K. (2021a). Indigenous environmental justice: Anti-colonial action through kinship. In B. Coolsaet (Ed.), *Environmental justice: Key issues* (pp. 266–278). Routledge.

Whyte, K. P. (2021b). Time as kinship. In J. Cohen & S. Foote (Eds.), *Routledge companion to environmental humanities* (pp. 39–55). Cambridge University Press.

Whyte, K. P., & Cuomo, C. J. (2017). Ethics of caring in environmental ethics: Indigenous and feminist philosophies. In S. M. Gardiner & A. Thompson (Eds.), *The Oxford handbook of environmental ethics* (pp. 234–247). Oxford University Press.

Wiebe, N. & Wipf, K. (2011). Nurturing food sovereignty in Canada. In H. Wittman, A. Desmarais and N. Wiebe (Eds.), *Food Sovereignty in Canada* (pp. 1–12). Fernwood Publishing.

Williams, R. (1977). *Marxism and literature*. Oxford University Press.

Williams, R. (1980). *Problems in materialism and culture: Selected essays*. Verso.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L. J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J. A., De Vries, W., Sibanda, L. M. … Murray, C. J. L. (2019). Food in the anthropocene: The EAT-*Lancet* commission on healthy diets from sustainable food systems. *The Lancet Commissions, 393*(10170), 447–492. https://doi.org/10.1016/S0140-6736(18)31788-4.

Willey, A. (2021). Fake meat: A queer commentary. In B. Subramaniam & C. Sushmita (Eds.), *Meat! A transnational analysis* (pp. 241–253). Duke University Press.

Willich, A. F. M. (1801). *Lectures on diet and regimen*. T. and J. Swords.

Willig, C. (2013). Discourses and discourse analysis. In U. Flick (Ed.), *The SAGE handbook of qualitative data analysis* (pp. 341–353). Sage.

Wilson, Bill. (2024, April 29). *Walmart, Loblaw resisting Canada's grocery code of conduct*. Supermarket News. https://www.supermarketnews.com/retail-financial/walmart-loblaw-still-resisting-canada-s-grocery-code-conduct

Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Fernwood Publishing.

Winson, A. (2013). *The industrial diet*. New York University Press.

Wittman, H., & James, D. (2022). Land governance for agroecology. *Elementa Science of the Anthropocene, 10*(1), 1–19. https://doi.org/10.1525/ elementa.2021.00100

Wodak, R. (2004). Critical discourse analysis. In C. Seale, G. Gobo, J. F. Gubrium, & D. Silverman (Eds.), *Qualitative research practice* (pp. 186–202). Sage.

Wolfe, C. (2013). *Before the law: Humans and other animals in a biopolitical frame*. University of Chicago Press.

Wolfe, C. (2019). Turning toward and away. In S. King, R. S. Carey, I. Macquarrie, V. N. Millious, E. M. Power, & C. Wolfe (Eds.). *Messy eating* (pp. 19–35). Fordham University Press.

Wood, E. M. (1998, July 1). The agrarian origins of capitalism. *Monthly Review, 50*(3). https://monthlyreview.org/1998/07/01/the-agrarian-origins-of-capitalism/

Woods, R. J. H. (2017). Nature and the refrigerating machine: The politics and production of cold in the nineteenth century. In J. Radin & E. Kowal (Eds.), *Cryopolitics: Frozen life in a melting world* (pp. 89–116). The MIT Press.

World Advertising Research Council. (2013). *President's Choice: Institute of Communication Agencies, Bronze, Canadian advertising success stories, 2013*. Institute of Communication Agencies.

World Commission on Environment and Development. (1987). *Report of the World Commission on Environment and Development: Our common future* (A/42/427). United Nations.

World Economic Forum. (2018). *Meat: The future—Time for a protein portfolio to meet tomorrow's demand*. https://www3.weforum.org/docs/White_Paper_Meat_the_Future_Time_Protein_PortfPort_Meet_Tomorrow_Demand_report_2018.pdf

World Health Organization. (2015). *Global action plan on antimicrobial resistance*. https://www.who.int/publications/i/item/9789241509763

World Health Organization. (2020). *Antimicrobial resistance: Key facts*. https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance

World Trade Organization. (1994). *Agreement on agriculture*. https://www.wto.org/english/docs_e/legal_e/14-ag_01_e.htm

Worobey, M., Levy, J. I., Serrano, L. M., Crits-Christoph, A., Pekar, J. E., Goldstein, S. A., Rasmussen, A. A. L., Kraemer, M. U. G., Newman, C., Koopmans, M. P. G., Suchard, M. A., Wertheim, J. O., Lemey, P., Robertson, D. L., Garry, R. F., Holmes, E. C., Rambaut, A., & Anderson, K. G. (2022). The Huanan Seafood Wholesale Market in Wuhan was the early epicenter of the COVID-19 pandemic. *Science, 377*, 951–959. https//doi.org/10.1126/science.abp8715

Wray, S. & Wilson, Ben. (Directors). (2020). *Guardians of the grasslands* [Film]. Story Brokers Media House.

Wrye, J. (2015). “Deep inside dogs know what they want”: Animality, affect, and killability in commercial pet foods. In P. J. Lopez & K. A. Gillespie (Eds.), *Economies of death: Economic logics of killable life and grievable death*. (pp. 95–114). Routledge.

Yates, J. (2017). *Of sheep, oranges, and yeast: A multispecies impression*. University of Minnesota Press.

Yates, J. J. (2003). An interview with Ulrich Beck on fear and risk society. *The Hedgehog Review, 5*(3). https://hedgehogreview.com/issues/fear-itself/articles/interview-with-ulrich-beck

Yates, L. (2021). Prefigurative politics and social movement strategy: The roles of prefiguration in the reproduction, mobilisation and coordination of movements. *Political Studies, 69*(4), 1033–1052. https://doi.org/10.1177/0032321720936046

Yealland, E. (Director). (2017). *President’s Choice – Loads of Canadiana Burger* [Video]. Vimeo. FH Studio. https://vimeo.com/253992512

Yong, E. (2022, April 28). We created the ‘pandemicene’. *The Atlantic*. https://www.theatlantic.com/science/archive/2022/04/how-climate-change-impacts-pandemics/629699/

You, W., & Henneberg, M. (2016). Meat consumption providing a surplus energy in modern diet contributes to obesity prevalence: An ecological analysis. *BMC Nutrition, 2*(22), 1–11. https://doi.org/10.1186/s40795-016-0063-9

Young, L. C. (2017). Innis’s infrastructures: Dirt, beavers, and documents in material media theory. *Cultural Poltics, 13*(2), 227–249. https://doi.org/10.1215/17432197-4129161

Yuval-Davis, N. (2015). Situated intersectionality and social inequality. *Raisons politiques*, *2*(58), 91–100. https://doi.org/10.3917/rai.058.0091

Yuval-Davis, N., Wemyss, G., & Cassidy, K. (2019). *Bordering*. Polity Press.

Zhao, S., Wang, L., Hu, W., & Zheng, Y. (2022). Meet the meatless: Demand for new generation plant-based meat alternatives. *Applied Economic Perspectives and Policy*, 1–18. https://doi.org/10.1002/aepp.13232

Zontek, K. (2007). *Buffalo nation: American Indian efforts to restore the bison*. University of Nebraska.

Zwart, H. (2000). A short history of food ethics. *Journal of Agricultural and Environmental Ethics, 12*, 113–126. https://doi.org/10.1023/A:1009530412679

Zwiebach, E. (2016, Jan. 4). *2016 Top 75: Consolidation transforms food retailing*. Supermarket News. https://www.supermarketnews.com/retail-financial/2016-top-75-consolidation-transforms-food-retailing

Appendix A: Beef Shopping List

Loblaws Top 5

(Aug. 23, 2016)

Meat

1. Lean Ground Beef, Club Pack
2. Inside Round Beef Steak
3. President's Choice Beef Stir-Fry Strips
4. Extra Lean Ground Beef
5. Canadian Prime Grade Strip Loin Grilling Steak

Deli

1. President's Choice Slow Cooked Angus Roast Beef (Thin Sliced)
2. President's Choice Angus Beef Frankfurters
3. No Name All-Beef Wieners
4. President's Choice All Beef Street Dog
5. President's Choice Roast Beef with Horseradish Baguette

Grocery

1. No Name Broth, Beef
2. No Name Consommé, Beef
3. President's Choice Organics Beef Broth
4. No Name Rich & Chunky Soup
5. No Name Club Pack Soup Cups, Beef

Frozen

1. President's Choice Macaroni & Beef
2. President's Choice Beef and Broccoli
3. President's Choice PC Slow Cooked Angus Beef
4. President's Choice Loads of Stuffed Peppers Beef & Pork
5. President's Choice Beef Pies, Microwave

Pet Food

1. No Name Beef Knee Bones (for dogs)
2. No Name Beef Dinner for Cats
3. President's Choice Extra Meaty Beef Dinner Pate (85 g)
4. President's Choice Extra Meaty Beef Dinner Pate (156 g)
5. PC Club Pack Extra Meaty Dog Food, Beef & Liver Dinner

Veal

1. Grain Fed Veal Cutlets
2. Ground Veal, Lean
3. Grain-Fed Stewing Veal, Diced Boneless
4. Veal Scaloppini
5. Grain Fed Veal Loin Chops

No Frills Top 5

(Aug. 23, 2016)

Meat

1. PC Free From Beef Roast Inside Round Oven
2. PC Fire-Roasted Sirloin Beef Strips
3. PC Free From Angus Beef Striploin Grilling Steak
4. PC Free From Angus Beef Round Sandwich Grilling Steak
5. PC Free From Angus Beef Sirloin Steak

Deli

1. PC Teriyaki Roast Beef
2. PC Street Dog All Beef Frankfurters
3. PC Original Cocktail Smokies
4. PC Ball Park All Beef Frankfurters
5. PC Slow Cooked Angus Roast Beef

Grocery

1. PC Organics Junior Vegetable Beef Spaghetti
2. PC Organics Strained Vegetables and Beef
3. PC Blue Menu Beef Broth
4. PC Blue Menu Chili-Style Beans & Beef
5. PC Pot Roast Cooking Sauce

Frozen

1. PC Slow-Smoked Brisket Beef Burgers
2. PC Lamb & Beef Kofta Mini Skewers
3. PC Sauté & Serve Beef Pot Roast
4. PC Fully Cooked Beef Stroganoff
5. PC Angus Sliders

Pet Food

1. PC Extra Meaty Dog Food—Beef, Bacon & Cheese Dinner Cuts In Gravy
2. PC Extra Meaty Dog Food—Beef Dinner with Top Sirloin Flavour in Savory Juices
3. PC Nutrition First Oral Health Angus Beef & Oatmeal Premium Adult Dry Dog Food
4. PC Extra Meaty Dog Food Variety Pack—Beef Dinner with Filet Mignon Flavour, Beef Dinner with Top Sirloin Flavour
5. PC Extra Meaty Beef & Brown Rice Adult Dry Dog Food

Veal

1. PC Tourtiere
2. PC Extra Meaty Dog Food—Chicken & Veal Dinner Cuts in Gravy
3. PC Nutrition First Veal, Sweet Potato, Broccoli & Avocado Stew Dog Food
4. PC Nutrition First Veal, Sweet Potato, Broccoli & Avocado Stew Dog Food
5. No further veal items listed

Appendix B: Meat Department Observation Guide

Store: _____

Beef Varieties

	Fresh Counter	Packaged
Grinds		
Quick cook, fast fry & stir fry		
Offal		
Roasts		
Steaks		
Stewing beef		
Value added		
Veal		

Notes:

Production Conditions

Quality pictured/mentioned	On package	In signage	Notes
Butchers			
Cooking instructions			
Country of origin			
Environment/sustainability indicators			
Ethnically specific info			
Farmers/pastoral scenes			
Feed			
Fresh			
Gender specific info			

Health and safety info			
Hormone/antibiotic free			
Humane treatment			
Local			
PC branding			
Organic			
Other branding			
Prime/AAA			

Animality

	On package	**In signage**	**Notes**
Cattle pictured as logos/outlines			
Cattle pictured as cartoons			
Cattle pictured as realistic drawings			
Cattle pictured as photos			
Cattle mentioned by animal name (e.g. bull, calf, cattle, cow, steer, etc.)			
Body parts labeled with human anatomical name (e.g. heart, leg, tongue, etc.)			
Body parts physically recognizable			

Comparisons to Other Meats

	Smaller than beef + veal	**Same as beef + veal**	**Bigger than beef + veal**
Pork			
Poultry			
Seafood			
Other (e.g. bison, rabbit, sheep)			

Notes:

Appendix C: Store Manager/Owner Interview Guide

Sourcing (5 min)
- Where do beef products come from?
    - How far does beef travel to get to your store?
    - How are beef suppliers selected?

Stocking (3 min)
- How do you make decisions about the beef products that you sell at your store?
    - How much say do you have in stocking decisions and how much is up to the larger company?

Selling (5 min)
- What are the most popular beef cuts/products at your store?
- Are there beef cuts/products that have not been popular at your store, or that you choose not to sell because there isn't a demand for them at your store?
- Is there a certain demographic that your store appeals to/targets?

Presentation (7 min)
- In what form does beef arrive at your store?
    - Are there differences between the meat for the fresh meat counter versus the general meat section?
- What work is done in the store to prepare beef for display?
    - What role to butchers play in communicating to customers about beef products?
        - Have the responsibilities of butchers changed since you started working in the grocery business?
- Let's talk about the decisions that you make about presenting and promoting beef in your store.
    - What types of products do you group together/keep separate?
    - What kinds of signs do you post around your beef products?
        - What health and safety information are you required to post for shoppers?
    - What kind of relationship do you have or are you aware of Loblaw having with organizations/programs that promote Canadian beef, such as Canada Beef and Ontario Corn Fed Beef?
    - What types of promotional offers do you have around beef?
        - How has your store been affected by increased beef prices and what have you done to address any challenges that these increases have presented?
            - Have these increased prices affected the sales of other proteins (e.g., chicken, pork, fish)?

Waste (3 min)

- How does your store deal with waste?
    - Do you donate any beef products to charity organizations?
        - Are there any health and safety regulations that prevent this practice?
    - How do you dispose of waste that cannot be donated?

Consumer Feedback (5 min)

- What kinds of questions or issues have shoppers raised about beef sources or beef options at your store?
    - Have you had any shoppers raise questions about sustainability or animal welfare in relation to the beef products at your store?
    - What have you done to address these questions/concerns?
        - Do you know about the work that Loblaw has done in these areas (e.g., their involvement with the Roundtable for Sustainable Beef, the National Farm Animal Care Council, or the development of the PC Free From line)?
    - Is today's shopper different from consumers in the past (e.g., when you first started working in the grocery business)?

Future Directions (2 min)

- How do you see the role of beef in Canadian meals changing in the future?
- What do you imagine will be the major challenges or opportunities for promoting beef in your store in the future?

Appendix D: Retired Executive Interview Guide

Retailers

1. What work do you do now that you have retired from Loblaw, and how you see that building from the work that you have done with the food retail industry in the past?
2. The Canadian Centre for Food Integrity has reported that a large percentage of Canadians are unsure of whether or not the food system is headed in the right direction. What do you think are some of the reasons for this uncertainty?
    - What can retailers do to build trust?
    - What responsibilities do retailers hold in connecting shoppers with the sources of the food that they eat?

Consumers

3. How has the PC brand developed over the years (PC GREEN, PC Organics, Free From, etc.)? What were you hearing from shoppers that prompted the development of these programs?
    - Do retailers' control brands occupy a unique position in responding to consumer needs as opposed to national food brands?
    - What are the biggest differences between today's shoppers and the shoppers who you encountered when you first started working at Loblaw?
4. In the research that I've been doing, I've noticed that sustainable protein seems to be an issue that is gaining traction.
    - What role do retailers play in making sure that proteins are sustainable?
    - In terms of developing sustainable certification, why did Loblaw start with seafood? What were some of the challenges and opportunities of getting that program off the ground?
    - How do retailers navigate the need to maintain sales with recommendations from organizations, like the World Health Organization and Canada's new Food Guide, about reducing red meat consumption?
5. Alongside this increased awareness about sustainability, have you noticed any changes in consumers' attitudes about animal welfare?
    - Have you seen an increase in the retailing of vegetarian products? How were vegetarian products received when they were first introduced (e.g., Yves)?

Marketers

6. How have marketers responded to today's food consumers?
    - Are there certain strategies that have been more or less successful in attracting consumers to meat products? Have these strategies changed?

Future Directions

7. What do you predict will be the key issues for food retailers in the future?
8. How do you see the role of beef in Canadian meals changing in the future?
    - Do you think that there will be similar issues for other animal proteins, and/or is beef unique?

Appendix E: Executive Interview Questions

1. The overall goal that the Canadian Roundtable for Sustainable Beef (CRSB) identifies as part of its National Beef Sustainability Strategy is to "build a stronger and more united Canadian beef sustainability community." What roles does Loblaw have on the CRSB, and what part do you see food retailers playing in working toward this key goal?

2. What relationships does Loblaw have with other organizations and programs that promote Canadian beef such as Canada Beef and Ontario Corn Fed Beef? How have these partnerships informed the ways in which beef is sourced and presented at Loblaw's retail locations?

3. How are beef and beef-related programs (e.g., Ontario Corn Fed Beef, DNA TraceBack, PC Free From, the CRSB) promoted in retail locations and in other materials?

4. What responsibilities do food retailers like Loblaw hold in connecting shoppers to the sources of the beef products that they eat? How is information about sourcing and sustainability communicated to the public?

5. What kind of consumer experience does Loblaw encourage surrounding shopping for beef in retail locations? How do these experiences differ between banners and/or between neighbourhoods?

6. What changes have you noticed between today's grocery shoppers and the grocery shoppers of the past two decades?

7. What do you predict will be the key issues surrounding beef in the future? Do you think that there will be similar issues for other animal proteins, and/or is beef unique?

Appendix F: Focus Group Screener

The following text was included in a Google Forms questionnaire that was sent to all prospective focus group participants:

Preamble

Thank you for responding to the call for participants for an academic study on beef in Canadian supermarkets. This study is being conducted by a graduate student at York University as part of a doctoral research project.

As a grocery shopper and Toronto resident, we are interested in hearing about your experiences with shopping for beef in Canadian supermarkets. We will be inviting qualified individuals to participate in a discussion group on one of the afternoons/evenings of July 25, July 27, July 31, or August 2. The groups will run approximately 90 minutes and will be held at branches of the Toronto Public Library.

As a token of our appreciation for your participation, you will receive a $20 gift card for groceries. Light refreshments will be served during the groups.

We ask that you please complete the following questionnaire to determine the session that would be most appropriate for you. These questions ensure that a balanced mix of participants are selected for the study. The questionnaire will take approximately 3 to 5 minutes to complete, and your participation in this questionnaire will not be compensated.

If you are selected to participate, you will be contacted via email and/or phone to confirm your attendance.

Please click the button below to continue to the questionnaire.

Availability

1. Which date(s) and time(s) are you available to participate in a 90-minute discussion group at the Toronto Public Library on shopping for beef?*[142]
(check all that apply)

☐ Tuesday, July 25, 6:30pm to 8:00pm at Bloor/Gladstone Library

☐ Thursday, July 27, 6:30pm to 8:00pm at Northern District Library

☐ Monday, July 31, 6:30pm to 8:00pm at Toronto Reference Library

☐ Wednesday, August 2, 1:30pm to 3:00pm at Riverdale Library

Age

2. Which of the following age groups do you belong to?*
(choose one)

[142] Asterisks indicate required questions.

☐ Younger than 18 years old[143]
☐ 18 to 24 years old
☐ 25 to 34 years old
☐ 35 to 44 years old
☐ 45 to 54 years old
☐ 55 to 64 years old
☐ 65 years old and over

Demographics

Since Canada has a diverse population, it is important for us to learn from a wide range of Canadians.

3. What is your race and/or ethnicity?
(fill in the blank)

_____

4. What is your gender?
(fill in the blank)

_____

Household Characteristics

It is also important for us to learn from individuals from a variety of households.

5. What are the characteristics of your household?
(choose one)
☐ Single with no dependents
☐ Married/common-law with no dependents
☐ Single with dependents
☐ Married/common-law with dependents
☐ Other

6. What was the total income for your household during the past 12 months before taxes?
(choose one)
☐ Less than $25,000
☐ $25,000 to $34,999
☐ $35,000 to $49,999
☐ $50,000 to $74,999
☐ $75,000 to $99,000
☐ $100,000 to $149,000

[143] If this option was selected, individuals were taken to a screen that indicated they were not eligible to participate in the study.

☐ $150,000 or more

7. What is your role in the grocery shopping in your household?*
(choose one)
☐ I am the primary grocery shopper.
☐ I share in the grocery shopping equally with someone else.
☐ I buy groceries occasionally, but someone else buys them more often.
☐ I do not shop for groceries.

8. How many focus groups have you attended in the past?*
(choose one)
☐ None
☐ 1 to 2
☐ 3 to 5
☐ More than 5

Shopping Habits

Now we would like to know a bit more about your shopping routines.

9. How often do you purchase beef products at a supermarket?*
(choose one)
☐ Once a week or more often
☐ 2 to 3 times per month
☐ Once per month
☐ Less often than once per month
☐ Never

10. What supermarket do you use to make most of your beef purchases?*
(choose one)
☐ Loblaws
☐ No Frills
☐ Sobeys
☐ FreshCo
☐ Metro
☐ Food Basics
☐ Other (Please specify): _____

11. In what supermarkets have you shopped during the past 2 months?*
(check all that apply)
☐ Loblaws
☐ No Frills
☐ Sobeys

☐ FreshCo
☐ Metro
☐ Food Basics
☐ Other (Please specify): _____

12. In what part(s) of Toronto do you usually shop for groceries?*
(check all that apply)
☐ East End
☐ East York
☐ Etobicoke
☐ Central
☐ North End
☐ North York
☐ Scarborough
☐ West End
☐ York
☐ I don't shop for groceries in Toronto.
☐ Other (Please specify): _____

13. In what part of Toronto do you live?*
(check all that apply)
☐ East End
☐ East York
☐ Etobicoke
☐ Central
☐ North End
☐ North York
☐ Scarborough
☐ West End
☐ York
☐ I don't shop for groceries in Toronto.
☐ Other (Please specify): _____

Contact Information

Thank you again for your interest. Please provide your name, phone number, and email address, so that we may contact you to participate. While general demographic information may be included in the study, your name and other personally identifiable information will not be revealed in reports or publications associated with the study. Please note that you may or may not be contacted depending on your eligibility and available spaces in the study.

Name*: _____

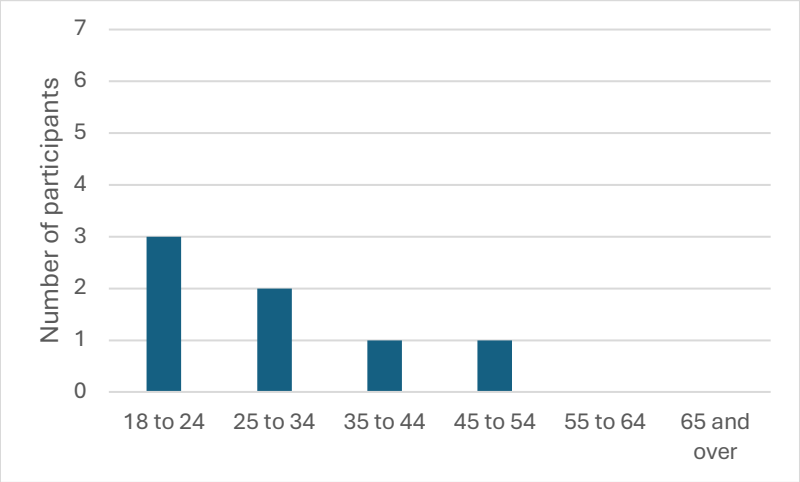
Phone number*: _____
Email address*: _____

Appendix G: Focus Group Demographics

Group 1: Loblaws & No Frills (July 25, 2017)

Table G1

Ages of focus group 1 participants



Race/Ethnicity (self-described)

- African Canadian
- Chinese
- Black
- Caucasian
- Canadian
- African Canadian
- South Asian

Gender (self-described)

- Female
- Male
- Male
- Male
- Female
- Female
- Female

Table G2

Household characteristics of focus group 1 participants

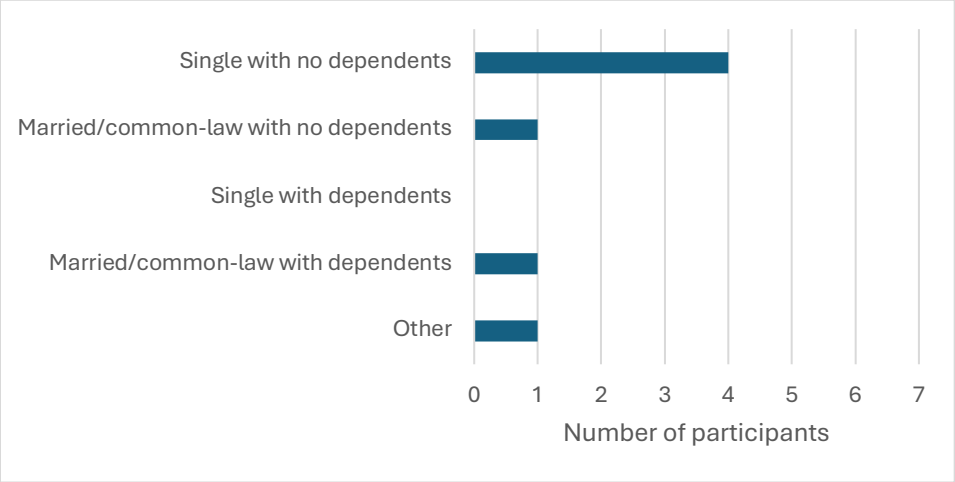
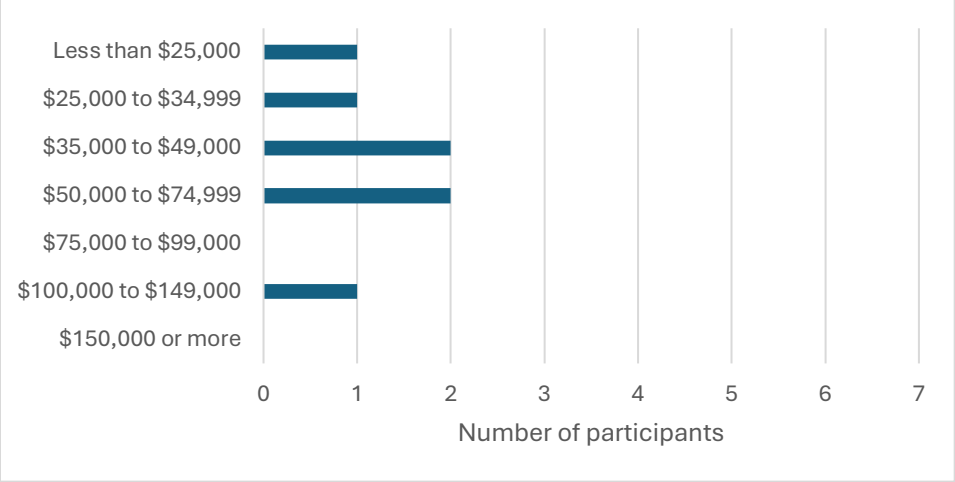


Table G3

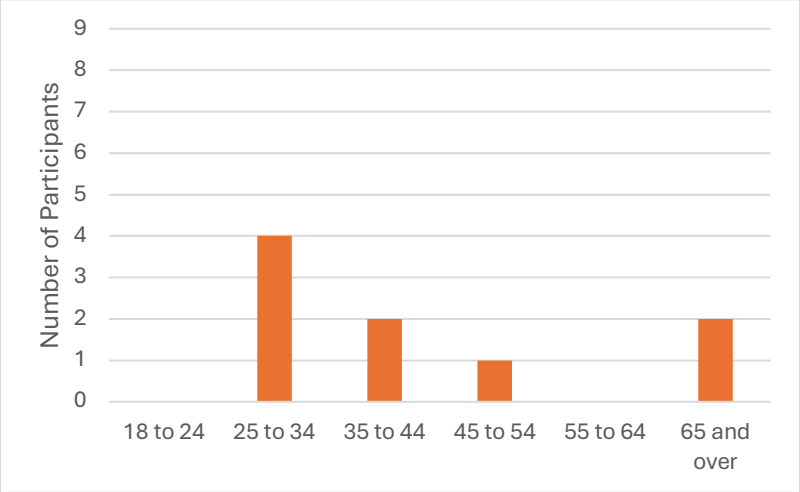
Household incomes of focus group 1 participants



Group 2: Loblaws (July 27, 2017)

Table G4

Ages of focus group 2 participants



Race/Ethnicity (self-described)

- East Asian
- Caucasian
- Caucasian/Jewish
- Caucasian
- Canadian
- Portuguese
- Canadian
- Asian
- Caucasian

Gender (self-described)

- M
- Male
- Female
- Male
- Male
- Female
- Female
- Female
- Male

Table G5

Household characteristics of focus group 2 participants

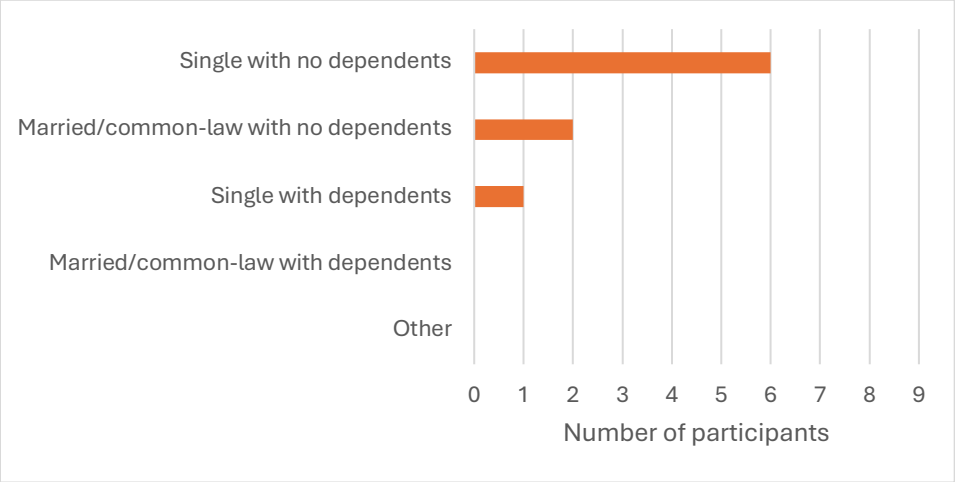
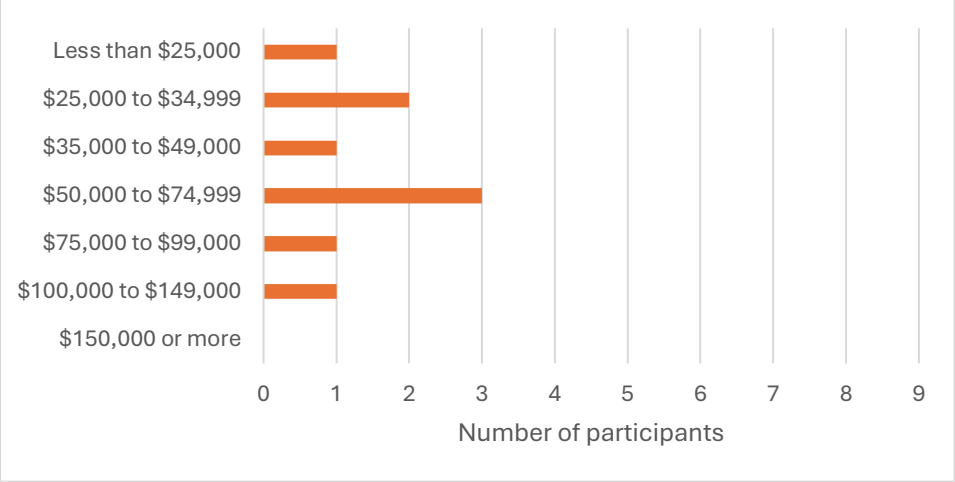


Table G6

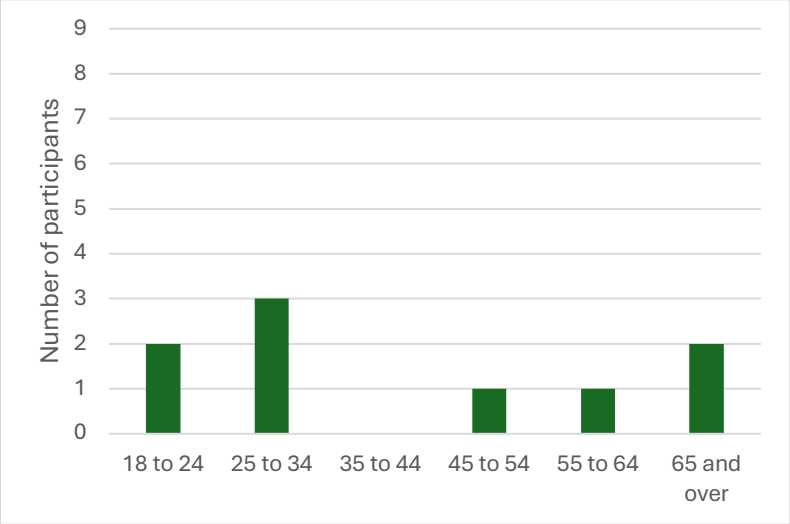
Household incomes of focus group 2 participants



Group 3: Loblaws & No Frills (July 31, 2017)

Table G7

Ages of focus group 3 participants



Race/Ethnicity (self-described)

- South East Asian
- Caribbean Canadian
- White
- Caribbean
- Canadian-Italian
- Chinese
- Jewish
- White
- Maltese

Gender (self-described)

- Female
- Female
- N/A
- Male
- Female
- Male
- Male
- Female
- Male

Table G8

Household characteristics of focus group 3 participants

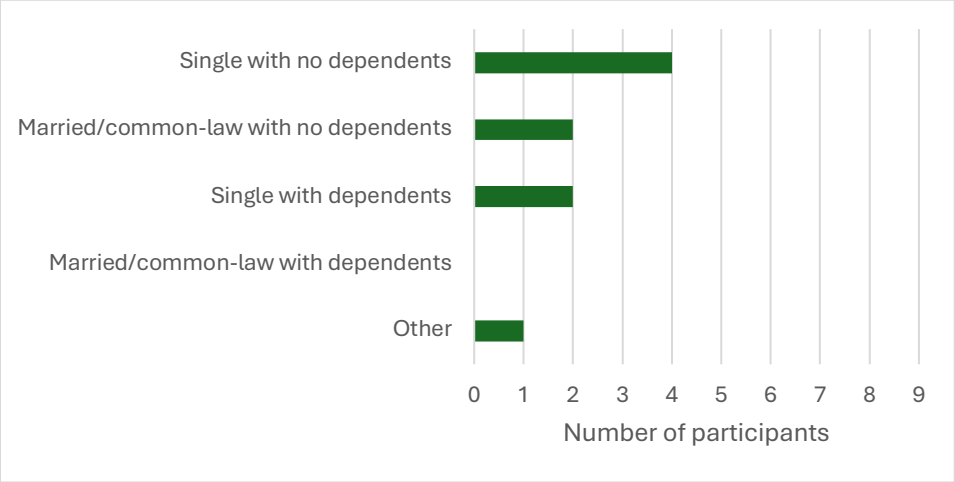
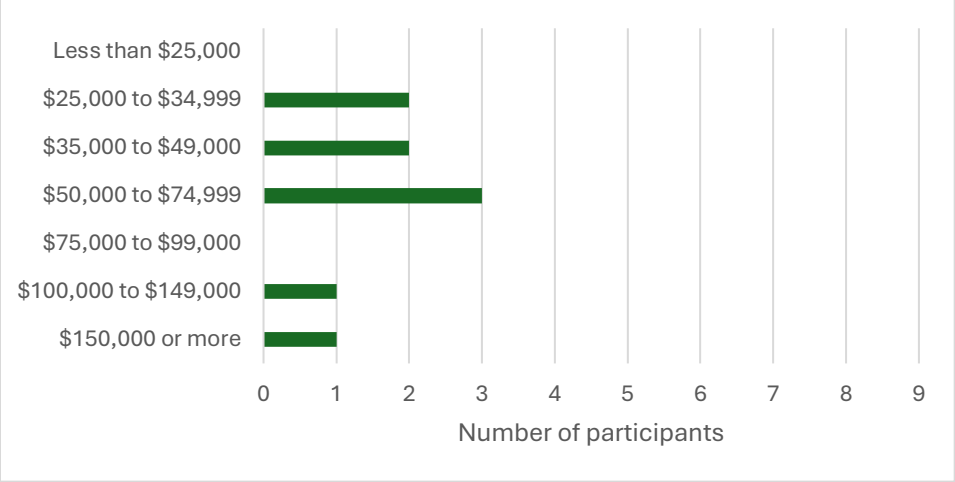


Table G9

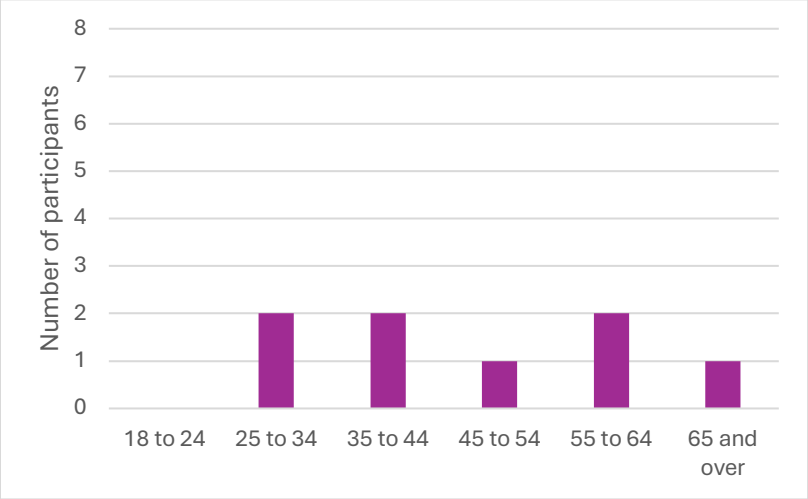
Household incomes of focus group 3 participants



Group 4: No Frills (August 2, 2017)

Table G10

Ages of focus group 4 participants



Race/Ethnicity (self-described)

- White
- WASP/Irish
- South Asian
- Chinese
- Caucasian
- N/A
- Korean
- Native Canadian

Gender (self-described)

- Female
- Male
- Female
- F
- Male
- Female
- Male
- Male

Table G11

Household characteristics of focus group 4 participants

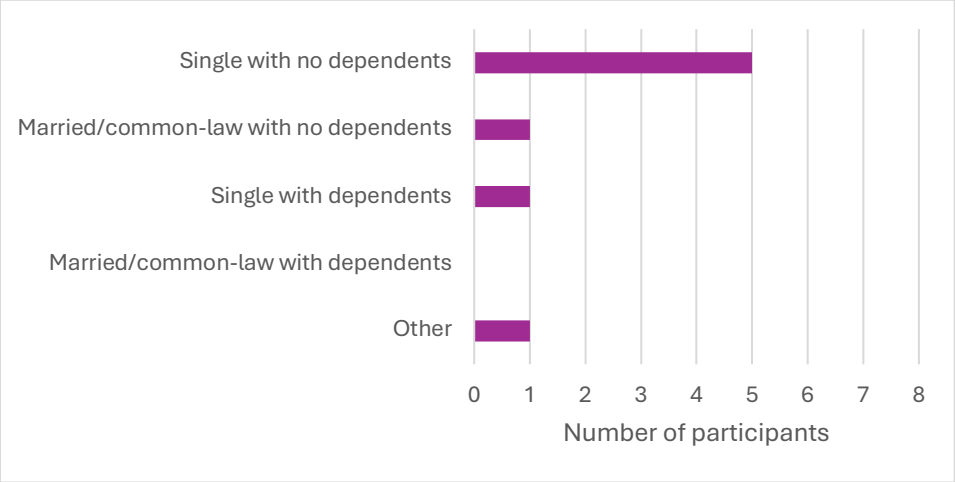
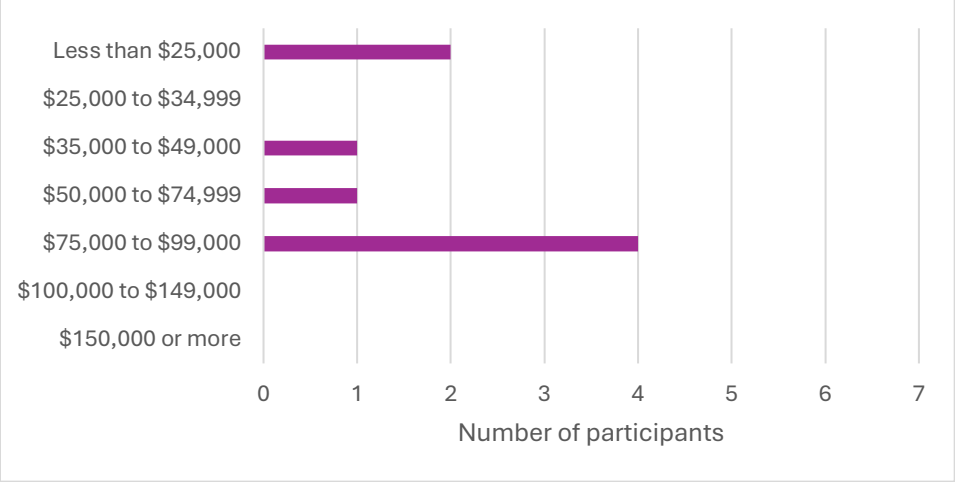


Table G12

Household incomes of focus group 4 participants



Appendix H: Focus Group Guide

I. Introduction and Instructions (15 MIN)

II. Focus group discussion

Overall research questions (for me): Do people feel connected and/or disconnected from the sources of their beef (e.g., animals/farms, etc.) when they shop in supermarkets? Does this connection/disconnection influence their shopping decisions?

Introduction/Thoughts/feelings about beef as a food (10 MIN)

Key research question (for me): What associations do people have with beef?

- We're going to go do some introductions by going around the room and saying your first name and your favourite beef dish (it can be a family recipe, a dish from a restaurant, your own specialty).
- If you were invited to a potluck and you had the chance to bring a beef dish, what dish would you bring (it can be the same or different as your favourite dish)?
- If you found out that there was going to be someone at the potluck who didn't eat beef, how might you modify your dish for them? Or would you?
    - What do you think that this person would be missing out on by not eating beef?

Thoughts/feelings about shopping for beef (30 MIN)

Key research question (for me): What store and product characteristics do people most value when they are shopping for beef?

- Let's imagine that you've made a trip to Loblaws or No Frills to get the ingredients for the original beef dish that you are bringing to the potluck. When you are standing in front of the meat case, how will you decide which piece of beef to buy?
    - How can you tell that it is fresh?
    - Is there a certain brand you are looking for?
        - Would it be better, the same, or worse if the package included the President's Choice brand?
    - Have you ever asked staff for help? Can you recall that time for us? What did you ask them?
        - What kinds of information should staff be able to answer?
    - What else do you want to know about the beef that you buy?
        - PROMPT: Do you look for local/organic/grass-fed/sustainable/humanely raised beef?
        - What do you consider to be local/sustainable?
    - Do you want to know about the farm/area where the beef comes from? What would you like to know about it?
    - Do you feel connected to the places where your food comes from when you shop at Loblaws or No Frills?

- What other places do you go to when shopping for beef? (PROMPT: Butcher shops)
    - What are the differences between a butcher shop and a grocery store like Loblaws/No Frills?
- If Loblaws/No Frills was to take out a magazine ad to promote their beef, what word or phrase would you like to see at the top of the page to describe the beef? (LIST and RANK with a vote)
    - Low price, fresh, easy-to-cook, healthy, brand name (e.g., President's Choice)?
    - INTRODUCE sourcing (e.g., Ontario Corn Fed Beef, DNA Traceback, Canadian Beef)?
    - INTRODUCE organic/grass-fed/sustainable/humanely raised

Thoughts/feelings about the beef industry (20 MIN)

Key research question (for me): What do people know about the beef industry and how do they feel about it?

- If aliens were invited to your potluck, how would you explain to them where beef comes from?
    - If someone brought a veal dish, how would you explain to the aliens where that came from?
    - Would you tell them anything different if the aliens brought their kids?
    - How would you explain the differences between conventional beef and organic beef? (LIST with categories for conventional and organic)
    - If they asked you where they could go to learn more about beef, what would you tell them?
        - What information sources are most/least credible?
    - What other meats would you recommend that the aliens try during their visit to Earth?

Summaries/additional thoughts (10 MIN)

Key research question (for me): What are the takeaways from the discussion?

- If you were opening a store that sold beef and you were invited to sit in on our discussion today, what is the most important thing that you would have learned?

III. Conclusions (5 MIN)

Appendix I: Coding Notes

Analytic Objectives

Problem:
Meat (especially beef) consumption has negative repercussions for the environment, animals, workers, and human health.

Context:
The supermarket is a power player in the contemporary globalized food system that mediates between participants in the cattle-beef infrastructure.
Consider how the supermarket communicates as a distributor, venue, and extrasensory medium. How does the supermarket shape beef consumption as a social practice (which exists in relation to the political ecological context of the globalized food system and its inequities, and the "structure of feeling" of risk)?

Overall Objective:
To determine to what extent Canadian supermarkets promote ethical beef consumption.

Objectives of Individual Methods:
(Pay attention to the in/consistencies in the messaging between these data sources).

Archives
To determine to what extent Canadian supermarkets' promotional discourses promote ethical beef consumption.
To build a history of how this promotion has changed over time.

Observations
To determine to what extent the spatial design and affective experience of Canadian supermarkets promote ethical beef consumption.

Interviews
To determine to what extent Canadian supermarkets' stated corporate objectives promote ethical beef consumption.

Focus Groups
To determine to what extent Canadian supermarkets' messages are received as promotions of ethical beef consumption.

Structural Topics:

Environment

To determine to what extent Canadian supermarkets promote environmentally sustainable beef consumption.

- Definitions: How does the supermarket define sustainability? Organic? Green?
- Representations: How does the supermarket represent the environment? Climate change/other environmental problems?
- Relationships: How does the supermarket characterize/shape beef's relationship to the environment? Where/how in the supermarket does the environment appear?

Animals

To determine to what extent Canadian supermarkets promote humane beef consumption.

- Definitions: How does the supermarket define humane?
- Representations: How does the supermarket represent cattle? Slaughter?
- Relationships: How does the supermarket characterize/shape the relationship between people and cattle? Beef and cattle? Beef and death? Where/how in the supermarket do cattle appear?

Workers

To determine to what extent Canadian supermarkets promote fair beef consumption.

- Definitions: How does the supermarket define fair?
- Representations: How does the supermarket represent beef farmers/ranchers? Butchers? Retail workers?
- Relationships: How does the supermarket characterize the relationship between beef, cows, and workers? Shoppers and workers? Where/how in the supermarket do workers appear?

Shoppers/eaters

To determine to what extent Canadian supermarkets promote healthy/accessible beef consumption.

- Definitions: How does the supermarket define healthy? Hormone/antibiotic free? Accessible? Quality?
- Representations: How does the supermarket represent beef shoppers/eaters? The experience of beef consumption?
- Relationships: How does the supermarket characterize the relationship between beef shoppers and other eaters? Shoppers/eaters and beef? Where/how in the supermarket do interactions between beef shoppers and other eaters occur? Interactions between shoppers and beef?

Coding Notes: *Insider's Report* Archives

Animals

Categorical

Food
- Food animals are animals whose flesh and/or byproducts humans eat.
- Use this code when food animals are referenced and/or depicted.

Pets
- Pets are animals who have a companionship relationship with humans.
- Use this code when pets are referenced and/or depicted.

Pests
- Pests are animals who disturb humans and/or human activities.
- Use this code when pests are referenced and/or depicted.

Wildlife
- Wildlife are undomesticated animals who live independently of direct human intervention.
- Use this code when wildlife is referenced and/or depicted.

Descriptive

Humorous
- Images of and textual references to animals are used to add humour (e.g., puns, personification).
- Use this code when animals are used to add humour.

Sympathetic
- Images of and textual references to animals are used to elicit sympathy for causes, people, or animals themselves.
- Use this code when animals are used to elicit sympathy.

Tasty
- Images of and textual references of animals are used to indicate the quality and taste of a product.
- Use this code when animals are used to signify tastiness.

Workers

Categorical

Processors
- Processors are professionals who work to slaughter and break down animals; includes slaughterhouse workers, butchers, and meat cutters.
- Use this code when processors are referenced and/or depicted.

Cooks
- Cooks are professionals who work to prepare food for final consumption; includes all kitchen workers.
- Use this code when cooks are referenced and/or depicted.

Farmers
- Farmers are professionals who grow/produce food; includes ranchers, farmers, farmworkers.
- Use this code when farmers are referenced and/or depicted.

Government

- Government refers to the governing body of a population; includes government actors, policies, and regulations.
- Use this code when government actors, policies, and regulations are referenced and/or depicted.

Grocers

- Grocers refers to distributors who sell food; includes grocery managers, marketers (such as the *Insider's Report* team), store workers.
- Use this code when grocers are referenced and/or depicted.

Nutritionists

- Nutritionists refers to professionals who provide advice and/or do research on the health of food.
- Use this code when nutritionists are referenced and/or depicted.

Descriptive

Caretakers

- Images of and/or references to workers characterize them as caretakers (of the land, animals, other people, etc.).
- Use this code when workers are depicted/referenced as caretakers.

Experts

- Images of and/or references to workers characterize them as experts about food (e.g., nutrition, culinary skills, scientific management of crops, etc.).
- Use this code when workers are depicted/referenced as experts.

Innovators

- Images of and/or references to workers characterize them as innovators of food (e.g., new recipes, new products, new ways of working with land/animals, etc.).
- Use this code when workers are depicted/referenced as innovators.

Environment

Categorical

Ecological problems

- The environment is mentioned in relation to a set of ecological problems (e.g., climate change, pollution).
- Use this code when ecological problems are referenced/depicted.

Ecological solutions

- The environment is mentioned in relation to a set of ecological solutions (e.g., buying eco-friendly products, recycling).
- Use this code when ecological solutions are referenced/depicted.

Scenery

- The environment appears as scenery and/or specific geographic locations.
- Use this code when scenery/specific geographic locations are referenced/depicted.

Descriptive

Stable

- The environment is a stable, unchanging landscape that exists separate from human intervention.
- Use this code when the environment is referenced/depicted as stable.

Threatened
- The environment exists as something that is in danger (because of human/industry intervention).
- Use this code when the environment is referenced/depicted as threatened.

Threatening
- Environmental problems/actors threaten human health/wellbeing/the good life.
- Use this code when the environment is referenced/depicted as threatening.

Eaters

Categorical

Households
- Households are individuals or groups of people living/eating together; includes individual shoppers, families, partners.
- Use this code when households are referenced/depicted.

Foodies
- Foodies are individuals or groups of people who are invested in learning/showing off culinary skills/knowledge.
- Use this code when foodies are referenced/depicted.

Descriptive

Entertainers
- Eaters buy food as a part of entertaining guests and/or themselves.
- Use this code when eaters appear as entertainers; use this code when the entertainment potential of food is highlighted.

Nurturers
- Eaters buy food as a part of nurturing others and/or themselves.
- Use this code when eaters appear as nurturers; use this code when the nurturing potential of food is highlighted.

Thrivers
- Eaters buy food as a part of maintaining a healthy lifestyle for themselves and/or others.
- Use this code when eaters appear as health-conscious; use this code when the healthy values of food are highlighted.

Coding Notes: Observations

Animals

Bodies

- Animals appear in/on packaging and on signage as live/dead bodies and fragmented body parts.
- Use this code when animal bodies/body parts are visually recognizable and/or mentioned in text.

Cartoons
- Animals appear on packaging and in signage as anthropomorphized cartoons; they stand in for human spokespeople to highlight the quality of the product, and/or add humour.
- Use this code when animals appear as anthropomorphized cartoons.

Families
- Animals, especially pets, appear on packaging, in signage, and/or in person as members of human families; products are specifically designed for pets.
- Use this code when animals appear as family members.

Indexes
- Animals appear on packaging and in signage as indexes to signify the contents of packaging, the use of products, and the spatial organization of stores.
- Use this code when animals appear as indexes.

Scenery
- Animals (wildlife, farm animals) appear on packaging and in signage as part of pastoral and/or exotic scenery; these scenes add a sense of place (or sometimes placelessness) to products/the shopping experience.
- Use this code when animals appear as scenery.

Eaters

Budget
- Budget-conscious eaters base shopping decisions on monetary considerations; store experiences/products such as sales and loyalty programs appeal to budget conscious consumers.
- Use this code when budget-conscious eaters are considered/referenced.

Caregivers
- Caregivers shop for themselves and others (including children, partners, friends) for daily sustenance and for special occasions/hosting; store experiences/products such as kids' foods, family/community events, and bulk foods appeal to caregivers.
- Use this code when caregivers are considered/referenced.

Discerning
- Also called foodies, discerning eaters bring a variety of criteria to their shopping decisions including quality and production methods; store experiences/products such as DIY cooking and gourmet foods appeal to discerning consumers.
- Use this code when discerning eaters are considered/referenced.

Diverse
- Multicultural/multiethnic eaters come from differing culinary traditions and look for ingredients/shopping experiences that match these traditions; store experiences/products that include global cuisine appeal to diverse consumers. These products/experiences are also imitated/highlighted to appeal to white eaters.
- Use this code when diverse eaters are considered/referenced.

Health-conscious
- Health-conscious eaters base shopping decisions on nutritional value of foods; store experiences/products such as low calorie/fortified foods, superfoods, and nutritional guides appeal to health-conscious eaters.
- Use this code when health-conscious eaters are considered/referenced.

Restricted
- Restricted eaters avoid certain foods for ethical, medical, and/or religious reasons; store experiences/products such as halal, kosher, gluten-free, sugar-free, and vegetarian appeal to restricted eaters.
- Use this code when restricted eaters are considered/referenced.

Time-starved
- Time-starved eaters have full schedules and little time to prepare food; store experiences/products such as prepared meals, frozen meals, and other meal solutions appeal to time-starved eaters.
- Use this code when time-starved eaters are considered/referenced.

Environment

Eco actions
- Eco actions are steps that can be taken by eaters or have been taken by store to mitigate environmental impact; eco actions include activities associated with reducing, reusing, and recycling.
- Use this code when eco actions are indicated on packaging/in signage.

Eco certifications
- Eco certifications are labels/guidelines that indicate the environmental standards of products; eco certifications include organic and certified sustainable.
- Use this code when eco certifications are indicated on packaging/in signage.

Eco products
- Eco products are products that have (or appear to have) low environmental impact.
- Use this code when eco products appear in stores.

Workers

Caretakers
- Caretakers are workers who care for animals, eaters, and/or the environment through their food practices; caretakers include farmers acting as stewards and grocers acting as community participants.
- Use this code when caretakers are referenced/depicted and/or appear in store.

Entertainers
- Entertainers are workers who provide entertainment experiences for consumers; entertainment experiences include cooking classes, holiday events, and product tastings.
- Use this code when entertainers are referenced/depicted and/or appear in store.

Experts
- Experts are workers who develop guidelines/products and provide advice to consumers; experts include government officials, nutritionists, and food preparation authorities (e.g., chefs, butchers).

- Use this code when experts are referenced/depicted and/or appear in store.

Coding Notes: Interviews

Animals

Agricultural units
- Animals are discussed as agricultural units that need to be managed, especially in relation to animal welfare.
- Use this code when animals appear as agricultural units.

Affective centres
- Animals are discussed as sources of human affect, especially in relation to activists.
- Use this code when animals appear as affective centres.

Bodies
- Animals are discussed as body parts/pieces, especially in relation to cuts of meat.
- Use this code when animals appear as bodies.

Eaters

Health conscious
- Eaters pay attention to the nutritional aspects/health and safety of food.
- Use this code when eaters are discussed as health conscious.

Informed
- Eaters are aware/strive to be aware of food production (i.e., where their food comes from) and food preparation (i.e., food skills).
- Use this code when eaters are discussed as informed.

Particular
- Eaters have particular needs depending on their socioeconomic status, ethnicity, religious/ethical beliefs, etc. (e.g., budget, halal, kosher, vegetarian, etc.).
- Use this code when eaters are discussed as particular.

Environment

Economic
- The environment/sustainability is characterized as an issue of economic viability.
- Use this code when economic factors are prioritized in environmental discussions.

Physical
- The environment/sustainability is characterized as a set of physical limitations that need to be managed/overcome.
- Use this code when physical features of the environment are highlighted.

Social
- The environment/sustainability is characterized as an issue of maintaining human practices/relationships.
- Use this code when social issues are prioritized in environmental discussions.

Workers

Collaborative
- Various actors along the supply chain work together to produce/distribute/sell beef.
- Use this code when collaborative relationships between workers are highlighted.

Honest
- Workers/organizations are portrayed as honest, transparent actors who do the "right thing."
- Use this code when workers are discussed as honest.

Innovative
- Workers/organizations are portrayed as leaders/innovators who come up with ideas/solutions for the future of food.
- Use this code when workers are portrayed as innovative.

Coding Notes: Focus Groups

Animals

Humane
- Beef consumption translates into good lives for animals.
- Use this code when humane animal practices are mentioned.

Inhumane
- Beef consumption translates into bad lives for animals.
- Use this code when inhumane animal practices are mentioned.

Insignificant
- Beef consumption is unrelated to animals' lives and/or animals' lives are insignificant to the practice of beef consumption.
- Use this code when animals are mentioned but are disconnected from beef practices.

Eaters

Accessible/comfortable
- Beef shopping/eating is a comforting/easy experience.
- Use this code when beef consumption is experienced as convenient, healthy, positive.

Inaccessible/uncomfortable
- Beef shopping/eating is an inaccessible/uncomfortable experience.
- Use this code when beef consumption is experienced as inconvenient, unhealthy, negative.

Choice/preference
- How one experiences beef consumption is up to one's own choices and personal preferences.
- Use this code when beef consumption is experienced as neutral.

Environment

Environmentally friendly
- Beef consumption results in environmentally friendly practices.

- Use this code when beef consumption is associated with environmentally friendly actions.

Environmentally unfriendly

- Beef consumption results in environmentally destructive practices.
- Use this code when beef consumption is associated with environmentally destructive actions.

Unrelated

- Beef consumption is unrelated to the environment.
- Use this code when the environment is characterized as separate from beef consumption.

Workers

Honest

- The food system/beef commodity chain is transparent and workers involved in it are fair/honest.
- Use this code when workers are characterized as honest.

Dishonest

- The food system/beef commodity chain is ambiguous and workers involved in it are dishonest.
- Use this code when workers are characterized as unfair/dishonest.

Uninvolved

- Workers are uninvolved in the food system and have little agency to influence it.
- Use this code when workers are characterized as uninvolved.