COMMITTING TO THE DISCOMFORT OF CARE AND CURIOSITY: INVESTIGATIONS OF COWS' WELFARE, LIVES, AND RELATIONSHIPS

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ABSTRACT

In this dissertation, I investigate cow welfare on grass-fed beef farms to, in part, question and examine the possibility of grass-fed beef farming in providing cows with more care than conventional beef farming. In connection with this, I analyze cow welfare to explore the agencies, subjectivities, and relationships of cows whose lives are taken in the name of food. I unpack grass-fed beef farmers' understandings and practices of cow welfare and use animal geographies, biopolitics, and critical food studies to unearth the ethical complexities of farmer-cow relations, which complicate and strengthen cow welfare's multidimensionality. Alongside working with farmers, I acknowledge and engage with cows as research subjects who teach me about their welfare, lives, and intimate relationships with others. Woven into my analysis of cow welfare is my exploration of the entanglement of caring, loving, profiting, and killing that underscores farmer-cow relationships. Within this context, I write about the different ways that I physically, mentally, and emotionally navigated this exploration as a vegan, feminist animal geographer committed to the discomfort of care and curiosity that an analysis of life, death, and relationality summoned within me. Through the process of navigating this discomfort, I offer my own ethics of care with animals.

DEDICATION

I dedicate this dissertation to the cows I met throughout this journey and to my dad, whose love for animals is engrained in my memory and imprinted in my identity. While he is no longer in the world, I feel certain that his spirit is located in these pages. Lastly, this dissertation is dedicated to all agricultural animals who are consumed yet forgotten. May we remember them, know them, and change the way we live in relationship with them.

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back to through this research. I will forever strive to put these amazing beings at the forefront of my work.

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CHAPTER ONE

INTRODUCTION

I received the call around 1:30 am that my dad died. When I arrived at the hospital, I ran to his room as fast as my feet could take me. I walked in and witnessed his body on the bed, no longer positioned upright. I sat beside him with my sister, held his hand, and placed my head, and what felt like all of my weight, on his chest. The coldness of my dad's hand reflected his death, yet the familiarity of it brought me warmth as I thought about how he grasped onto my hand the day before. Although I knew that his body no longer possessed life, I wanted to hold his hand for as long as possible because I knew he would soon exist only in pictures and memory.

When I arrived at the farm, John took me to see the cows. He discussed how one of the cows named Tilia had recently given birth to her first calf, who died due to complications at birth. John explained that he left the calf's body in the maternity pen with Tilia rather than immediately moving it because she needed time to be with her baby and process her loss.[1] Tilia spent the remainder of the day lying with her calf. As the early evening approached, John knew it was time to remove the body because Tilia began to slowly bury it beneath the straw, nudging it under the fence and out of the pen.

These two vignettes detail experiences in my life and my research that outline an intimate connection I made with cows by studying their lives and listening to the stories that grass-fed

[1] A maternity pen is a sanctioned off space in the barn for mothers to birth and nurse their calves without the physical interference of other animals.

beef farmers tell about them. John's description of Tilia's loss resonated with my moment of loss. As I reflected on our shared experiences, I realized how the maternity pen and hospital room are more similar than different. In the same way that my family and I honoured my dad by choosing a final resting place for his body, John honoured Tilia's calf by burying their body in a safe place on the farm. He did not take the body to a rendering plant; he did not treat it as wasted food. His burial of the calf's body represented how John understood the cows beyond their status as "beef." Tilia's story matters, as do the stories and experiences of other cows. They matter in their own right, and they provide us with an avenue for connecting with cows. These vignettes help open up a discussion of how emotional experiences connect us to nonhuman animal others and shape our lives and identities. The range of experiences that we endure and that transform us signify how humans' and nonhuman animals' lives are entangled. These vignettes exemplify why we need to take cows' lives and relationships seriously and, as I will make clear in this dissertation, why a critical analysis of their welfare is essential.

Problem and rationale for dissertation

The World Organization for Animal Health defines animal welfare as "the physical and mental state of an animal in relation to the condition in which it lives and dies," articulating welfare as "a complex and multi-faceted subject with scientific, ethical, economic, cultural, social, religious and political dimensions" (World Organization for Animal Health, 2021, para. 1). As a complex concept, animal welfare varies in definition (and practice) according to how one studies and measures it (Coleman & Hemsworth, 2011). Animals' biological, environmental, behavioural, and mental states and wellbeing, while interrelated, provide foundations upon which different understandings and practices of animal welfare emerge (Borkfelt et al., 2015). Making sense of

welfare requires that we pay attention to how human-animal relations of power (and the industries that underpin these) impact animals' treatment, often in ways that justify and normalize the harm that animals endure in their encounters with humans.

Animal agriculture names one industry (among many) within which animal welfare is critically important while rightfully contested. For example, some scholars argue that claims about animal welfare serve as selling features used by agricultural industries to mask their violence and ease consumers' concerns (Gillespie, 2011; Gunderson, 2011; Shukin, 2009; Stanescu, 2014; Taylor, 2013). These critiques are essential because they offer insight into the insidious way in which animal welfare can be less about animals' wellbeing and more about expanding the industries in which animals are governed. However, as a multidimensional concept that impacts animals' lives and deaths (Miele & Lever, 2013), animal welfare provides a window through which to learn about animals and better understand their experiences. Welfare's varied measurements, complexity, multidimensionality, and ability to offer a glimpse into animals' everyday lives make it worthy of investigation, and the harm and violence that agricultural animals endure makes an analysis of their welfare timely and necessary.

Beef cows, like other agricultural animals, suffer poor welfare and the Canadian beef industry's welfare protocols contribute to this suffering. Critiques of industry welfare standards highlight their ineffective voluntary structure (Moggy et al., 2017), (subjective) assessment (Whittington, 2018), ambiguous legal status, and market-driven development (Sankoff, 2019). Undercover investigations and internal reports and assessments about the industry attest to cruelties that cows and other animals endure in Canada's conventional agricultural systems. Abuse, confinement, filthy living conditions, improper slaughter, and euthanization are some of

the ways cows and other agricultural animals suffer poor welfare in the agricultural industry. While beef cows suffer in Canada's mainstream beef industry, grass-fed beef farming offers an alternative to this suffering through claims of enhancing cow welfare.

An analysis of cow welfare provides critical insight for exploring cows' lives, experiences, and relationships because its central premise is to prioritize cows' wellbeing and reduce their suffering. It also provides a framework for exploring understandings and practices that hinder cows' wellbeing, interpersonal relations, and relations with farmers. As an alternative to conventional beef farming and its associated harm posed to cows, grass-fed beef farming offers a noteworthy context to examine understandings and practices of cow welfare and, more broadly, what it means to care for animals whose lives are taken in the name of food. For example, grass-fed beef cows, unlike conventionally farmed cows, are pasture-raised for the duration of their lives, fed an exclusive diet of grass, live longer, and often avoid auctions and feedlots. These are some ways that grass-fed beef farming practices claim to provide better welfare for cows. Through an analysis of welfare, I explore the lives, subjectivities, and relationships of cows, questioning the possibility of grass-fed beef farming to provide cows with more care than conventional beef farming.

Animal welfare, rights, and the discomfort of care

As a vegan seeking to understand cows and learn from the people who take their lives, feelings of discomfort, confusion, and curiosity carried me through this research. As a researcher, I occupied the space within which cows are given life for the purpose of its taking while knowing (and feeling) that cows have a will to live. Occupying this space and the embodied knowledge

that dwells within it required me to continually navigate and confront my politics and the confusion, curiosity, and commitment to discomfort that led me to this space.

Taking the position that animal welfare offers a noteworthy context for examining and bettering cows' lives means dismissing that it is only through a commitment to animal rights that one can advocate for cows. Animal welfare accepts the use of animals for food with the goal of enhancing their wellbeing and the conditions within which they are farmed. By contrast, animal rights aim to abolish the human use and consumption of animals. For reasons I list below, a brief discussion of animal rights discourse allows me to further engage with animal welfare and provides insight into my politics and the foundation from which my research objectives emerged.

In North America, contemporary animal rights literature developed in the mid-to-late twentieth century in response to society's growing awareness and concerns about the cruelties that animals endured in the animal experimentation and farming industries.[2] Peter Singer's seminal work, *Animal Liberation* (1975), was crucial in the animal rights discourse, igniting the movement's engagement with utilitarianism as a political and philosophical position for conceptualizing animals' rights. Singer's central premise derives from this key passage in Bentham's (1789) work: "The question is not, can they reason? nor, can they talk? but, can they suffer?" Singer argues that one's capacity for suffering is a prerequisite for having interests. One's interests, Singer explains, are equally worthy of consideration as any other sentient creature, irrespective of species. And because animals are sentient, Singer continues, their interests and rights deserve the same moral consideration as humans. Key to Singer's theory of sentience and

[2] I elaborate on society's awakening to these realities in chapter two by discussing undercover investigations in the United Kingdom that led to the emergence of contemporary animal welfare discourse.

utilitarianism is the way it created a political and philosophical framework for abolishing practices and industries that inflict animal suffering (and thereby deny animals' rights and interests).

Taking a different approach, Regan grounds his theory of animal rights in natural rights theory. In his seminal work, *The Case for Animal Rights* (1983), Regan argues that animals, like humans, are worthy of rights because they are subjects of a life. He explains that a subject of life is any being who possesses a life, who cares about that life, and whose life, therefore, has inherent value. For Regan, the moral right of any subject of a life – irrespective of their species – depends solely on that their life has inherent value. Therefore, animals, as subjects of a life, are worthy of the same moral and natural rights as humans and must not be used at humans' disposal. While different in his philosophical approach, Regan, like Singer, grounds his analysis of animal rights in the notion that animals are equal to humans, advocating to abolish the industries that deny animals' equality.

Just as critical as Singer and Regan's animal rights philosophies are the feminist responses to animal rights philosophy that expose its problematic and patriarchal roots. Donovan (1994), for example, argues that Singer and Regan's theories of rights privilege rationality and use calculative reasoning to measure one's moral worth. For Regan, one's worth and inherent value is measured according to their degree of self-consciousness, and for Singer, it is related to their quantification of suffering (Donovan 1994). Driving these problems is Singer and Regan's rationalist rejection of emotion as having a legitimate role in ethical theory about animal treatment (Adams, 1995; Donovan, 1994). Feminist responses to animal rights theory critique the ways in which emotions are denigrated as untrustworthy, invalid, unreliable, and feminine (Adams, 1995), while problematizing the concept of personhood that underpins right theory. As

Curtin (1991) notes, personhood is individualistic, while feminist approaches to ethics reconceptualize personhood as relational and see moral inquiry as an ongoing process through which persons are defined contextually and relationally.

Donovan and Adams developed their theory of a feminist ethics of care for the treatment of animals in the 1990s in response to animal rights theory. A feminist ethics of care is credited to the work of Gilligan (1982), who conceptualizes an ethics of care in response to the formal, abstract, individualistic, and patriarchal ethics of rights theory put forth by scholars such as Singer and Regan. In contrast to an ethics of rights, an ethics of care highlights the importance of responsibility to those we are in relations with, whereby morality and the preservation of life are contingent upon sustaining connection and keeping the web of relations intact (Gilligan, 1982). Bringing Gilligan's insights into an analysis of caring for animals, a feminist ethics of care for the treatment of animals focuses on the particularities of care (Gruen, 2015), recognizing the contextual, plural, and heterogeneity of moral interests involved in relationships of care (Curtin, 1991). An ethics of care for animals urges us to attend to animals in all their differences (Gruen, 2015), advocating for a new mode of relationality that dispels the idea that ontological boundaries separate humans and animals.

A feminist ethics of care for the treatment of animals works from the premise that caring must be informed by politics, taking into consideration the political and economic contexts within which moral decisions and relationships unfold (Adams, 1995; Curtin, 1991; Donovan, 1994). This approach posits that care must be understood as part of a radical political agenda that allows for the development of contexts in which caring for others can be nonabusive and must include those who have been excluded from the preestablished circle of care (Curtin, 1991). Within a

feminist ethics of care, extending the circle of care to animals means working to abolish the practices and industries that commodify, exploit, and kill animals, necessitating their exclusion from the circle of care. While different from the animal rights discourse, a feminist ethics of care shares a similar agenda of abolition, advocating for the abolishment of animal consumption in all its exploitative forms. Feminist veganism helps to exemplify this position. In *The Sexual Politics of Meat,* Adams (1990) draws a parallel between the sexual objectification of women and consumption of animals. Feminist veganism recognizes a connection between the oppression of women and animals, critiquing the framing of animals and women as inferior, impulse-driven, irrational, reproductively controllable, and existing to serve male interests (Wrenn, 2019). It conceptualizes veganism as a feminist issue (Hamilton, 2016) and as a means for breaking the hierarchical social structures that uphold these assumptions and drive women and animals' shared oppression (Wrenn, 2019).

While I admire and feel compelled by the work of feminist scholars committed to an ethics of care (and who reveal the problems and limitations of animal rights theory), the position that care and abolition must accompany one another creates an inner discomfort and restlessness that tells me I do not fully align with a feminist ethics of care. As a vegan, I understand veganism as a way of politically, emotionally, and physically exercising care by refusing to participate in the animal industrial complex and its cruelties (Noske, 1997).[3] However, like Hamilton (2016), I do not promote veganism as the optimal feminist diet, nor do I understand it as offering the only possibility for caring for animals. My concern about abolition is that it leaves little to no room for

[3] On the hand one, while I am vegan, attempting to refrain from participating in the industry of animal consumption, I also must confront the reality that, on the other hand, my research enlists me as a participant in the industry of animal consumption.

curiosity because it disregards the different ways that context shapes the complexity of our relations with (human and nonhuman) others. The dichotomy of right and wrong that is imperative to abolition misaligns with the ontological fluidity and entanglement of our relationality with animals. Although the former aims to honour our connections with animals, I worry that it also risks severing us from animals by disregarding the complexities of human-animal relationality and the different conditions within which life and death shape (and complicate) this relationality.

I draw insight here from Haraway (2008) and Shotwell (2016), who confront the complex realities of living and killing. For Haraway, it is a misstep to pretend to live outside of killing, forgetting that the ecologies of all mortal beings live through the use of one another's bodies. Haraway draws attention to how our ecological entanglement with (all) others means reconciling with the reality that living and killing are integral to relationality. This does not mean, however, that we are not responsible to those we kill. For Haraway, responsibility and care are foundational to killing, and we must learn to live responsibly within the necessity and labour of killing. Necessity and labour are born out of ways in which work, use, and instrumentality are intrinsic to bodily webs of being and becoming (Haraway, 2008). Echoing this, Shotwell (2016) argues that there is no food we can eat, clothing we can buy, or energy we can use without deepening our ties to complex webs of suffering. Like Haraway, Shotwell examines the inevitability of killing (in relations of living) by urging us to consider how complexity and complicity constitute our relationships with others. For Shotwell (2016), impurity is part of our ontological relationality with others: "We're complicit, implicated, [and] tied in to things we abjure. This is a kind of impurity implied in the compromised living that involves making concessions" (p. 7).

Compromised living means acknowledging how living as embodied beings means relying on others intimately, shaping the conditions for their lives and deaths, where "use" often means "kill" (Shotwell, 2016). Embodiment produces an urgent but unsolvable relation in which we consume suffering (Shotwell, 2016), and it is for this reason that killing matters.

Haraway (2008) makes clear that the problem is not killing animals; it is making them killable. The former signals an inevitable component of what it means to be an ecological being in relation with other ecological beings. The latter, however, refers to the systemic ways animals become rendered disposable and unworthy of care and respect. Haraway explains that killing responsibly means knowing that we cannot kill with sufficient reason. Sufficient reason is the logic that underpins, drives, and justifies systems of animal disposability, reinforcing the notion that animals exist solely for human use. "Felt reason is not sufficient reason, but it is all we mortals have. The grace of felt reason is that it is always open to reconsideration with care" (Haraway, 2008, p. 76). For Haraway, care means becoming subject to the unsettling obligation of curiosity.

This dissertation research signifies my commitment to curiosity and the complex, ambiguous, and discomforting realities that curiosity invites. As a vegan, I hold space for both choosing to not eat animals and acknowledging the extent to which impurity is an integral part of what it means to be entangled with animal others (Shotwell, 2016). Taking Shotwell's point further, I understand the impurity of entanglement as a part of my relations with human others. For example, those I share my closest and most intimate relations with consume animals, and it is our mutual respect for – and at times frustration with – one another's opposing choices that shape our impure entanglement. An acknowledgement of impurity and the ethical complexity of

relationality shapes my engagement with animal welfare, through which I practice my own kind of ethics of care.

Research trajectories, objectives, and questions

My investigation of cow welfare began from several trajectories. First, I believed that an analysis of cow welfare could shed light on cows' lives and their care before becoming food. Second, I wanted to learn about cow welfare from beef farmers because I believed that their daily interactions with cows gave them special insight into these beings. And last, I considered that cow welfare might be improved on grass-fed beef farms because this farming model continued to surface in my preliminary research on cow welfare. After contacting a few Ontario-based grass-fed beef farmers to ask about cow welfare and the significance of grass-fed beef farming, I found that they shared a common narrative among themselves. Specifically, the farmers collectively believed that grass-fed beef farming, in contrast to conventional beef farming, provides a longer and healthier life for cows and, in turn, yields more nutritious beef for consumers. Following this rationale, I decided to focus on grass-fed beef farming in Ontario as my research context.

In this dissertation, I present and respond to a variety of research objectives. I (1) investigate cow welfare on grass-fed beef farms to, in part, question and examine the possibility of grass-fed beef farming to provide cows with more care than conventional beef farming. To do this, I unpack grass-fed beef farmers' understandings and practices of cow welfare through the following research questions:

1. How do grass-fed beef farmers understand cow welfare?
2. What environmental, ethical, and economic factors shape these understandings?

3. How do these understandings play out in day-to-day practices of grass-fed beef farming?
4. In what ways do these understandings shape cow-farmer relations and the lives and experiences of cows on grass-fed beef farms?

My first research objective, and the above four questions that correspond to it, are empirical and helped me build the trajectory from which my conceptual and methodological research objectives emerged. My discussions with farmers about their understandings and practices of cow welfare encouraged me to (2) explore how cow welfare impacts cows' agencies, subjectivities, commodification, and interrelations. In connection with this objective, I (3) investigate how cow welfare shapes, and is shaped by, farmer-cow relationships, unearthing the entanglement of caring, loving, commodifying, and killing that underscores these relationships. Alongside learning from grass-fed beef farmers, I (4) acknowledge and engage with cows as research subjects who teach me about their welfare, lives, and intimate relationships with others. Lastly, I (5) share the different ways that I physically, mentally, and emotionally navigated this research as a vegan, feminist animal geographer committed to the discomfort and care and curiosity that analysis of welfare, live, death, and relationality summoned within me. I use the analytics of animal geographies, biopolitics, and critical food studies in tandem with multispecies participation observation and feminist perspectives on intimacy (Gillespie, 2017), entangled empathy (Gruen, 2015; 2016), and an ethics of care (Donovan, 1990; Gilligan, 1982; Gruen, 2015; 2016) to respond to these conceptual and methodological objectives, proposing my own ethics of care with animals and an analysis of how this research journey challenged and changed me.

As a feminist animal geographer, I acknowledge that "cow" refers to a mature female bovine while "cattle" encompasses female and male bovine animals. Though I engaged with both, I refrain from using the term cattle given its etymological roots in chattel, which references property and chattel slavery (Gillespie, 2018). In keeping with Gillespie's (2018) call for highlighting animals' more-than-property identities, I refer to female and male bovine animals as cows.

Scholarly grounding and contributions

In this dissertation, I draw on the analytics of animal geographies, biopolitics, and critical food studies because, collectively, these offer insight into the ethical complexities of animal-human encounters and the production of food using animals.

Animal geographies

Animal geographies' emergence began in the late nineteenth century and was formally known as zoogeography, which Urbanik (2012) describes as the field's "first wave." First wave animal geographies provided a scientific study of the distribution of animals on earth, examining closely how animals and the environment had a mutual influence on one another (Urbanik, 2012). The discipline's first wave studied animals as natural objects separate from humans with the goal of establishing general laws of how animals arranged themselves across the earth (Wolch et al., 2003). Tracing the field's ontological development, Urbanik (2012) details animal geographies' second wave, which emerged in the middle of the twentieth century and drew attention to the role of humans in impacting wild and livestock animals. In contrast to its first wave, second wave animal geographies focused more on human-animal relations in place and space; it did so, however, via an anthropocentric framework (Urbanik, 2012). Animal geographies' third wave

(Urbanik, 2012) emerged in the late twentieth century, ignited by the work of scholars such as Wolch and Emel (1995; 1998) and Philo and Wilbert (2000). Third wave animal geographies focus on "the complex entanglings of human-animal relations with space, place, location, environment and landscape" (Philo & Wilbert, 2000, p. 4). In contrast to its predecessors, third wave animal geographies expand its analyses beyond domesticated livestock, acknowledging all animals as subjects of their own lives rather than objects of human control (Urbanik, 2012) or signifiers for human meaning (Buller, 2014; Wolch & Emel, 1995). In this vein, third wave animal geographies re-politicize animals as bodies and voices (Johnston, 2008), exploring the spatial, economic, political, and ethical dimensions of animals' lived experiences and encounters with humans. Animal geographies' third wave politicizes our entanglements with animals by exploring possibilities for politically, ethically, and compassionately engaging with animals (Collard & Gillespie, 2015), articulating how our relationships of power with animals harm them. Just as importantly, third wave animal geographies reveal how animals embody power in these relationships.

In this dissertation, I draw from animal geographies' third wave, taking a particular interest in its acknowledgement and exploration of animals as agents, equipped with subjectivities that shape how they experience the world. Problematizing agency as exclusively "human," animal geographies define animal agency as animals' capacity to achieve goals and exert power in their relations with people in ways that influence, shape, and transform their lives as well as ours (Emel & Wolch, 1998; Fraser-Celin & Hovorka, 2019; McFarland & Hediger, 2009; Rutherford, 2013). Significantly, animal geographers see agency as something that animals and people co-produce in their relationships, conflicts, negotiations, and alliances (Dempsey, 2010;

Johnston, 2008; Notzke, 2013; Van Patter & Hovorka, 2017). In this vein, agency is not exclusive to humans, nor is it a trait that people or animals are inherently equipped with; its development within us is predicated on our relationships. This understanding of agency provides an avenue for exploring our relational ontology with animals (Hobson, 2007) and helps us understand how our relationships with animals contribute to who we are.

Animal geographies draw attention to the geographical dimensions of power between humans and animals (Collard & Gillespie, 2015; Philo & Wilbert, 2000), interrogating the dominant social orders that perpetuate human-animal hierarchies, which the animal industrial complex starkly reveals (Noske, 1997). As Bolla and Hovorka (2012) suggest, investigating power's geographic dimensions reveals how space and place shape the (re)production of human-animal positionality. Philo and Wilbert (2000) define space as the places that make up the environments that surround us. They draw on de Certeau's (1984) definition of place as the order in which elements are distributed in particular relationships of coexistence and further this by emphasizing how humans' and animals' emplacement shapes their hierarchical ordering and positioning. Philo and Wilbert (2000) explain that emplacement impacts how we encounter and respond to animals because it influences how we perceive them as being "in place" or "out of place." Connected to their analysis of emplacement is their understanding of animal agency as an animal's ability to evade, transgress, or resist human attempts to physically or conceptually place them in space. Animals exercise their agency by creating "beastly places" and expressing their "beastly ways" (i.e., their wants, needs, joys, and sufferings), despite, or in response to, our attempts to control them (Philo & Wilbert, 2000).

In this dissertation, I reinforce and expand animal geographies literature on animal agency (Bear, 2011; Collard & Gillespie, 2015; Emel & Wolch, 1998; Fraser-Celin & Hovorka, 2019; Johnston, 2008; McFarland & Hediger, 2009; Philo & Wilbert, 2000; Rutherford, 2013) through my analysis of cow welfare, showing how welfare practices and the human-animal encounters they shape are animated by species relations of power, within which cows exercise agency. I conceptualize cow agency by investigating cows' non-complacency as acts of resistance (Gillespie, 2018; Lloro-Bidart, 2017; Rutherford, 2013) and analyze how welfare practices govern cows in different ways. For example, I discuss how castration, polling, and weaning practices – while providing some benefits to cows – also negatively impact their bodies, relationships with farmers, and interrelations.[4] Here, my intention is not to suggest that castration, polling, and weaning are not, in fact, welfare practices. Rather, my point is that we risk glossing over other aspects of cow welfare when we take its emphases on care and wellbeing at face value. I add to debates in animal geographies about animal agency by conceptualizing how welfare practices govern cows' bodies and interrelations, and I show how cows exercise agency in their relationships with farmers, despite (and in response to) the different forms of governance that shape welfare practices and, in turn, cows' relationships with farmers. Grass-fed beef farming offers a noteworthy exploration of the links between welfare, governance, and agency because it offers a model of food production that aims to enhance the quality of cows' lives in ways that industrial beef farming does not.

Alongside animal geographies' focus on animal agency is its attention to animal subjectivities. Contrary to outdated notions about subjectivity being exclusive to humans, animal

[4] As I discuss later in the dissertation, polling refers to breeding practices in which horns are bred out of cows.

geographers define animal subjectivity as animals' ability to live and experience the world as thinking, feeling, sentient, and self-conscious beings (Bear, 2011; Fraser-Celin & Hovorka, 2019; Geiger & Hovorka, 2015; Tovey, 2003). Sharing in this understanding, Gillespie (2018) argues that animals are individuals with attachments, proclivities, personalities, and social and emotional lives. Unique to my research is the way I methodologically bring these understandings of subjectivity (Bear, 2011; Fraser-Celin & Hovorka, 2019; Geiger & Hovorka, 2015; Gillespie, 2018; Tovey, 2003) into the field, engaging with farmers' understandings and practices of cow welfare as a context for investigating cow subjectivities alongside my own interactions with cows. I show how learning about cow subjectivities from cows – as research subjects and teachers – is one way of honouring and taking their subjectivities seriously. Furthermore, I conceptualize and highlight cow subjectivity by drawing attention to cows' individualities, quirks, and communicative gestures with farmers and other cows in day-to-day grass-fed beef farming practices. This dissertation contributes to my goal of honouring the emotional and social lives of animals who can too easily slip through the cracks of our consciousness given their designation as food. I examine how grass-fed beef farming might enhance cows' lives in ways that conventional beef farming does not.

Animal geographies' explorations of agency and subjectivity provide a lens through which I critically reflect on how cows exercise agency and subjectivity in their relations with grass-fed beef farmers. It also allows me to shed light on cows' emotional and social lives, which can be quickly overshadowed by their commodity lives. Developing an understanding and perception of cows' emotional and social lives is a political practice because when we see cows beyond their status as beef, we challenge the discursive and capitalist logic that impacts our relationships with

cows as food animals. My research on cows' lives and welfare contributes to animal geographies' agenda of changing the scope through which we see farm animals solely as food and, in turn, fail to relate to them at all.

As places that position cows in the service of people, grass-fed beef farms, like all animal farms, provide an entry point through which we can investigate the lives of cows and the relationships they share with farmers. Animal geographies make explicit the power relations that underpin cow welfare practices and, as a result, attune us to the complexities and limitations of cow welfare that warrant our attention. I use the lens of animal geographies to locate the themes of cow subjectivity, agency, and governance in farmers' stories about their relationships with cows and investigate how power shapes cow welfare practices. Responding to Hovorka's (2018) call for hybridizing animal geographies, I make additional contributions to this scholarship by bringing it into conversation with debates in biopolitics to investigate the ethically complex dimensions of farmer-cow relations.

Biopolitics

A brief outline of the literature's origins is warranted to grasp animals' conceptual positioning in biopolitics literature. Foucault coined the term biopolitics (1976; 1978) to address how, in the nineteenth century, a new kind of political power emerged that signalled a transition from sovereign power to biopower. While sovereign power worked by inflicting death in the name of protecting the sovereign body, biopower aims to preserve the life of the population (Foucault, 1976; 1978). Biopower's ability to optimize life stems from its ability to normalize, quantify, and measure a population in statistical terms. Central to Foucault's analysis of biopolitics is that this form of power aims to enhance, protect, and make life productive – or in other words, "to make

live and let die" (Foucault, 1976, p. 241). For Agamben (2004), however, biopower operates through its ability to kill, producing what he refers to as bare life. He argues that the biopolitical distinction between who can live and who must die is measured, more fundamentally, according to what it means to be human. For Agamben, biopolitics operates according to a human-animal divide that takes place within us, shaping our conception of what it means to be human and, thus, worthy or unworthy of life. Agamben draws attention to how biopolitics defines the human by what it is not: animal. Agamben's emphasis on the animal as a tool for producing the human figure shapes the logic through which we see animals as killable.

Animal scholars challenge Foucault and Agamben's work by drawing attention to the invisibility of animals in Foucault's notion of the population and who are unknowable in Agamben's ambiguous figure "the animal" (Rutherford, 2013; Shukin 2009; Wolfe, 2013). Taking this critique further, Shukin (2009) argues that biopolitics blurs human-animal boundaries rather than merely upholding them. She examines how biopower technologies strategically and ambivalently hinge on a species divide, dissolving and reinscribing borders between humans and animals (2009). Echoing this, Wolfe (2013) argues that biopolitics does not work according to the logic of human vs. animal but instead expands itself across a community composed of human and animal species, where violence and protection ambivalently shape both human and animal life. For Wolfe, a biopolitical framework articulates the disjunctive and uneven quality of how politics function, providing a lens for examining how our relations with animals are no longer characterized by a human vs. animal playing field (2013). By emphasizing how biopolitics blurs human-animal boundaries, Shukin points to the fluidity of human-animal ontology and

challenges the notion that natural difference shapes the biopolitical management of people and animals.

Biopolitics can create similar conditions for humans and animals by rendering both killable and thus disposable. Scholars theorize this in different ways: Some highlight the link between animal husbandry and human slavery (Boggs, 2013) and the poor treatment of agricultural animals and slaughterhouse workers (Wentworth, 2015). Others examine the murder of Indigenous peoples and the eradication of wolves (Rutherford, 2013) and the domestication of animals alongside the "civilization" of Indigenous communities (Rosenberg, 2016). Taking a different approach, Blue and Rock (2011) explain how a trans-biopolitics is at work in the blurring of human-animal binaries. Arguing that biopolitics does not operate according to a clean and hierarchical human-animal distinction, Blue and Rock articulate how zoonotic diseases exemplify trans-biopolitics, given their ability to spread from animals to humans, thus transgressing and challenging a human-animal distinction.[5] These works demonstrate how biopolitics impacts humans *and* animals through the blurring of a human-animal distinction, highlighting the ways in which humans and animals become biopolitically made killable. In other words, these insights show how biopolitics sheds light on our relational ontology with animals.

The ambivalence that shapes the blurring and upholding of human-animal binaries structures the lens through which humans make distinctions among animals, perceiving some as food and others as companions. Although culture impacts these bordering practices, shared across cultures is the notion that some animals are worthy of life, and some are not. Francione

[5] COVID-19 exemplifies Blue and Rock's (2011) theory of trans-biopolitics, given the millions of human lives the virus has taken and the millions of animals who have, for example, been killed in vaccine experimentation and culled in the farming industry.

(2000) refers to this as "moral schizophrenia," arguing that emotional contradictions drive our relationships with animals, and Boggs (2013) explains that these contradictory attitudes impact how we make claims about human and animal ontology. Our relationships with food animals exemplify the violence that ensues from the ambivalent ways we make distinctions among animals. Capitalism plays an integral role in this violence because it is the economic system through which we produce and consume food animals.

Foucault argues that biopolitics played an indispensable role in capitalism, noting how the latter could not function without the controlled insertion of bodies into the machinery of production (1978). Shukin (2009) makes this connection apparent by exploring the economic and symbolic ways animals are used to promote a social fantasy of capitalism as "natural." She argues that this is made possible through the process of rendering, which is the mimetic act of making a copy, as well as the industrial boiling down and recycling of animal remains. Capitalism renders animals into what Shukin (2009) calls "animal capital," signalling "the paradox of an anthropocentric order of capitalism whose means and effects…invests in a world in which species boundaries can be radically crossed (and reinscribed) in the genetic and aesthetic pursuit of markets" (p. 11). Rendering transforms animals into semiotic and metaphoric signs of capital while simultaneously breaking down their bodies within the metabolisms of capitalist markets (Shukin, 2009). Shukin explains that rendering produces a semiotic and material closed loop between animal and capital, making the meaning and matter of the one feed seamlessly back into the other. The word "capital" exemplifies this closed loop, as it was originally used to represent a head of cattle (Gunderson, 2011).[6] There is a material violence to rendering, which

[6] This association between "capital" and "cattle" further supports my decision to use the term "cow."

most heavily falls on animal life (Shukin, 2009). The source of animal suffering in agriculture that fuels capitalism's economic expansion exemplifies this violence (Gunderson, 2011). Animals are both fundamental and disposable within capitalism; they are assigned a monetary value, even as they are politically and ethically devalued (Collard & Dempsey, 2013).

Some scholars critique the notion that biopolitics exclusively operate by making animals killable, highlighting how biopolitics works on animal bodies in productive ways. For example, Holloway (2007) explores how biopolitics invests in animal subjectivities through his analysis of robotic milking machines. Milking machines are discussed in agricultural discourse as a way of providing cows with more freedom by allowing cows to be milked at their own discretion. However, Holloway shows how milking machines function to monitor the bodies of dairy cows by calculating their milking performance while reshaping how they engage with the space of the dairy farm in ways that hinder their freedom for the purpose of making their bodies more productive. Focusing on agriculture and genetics, Twine (2010) examines how the genetic improvement of animal bodies is enabled via biopower, whereby "the interests of animal scientists in behavioral genetics speaks to the aim of building animal subjectivities into the very anatamopolitics of the animal body and mind" (p. 89). Going beyond what he calls "the repressive hypothesis" of human-animal relations, Chrulew (2017) argues that animals' subjectivities are integral to how biopower invests in the management of animals. He highlights the biopolitical management of animals within zoos, laboratories, and factory farms, discussing how the experiences, behaviours, intentions, responses, and overall psychological capacities of animals become the objects of biopolitical knowledge. These scholars emphasize how biopower works by making animals productive.

Grass-fed beef farming, while capitalist given its economic rendering of cows as beef, offers a noteworthy context for exploring biopolitics because it aims to decrease the violence that cows endure (and enhance the care they receive) as a result of their status as food. In other words, it provides a context for revealing the complexities of how biopolitics works in both violent and less violent ways. I explore the biopolitics of cow welfare on grass-fed beef farms and, in turn, reveal the complex dimensions of human-animal relationality, commodification, care, and killing. Through this analysis, I add to debates in biopolitics literature about the ways that biopower impacts food animals' productivity (Holloway, 2007; Twine, 2010; Chrulew, 2017) just as much as their killability (Collard & Dempsey, 2013; Collard, 2014; Haraway, 2008; Shukin, 2009). For example, I analyze how, through welfare practices, farmers associate a cow's quality of life with their beef quality, articulating a specific kind of welfare-endowed animal capital (Shukin, 2009), and I examine how farmers assign capitalist value to their cows based on their cows' encounterability, genetics, and labour. Here, I extend ways of understanding cows as lively commodities (Collard & Dempsey, 2013) involved in relations of encounter value (Haraway, 2008), expanding the scope through which we understand cows' commodification. Central to this discussion is a consideration of how cows' liveliness complements as well as complicates their commodification. Alongside this, I investigate the narratives of killing for beef vs. welfare that underpin farmers' discussions about euthanizing cows and contrast this with their (disciplinary) descriptions of culling "crazy" cows.

My final contributions to biopolitics literature stem from the way I layer its lens with animal geographies through my analysis of the ethically complex relationships between farmers and animals that shape, and are shaped by, cow welfare. Both animal geographies and biopolitics

draw attention to power relations between humans and animals. Animal geographies examine animal lives and subjectivities, pushing the boundaries of our understanding of animals (and the relationships we share with them). By addressing how animals live meaningful lives rooted in subjective experiences, animal geographies complicate and problematize animals' positioning in human-animal power relations. Biopolitics helps to extend this analysis by investigating the subtle and explicit ways animals are rendered killable in power relations. Like biopolitics, animal geographies draw attention to the problematic relationships we share with animals. It also, however, imagines new possibilities for creating more just relations with them (Giraud, 2015; Haraway, 2008; White, 2015), including our relationships with farm animals (Emel et al., 2015; Holloway, 2002; Porcher & Schmitt, 2012; Spinka & Wemelsfeder, 2011). Biopolitics sheds light on our relational ontology with animals. Animal geographies extend this analysis by investigating how human-animal relationships can become grounded by a politics of mutual flourishing rather than domination (Rutherford, 2013). At its core, a politics based on mutual flourishing has the goal of creating ethical human-animal encounters.

I make contributions to biopolitics and animal geographies literature through my discussion about the economic and emotionally muddied relationship between caring and killing and, more significantly, how capitalism's (strong and fundamental) impacts on farmer-cow relations cannot fully account for the different ways farmers bond with, care for, and feel love towards their cows. I shift my focus from the dimensions of control and commodification that shape cows' lives to investigate how farmers' feelings of love, attachment, grief, internal conflict, and acceptance underpin their relationships with cows. Exploring farmers' relations with cows through animal

geographies and biopolitics also allows me to examine how a coexistence of care and harm underpins human-animal relations (Roe & Greenhough, 2021).

My attention to the ethical complexities and nuances that shape farmer-cow relations allow me to explore, reinforce, and expand Haraway's (2008) and Shotwell's (2016) arguments about the inevitable, necessary, and entangled relation between living and killing that underscores our relationships with all living, embodied beings. Haraway (2008) articulates that truly coming face to face with animals means dispelling the notion that a human-animal dualism exists. She explains it is impossible to live without killing, given the way the ecologies of all mortal beings live in and through the use of one another's bodies. Echoing this sentiment, Shotwell (2016) argues that we are born into complicity, and our embodiment ethically implicates us in this complicity. Haraway (2008) discusses that humans must learn to kill responsibly, killing with felt reason but knowing there will never be sufficient reason. Felt reason is not sufficient reason, but its grace is always open to reconsideration with care (Haraway, 2008), and it is this care that I explore in relation to farmers' instrumental, entangled, and complex bonds with cows. Central to my analysis and practice of an ethics of care is the notion that cows' lives and relationships with others are rich in complexity. I investigate how farmers' feelings of love, attachment, grief, internal conflict, and acceptance underpin their relationships with cows and, through this analysis, reflect on how farmers might engage in their own ethics of care with cows. In this way, I challenge the idea that farmers do not care about their cows given the fact they send them for slaughter.

Critical food studies

Through my investigation of grass-fed beef farming, I add to debates about the socio-political, economic, and ethical aspects of alternative food networks (DuPuis & Goodman, 2005; DuPuis et al., 2014; Guthman, 2008; Holloway, 2002; Sarmiento, 2017). Alternative food networks (AFNs) describe food movements and projects that address and respond to the global food system's social, ethical, environmental, and economic problems (Clapp, 2016). Some of these problems include exploitative labour conditions, animal welfare issues, fossil fuel dependency, human health, and the corporatization of food resources (Holloway, 2002; Sarmiento, 2017). AFNs mobilize various approaches to production, distribution, and consumption that are an alternative to conventional (industrial) food systems (Sarmiento, 2017). They aim to ethically enhance our encounters with food animals and the environment (Holloway, 2002) while providing an economic template for reconfiguring capitalist society (DuPuis & Goodman, 2005). DuPuis and Goodman (2005) argue that these movements do not aim to overthrow hegemonic capitalism but, instead, coexist with this system while simultaneously working to change it from within.

Debates within critical food studies also cast light on problems with alternative food networks. For example, several scholars argue that these food systems undermine the ethical practices they set out to achieve (DuPuis & Goodman, 2005; DuPuis et al., 2014; Guthman, 2008). Some scholars address how AFNs provide a convenient façade for corporate capitalism by carving out niche food markets that, while appearing as an alternative to the industrialization of food, are modelled according to the principles and practices of global distribution and market competition (Buck et al., 1997; Guthman, 2014; Raynolds, 2004). For example, Sarmiento (2017) points out that AFNs are niche capitalist markets that romanticize and depoliticize imaginaries of nature, farming, and labour (Sarmiento, 2017). Expanding on this critical trajectory, Guthman

(2008) examines the neoliberalization of AFNs by unpacking how these food projects (re)produce neoliberal mentalities and rationalities through their emphasis on consumer choice, responsible consumption, self-improvement, localism, and entrepreneurism. Other critiques reveal how the unjust and oppressive practices AFNs aim to resist become the very practices they reproduce. Part of this problem stems from how AFNs give rise to normative values about how and what consumers ought to eat. Entangled with this problem is the extent to which AFNs reinforce ways of thinking and eating that reflect an exclusive group's ideology while appearing as inclusive and universal (DuPuis & Goodman, 2005). As ideological constructions, AFNs disregard gendered, racial, and class-based differences in communities by often normalizing white, middle-class ways of eating and thinking (DuPuis & Goodman, 2005; DuPuis et al., 2014; Sarmiento, 2017). In this way, AFNs disregard the practices and situated knowledge(s) that shape ideas about food production and consumption.

A rich body of animal welfare scholarship fits nicely into alternative food network debates by investigating how animal welfare marketing provides an ethical façade that masks the violence of animal agriculture. These critiques unpack a similar way animal welfare and alternative food networks operate as ideological forces that mask (and reinforce) the problems they appear to oppose. For example, Shukin (2009) argues that animal welfare's emphasis on minimizing suffering folds back into efforts to develop new technologies of death that appear as an ethical avenue for capitalism's growth. Gunderson (2011) expands this analysis by examining how animal welfare marketing has given rise to "cruelty-free capitalism," which revolutionizes the means of consumption rather than the means of production. The revolutionizing of consumption (via the commodification of animal welfare) risks shifting attention from the animal's life to that of the

consumer (Buller, 2018). Cruelty-free capitalism glorifies animal consumption by erasing the violence that shapes the lives of animals embedded in commodity circuits. It produces a diverse and excessive range of alternative animal commodities that aid in capitalism's drive for profits while halting justice movements from pursuing radical change (Gunderson, 2011). Supporting this argument, Gillespie (2011) critiques how the discourse of "happy meat" – which exemplifies cruelty-free capitalism – gains popularity in the alternative food networks of organic and grass-fed beef farming. Although these networks aim to foster an informed role for consumers in the consumption process, Gillespie argues that the "happy meat" movement soothes the uneasiness that consumers may experience with meat-eating by romanticizing (and misrepresenting) family farms, happy animals, and humane deaths. Consumers believe they are experiencing a connection to animals by consuming "happy meat;" however, Gillespie argues that this consumption negates a human-animal relationship. These positions on animal welfare articulate and caution against how capitalism's drive for expansion and accumulation displays itself in creative ways by hiding the violence of animal agriculture that perpetuates capitalism's growth. They outline how the discourse of animal welfare attempts to re-moralize the exploitation of farmed animals (Gillespie, 2011; Taylor, 2013), and they support the notion that within a capitalist system, the logic of efficiency and increased production compromises animals' wellbeing (Stanescu, 2014).

Buller and Roe (2014) articulate how, via processes of economisation and marketisation, welfare becomes a commodity, subject to scoring, assessment, and qualification. They explain that economisation and marketisation involve various market-based technologies that enroll and transform farm animal bodies in the process of creating welfare food products. Drawing attention

to the economy as a cultural phenomena that shapes the materialization of welfare, Buller and Roe make clear that welfare is commodified as both a process and a product. Of importance in their analysis is the way they draw to how the scientific production of welfare knowledge cannot be detached from the political economy within which that knowledge production is cultivated (Buller & Roe, 2014).

Miele (2011) differentiates between "happy meat" commodity circuits and animal welfare science. She argues that happy meat commodity circuits produce particular kinds of knowledge about animals that misconstrue their lived experiences and realities. Miele expresses how animal welfare science might help foster better human-food animal relations by bringing animals' lives to the foreground of care and scientific inquiry. In this way, animal welfare science can promote consumers' involvement in farm animals' lives and lived experiences (Miele & Evans, 2010). The significance of the arguments made by Miele and Evans stems from how they straddle different perspectives concerning animal welfare and "happy meat." Miele (2011) exemplifies this straddling via her analysis of "happy chicken," arguing that:

> even if "happy chicken" might be seen as a weak invention, fraught with ambivalence and ambiguities, it has achieved important effects. It has suggested a more complex moral relationship between humans and nonhuman animals [and] a search for different intimacies between humans and chickens. (p. 2,087)

Similarly, Roe (2010) notes how animal welfare science is paying more attention to animals' preferences, bodies, and feelings. She also discusses how these improvements in animal welfare science are directly linked to processes of economisation in which the goal is to contribute to animals' economic value (Buller & Roe, 2014). On this topic, Buller (2018) theorizes farmed

animals' welfare as an increasingly commodified and problematic element in food markets. However, he also notes how the commodification of welfare simultaneously helps raise public attention about agricultural animals and can, in turn, enhance welfare standards and practices.

Like the straddled approaches that Miele, Evans, and Buller and Roe mobilize in their analyses of animal welfare, perspectives that shed light on the problems and potential of alternative food networks reveal how alterity, as a façade, can halt change, but as a process, can drive it (Johnston, 2008; Johnston et al., 2009). For example, DuPuis and Goodman (2005) walk the line between cautionary and celebratory accounts of AFNs by exploring and unsettling the binaries of conventional vs. alternative and local vs. global that AFNs perpetuate. They critique how local food production becomes synonymous with environmental and social justice and how it gets purified and symbolized as an opposing force to global capitalism. Central to their argument is that the notion (and purification) of locality denies the diverse politics that shape local food production spaces and processes. DuPuis and Goodman (2005) resist the idea that food systems become just by being deemed local and, instead, encourage conversation about making local food systems more just. Initiating this conversation, they offer the notion of "reflexive localism" as a way of understanding local and global food systems as imperfect and mutually constitutive political processes. Reflexive localism acknowledges the imperfections and contradictions embedded in food systems and advocates for open, continuous, and reflexive dialogue (among diverse groups of people) as a means for creating change within food systems (DuPuis & Goodman, 2005). The idea of a reflexive localism aligns with Sarmiento's (2017) notion of hybrid (rather than alternative) food networks. As a concept, hybridity helps us rethink scalar assumptions embedded in conventional/alternative binaries. It also allows us to move beyond

anthropocentric analyses of AFNs by considering the diverse human and nonhuman actors involved in local and global food systems (Sarmiento, 2017). The conceptualization of AFNs as relational, hybrid, and imperfect provides a framework for exploring and understanding the diverse and complicated (human and human-cow) relationships that shape, and are shaped by, grass-fed beef farming.

I add to debates about the socio-political, economic, and ethical aspects of alternative food networks (DuPuis & Goodman, 2005; DuPuis et al., 2014; Guthman, 2008; Holloway, 2002; Sarmiento, 2017) through my analysis of grass-fed beef farming. I bring this scholarship into conversation with debates about the marketization of animal welfare (Buller & Roe, 2014; Buller, 2018; Gillespie, 2011; Gunderson, 2011; Miele & Evans, 2010; Miele, 2011Shukin, 2009; Stanescu, 2014; Taylor, 2013) to offer critiques of ethical food systems and reveal the benefits and drawbacks of grass-fed beef farming for cows, farmers, consumers, and the environment. For example, I explore how farmers grass-fed beef practices impact cows' care while also discussing how deception and privilege function in this food sector. An investigation of grass-fed beef farming's benefits alongside a look at its contradictions highlights the messiness of food systems, offering an analytic that works in conjunction with exploring the complexities that characterize our relationships with cows as food animals.

Dissertation overview

Each dissertation chapter unpacks different dimensions of cow welfare to create a robust, in-depth analysis of welfare's meanings, practices, and impacts on cows' relationships, bodies, lives, and deaths. Building upon one another, these chapters address my empirical, conceptual, and methodological research objectives to reveal the intricacies of cow welfare and the ethically

complex relationships between farmers and cows and, more broadly, what it means to be in relation with food animals. In chapter two, I provide an overview of the Canadian beef industry's size and sectors and unpack its problems with cow welfare. I explore the origins of animal welfare discourse in the United Kingdom and outline its impacts on the Canadian beef industry's *Code of Practice for the Care and Handling of Beef Cattle*. These guidelines exemplify how the Canadian beef industry attempts to augment existing animal welfare laws while strengthening cow welfare protocols (and the Canadian beef industry's image as ethical). I explore the specific guidelines, who creates them, how they are implemented, and most importantly, what kinds of problems they make for cows. An analysis of issues in the Canadian beef industry sets the context from which I turn my attention to grass-fed beef farming as a kind of agriculture that aims to enhance cow welfare. Shifting my attention, here I discuss important features of grass-fed beef farming and provide some historical context.

In chapter three, I discuss the methods used in this qualitative, grounded theory research study, which include semi-structured interviews with grass-fed beef farmers and multispecies participation observation at grass-fed farms and cow auctions. I explain my research process in detail and describe the philosophical approaches that informed my methodology and guided my positionality as a researcher. Lastly, I consider the challenges and limitations I encountered throughout this research process.

In chapter four, I discuss my experiences of conducting multispecies participant at grass-fed beef farms, drawing attention to my interactions with farmers and cows and those I witnessed among cows, farmers, and other nonhuman animals. I detail farming practices that I observed and participated in while working on the farms, some of which were emotionally and

ethically challenging. Central to this chapter are the ways I articulate the ethically complex and ambiguous nature of farmer-cow (and other animal) relations, while highlighting the emotional and ethical challenges of multispecies participant observation. I reflect on methodological and ethical challenges and dilemmas of encountering animals whose lives are ultimately harnessed for human use (Collard, 2015; Garcia, 2019; Gillespie, 2018; Oliver, 2020), and I discuss how I made sense of these challenges, which, I explain, became central to the research process.

In chapter five, I draw from my semi-structured interviews with Ontario grass-fed beef farmers to address my core research questions, which correspond to my objective of investigating cow welfare on grass-fed beef farms, exploring its diversion from conventional beef farming and unpacking grass-fed beef farmers' understandings and practices of cow welfare. These research questions are as follows:

1. How do grass-fed beef farmers understand cow welfare?
2. What environmental, ethical, and economic factors shape these understandings?
3. How do these understandings play out in day-to-day practices of grass-fed beef farming?
4. In what ways do these understandings shape cow-farmer relations and the lives and experiences of cows on grass-fed beef farms?

Here I explore grass-fed beef farmers' narratives about cow welfare by revealing its social, behavioural, spatial, environmental, and economic dimensions.

In chapter six, I engage with animal geographies and biopolitics to build upon chapter four's discussion of the ethically complex relationships between farmers and animals and chapter five's

analysis of farmers' understandings and practices of cow welfare. Using the frameworks of animal geographies and biopolitics, I dig deeper into welfare's meaning(s), addressing my objectives of exploring its impacts on cows' agencies, subjectivities, interrelations, and commodification. In relation to these conceptualizations of welfare, chapter six explores welfare's interconnected dimensions of care, emotionality, and killing – all of which, I explain, underpin farmer-cow relations.

In chapter seven, I turn my attention to grass-fed beef farming as the system in which cow welfare and ethical food practices unfold. I analyze grass-fed beef farming as an alternative food network premised on ethical food practices that (aim to) benefit farmers, consumers, and cows. I draw from debates in critical food studies to provide insight into the ethical complexities of grass-fed beef farming, examining its benefits, limitations, and the tensions that surround its representation of ethical alterity (to conventional beef farming). A critical analysis of our food systems extends an exploration of cow welfare, revealing the entangled politics of cow production and consumption that connect farmers and consumers to the cows they consume.

In chapter eight, I leave the grass-fed farm for the sale barn, investigating how the auction process – as an integral part of the industry's beef network – hinders cow welfare. Most grass-fed beef cows avoid auctioning because, unlike conventionally farmed cows, they often live their entire lives on pasture prior to being killed. Grass-fed beef cows typically weigh less than grain-fed cows and are, therefore, un-ideal commodities in auction rings because, within these spaces, the weight of animals determines their economic worth.[7] This chapter sheds light on the violence of the auctions and, in this way, provides a contrast to the kinds of care and relationships I

[7] Grass-fed beef farmers discussed this me with in our conversations about auctions.

observed and participated in on grass-fed beef farms. By detailing the violence of auctions, this chapter reaffirms the connection between cow welfare and grass-fed beef farming. I use the knowledge I gained during my fieldwork at grass-fed farms and reflect on the different ways that conventionally farmed cows endure physical and emotional stress during their auctioning and conclude by reflecting on the emotional, ethical, and methodological challenges of navigating and researching spaces within which animal violence occurs.

In chapter nine, I conclude my analysis of cow welfare by reflecting on the dissertation's objectives and its empirical, conceptual, and methodological contributions to animal geographies, biopolitics, critical food studies, as well as animal welfare discourse and multispecies ethnography literature. I unpack how this research journey challenged and changed me and how, through my engagements with cows, I learned about their lives as much as my own. I hope that my research findings, contributions, and reflections about cows and their welfare resonate with readers, helping them (re)connect with cows they have always been in relation with.

CHAPTER TWO

THE DISCOURSE OF ANIMAL WELFARE, THE CANADIAN BEEF INDUSTRY, AND THE *CODE OF PRACTICE FOR THE CARE AND HANDLING OF BEEF CATTLE*

In this chapter, I discuss issues with animal welfare in the Canadian beef industry and how grass-fed beef farming provides an alternative approach to cow welfare practices. First, I examine the origins of animal welfare discourse and then discuss the Canadian beef industry and how animal welfare discourse in the United Kingdom helped shape the Canadian beef industry's *Code of Practice for the Care and Handling of Beef Cattle.* Here, I explore what these guidelines entail, who creates them, how they are implemented, and what impacts these guidelines have on the cows they are intended to protect. An analysis of cow welfare problems in the Canadian beef industry sets the context from which I turn my attention to Ontario's grass-fed beef sector as an alternative beef farming model that aims to enhance cow welfare.

Animal welfare origins

Debates about animal welfare began in the United Kingdom in the nineteenth century, with the Cruel and Improper Treatment of Cattle Act of 1822, also known as Martin's Act, paving the way for the UK's first welfare legislation (Kreilkamp, 2012; Uvarov, 1984; Woods, 2011). This act was named after a member of parliament, Richard Martin, who inaugurated it after the Trial of Bill Burns. Burns was found guilty of beating his donkey, and Martin advocated for the legal standing of certain nonhuman animals as legal subjects with rights and protections beyond their status as possessions (Kreilkamp, 2012). Martin's Act played a role in the founding of the Royal Society for the Prevention of Cruelty to Animals (RSPCA) in 1840. In 1876, the UK passed the first national law to regulate animal experimentation with its Cruelty to Animals Act. This bill created a central

governing body for the review and approval of animal experimentation; however, it did not extend protection to livestock animals. The UK's 1911 Protection of Animal Act, which grew out of Martin's Act, did extend to livestock animals, making it an offence to cause unnecessary suffering to animals in public spaces (Woods, 2011). Despite these monumental strides for livestock animal protection, the treatment of one's livestock remained a private matter in English society (Kreilkamp, 2012) and therefore did little to protect livestock animals (Woods, 2011).

Welfare legislation in the UK played a critical role in welfare legislation in North America. In 1869, Canada's first Society for the Prevention of Cruelty to Animals (SPCA) was founded in Montreal, and Canada's Cruelty to Animals provisions (under the *Criminal Code of Canada*) was founded in 1892 (Pask, 2015).[8] The main focus of humane societies from their inception until the First World War was on working animals and blood sports (Hughes & Myer, 2000). Hughes and Myer (2000) explain that in North America, post-war urbanization and the decreased use of horses for travel shifted public attention from livestock and working animals to companion animals, creating an out-of-sight, out-of-mind mentality about farm animal cruelty and welfare. As a result, there was a lapse of concern for farm animal welfare during the First and Second World Wars ("Animal welfare: A long and storied history," 2019).

With the rise of modernization and intensification of livestock farming in the 1960s (occurring alongside civil rights and environmental movements), a renewed interest in farm animal welfare emerged ("Animal welfare: A long and storied history," 2019). Public attention shifted from preventing animals' suffering to enhancing their wellbeing (Buller, 2013; Woods,

[8] It was (and continues to be) difficult to prosecute people for animal cruelty given the wilful *mens rea* requirement present in the majority of provisions (Pask, 2015).

2011). Buller (2013) explains that intensified animal agriculture was predicated on the pressures of feeding an expanding post-war population with cheap food while creating profit for the food industry at the same time. Woods (2011), however, notes that intensive farming was not unique to the post-WWII years. From at least the late nineteenth century, productivity-oriented livestock producers had turned to indoor husbandry in an attempt to make farming more profitable, modern, and efficient.

A vanguard leading the shift in the public's attention to the suffering of animals was Ruth Harrison, whose 1964 exposé on factory farming in the United Kingdom, titled *Animal Machine*, pushed animal welfare legislation in a new direction. Harrison investigated livestock animal housing conditions and drew attention to their physical and mental suffering. She refuted the industry's pervasive logic that an animal was not suffering if they physically "thrived" under intense farming conditions. This logic was supported by the notion that it was in farmers' economic interest to treat their livestock well, and animals who performed well were therefore not suffering.[9] The United Kingdom's Ministry of Agriculture, Fisheries and Food (MAFF) responded to Harrison's investigation through its commissioning of the Brambell Committee, which set out "Five Freedoms" that was expanded on and codified in 1968 through the Farm Animal Welfare Advisory Committee's development and oversight. The Five Freedoms, which continue to shape animal welfare discourse today, are as follows: Freedom from Hunger and Thirst, Freedom from Discomfort, Freedom from Pain, Injury or Disease, Freedom to Express Normal Behaviour, and Freedom from Fear and Distress.

[9] Calls between me and veterinarians who work with conventional farmers shed light on how this logic continues to characterize the industry's stance on welfare today.

Woods (2011) explains the Brambell report's use of the term "welfare" (in exchange for "cruelty" or "suffering") aimed to evoke a positive image of the livestock industry's treatment of animals:

> This decision…was influenced by MAFF's political desire to defend farmers' interests and establish its right to welfare governance. "Welfare" was not merely a new term for describing particular forms of animal suffering but also a political construct that reflected the outlooks and agendas of MAFF officials. (Woods, 2011, p. 21)

The term "freedom," with its emancipatory connotation, also exemplifies this agenda. Key to the Five Freedoms was its voluntary, quasi-legal structure, whereby farmers did not have to legally follow it but could be charged in court if suspected of cruelty (Woods, 2011). This governance structure set the stage for the Canadian beef industry's welfare codes of practice.

A brief look at the Canadian beef industry

Canada is the eleventh largest beef producer and fifth largest exporter of beef (Pogue et al., 2018). Every year, 11.2 million cows make their way through Canada's agricultural industry ("Livestock Estimates January 1, 2020," 2020). This includes dairy, heifers (breeding and slaughter), steers, calves, bulls, and beef cows. Of these cows, 3.66 million are farmed specifically for beef ("Canada's Beef Industry Fast Facts," 2019). Occupying space within the 72,700 Canadian farms housing cows, these cows are used for a variety of productive purposes (Statistics Canada, 2020). Some are used for birthing calves and producing milk, while others are farmed for their semen or premium beef cuts. All of these cows, however, eventually become beef. Alberta and Saskatchewan hold the highest inventories of these animals, with Ontario following in third, housing 1.63 million cows ("Canada's Beef Industry Fast Facts," 2019). And in Ontario, 243,000

of these cows are farmed specifically as "beef cattle" ("Quick facts about Ontario's Beef Industry," 2018).

Canada's beef industry is made up of different sectors responsible for managing cows at different stages of their productive lives. These sectors, comprised of cow-calf farming, backgrounding, feedlot farming, and processing, collectively contribute to the 3.08 billion lbs of beef that Canada produces annually. Cow-calf farmers breed cows and raise calves (to approximately 600 lbs), preparing these animals for background or feedlot operations (*"*Backgrounding and Finishing*,"* 2013). Backgrounders continue raising calves on forage-based diets to approximately 900 lbs before sending them to confined feeding operations (feedlots), where they are fed grain for quick growth and given less space to move to promote fat (also known as "marbling") ("Backgrounding and Finishing," 2013). The average herd size of a cow-calf operation is 69 cows ("Canada's Beef Industry Fast Facts," 2019). If the entirety of the industry's calves grew at the same efficiency, the system would become overwhelmed. Backgrounding solves this issue by raising calves at slower rates of gain. Feedlots bring cows to their desired market weight of approximately 1,300–1,400 lbs ("Backgrounding and finishing," 2013). Processing is the industry term for slaughtering cows; processing facilities are provincially or federally regulated for animal welfare and food safety purposes.[10] These sectors make up the general cycle of beef production, characterizing the different environments that cows enter

[10] There are 123 provincial processing plants in Ontario ("Canada and Ontario Invest in Cattle Industry Competitiveness: Projects to strengthen provincially licensed abattoirs and help find new markets for beef," 2019). Cargill and JBS – two of the country's largest beef companies – own their own federal processing plants and provide roughly 85 percent of Canadian beef (Edmiston, 2020).

throughout their lives. Cows are often sold and purchased throughout this cycle through live auctioning.

The Canadian beef industry's role in the Canadian economy is significant. Between 2014 and 2018, it contributed $18 billion to Canada's gross domestic product (GDP) ("Industry Stats," 2020). Some of these profits were attributed to Canada's beef exports, which represent 38 percent of Canada's domestic slaughter (generating $2.75 billion in GDP) ("Canada's Beef Industry Fast Facts," 2019). From a provincial standpoint, Ontario's beef sector supplied $2 billion to Ontario's GDP in 2018 ("Quick facts about Ontario's Beef Industry," 2018). The federal government supports the industry through investments, dispersing $8.3 million in 2019 to organizations such as the Canadian Cattlemen's Association, the Canadian Roundtable for Sustainable Beef, and the National Cattle Feeders Association for research and marketing projects (Duckworth, 2019). Canadian consumers play a vital role in the Canadian beef industry by annually consuming (per person) approximately 39 lbs of the beef that the industry produces ("Canada's Beef Industry Fast Facts," 2019).

The ideals of economic efficiency and maximized production underpin the Canadian beef industry's sectors and practices, shaping the lives of the millions of cows it efficiently produces as beef. Public concerns about the treatment of cows, among other farm animals within industrial animal agriculture, have been crucial to the emergence of farm animal welfare protocols in the Canadian beef industry.

Farm animal welfare in Canada's beef industry: The *Code of Practice for the Care and Handling of Beef Cattle*

As stated above, in the 1960s, Harrison's undercover investigative work, which led to the development of the Brambell report's Five Freedoms, helped spark public attention about the cruel realities of factory farming by revealing the physical and mental suffering of animals in these settings. Examples of this suffering include the physical and mental stress associated with confined feeding operations (CAFOs), slatted floors causing physical pain and unhygienic conditions, dark rooms without natural light, poor air ventilation, and painful procedures (such as tail docking) without the use of anesthetics. In response to these concerns (and scrutiny), livestock farmers began forming associations to create more transparent standards of care for animals (Sankoff, 2019). In 1980, the Canadian Federation of Humane Societies began coordinating the process of developing codes of practice for all livestock species.[11] Through its agreement with the Canadian Cattlemen's Association, the federation put together a review committee of diverse stakeholders in animal agriculture who collectively helped bring the *Code of Practice for the Care and Handling of Beef Cattle* (COPB) to its inception in 1991. The COPB was originally overseen by the Canadian Federation of Humane Societies, and in 2005 it fell under the management of the National Farm Animal Care Committee (NFACC) (NFACC, 2013). The NFACC is a collaborative partnership of animal welfare groups, veterinarians, scientists, government, farmers, and other industry stakeholders such as transporters, processors, auctioneers, and food production and inspection branches of Agriculture Canada who update the COPB every five years

[11] Codes of practice are not legislated by law. Legislation put into effect that did concern farm animals include the Meat Inspection Act of 1985 and the Health of Animals Act of 1990. The former concerns inspection practices of animals and meat products at slaughter facilities, and the latter aims to control the spread of animal-related diseases by establishing surveillance and control zones and the practices pertaining to the destruction of diseased animals (Government of Canada, 2021a; Government of Canada, 2021b).

(NFACC, 2013). While federally funded by Agriculture and Agri-Food Canada, the government has no role in developing or enforcing the codes it puts forth (Sankoff, 2019).

The COPB aims to balance cows' needs with the industry's economic interests. Alluding to this position, the NFACC expresses that the COPB is intended to:

> achieve a workable balance between the best interests of cattle, producers, and consumers. It recognizes the basic principle that cattle treated well benefit producers. It aims to meet scientifically valid and feasible approaches to meeting cattle health and welfare needs throughout the production system, contributing to a sustainable and internationally competitive Canadian beef industry. (2013, p. 6)

The COPB is made up of requirements and recommendations pertaining to the following areas of cow care: animal environment, feed and water, animal health, animal husbandry, transportation, and on-farm euthanasia.[12]

Requirements refer to industry-imposed practices that outline a minimum standard of care farmers are expected to meet. They are not sanctioned by provincial or federal law but instead augment existing laws and regulations (NFACC, 2013). However, as quasi-legal, those who fail to implement them in their farming practices can be compelled by industry associations to undertake corrective measures or risk economic loss in the beef market (NFACC, 2013). Examples

[12] The following subsections pertain to each of the codes: (1) Animal Environment: protection from extreme weather, facilities for all cattle, additional facilities for calving cows; (2) Feed and Water: nutrition and feed management; (3) Animal Health: herd health management, sick, injured, cull cattle; health conditions related to feedlot cattle, safety, and emergencies; (4) Animal Husbandry: handling and moving cattle, reproduction and calving management, identification, debudding and dehorning, castration, weaning, predator control, tail docking; (5) Transportation: pre-transport decision making and preparation for transport, arranging transport, and loading and receiving. Requirements under this section are listed under the Health and Animals Regulations Act; (6) On-Farm Euthanasia: euthanasia and culling decisions, methods of on-farm euthanasia, confirmation and insensibility and death (NFACC, 2013).

of requirements include: (1) “providing a safe and clean area for calving that promotes calf survival” (NFACC, 2013, p. 9) and (2) “providing cows with additional feed to meet their increased energy requirements in cold weather” (NFACC, 2013, p. 8). These requirements are listed under the code’s section, “Animal Environment” (NFACC, 2013). Recommendations refer to practices that complement requirements, promote producer education, and enhance animal welfare outcomes (NFACC, 2013). Recommendations surpass the minimum acceptable standards of care and do not result in corrective measures if and when individuals fail (or choose not) to implement them. Examples of recommendations that complement the above requirements are: (1) “keeping calving areas free of cattle before calving to minimize manure contamination and help reduce calf diseases” (NFACC, 2013, p. 9) and (2) “providing bedding to insulate against bare ground and to reduce mud and manure build-up on hides, which can increase heat loss” (NFACC, 2013, p. 8). Other examples of requirements, listed under the code’s animal husbandry section, are: (1) “Animal handlers must be familiar with cattle behaviour (through training, experience, or mentorship) and use quiet handling techniques. (2) Electric prods must only be used to assist movement of cattle when animal or human safety is at risk or as a last resort when all other humane alternatives have failed and only when cattle have a clear path to move” (NFACC, 2013, p. 19) Recommendations pertaining to these include the following: (1) “Take a course in cattle handling techniques. (2) Use handling tools, such as flags, plastic paddles, or rattles, to direct animal movement” (NFACC, 2013, p. 19).

If a person causes cows unnecessary pain or suffering or willfully neglects their needs, charges under the *Criminal Code of Canada* (1892) can be laid. Animal cruelty provisions listed under the *Criminal Code of Canada* are not specific to farm animals, and in some circumstances,

farm animals are exempt from these laws. For example, under the new (2020) Provincial Animal Welfare Services Act (PAWS), agricultural animals (as well as animals listed in the Fish and Wildlife Act) are exempted from laws concerning "Distress, Animal Fights, and Harm" ("Provincial Animal Welfare Services Act, 2019, S.O. 2019, c. 13", 2020). Federal law that pertains specifically to agricultural animals is contained in the Health of Animals Act (1990), enforced by the Canadian Food Inspection Agency (CFIA). Transportation laws, amended January 2020, are contained in the act's Health of Animals Regulations, which outlines health conditions in which sick and injured cows cannot be shipped and how long cows can be driven before stopping for food and water ("Provincial Animal Welfare Services Act, 2019, S.O. 2019, c. 13," 2020).

It is up to the discretion of farmers to follow the COPB in their everyday farming practices, and good sources that aim to assist farmers with this include value chain programs, veterinarians, farming conferences, and newsletters and magazines. However, Moggy et al. (2017) argue that the COPB fails to influence farmers' management practices.[13] They point out that farmers view the COPB as a source of information for less knowledgeable farmers but doubt its effectiveness for changing farmer behaviours unless these changes bring value to their beef operations (Moggy et al., 2017).

Since the inception of the *Code of Practice*, undercover investigative work within Canada's livestock industry continues to provide evidence about welfare issues, supporting the argument

[13] This research study consisted of 94 western Canadian cow-calf farmers, chosen as part of a five-year longitudinal study of biological sampling and surveying of herds (of 100 or more) across three provinces. The study identified areas of management that could benefit from producer familiarity with the COPB, such as confirmation of death when euthanizing on the farm. It also noted how veterinarians were not a major source of information regarding the COPB and that efforts should be made to increase producer and veterinarian familiarity with the COPB (Moggy et al., 2017).

that voluntary codes of practice are not effective enough to protect the welfare of farm animals in animal agriculture. For example, in 2001, Animal Alliance of Canada and the Animal Protection Fund released a study exposing abusive and common practices in the industry, showing that animals in intensive confinement experience severe stress, pain, fear, isolation, and a variety of surgical mutilations (Bisgould et al., 2001). Similarly, a report completed by Animal Justice of Canada outlines how employee whistleblowers at Ontario farms and slaughterhouses reveal employees kicking, punching, and beating animals. Other cruelties listed in the report include animals crammed into tiny cages and denied freedom of movement, mutilations without anesthesia, botched euthanasia, improper slaughter, filthy conditions, and employee workplace safety concerns ("Animal Justice files legal challenge to strike down Ontario 'Ag Gag' Law," 2021). Exemplifying these cruelties is a 2016 video from a whistleblower at a dairy farm in British Columbia showing cows being punched, kicked, and beaten with canes (Kane, 2016) and a 2018 video showing a cow moving its head while being skinned at a slaughterhouse in Ontario ("Animal welfare complaint filed after footage appears to show moving cow being skinned alive," 2018). In response to the covert nature of undercover investigative work (and the trespassing that this work often necessitates), the Government of Ontario legislated an ag gag law in January 2020, making it illegal to investigate and expose problems in Ontario's animal agriculture industry under false pretenses. Additionally, this law makes it illegal for peaceful protestors to interfere or interact with animals inside transport trucks in an attempt to document their suffering ("Animal Justice files legal challenge to strike down Ontario 'Ag Gag' Law," 2021).

Undercover investigative work is not the only exposure of problems in Canada's agricultural industry. For example, the 2016–2017 National Beef Quality Audit – a report conducted to

examine the quality of Canada's beef – revealed a variety of beef quality defects in comparison to the 2010–2011 audit. These include an increase in animals with liver abscesses, "tag" (mud, urine, and feces coverage), and severe bruising, providing insight into the handling, health, and welfare of cows in the Canadian beef industry ("*Beef industry's sign of quality defects are a sign of animal abuse*," 2018). Undercover investigative work, ag gag legislation making the covert exposure of animal cruelty illegal, and industry audits such as the National Beef Quality Audit provide insight into problems with farm animal welfare in Canada, supporting the argument that Canada's voluntary codes of practice require attention and critique.

A critical perspective on the National Farm Animal Care Council's *Code of Practice for the Care and Handling of Beef Cattle*

The National Farm Animal Care Council emphasizes how the codes are scientifically supported through a peer-reviewed process (by scientific animal welfare experts) (NFACC, 2013). However, debates in animal welfare literature expose cracks in the legitimacy of science as an objective benchmark for measuring and defining welfare, given the way scientific perspectives on it vary. These debates unveil how identifying and prioritizing the needs of farm animals has been problematic for the scientific community due to significant variation and uncertainty among the community about how to measure, methodologically assess, and judge animal welfare (Croney & Millman, 2007; Fraser, 2003; Sandoe et al., 2004). Coleman and Hemsworth (2011) summarize this dilemma by arguing that definitions of animal welfare are shaped by its study and measurement. For example, Fraser (2003) draws attention to a study in which European and Australian scientists reviewed scientific literature on sow gestation stalls, where the former recommended the phasing out of stalls given their negative impacts on sows' behavioural and

affective states and the latter, in contrast, concluded that gestation stalls improve sows' growth (biological function) and, therefore, welfare. This exemplifies how focusing on an animal's biological and psychological states produces different assessments and measurements of animal welfare, shaped by different understandings of it. More critically, these differing assessments demonstrate how evaluating an animal's physiological functioning as an indicator of wellbeing fits into an economic logic that associates an animal's strong, productive capacities (growth and development as meat) with good welfare. As Buller and Roe (2014) argue, "animal welfare science-making practices themselves change in response to the entry of welfare into the economy, which includes commercial pressures, legislation, and consumer concerns" (p. 142).

This literature casts light on the subjective underpinning of animal welfare's scientific assessment, expressing that "to date, even the best scientifically-based objective measures [of animal welfare] have 'wriggle room' such that they can usually be interpreted to satisfy personal, commercial, or cultural requirements" (Whittington, 2018, p. 117). In this vein, the scientific evidence supporting the COPB requires critical attention, especially given the economic interests that shape it. The diversity of actors involved in the COPB's creation, such as animal welfare groups, veterinarians, scientists, government, farmers, and industry stakeholders such as transporters, processors, auction markets, and food production and inspection branches of Agriculture Canada indirectly allude to the economic interests embedded in the codes.

Sankoff (2019) critiques how the NFACC's standards of care for animals are created by a group dominated by the very industries affected by those standards. He explains that laws addressing farm animals' handling and care are limited to statutes on food safety, disease prevention, and marketing, with few specific provisions about keeping farmed animals safe from

harm while on the farm. The ambiguous legal status of the COPB is complicated by how animal welfare laws and the use of codes vary by province and are governed by different agencies, non-governmental organizations, prosecutorial offices, and police forces (Sankoff, 2019).

Critiques of the NFACC's COPB shed light on animal welfare issues in the Canadian beef industry, contributing to a discussion about why a thorough analysis of welfare is warranted. The COPB's voluntary structure, accompanied by its market-driven development, renders it unclear what cow welfare is, how it is carried out, and how it impacts the lives of animals it is supposed to protect. The conventional beef industry provides an essential foundation for examining the trajectory from which grass-fed beef farmers depart in their conceptions and practices of cow welfare, pushing conversations about it in new and meaningful directions.

Enhancing cow welfare: Grass-fed beef farming as an alternative to conventional beef farming

Grass-fed beef farming entails raising cows on an exclusive grass-based diet, typically by grazing them on pasture until they reach their market weight.[14] It aims to enhance cows' wellbeing and the environment they forage from while yielding healthier beef for consumers. The majority of grass-fed beef farmers I spoke with argued that grass-fed beef farming offers an alternative to conventional beef farming because it is better for animals, the environment, and consumers. Central to farmers' discussions of grass-fed beef farming is that it prioritizes cow welfare in ways that conventional beef farming does not. One way it aims to enhance cow welfare is through its elimination of grain from cows' diet, which many farmers I spoke with attributed to sickness in cows. As Ruechel (2006) notes, grain did not become a staple in beef farming until after the Industrial Revolution, given the role of machinery in creating grain surpluses, which were recycled

[14] During winter months, grass-fed beef farmers feed hay to their animals.

through livestock. Grain interference with the seasonal, grass-dependent life cycle of cows has created problems in the industry, ranging from diseases such as pink eye, mastitis, pneumonia, shipping fever, and scours to severe (but less common) disease outbreaks, such as foot and mouth and mad cow disease (bovine spongiform encephalopathy) (Ruechel, 2006).

In Canada, the definition of grass-fed is not regulated by the government, inviting room for critiques of grass-fed beef farming, which I discuss in chapter seven. There are no cohesive farming associations of grass-fed beef farmers in Ontario (or Canada), making the history of grass-fed beef farming in Ontario difficult to trace. Its history in Ontario and abroad has colonialist origins, as grass-fed beef farming practices took place and continue to take place on stolen land. The link between the dispossession of Indigenous peoples and the lands upon which grass-fed beef farms operate is, therefore, an integral part of grass-fed beef farming's past and present.[15]

In our conversations about grass-fed beef farming, many farmers named Allan Savory as an influential figure in their farming practices. Savory was a Zimbabwean biologist, game ranger, politician, and farmer who, in the 1960s, developed Holistic Management (Schwartz, 2013). Savory searched for ways to restore the Southern African savannah and its wildlife, which he surmised had been degraded by poor land management practices. During his time as a ranger, Savory observed that animals could reverse desertification through their ability to restore grasslands. In the 1980s, he incorporated this knowledge into an agricultural model referred to as Holistic Management (Schwartz, 2013). During this time, he taught farmers about the role and use of livestock animals in restoring grasslands. Holistic Management is the use of ungulates

[15] In the process of conducting this research, I failed to consider the foundational ways in which colonialism shapes grass-fed beef farming. An investigation of grass-fed beef farming's coloniality in Ontario marks an important research trajectory that I aim to follow after the dissertation's completion.

(such as cows) in land restoration (Savory Institute, n.d.)[16] and is premised on the notion that humans can mimic nature by using animals' natural behaviours to nourish grasslands (Schwartz, 2013). Holistic Management follows the logic that herbivores coevolved with native grasses, so "we must put animals back on the land" (Ehrlich, 2013, p. xiii). Savory observed how, when moved in large groups according to a planned schedule, herbivores consumed grass and plants, stimulated root growth, and broke up the soil with their hooves, allowing dormant seeds to germinate and water to seep in (Schwartz, 2013). Via Holistic Management, animals fertilize the earth with their manure and urine (organic matter), putting carbon back into the land (Schwartz, 2013). For these reasons, Holistic Management deems the contribution of animals as vital in grassland restoration and in the wellbeing of the environment more broadly. Ruechel (2006) articulates how this understanding of the relationship between grazing animals and restoration is embedded in grass-fed beef farming's history:

> Cattle and grass evolved together for millions of years, each adapting to the other to create an efficient partnership that shaped the landscape of our planet. Long before humans arrived on the scene, cattle were already among the grazing species that roamed the savannah in vast herds, defying predators, keeping encroaching trees at bay, and creating the fantastically rich soils of ancient grasslands. (p. 1)

Other names that farmers noted as influential to their grass-fed beef farming practices include Allan Nation and Joel Salatin. Nation was an American farmer and owner and editor (1977–2016) of *The Stockman Grass Farmer*, a magazine read by many grass-fed beef farmers I spoke with. Nation, who passed away in 2016, provided farmers with information about

[16] Ungulates refer to animals with hooves.

successful grazing practices and introduced them to the concept of "low-stress livestock handling," as taught by Bud Williams, a stockman known for unique and effective livestock handling techniques.[17] Nation's *The Stockman Grass Farmer*, among other published work, played a key role in grazing livestock animals. Joel Salatin, a Holistic Management practitioner, is the current editor of *The Stockman Grass Farmer* and another influential figure in grass-fed livestock farming. A multigenerational American farmer who calls himself a "Christian libertarian environmentalist capitalist lunatic farmer," Salatin has lectured and extensively published on the business and sustainability of grazing livestock. Farmers attribute Savory, Nation, and Salatin as important figures for grass-fed beef farming's development.[18]

Farmers' discussions about Holistic Management and the above noted individuals provide a preliminary understanding of grass-fed beef farming upon which the following dissertation chapters build. This current chapter situates and contextualizes the research by examining how grass-fed beef farming is understood by farmers as an alternative to conventional beef farming. Examining problems with cow welfare in the conventional beef industry offers readers a sense of what drew my attention to investigating cow welfare in relation to grass-fed beef farming. I premise this investigation on the notion that an analysis of cow welfare must be rooted in an understanding of cows' lives, experiences, and relationships. In the following chapter, I detail the

[17] Nation coined the term "low-stress livestock handling" to describe Bud Williams' livestock handling methods. None of the farmers I spoke with mentioned Bud Williams, but many discussed the work of Allan Nation.

[18] It is not my intention to essentialize Holistic Management and these farmers as solely responsible for grass-fed beef farming's origin. However, Savory, Nation, and Salatin were most noted by farmers in our conversations about grass-fed beef farming.

methods I used to investigate the intricacies of cows' lives and farmers' understandings of welfare.

CHAPTER THREE

METHODOLOGIES

In this chapter, I discuss the methods used in this qualitative, grounded theory research study of grass-fed beef farmers' understandings and practices of cow welfare and how these play out in the day-to-day experiences of farming for farmers and cows. Grounded theory entails building ideas and theoretical analyses by closely examining and creatively thinking about one's data (Neuman & Robson, 2015). Taking a qualitative, grounded theory approach to this research allowed me to use farmers' experiences and conceptions of cow welfare as essential data from which to build an in-depth analysis of welfare. The core research questions that connect with my objective of investigating cow welfare on grass-fed beef farms are as follows:

1. How do grass-fed beef farmers understand cow welfare?
2. What environmental, ethical, and economic factors shape these understandings?
3. How do these understandings play out in day-to-day practices of grass-fed beef farming?
4. In what ways do these understandings shape cow-farmer relations and the lives and experiences of grass-fed cows?

In addition to the objective and corresponding research questions posed above, other objectives that guide this dissertation include an analysis of welfare's impacts on cows' agencies, subjectivities, interrelations, commodification, and an investigation of how it shapes, and it shaped by, farmer-cow relationships of power. Other objectives for this dissertation entail writing about how cows, as research subjects, can teach us about their lives in ways that change and

challenge us as researchers in the process. I provide insight into these challenges and changes by writing about the process of navigating this research and the human-animal encounters into which it brought me. I address these diverse and interrelated objectives through (1) semi-structured, open-ended qualitative interviews with grass-fed beef farmers; (2) multispecies participant observation at grass-fed beef farms and cow auctions; and (3) content and discourse analysis of scholarly texts and industry guidelines on cow welfare. Collectively, these methods allowed me to explore my research objectives and shed light on the multidimensionality of cow welfare by learning from both farmers and cows about its importance, meanings, and complexities. Accompanying these analyses with an investigation of industry guidelines allowed me to explore the discursive impact of these on the lived experiences of farmers and cows. I begin this chapter by discussing the philosophical and methodological approaches that informed my research and guided my positionality as a researcher. I then examine the data sampling and collection techniques I used in this study and explain the approaches I took for recording, coding, and analyzing the data. Lastly, I unpack the methodological challenges and limitations I encountered when trying to gain access to different beef sector actors such as feedlot farmers, drivers, and abattoir staff, and discuss the fieldwork settings that characterize their work.

Philosophical, methodological, and political approaches to research and understanding my positionality as a researcher

Acknowledging the complexities of my positionality as a researcher: embracing a feminist lens

The work of feminist scholars such as Gillespie and Gruen informed my practice of multispecies participant observation. Alongside these contributions, in my fieldwork experiences, I embraced feminist perspectives on an ethics of care (Adams, 1995; Donovan, 1990; Gilligan, 1982) by

reflecting on the political role of emotion in navigating my relationships with the cows. An ethics of care reminded me of the importance of observing and listening to what cows shared with me about their emotions and experiences, as it is "concerned with sustaining connection and keeping our web of relations with animals intact" (Mahannah, 2016, p. 129). I observed how this connection underpinned (or failed to underpin) the human-cow relationships I witnessed throughout the research. An ethics of care shaped how I examined and understood these relationships by priming me with a lens for capturing the nuanced ways that human emotion both informs and challenges cow care and killing.

An ethics of care also shaped my understanding of the diversity of emotions I felt during (and after) the research process, shedding light on emotionality's power in revealing human-animal connection (and disconnection). For example, the nuanced and visceral impacts of an ethics of care during my encounters with cows drove my feelings of confliction, hypocrisy, and guilt as a researcher documenting the lives and, more significantly, deaths of cows. At other times, however, an ethics of care shaped my feelings of responsibility, love, appreciation, and excitement when learning with and from cows about their lives and deaths, using these teachings to explore and challenge their treatment as "beef." Embracing these feelings and perspectives as a core component of my research methodology impacted how I acknowledged and encountered cows as more than "beef." These encounters, I show, simultaneously shaped the emotional and political challenges I experienced as a researcher studying cows rendered as "beef."

The feminist perspectives on an ethics of care that informed my research and continue to shape my identity support the protesting against industries that commodify and exploit the lives of cows. As a vegan, I do not refute this position and often feel compelled by it. However, as a

researcher, I felt the need to pragmatically position myself and my research in the industry rather than outside of it. Birke (2016) explains that being a pragmatic animal researcher involves working on several levels at once, even if they are ideologically contradictory. Unpacking this position, she states, "I am unhappy with the notion that we should *only* work to abolish exploitative practices, rather than intervening to make animals' lives a little easier here and now" (Birke, 2016, p. 351). Following Birke's logic, I see merit in abolishing exploitative practices. However, I also advocate for work that attempts to enrich the lives of cows embedded in capitalist practices. I recognize the messy food relationships we have with cows and grasp the role of the beef industry as an integral, albeit problematic, part of these relationships. Using a feminist lens to navigate my methodological practices allowed me to learn from cows about their lives and how they exceed their status of beef. I used these teachings to pragmatically question and investigate how to foster better relationships with the cows as both individual subjects and as food.

Embracing feminist perspectives on intimacy (Gillespie, 2017), entangled empathy (Gruen, 2015; 2016), and an ethics of care (Donovan, 1990; Gilligan, 1982; Gruen, 2015) provided me with tools for expanding my understanding of the complexity of emotions, experiences, and challenges farmers endure in their work with cows. I did not reveal that I was vegan to the majority of farmers I worked with because I feared they would misperceive my research intentions. (However, I did tell those I worked with in multispecies participant observation.) I withheld this information as a way of ensuring that farmers accurately perceived my research agenda of exploring cow welfare, and I used this trust as an opportunity for genuine learning from farmers.

Acknowledging power dynamics and presenting the data

I struggled with the task of conceptually framing data that addressed my core research questions because I did not want to risk misinterpreting farmer responses about cow welfare via theoretical rhetoric that farmers did not use. I acknowledged this challenge as an outcome of my position of power as a researcher and academic and cautiously navigated it by presenting this data without a conceptual framework. Taking this approach allowed me to systematically address my core research questions according to the answers provided by farmers. It also represented my best efforts at strengthening the credibility of the data, intentionally presenting farmers' accounts of welfare in their own terms, unencumbered by conceptual framing. However, I acknowledge the inevitable presence of the subjective lens through which I heard and made sense of how farmers described and understood welfare. It is not, therefore, my intention to suggest that my discussion of the data is free from subjectivity, despite my efforts in examining farmer narratives about welfare without a conceptual structure.

Working with and understanding cows

An inevitable limitation of multispecies participant observation is the reality that, as researchers, we may not always get things right. Our human lens for encountering the world limits our capacity to accurately grasp and respond to the nonhuman others with whom we share our lives. My understanding of and writing about cows, therefore, invited a certain level of anthropomorphism in my research. However, I navigated this anthropomorphism by continually reflecting on Johnston's call for engaging in responsible anthropomorphism (2008). She defines responsible anthropomorphism as "a way of knowing about and knowing with animals not based on our shared sentience, our shared place in the world or any other such abstract philosophical

argument, but on our actual relationships, our day-to-day living and working" (2008, p. 646). Johnston (2008) argues that by focusing on our day-to-day co-relationality with animals, we can evaluate our responsibilities to them in more realistic terms (p. 646.) Fraser-Celin and Hovorka (2019) discuss how responsible anthropomorphism enables us to recognize (vertebrate) animals as interactive subjects we share commonalities with, but who also have their own unique experiences, thoughts, and individuality. I practiced responsible anthropomorphism by acknowledging my limitations for understanding cows and addressed these to the best of my ability by practicing reflexivity, patience, and humility in my research encounters with cows.

Data sampling and collection procedures

Interviews

I conducted semi-structured, open-ended qualitative interviews with grass-fed beef farmers (and one grain-fed farmer), given their direct and essential position of working with cows as beef animals. I also interviewed bovine veterinarians, given their role in developing and implementing cow health and welfare protocols that significantly impact the management, treatment, and wellbeing of cows. Veterinarians are often called upon by farmers when problems with cow welfare arise, and, in this way, they offer critical insight into its complexities and nuances. For the reasons I discuss below, I focused primarily (and intentionally) on grass-fed beef farmers as essential participants for informing the research. Through purposive and snowball sampling, I located participants by initially Google searching "Ontario beef" alongside the terms "welfare," "humane," and "ethical beef." I chose the latter two terms because of their synonymous associations with welfare, and I focused on Ontario, given its diversity of beef farms and the ease of access to research sites it provided me as an Ontario-based researcher. I selected farm

websites that referenced some or all of these terms and contacted farmers via email or phone to briefly discuss my research and inquire about their interest in participating in an interview. "Grass-fed beef" was not an original part of my Google search because I was not yet aware of its relationship to cow welfare. However, I started to note its significance, given that the majority of farms my search produced were grass-fed farms. I decided to focus on grass-fed beef farming because I wanted consistency within my sample and became interested in exploring the relationship between grass-fed beef farming and cow welfare exclusively.

Then, using snowball sampling, I began interviewing grass-fed beef farmers who helped me expand my sample size by providing me with the names of other grass-fed beef farmers who might also take an interest in the research. I followed a similar sampling process for sourcing bovine veterinarians, Google searching "bovine veterinarian" and "cow welfare." I came upon the website of the Canadian Association of Bovine Practitioners and used this website as a resource for connecting with veterinarians. I emailed the association about my research and connected with an individual who distributed my information to veterinarians. This person then provided me with the names of those interested in participating in an interview, and I contacted these individuals via email to further discuss the research and arrange an interview date.

Grass-fed beef farmers' stories about their cows served as unique pieces of data for exploring the lives and experiences of cows in grass-fed beef farming. During these interviews, I asked farmers direct questions about their reasons for grass-fed beef farming, their understandings of cow welfare, and their-day-today relationships with cows. I asked follow-up and probing questions when I wanted them to further expand on specific points, and when I was unsure of what farmers were communicating to me, I asked interpreting questions to ensure an

accurate understanding of their expressions. This process of checking in with farmers also strengthened the credibility of my data by ensuring my accounts of farmers' positions were correct. These interviews allowed me to have conversations with farmers in a guided direction while also leaving room for them to establish additional avenues for reflecting on particular thoughts, experiences, and questions that spoke to their conceptions of cow welfare. I followed a similar process of asking direct, follow-up, probing, and interpreting questions in my interviews with bovine veterinarians.

My interview sample size consisted of 22 grass-fed beef farmers, one conventional (grain-fed) farmer, eight bovine veterinarians, and one former bovine veterinarian now working as a Canadian Food Inspection Agency Inspector.[19] Following the preferences of farmers, I conducted 13 interviews in-person at farms, three of which included two farmers per farm, three in-person at alternative locations of their choice, and three over the phone. Two grass-fed beef farmers asked to read my interview questionnaire and email me their responses. I adapted to the limitations of this approach by emailing these individuals follow-up and interpreting questions to collect further details and strengthen my understanding of their responses. I conducted seven of the nine interviews with bovine veterinarians over the phone; six of these participants lived and worked in Western Canada, and one, living in Ontario, preferred being interviewed by telephone. I interviewed the other two veterinarians (including the former veterinarian now employed by the Canadian Food Inspection Agency) in person. I digitally recorded interviews when participants consented and took diligent notes when they did not. I then transcribed these recordings and

[19] Two of the 20 farms I visited had two farmers that participated in an interview, creating a total of 22 grass-fed beef farmer participants.

notes on my computer in a secured file. I chose to stop the interview process when I felt confident that I reached a theoretical saturation point in my data collection, yielding no new findings in my discussions with farmers. After coding the data, my decision concerning theoretical saturation was affirmed, as I felt assured in the consistency, quality, and quantity of my research findings.

Multispecies participant observation at grass-fed beef farms

Participant observation is the process of observing and participating in the daily lives of one's research subjects to develop an in-depth, shared understanding of their experiences and systems of meaning (Singleton et al., 1988). Many scholars use participant observation as an essential method for studying animals because of the opportunity it provides for understanding the critical environments and contexts that shape animals' lives (Collard, 2014; Gillespie, 2018; Fraser-Celin & Hovorka, 2019; Lorimer, 2010). I use the term *multispecies* participant observation to draw attention to the fundamental role that animals play in the research process as subjects we learn about, and more importantly, learn from. In this vein, multispecies participant observation is rooted in multispecies ethnography, which refers to methodological approaches of examining how humans have been formed and transformed in their encounters with nonhuman animals, plants, fungi, and microbes (Kirksey, 2014). More specifically, it illuminates the political, cultural, and economic ways in which these encounters matter for humans and the diverse organisms we share the world with (Kirksey, 2014). I use Gillespie's notion of intimacy (2017) and Gruen's idea of entangled empathy (2015; 2016) as a conceptual map for navigating multispecies participant observation, given their emphasis on building meaningful relationships with animals by paying attention to their experiences.

Gillespie's notion of intimacy refers to the emotional bonds, ruptures, and responses of animals that reflect their lived experiences. In a methodological and research setting, it also applies to the entangled relationship between animal research subjects and human researchers (Gillespie, 2017). The attention that researchers provide to animals' emotional lives is the entry point through which we can grasp our entanglement and engage with them as subjects from who we can learn. Offering insight here, Donovan and Moss (2017) explain that understanding our relationality with animals is an essential step in the research process because it allows us to "witness their emotions as political responses to the diverse human practices that appropriate their life" (p. 162).

Gruen (2015) defines entangled empathy as:

> an experiential process involving a blend of emotion and cognition in which we recognize we are in relationships with others and are called upon to be responsive and responsible in these relationships by attending to another's needs, interests, desires, vulnerabilities, hopes, and sensitivities. (p. 3)

A part of feminism's ethic of care tradition, entangled empathy refers to processes of caring for animals by trying to understand and respond to them, particularly when their wellbeing is compromised (Gruen, 2015; 2016). It occurs when we pay attention to an animal's experiences by reflectively imagining ourselves in their position, using this information to assess ways of helping them (Gruen, 2015; 2016). Entangled empathy also awakens us to the complex networks of power, care, and control that underpin human-animal relations (Gillespie, 2017), fostering within us a counter-knowledge to the dominant ways of knowing animals promoted by animal-use industries (Gillespie, 2017). It requires that we, as researchers, listen to animals and see them

as subjects engaged in the pursuit of their wellbeing (Jones, 2015). In this way, entangled empathy counters what Corman (2016) refers to as the "ventriloquist's burden," in which people act as the voice of (and for) animals, depoliticizing them as voiceless victims unable to articulate for themselves.

Gruen (2015) draws attention to the role of consulting animal caregivers such as ethologists and ecologists for understanding the individual and species-specific behaviours of animals with who we engage in entangled empathy. Her call for consulting animal caregivers highlights the importance of drawing on the stories of people who work with animals to build knowledge about animals in ways we would not otherwise be able to. Putting the insight of intimacy and entangled empathy into practice, I coupled farmer narratives about cows with my observations and interactions with cows as an integral part of conducting multispecies participant observation. Intimacy and entangled empathy offered me tools for studying and working with cows, given their emphasis on the necessity of reflecting on the lived experiences of cows and the entangled power dynamics with humans that impact their experiences.

I carried out multispecies participant observation at four grass-fed farms in Ontario, located in the communities of Clinton (Huron County), Mitchell (Perth County), Lucknow (Bruce County), and Cobden (Renfrew County). I gained access to these farms by following up (via telephone or email) with grass-fed beef farmers with who I had previously established rapport during interviews, discussing my goal of returning to their farms to examine their day-to-day farming practices. I obtained consent from four farmers and completed five research trips in total, making two trips to one farm and one trip to the other three farms. I was amazed by the hospitality of these farmers as they welcomed me to spend the night at their home so I would

not have to drive in the early morning (on my way to the farm) or late at night (on my way home from the farm). I visited these farms in March, April, and May 2019.

During these trips, I spent a full day with the farmers by observing and, when given permission, participating in their daily farming routines and interactions with the cows. Some of these routines consisted of feeding minerals (and hay in the winter), bedding, watering, and moving the herds from their current pasture to new pasture for feeding (in the spring). Other tasks I observed and participated in included picking and removing knapweed from the pasture, which cows do not like eating, and separating cows from the herd who were going to be sent for slaughter the following day. I asked farmers questions throughout the day and used the stories they told about their cows as tools for guiding my understanding of and interactions with the animals. I paid attention to how the cows watched and engaged with me and how they communicated with each other through touch and voice. I witnessed mothers and calves interact through licking, suckling, and vocalizing and saw calves skipping and running in groups. I watched males engage in playful, and at times aggressive, head butting and observed how the herd pecking order manifests in certain behaviours such as shoving and leading. I listened to cows call to the farmers for feed, mothers to their babies when they wandered too far, and others express feelings of stress when their routines became disrupted. I paid attention to the vulnerability I felt when surrounded by cows and patiently waited as they communicated to me through their gaze if they were willing to trust me, which they expressed through licking, proximity, or touch.

Multispecies participant observation at livestock sale barns (cow auctions)

I also conducted multispecies participant observation at the following six sale barns: Hoards Station (Campbellford, Ontario), Brussels Livestock (Brussels, Ontario), Keady Livestock Market

(Tara, Ontario), Aylmer Stockyards (Aylmer, Ontario), and the Ontario Stockyards (Cookstown, Ontario). I selected these sites given their online descriptions as essential landmarks in the beef farming community, and many of the farmers I interviewed referenced these sale barns as noteworthy places in the conventional beef farming community. Given that sale barns are open to the public, I was able to access these places without having to gain consent from anyone. I witnessed the sale of "slaughter cows," "stockers," and "calves and yearlings." The first label refers to spent dairy cows sold for immediate slaughter (processed as ground beef), while the latter two refer to beef cows (much younger than slaughter cows) sold to feedlots (who are eventually slaughtered for premium cuts of beef.) I paid attention to how, at every auction, employees continuously hit and yelled at calves and cows while auctioneers and buyers fetishized their bodies and genetic qualities. I listened to the overwhelming and constant bellowing that filled these spaces and watched cows pacing and jumping, as well as being prodded or smacked and tightly packed into pens (behind the auction ring). I reflected on what these sounds meant by reflecting on my teachings from farmers and cows (via interviews and previous fieldwork at farms). The sites and sounds I encountered at sale barns shed light on practices that negatively impact cow welfare. Attending these events allowed me to explore an essential part of conventional beef farming that grass-fed beef farming often negates, given that grass-fed beef farmers do not commonly sell their cows at sale barns for economic and ethical reasons.

Note-taking methods during multispecies participant observation

Jotted notes

I kept a small notebook in my pocket during my fieldwork at farms and sale barns. I scribbled brief thoughts, words, and critical moments of observations throughout these research

experiences and elaborated on these when I returned home from the field sites. Jotted notes provided me with an important starting place for building on other notes discussed below.

Digitally recorded notes

As I drove home from farms and sale barns, I used my phone's voice recorder to record thoughts and observations that I was not able to reflect on in the field or that had not occurred to me until after leaving the field. I transcribed these notes as soon as I arrived home and kept them in a separate file that I later organized and added to my direct observation and inference notes.

Direct observation notes

I used my jotted and digitally recorded notes as a foundation to further elaborate on what I observed in the field, such as the behaviours, practices, and interactions I witnessed among farmers and cows at grass-fed beef farms and those between employees and cows I observed at sale barns. I focused on what farmers said about cow behaviour and what sounds the cows made at particular moments. Additionally, I watched and recorded how the cows interacted with one another through touch, play, aggression, and leadership and how they responded to my presence through their gaze and actions. For example, I observed how mothers and calves bonded through proximity, suckling, and licking. I watched as newborn calves stood for the first time and how the calves ran and skipped together, at times vocalizing loudly. I examined cow-pecking behaviours, watching who among the cows eats first (at times, headbutting others out of the way) and who leads the herd when moving to new pasture. I noted when cows sniffed and licked my hand, when they circled me, and when they allowed me to scratch their backsides, faces, and behind their ears. Just as significantly, I recorded when cows vocalized at the sight of my presence and when they backed away from me quickly. In these moments of vocalization, calves were often

nearby, and farmers warned me to not stand between the mothers and calves. I paid attention to the sights, sounds, and smells that characterized these farms, taking note of the smell of fresh pasture, hay, and manure. I also observed the diversity of non-agricultural animals, such as dogs, cats, mice, birds, and foxes who lived on or near the farms.[20]

Inference notes

In a separate file from my direct observation notes, I reflected on my interpretations and understandings of the sights and sounds I observed in the field and the conclusions they revealed to me about the data. These notes allowed me to separate and manage my perceptions of the field from my direct observations in the field, helping me navigate the data and my positionality as a researcher, vegan, and feminist in the data collection process.

Personal notes

Given the emotional weight of assisting farmers with tasks that may have caused the cows stress, and, at times, trying not to cry out of fear of losing credibility as a researcher, I journaled, when necessary, as a way of describing, releasing, and coping with the emotional impacts of the research. I also noted the positive emotions I experienced when interacting with farmers and cows. These notes had a therapeutic role in assisting me with the data collection process and helped me reflect on the visceral experiences I endured and embraced throughout my fieldwork. They also allowed me to monitor the changes and challenges I experienced at times concerning my vegan politics. Tracking these emotional fluctuations helped me better acknowledge and address when my biases were impacting the data.

[20] Animals who I did not observe were coyotes, who farmers discussed as predator animals posing a threat to the safety of their cows.

Discourse and content analysis of farm animal literature and industry welfare guidelines

I collected additional data about cow welfare by analyzing a range of farm animal literature and industry guidelines to expand my understanding of welfare and the networks that produce knowledge about it. I selected the *Code of Practice for the Care and Handling Beef Cattle* – the official Canadian handbook outlining the industry's welfare regulations and recommendations– as an essential source of data. Additionally, I examined current animal welfare literature to explore how animal welfare is scientifically, ethically, and politically measured and conceptualized in (and beyond) the beef industry. Lastly, I analyzed material produced by the Beef Farmers of Ontario and the Canadian Cattlemen's Association because, as powerful actors in the network of Canadian beef farming and production, these organizations ideologically shape practices and norms that impact the treatment and management of cows. I accessed all of these materials online.

Data analysis approaches

I uploaded and coded all of my data using the qualitative data analysis software, Nvivo.

Open coding

In the first stage of coding, I scanned the data to identify broad categories (codes) such as "farmer understandings of welfare," "welfare practices," "cow behaviours," "economic aspects of welfare," "reasons for grass-fed beef farming," "emotionality," "welfare regulations," and "pressures faced by farmers." Loosely organizing the data in this way curbed my feelings of being overwhelmed by the data, and, more importantly, it provided me with an outline for axial coding.

Axial coding

During this second stage of coding, I focused on the preliminary codes identified during open coding and analyzed each with greater precision by creating sub-codes when key details and nuances in the data emerged. For example, I refined "cow behaviours" by differentiating between positive and negative actions described by farmers. In addition to organizing coded data into sub-codes, I also focused on connections across codes. For example, I labelled "environmental reasons" as a sub-code within "reasons for grass-fed beef farming" and then noticed that farmers described a relationship between environmental and animal welfare. This finding prompted me to label "environmental welfare" as a sub-code within "understandings of welfare," ultimately linking the codes, "reasons for grass-fed beef farming," and "farmer understandings of welfare."

Selective coding

In this final stage of coding, I looked for relationships between codes to see if, and to what extent, they clustered into more significant categories. For example, I analyzed how "welfare regulations" and "pressures faced by farmers" both indicated particular kinds of control over animals and farmers and then created "governance" as a broader code within which these previous codes fit. Selective coding allowed me to organize important details and nuances throughout the data by refining, reorganizing, and relabelling codes. During this final stage of coding, I continued to identify nuances within sub-codes and refined them accordingly. For example, I labelled "farmer-cow relations," "herd relations," and "cow-calf relations" as sub-codes of "relationships" by noting different and noteworthy aspects of these that were appearing in the data. Taking this analysis further, I then identified sub-codes within sub-codes by, for example, defining "favouritism," "care," and "dislike" as sub-codes of "farmer-cow relations."

Accounting for these details allowed me to understand different dynamics and complexities of day-to-day relationships between cows and farmers that welfare practices take place within. During this last stage of coding, I reached theoretical saturation when no new findings were revealed in the data. Obtaining theoretical saturation in the data made me feel confident in the quantity and quality of my data collection and informed my decision to exit the field.

Analytical memos

An essential part of the coding process entailed analytical memo taking. I completed these notes while coding, and they continued to evolve as my analysis became more structured and thematically strong. While coding, I wrote down thoughts about concepts, themes, and potential relationships I saw emerging in the data. These memos helped me examine the development of core themes in the research and gave me a foundation to conceptualize and refine these findings. Adding to these memos throughout the coding stages allowed me to identify relationships among codes and sub-codes and gave me an analytic map for understanding how I arrived at these findings.

Successive approximation

I engaged in successive approximation throughout the coding process to conceptually explore the data, identifying its complexities and nuances. Successive approximation entails the process of oscillating between empirical data and abstract ideas (Neuman & Robson, 2015). Using this method, I layered conceptual analysis into the data by exploring how particular concepts made critical aspects of the data more vivid. I began the research with the understanding that the fields of animal geographies, biopolitics, and critical food studies could (likely) inform the data, and this impacted the ideas I drew on when analyzing and framing the data. Rather than using these

conceptual frameworks as a mould for (re)shaping the data, I used them as flashlights for revealing its hidden complexities. Animal geographies, biopolitics, and critical food studies helped to inform and strengthen my data analysis. In making these connections, the data, in turn, contributed to these scholarly fields in meaningful ways.

Methodological challenges and limitations

Gaining access to the field

My original research goal was to explore how different sectors of the beef industry, such as farms, feedlots, transportation, and abattoirs, impact cow welfare. Unfortunately, my attempts at interviewing feedlot farmers, drivers, and abattoir staff were unsuccessful. As an outsider to the agricultural community with no beef farming experience, I was met with a lot of suspicion by various people in the industry. There are many injustices experienced by people who work within the industry (particularly within the slaughter and butchering sector), such as poor pay and working conditions, and many people also experience threats from animal rights activists. Given these problems and the negative reputations associated with the processing end of beef farming, I understood the reservation that people felt towards me and was not surprised by their refusal to speak with me. However, the struggle of accessing the cows whose bodies are readily available in supermarkets, restaurants, and farmers' markets is noteworthy. The bordered walls of the industry that remove cows from our societal sight invite and necessitate suspicion of the practices cows and other agricultural animals endure. Grass-fed beef farmers are not as associated with these bordered walls, given their alternative approach to beef farming. However, fostering pragmatic (Birke, 2016) connections with farmers showed me the value of shared

dialogue and mutual respect with the farming community as a way of accessing, encountering, and learning about cows to enhance their lives.

Detailing the methodological steps I took to conduct the research and the theoretical insights that shaped my positionality throughout this process offers readers a deeper understanding of the practices that brought the dissertation to life. It also sheds light on the challenges I encountered along the way – challenges that, at times, strengthened my trust in needing to investigate cows' lives and welfare and, at other times, made me question the ethics of this investigation and the research practices underpinning it. It is in connection with these challenges that I remained committed to an ethics of care by bridging pragmatism (Birke, 2016) with intimacy (Gillespie, 2017) and entangled empathy (Gruen, 2015; 2016).

CHAPTER FOUR

REFLECTIONS FROM THE FIELD: UNPACKING MY EXPERIENCES OF MULTISPECIES PARTICIPANT OBSERVATION

In this chapter, I provide more detail about one of my core methodologies: multispecies participant observation. I reflect on my experiences of multispecies participant observation at grass-fed beef farms by discussing my interactions with farmers and cows and those I witnessed among cows, farmers, and other nonhuman animals. Alongside this, I outline the daily practices that I observed and, at times, participated in while working on the farms. I articulate the ethically complex and ambiguous nature of the relationships I observed while highlighting the emotional and ethical challenges I encountered during my time with farmers and cows. I reflect on methodological and ethical challenges of encountering animals whose lives are ultimately harnessed for human use (Collard, 2015; Garcia, 2019; Gillespie, 2018; Oliver, 2020) and discuss how I made sense of these challenges, which, I explain, became central to the research process and foundational to my understanding of the multispecies relationships and lives I witnessed.

Multispecies participant observation is rooted in multispecies ethnography, which are methodological approaches of examining how humans and nonhumans such as animals, plants, fungi, and microbes transform one another through their encounters (Kirksey, 2014). More specifically, it illuminates the political, cultural, and economic ways in which these encounters matter for humans and the diverse organisms with whom we share the world (Kirksey, 2014). Multispecies ethnography demonstrates how our everyday encounters with animals have transformative impacts on our shared and individual lifeworlds (Gillespie, 2018; 2018; Lorimer, 2006; 2010; Istomin et al., 2010). And, alongside this, it traverses and implodes the apolitical

boundaries that misrepresent our hierarchical relationships with animals.

Participant observation is an ethnographic approach of observing and participating in the daily lives of one's research subjects to develop an in-depth and shared understanding of their experiences and systems of meaning (Singleton & Straits, 2010). Although most scholars use the term participant observation, I use the term *multispecies participant observation* to emphasize the way this method advances animal geographies' research agenda of building knowledge about animals to create better relations with them.

I use Gillespie's notion of intimacy (2017) and Gruen's idea of entangled empathy (2015; 2016) as a conceptual map for navigating multispecies participant observation, given their emphasis on building meaningful relationships with animals by paying attention to their experiences. As discussed in chapter three, Gillespie's notion of intimacy refers to the emotional bonds, ruptures, and responses of animals that reflect their lived experiences. In methodological and research settings, intimacy also applies to the entangled relationship between animal research subjects and human researchers (Gillespie, 2017). The attention that researchers provide to animals' emotional lives is the entry point through which we can grasp our entanglement and engage with them as subjects from whom we can learn.

Gruen (2015) defines entangled empathy as an emotional and cognitive process in which we "recognize we are in relationships with others and are called upon to be responsive and responsible in these relationships by attending to another's needs, interests, desires, vulnerabilities, hopes, and sensitivities" (p. 3). A part of feminism's ethic of care tradition, entangled empathy refers to processes of caring for animals by trying to understand and respond to them, particularly when their wellbeing is compromised (Gruen, 2015; 2016). It occurs when

we pay attention to an animal's experiences by reflectively imagining ourselves in their position, using this information to assess ways of helping them (Gruen, 2015; 2016). According to Gruen (2015), empathy is a process that goes something like this:

> The wellbeing of another grabs the empathizer's attention; then the empathizer reflectively imagine himself [sic] in the position of the other; and then he makes a judgement about how the conditions that the other finds herself [sic] in contributes to her state of mind or well being. The empathizer will then carefully assess the situation and figure out what information is pertinent to empathize effectively with the being in question. (p. 51)

Entangled empathy is a way for one to perceive and connect with a specific other in their particular circumstance, assessing one's place in reference to the other. Entangled empathy, she explains, is a central skill for being in ethical relations with others (Gruen, 2015).[21] To build these ethical relations and strengthen our assessments of animals' wellbeing, Gruen draws attention to the role of consulting animal caregivers such as ethologists and ecologists for understanding the individual and species-specific behaviours of animals with whom we engage in entangled empathy. Echoing this call for consulting animal caregivers, Greenhough and Roe (2019) explain that listening to stories told by those who work closely with animals offers us key insight into

[21] Gruen explains that responding to the other's wellbeing is critical to entangled empathy, and during my time in the field, I reflected on the ways my responses came in the form of writing about cows' lives and the conditions within which they are rendered as food. However, as I discuss later in this chapter, I questioned, at times, the extent to which I was practicing entangled empathy, given that I did not attempt to change cows' conditions and fate as food.

animals' subjectivities, individualities, unique experiences of the world, and the complexities of their relationships with humans.[22]

In my practices of multispecies participant observation, I coupled farmer narratives about cows with my observations and interactions with cows as integral to conducting multispecies participant observation. Intimacy and entangled empathy offered me tools for studying and working with cows, given their emphasis on the necessity of reflecting on the lived experiences of cows and the entangled power dynamics with humans that impact their experiences. During these trips, I spent a full day with the farmers by observing and, when given permission, participating in their daily farming routines and interactions with the cows. I asked farmers questions throughout the day and used the stories they told about their cows as tools to guide my understanding of and interactions with the animals. I paid attention to how the cows watched and engaged with me and how they communicated with each other through touch and voice. My interviews with grass-fed beef farmers helped me understand the various dynamics of farmer-cow relations. Engaging in multispecies participant observation at grass-fed beef farms gave me first-hand insight into these relationship dynamics. By engaging entangled empathy and intimacy within the practice of multispecies participant observation, I became better equipped to tune into what farmers told me about their animals while watching and listening closely to what animals showed and told me about their experiences.

Farmer-cow relations

[22] In their analysis of storytelling, Greenhough and Roe (2019) focus on the power of stories told by animal laboratory technologists. Like these technologists, farmers are also charged with the responsibility of caring for animals who will eventually be killed.

My time at grass-fed beef farms illustrated most strongly the ways cows associate the presence of farmers with food. I listened to a symphony of cow voices call to farmers for hay (during the colder months when fresh grass is unavailable) and watched closely as the herds moved quickly towards farmers when farmers moved the cows to new pasture (during the warmer months). Cows' associations of farmers with food signalled one way their welfare is dependent on farmers. As I watched practices of hay feeding as well as rotational grazing, I reflected on how these reinforce cows' associations of farmers with food while impacting their relationships in different ways. For example, practices of feeding hay during the winter bring farmers and cows into closer proximity with one another, while rotational grazing allows farmers and cows to maintain a distance between each other that hay feeding does not enable. The winter season impacts farmer-cow relations by necessitating a closeness between farmers and cows, where practices of hay feeding are critical. Warmer seasons, within which cows engage in rotational grazing, create distance between farmers and cows, altering the interactions they share, which become less frequent when hay feeding is no longer required. I provide more detail about the importance of rotational grazing in the following chapter.

At one farm, I became amused with the sense of annoyance the cows seemed to be expressing while waiting for hay. Their bellows grew louder as the farmer moved large stacks of hay into the feeding area and then ceased once the farmer completed this task. This farm was unlike the others I attended, as this farmer housed his cows at a barn with access to an outdoor fenced area in the winter and moved them to pasture in the warmer months with ample space for rotational grazing. The unique features of this farming operation contributed to the special relationships that this farmer had with his cows — relationships that I thoroughly enjoyed being

in the presence of. I conducted multispecies participant observation at the cows' winter and summer homes (as the farmer called them) and was able to see, first-hand, how these spatial arrangements altered the interactions he shared with the cows. For example, the farmer explained that the cows were more dependent on him during the winter and required less of his attention in the warmer months when on pasture. My favourite research experiences unfolded at the cows' winter home, where I closely observed the love they seemed to share with the farmer. Within this space, I took note of the various ways in which cow welfare flourished.

These experiences consisted of watching the farmer provide the cows with massages, ear scratches, and apples. Unlike the other farms I attended, at this farm, the farmer also provided the cows with names (rather than numbers) on their identification tags. He explained his naming process to me, describing how he sits with the calves weeks after their birth and asks them what their name is, waiting for an indication. These communicative exchanges were not limited to the naming process; I listened to the farmer talk with the cows throughout the day, often beginning in the morning when waking the cows. During my conversations with the farmer, he discussed the importance of talking with cows and said, "I'm not sure if it's good for them, but I know it's good for me." I took note of this comment and felt strongly that talking with cows was good for them. I recall arriving at the barn at 7 am, watching the farmer gently touch the cows, calling them by name while calmly saying, "Good morning." I followed, touching the cows gently while exercising awe, excitement, fear, and vulnerability. The comfort that the farmer shared with his cows was illustrated in a childhood story he recounted about lying under the teat of a cow to consume her milk. While I appreciated hearing this story, I felt strange in response to it and questioned how the cow he was talking about must have felt in this moment. However, the

comfort, connection, and admiration the farmer shared with the cows were undeniable, and his care for them was reflected in his reference to himself as their "humble servant." This farmer shared an emotional connection with his cows unlike any other I observed during my multispecies participant observation at other farms. He highlighted the significance of what it means to know your herd, knowing, for example, who likes massages and who likes to be left alone. I observed how knowing one's herd means caring about cows' individual likes and dislikes, using this care and knowledge as a means for building relationships with cows. As the farmer discussed the importance of knowing his herd, I recalled how other farmers I engaged with also emphasized this point.

Central to my practices of multispecies participant observation was detailing the ways in which farmers described their herd by articulating which cows in the herd enjoyed (or tolerated) contact and which did not. I appreciated my exchanges with those who did, providing ear and back scratches when possible and respected the distance that others demanded of me. Of utmost importance were the lessons I learned from farmers about not standing between a mother and her calf, as this creates severe stress for mothers and poses a physical threat to the person causing this stress. During one of my field trips, one farmer cautioned me to remain close to him while he was moving the cows to new pasture because my lagging behind, he explained, risked making the cows feel surrounded and fearful. While my slower pace was driven by a sense of awe of the cows, I quickly responded to the farmer's cautioning; I followed him closely as he moved the cows and exercised his own kind of cow call to signal it was time for fresh pasture.

Multispecies participant observation provided an avenue for learning about cow welfare by showing me the relational dynamics that impact (and are impacted by) welfare practices. I

learned about how the care that farmers have for their cows shapes the connections they create with cows. At the same time, I witnessed how entangled with this care are different practices that create stress for cows, which I discuss later in this chapter. Just as importantly, multispecies participant observation allowed me to observe, first-hand, the special relationships that cows share with one another, adding nuance and complexity to knowledge about cow welfare.

The social and emotional relationships among cows

My experiences of multispecies participant observation vividly illustrated, with undeniability, the social and emotional bonds that cows share with one another. During my time at grass-fed beef farms, I witnessed mothers and calves interact through licking, suckling, and vocalizing and saw calves skipping and running in groups. I watched some cows lick one another and others ride on the backs of each other. Steers and bulls engaged in playful head butting that at times grew aggressive, while others appeared calm and gentle.[23] These behaviours revealed what one farmer referred to as "barnyard politics," whereby cows establish a herd hierarchy among themselves for governing their interactions. Also referred to as a "pecking order" by most farmers, this governing system determines who leads the herd, eats first, and gets the best cuts of grass and hay. Other pecking order behaviours that I luckily did not observe are acts of protection to fend off predators, whereby adult cows form a circle around calves to shield them from danger.

Cows' bellows are emotionally charged. Mothers would call to their calves when they wandered too far, and others used their voices to express distress. I observed the latter at one farm where a cow (named Eradour) managed to get out of the fenced area the male cows were

[23] Steers are castrated males and bulls are uncastrated males. The former are used exclusively for their meat and are killed at approximately two years of age or less. Bulls are used for breeding and therefore live much longer. I discuss this further in chapter six.

in, causing another cow (named Fred) to bellow until the farmer brought Eradour back. I watched as the farmer used a large piece of plastic siding to guide Eradour back into the fenced area and was impressed with how calm and gentle the farmer and cow remained throughout this process. Listening to Fred's bellow and unease with Eradour's escape illustrated how stress is relational for cows, signalling the significance of cows' bonds with one another and the stress that arises for cows when farmers sever them from their herd mates and kin. I felt the visceral effects of this stress when mothers, remaining close to their calves, bellowed at the sight of me. Respecting the distance that cows demanded of me in those moments was one way I practiced cow welfare and, more specifically, an ethics of care with cows.

During one of my field trips, I was lucky enough to observe a mother nuzzle her newborn calf, born hours before my arrival at the farm. I watched as the mother remained close to the calf, licking the calf to encourage movement, and I was amazed at how quickly the calf developed the strength and skill to walk. Within an hour or two, the calf was skipping and jumping in a playful manner beside their mother, who appeared calm and attentive. The mother cow's embrace of her calf provided me with an entry point for understanding the strength, importance, and emotionality of cow relations. It also highlighted one way that I, a new mom, felt a sense of connection to and understanding of the bonds that mothers and calves share with one another, producing within me a visceral understanding of how traumatic it must be for mothers when severed from their calves via weaning practices. (I discuss this as a violation of cow welfare in chapter six.) My experiences of watching cows showed me the diverse emotions that cows express in their relationships, strengthening my understanding of their sociality and the intimacy they share with others. Part of multispecies participant observation entailed observing cows'

relationships, while another part of this research process entailed directly engaging with cows.

Engaging with and learning from cows as research subjects

Integral to my multispecies research were the interactions I shared with the cows. I learned as much from the cows as I did from the farmers in these interactions and was very grateful to the farmers for their transparency and willingness to have me on their farms. Reflecting on Gruen's (2015; 2016) and Gillespie's (2017) works, entangled empathy and intimacy prompted me to pay attention to not only how I saw the animals but, more importantly, how they looked at me. Their gaze, size, and proximity made me feel vulnerable as an outsider and researcher in their space. The cows taught me about their curious and cautious nature, which became something I quickly admired.

During my interactions with cows, I took note of their curiosity, affection, and cautious demeanour. Encounters that stand out in my memory include those I shared with Northwind, Faith, and Adam. These cows were all at the same farm, and the interactions we shared were indicative of the unique and special features of this farm. For example, while walking in the barn during my first trip to the farm, through the fence, I approached Northwind, a mature bull, and he stared into my eyes and slowly laid down near me. Following suit, I sat low to the ground and continued to let him sniff my mitten through the gate while he simultaneously ate hay. We remained there together until the farmer, who had made a trip to the local store, returned. Just as special as this moment was the bond I felt with Faith, a five-day-old calf. Faith taught me about her curious and affectionate nature by greeting my face with her wet nose, licking me while trying to suckle at my arm and knee, I imagine becoming annoyed or confused when finding no milk! During this interaction, Mary-Lee, Faith's mother, stared at me intensely. The farmer told me I

passed Mary-Lee's test, given the way she allowed me to interact with Faith. Perhaps she felt safer that a fence separated Faith and me. Whatever her reason was for allowing me to remain close, I was very grateful. I returned to the farm months later and felt excited to see Faith again, this time out on pasture. It was great to see her growth and experience her gaze again. The farmer told me he thought Faith remembered me, and I recall hoping that he was right. I had never felt closer to cows than I did at this farm, which was the first farm that I conducted multispecies participant observation at. Another moment that captures this closeness was an interaction I shared with Adam, a young male who enjoyed face and ear scratches and showed me how rough cow's tongues are when meeting your face! I recall holding Adam's large face in my hands through the fence that separated us, scratching his cheeks while admiring his gaze. Adam moved quickly and licked my face. I was amazed at the roughness of his tongue as I wiped my lip and saw a little blood. I knew after this moment that it was in my best interest to protect my face from cows' affectionate and curious gestures.

My experiences at this farm helped me navigate my interactions with cows at other farms. I learned the importance of patience and moving slowly and calmly. Like my interactions with the cows at the farm highlighted above, cows at other farms expressed their curiosity through touch, smell, proximity, and a very strong gaze. At one farm, I recall being out on the pasture conversing with the farmer when feeling a sudden nudge on my back. I turned around and was greeted by the nose of a cow who took an interest in my mitten, sniffing and licking it as I put my hand out. I scratched their cheek and admired their gaze. As this cow approached me, others followed suit, coming cautiously closer to me as I remained calm and moved slow, extending my hand to those who wanted to come nearer. Some cows licked my jacket, and I wondered if they could smell the

other cows who licked it before. Many cows I encountered throughout my research did not come close or want to be touched, and these experiences were just as important to me as the close encounters I describe above: these animals showed me the importance of respecting the distance that some cows demand through their gaze and vocalizing. I became interested in how cows who demand distance find ways to still communicate their curiosity. For example, some cows did not approach me at all and instead lifted their noses in my direction, smelling me at a distance while staying far away. Others approached with caution and chose not to make contact. During one research trip, I recall walking through the pasture with the farmer and his daughter and watched in the distance as the herd looked in our direction and then ran towards us. A feeling of excitement and exhilaration came over me as I watched them run and wondered how close they would come. The herd ran and then stopped approximately 10 feet from us, communicating their need for some distance from us. Although we did not make physical contact, we connected through our gaze, and I admired their beauty. I felt strongly that it was through their gaze that the cows investigated me, reminding me that in these moments of research encounters, they were exploring me just as much as I was exploring them. Farmers' stories about their cows assisted me in building my understanding of cows and their lives. Just as important, or perhaps even more important, were my encounters and experiences with cows. Through our engagements, cows were my research subjects as well as my teachers.

A key aspect of my encounters with all the cows I met throughout my research was the visceral vulnerability I experienced in their presence. At one farm, all the cows had horns, which

contributed to the physical vulnerability I felt.[24] Experiences of vulnerability reminded me that I was an outsider entering cows' spaces, and this vulnerability helped me reflect on how to show cows care in these moments. Respecting the space (or closeness) that cows asked of me was one way that I honoured their autonomy while learning about them in the process. The interactions I shared with the cows prompted me to reflect on the function of an ethics of care in navigating our human-animal entanglement, illuminating the political role of emotion in shaping how we care for and connect with animals. Navigating this entanglement was very difficult at times, given the nature of conducting research with animals destined as food. Listening to, rather than ignoring, what animals tell us about their experiences lies at the core of multispecies participant observation. I struggled at times with the notion of listening because I felt that if we truly listened to cows, we would likely not kill them in the first place. In the context of my research, I watched and listened to cows' communicative gestures to build knowledge about their lives while knowing I was not going to prevent their deaths. The ethical weight of this reality was reflected in the challenging moments I experienced throughout the research.

The ethical challenges of multispecies participant observation with food animals

Part of my work during multispecies participant observation entailed watching and assisting farmers with tasks that were ethically and emotionally challenging, such as separating cows from the herd who were going to be sent for slaughter the following day. At one farm, I recall watching the farmer separate cow #1718 from the herd by calmly guiding him out of the herd and into a

[24] At most of the farms I visited, the cows were polled, meaning they had been bred to develop without horns, as horns can cause injuries for both cows and farmers. Polled genetics, which I discuss in detail in chapter six, also prevent the problem of bruising, which affects the quality of cows' meat. The farmer's commitment to allowing his cows to keep their horns was indicative of his care for them.

small, fenced area, using a long rope to encourage the cow's movement. The farmer moved another cow (who was not going to be slaughtered the following day) into the fenced area as a companion to #1718, expressing to me that having another cow in the pen would ease cow #1718's stress. I reflected on how practices of care, while integral to animal welfare, are not a function of preventing animal death but instead aim at making an animal's death less traumatic. This act of care reaffirmed my understanding of cows' social nature, and while I took comfort in knowing cow #1718 would not be alone in the fenced area, the cows were physically communicating their stress by pacing. I was surprised that the cows did not vocalize; I watched, however, as cow #1718 excessively urinated and defecated and I felt assured the cows were experiencing severe stress in this moment. We left the cows and continued with other tasks on the farmer's agenda.

When we returned to check on the fenced cows later in the evening, I was attentive to the different direction of the sun and reflected on the length of time the animals were in the pen, separated from their herd mates. When we returned to the cows, the farmer's friend who was nearby told us that cow #1718 had jumped out of the fenced area during the day (and that he led the cow back into the fenced area on behalf of the farmer).[25] In this moment, I reflected on the cow's resiliency and agency, attempting to flee an environment that caused him stress. I felt moved and emotionally heavy, secretly wishing cow #1718 was successful in his attempts. Later that day, the farmer asked me to assist him with separating cows from a different herd who were going to be slaughtered the following day. Directly participating in this task made me feel

[25] This friend had rented the land to the farmer, who has his own farm as well as rents an additional piece of land to house another group of cows on pasture.

implicated in the cow's stress. As the farmer held one end of the rope, I held the other, walking towards the cows to lead those who needed to be separated into the designated area. This time, the farmer allowed three cows to be grouped together. When I asked who was going to be sent for slaughter, he noted he had not decided yet, telling me he needed to assess the cow's weight and appearance. I thought about the physical characteristics that qualify cows' preparation for slaughter and how farmers' care for cows is in many ways bound to their reliance on cows for profit. While I was grateful to the farmers for allowing me to watch and assist them in their practices, some of these tasks left me feeling guilty while providing me with an important reminder of the different ways death enters into this research, given its attention to lives of cows who are farmed for their meat.[26] I was strongly reminded of this at one farm, when in conversation with the farmer about the herd's visible sense of contentment, he said to me, "See? They're happy, so you should eat them!"[27] I recall feeling very uncomfortable and critical of how the farmer seemed to be using the cow's happiness as a sales pitch for their consumption. I awkwardly smiled and changed the subject.

Other moments in my research shaped by ethical and emotional challenges entailed working with other kinds of animals, such as chickens and pigs. At one farm, I assisted with moving the pasture-raised chickens to new pasture. This task consisted of pulling a large cage-

[26] In these moments, I was grateful for non-emotionally charged tasks I participated in such as picking and removing knapweed from the pasture, which is a weed that cows do not like eating. While this task did not directly involve the cows, it made me reflect on the indirect connection this task had with cows.

[27] I visited this farm to conduct an interview; it was not included in the farms I stayed at to conduct multispecies participant observation. Prior to this encounter, I told the farmer I was a vegan. When I did share this information with farmers, I feared suspicion and being turned away. In hopes of alleviating these kinds of outcomes, I followed up my vegan admission by reassuring the farmers that my partner and family eat meat and that I was genuinely interested in engaging with farmers who tried to provide the best welfare possible for their animals.

like cover (under which the chickens were housed) across the pasture to ensure the grass under the cage cover was fresh. The farmer's son-in-law, who I was assisting with this task, cautioned me about the birds' chaotic sounds when moving the cage, telling me they were a bit stupid and often move back rather than forward, getting their feet caught under the cage cover as it was being pulled.[28] I assisted this person as he pulled the cage by moving my feet and making sounds, trying to scare the chickens into moving forward rather than backwards in hopes of preventing foot injuries. Despite my good intentions, I felt awful for inflicting stress on them and inevitably failed as one chicken got their foot caught. I tried to indicate to the man pulling the cage that a chicken had been hurt; however, he did not hear me and continued to pull, dragging the chicken's foot under the cover as a result. The chicken wobbled, indicating the severity of her injury, and I offered to hold her, bringing her to the barn to be inspected by the farmer. I had never held a chicken before; their bodies feel light, fragile, and delicate. In that moment, I tried to remain as calm as possible and show the chicken as much compassion as I could with my steady (and what I hoped were comforting) hands. I wanted the moment to last longer because I worried the chicken was going to be killed as a result of their injury. We reached the barn, and the farmer asked me to put the chicken in a pen that another injured chicken was resting in. I asked the farmer if the chicken was going to be okay, and he nonchalantly said he was not sure. I placed the chicken down, keeping some distance between her and the other chicken in the pen. When I returned to the barn later in the day, I saw the two chickens laying side by side and reflected on the compassion and entangled empathy the chickens were exercising with one another,

[28] While I had good rapport with this person and was grateful for their participation in the research, his comment about the chicken's stupidity made me question his level of care towards the animals.

providing each other comfort in a way that I conflictingly could not deliver.

Other challenging moments in my research consisted of discussions with farmers about the processes of dehorning or debudding animals, which entail painful practices that impact their welfare.[29] I recall one farmer pointing to one calf with horn buds, telling me he would soon be removing them, which would inevitably cause the calf physical pain. At another farm, I discussed debudding with a farmer who showed me the equipment she uses to do this, commenting on how she debuds baby goats (farmed for milk production). She told me it is an unfortunate but necessary task and that the babies only feel pain for a short period of time. These exchanges with farmers prompted within me a stronger awareness of the challenges farm animals endure, despite their placement within farms that work to ensure their welfare. And while farmers have good intentions concerning cow welfare, they experience challenges along the way. For example, I was surprised when a farmer told me he had recently been inspected for organic certification and failed because of his herd not having enough tree coverage and shade. I felt surprised given the emphasis that so many farmers placed on providing shade as a key element in one's welfare practices and felt grateful this issue had been brought to the farmer's attention.

Early on in my research, I became aware of how my multispecies fieldwork could not be contained by the specific grass-fed beef farms in which my research was located. In other words, my attention to the multispecies networks around me transcended the farms. For example, on my commute to the farms, I often passed commercial dairy farms with calf hutches (and calves chained to them) visible from the road. I took note of the other farm facilities I passed, always

[29] Debudding means removing undeveloped horns from a young animal's head while dehorning entails removing fully developed horns. Debudding often involves cauterizing the animal's horn buds while dehorning methods include sawing.

with large fans and few windows. It was strange to know I was in the presence of thousands of animals without seeing or hearing them, prompting me to think about the guarded walls of the animal agriculture industry. During my travels, at times, I felt surrounded by death. I witnessed the bodies of raccoons, rabbits, squirrels, possums, and other bodies I could not identify. Transport trucks filled with animals on their way for slaughter often passed me by as I tried to look inside while keeping my eyes on the road. I thought about the connection between roadkill and transport trucks, given how the latter provides a vehicle for the former. In these moments, I felt consumed by death which surrounded me and questioned my role as a researcher trying to write about the lives of animals killed for food to show that their lives matter. I worked to show the importance and intimacy of their lives while knowing I was not changing their fate as food. Grappling with this awareness was ethically and emotionally challenging. However, it also speaks to an ethically ambiguous space within which I locate my research, writing about relationships that, I argue, cannot be dichotomized as simply right or wrong. While my fieldwork experiences challenged me in many ways, fueling sadness, frustration, confusion, and guilt, they also brought clarity about how the complexities of our relationships with food animals cannot be contained in tidy boxes. To understand and articulate these complexities, I learned that it is important to embed myself in the ethically muddied space between these boxes to investigate the nuanced ways in which life, death, caring, and killing are entangled in our relationships with animals. The ethical ambiguities of these relationships surfaced in my fieldwork with farmers, cows, and other farm animals, and it is to this topic I now turn.

Exploring the ethically complex and ambiguous relationships between farmers and animals

My time spent conducting multispecies participant observation with farmers, cows, and other

animals unveiled how complexity, ambiguity, love, and violence are stitched into the fabric of farmers' relations with animals and attending to the complexities of these relationships strengthened my understanding of welfare's multidimensionality. I listened to farmers talk about how their love for cows and how their work with cows was significant to their lives and identities. I watched some farmers communicate this love and care to cows through their calm and patient movements and calls, thoughtful gestures such as petting, massaging, feeding apples, and keeping cows who were going to be slaughtered the following day with a fellow herd mate so they would not be alone. Alongside these moments, I also listened to one farmer talk about his love for cows and, in the same conversation, discuss his young son's love for laying coyote traps (while his gun for shooting coyotes sat in the background). I listened to other farmers discuss their grief and sadness about sending cows for slaughter while simultaneously emphasizing the necessity of cows for providing care to grasslands, people with food, and an economic livelihood for farmers.

The ambiguity of these relationships was starkly revealed at one farm, where the pig and cow farmer I was working with introduced me to her pet pig named Pickle, who she had saved from a litter of red-haired pigs years ago because he was not able to reach market weight (and whose slaughter would therefore not yield significant profits for the farmer). Pickle, who was once destined for slaughter, became a companion pig, developing a strong bond with the farmer. He lives in her house, sleeps on her couch, and awakes her every morning with the sound of hooves wandering in the kitchen, communicating to her that it is breakfast time. I experienced this morning wake-up call and, the night prior, gave Pickle belly rubs and ear scratches as he snored and relaxed on the couch. Further illuminating the ambiguous and complex relationality

that shaped these relations was an animal skull that hung on the wall as décor across from Pickle's couch. I thoroughly enjoyed my time with Pickle and felt thankful for his unsuccessful (market-determined) growth. I saw the ways that the farmer was also thankful for Pickle's limitations, given the strong, familial bond she allowed herself to share with Pickle. Outside of her home slept the other pigs who the farmer fed, cared for, and prepared for slaughter. She discussed the love she had for these pigs and, at the same time, embraced them as food animals destined for slaughter.

Pickle was not only a member of the farmer's family but also of the town's theatre community, cast as himself in productions that needed the presence of a pig. When the farmer and I discussed Pickle's role as a performer, I silently reflected on the exploitative nature of using animals in entertainment. At the same time, however, I also wondered if Pickle, whose social nature was undeniable, enjoyed this social outlet. During my time at the farm, I assisted the farmer's father with building a ramp for Pickle to help him walk into the back of the truck when travelling to the theatre. I thought about how Pickle, a former food animal, would appear on stage, arriving with the help of his new ramp, while the other pigs would one day ascend the ramp of a truck that would take them to the slaughterhouse. These encounters left me curious, unsettled, and committed to better understanding the different ways that farmers build relationships with animals.

The kinds of relationships described above are shaped by a complex entanglement of care, love, companionship, violence, and killing. These relationships are diverse in that some of the animals destined for slaughter are the same animals who farmers associate with care, love, and companionship. Others, such as coyotes, are killed (enthusiastically and violently with foot

traps) in the name of protecting the lives of cows. In contrast to these, Pickle signifies an animal whose life was spared, enabling Pickle to build a life built on care, love, and companionship. These relationships differ in the degree to which an entanglement of care, love, companionship, violence, and killing shapes them. Yet, common among these relationships is the central role that biopolitics plays in their creation, given how farmers value, assess, and manage their lives in ways that are integral to how these animals live and die. Farmers economically value farm animals, and this valuing is a defining feature that drives their care and killing. My interactions with farmers and animals gave me insight into how an economics of care, while resulting in the killing of most animals, can in some cases save animals, which Pickle's life attests to. The love, companionship, and familial bond that Pickle shares with the farmer, while wonderful and undeniable, was driven by how Pickle's economic value became compromised due to his inability to grow to market weight. This powerfully illustrates how economic value can, in rare cases, allow for a farmer and animal's relationship to flourish, and I witnessed this flourishing first-hand. It is also because of Pickle's market limitations that I was able to share a special and unique encounter with him that validated my appreciation of pigs' social and affectionate nature. A similar experience emerged in my interviews with farmers when one farmer discussed how he labouriously treated a calf's scours to save the calf from a (premature) death, exclaiming,

> So I was out there at 2 o'clock in the morning one time, lying there! Really? This is an animal. But why does that animal have to die? Who says that I'm better than that? So yes, I'm hugely emotionally invested in all my animals. I love them.

The farmer's comment signifies how an economics of care functions by extending animals' lives to ensure that farmers yield necessary profits from their deaths. It also demonstrates how, in

providing that care, farmers feel a strong connection with animals that is (while perhaps temporarily) more than economic.

I observed (and listened to) how complexity shapes farmer-animal relationships and watched as animals exercised agency in these relationships, making it clear that they are not docile bodies who are only acted upon; they act and respond in their relationships with farmers. For example, at one farm, I watched as a mother cow lunged aggressively at the farmer, who came too close to her calf born just hours earlier. Despite the close and affectionate relationship this farmer shared with his cows, providing those who enjoyed them with daily scratches and massages, the cows still communicated to the farmer when he violated their boundaries. At another farm, I observed a similar situation in which a mother pig named Nora lunged at the farmer, who explained to me that she had castrated the mother's piglets days prior. The farmer returned the piglets to Nora, who laid in the pen close to them. However, the farmer's proximity to the piglets (post-castration) triggered Nora, who communicated to the farmer that her boundaries had been violated. Here, I took note of how agency, memory, and trauma shape and complicate animals' interactions with farmers, as illustrated by Nora's anger, frustration, and physical aggression towards the farmer for inflicting pain on her piglets. As we stood on the other side of the fence from Nora, watching as she nourished and cared for her young (after lunging towards the farmer), the farmer told me that she read about how offering angry sows hard-boiled eggs can help farmers establish peace with the animal. Given that Nora was still expressing anger towards the farmer days after her piglets' castration, the farmer said she was going to try this

method of peace offering.[30] Moments such as these showed me how animals' agency contributes to the complexity of their relationships with farmers and how respecting their agency is one way that farmers practice animal welfare. However, watching animals respond to farmers when their boundaries were crossed was emotionally difficult because I knew that crossing their boundaries was an inevitable trauma they all eventually endure as a result of being farmed for food. No measure of welfare can prevent this trauma.

My experiences of multispecies participant observation revealed the networks of power, care, and control that we are embedded in with food animals. The complexity of these networks was made evident in the different descriptions of relationships I outlined throughout this chapter. I, too, became embedded in these networks as an observer and participant exploring the lives and fates of animals used for human consumption. In no way did I save the cows or other animals from their fate; instead, I thought and wrote about cows as a way of complicating how we understand their lives, relationships, and deaths. Navigating this process was emotionally challenging because of the meaningful lives cows and other animals I encountered have that end for human consumption.[31] While difficult, this process also helps to produce a counter-knowledge to the dominant ways of knowing farmed animals promoted by animal-use industries, where seeing them beyond their status as meat becomes central.

The emotional, ethical, and methodological dilemmas of studying and encountering animals with whom we share complex power relationships have been well documented by

[30] The farmer wanted to earn back Nora's trust, which I knew would eventually be broken again as a result of the weaning process.

[31] As I reflect on this point, I feel compelled to specify that many of the animals I encountered in my fieldwork have likely since been killed.

animal scholars. For example, some problematize how we enact (and are complicit in) the power relations we seek to contest through our ethnographic encounters with animal death, suffering and subordination (Collard, 2015; Garcia, 2019; Gillespie, 2018). We also, as Collard points out (2015), often enact these power relations by rendering animals methodologically encounterable in the first place. Just as importantly, however, this scholarship sheds light on the possibilities of navigating these contradictions and limitations. For example, Collard (2015) encourages multispecies researchers to tackle and question the ethical and hierarchical contours of their scholarship by choosing, at times, to let animals be unencounterable. Taking a similar approach, Gillespie (2018) suggests that we can investigate and shed light on animal suffering in non-participatory ways by building indirect knowledge about their violent experiences without encountering this violence and participating in it as researchers.

Grappling with these caveats prompted me to wrestle with the reality that, at times, entangled empathy and intimacy might not offer the right approach for ethically conducting research with animals, particularly when we need to rethink our physical proximity to them as a part of our study. Just as importantly, however, Garcia (2019) proposes that multispecies research is necessarily an engagement with shame, grieving, and mourning, as we report on the lives of animals who may have gone unnoticed to those outside the environments in which our work is located. Centring and politicizing shame, grief, rage, anger, and silence as part of our methodological practices signal other ways for moving through the ethical dilemmas of building better multispecies worlds (Garcia, 2019; Oliver, 2020). My experiences of guilt, shame, and confusion that unsettlingly carried me throughout multispecies participant observation served as an important reminder for me to commit to this unsettlement because it gave me access to

animals whose lives and relationships deserve our attention. But on the other hand, my feelings of guilt, shame, and confusion became entangled with (and integral to) feelings of love, excitement, awe, and vulnerability that emerged in my encounters with animals, further illustrating the complex nexus and webs of suffering (Shotwell, 2016) that binds us with animals who we relate with, care for, love, kill, and eat.

My care for and curiosity about cows (and farm animals in general) underpinned the multispecies encounters that inform this chapter. Just as significantly, it was my care for animals that committed me to the unsettlement I describe above. Haraway (2008) states that "care means becoming subject to the unsettling obligation of curiosity" (p. 36), and my experiences of multispecies participant observation provide me with context for better understanding Haraway's point about the entanglement of (and necessary tension between) care and curiosity. It also helps me conceptualize the way I practiced an ethics of care with the animals I encountered in my fieldwork, leading with care while acknowledging the different and complex contexts that shape animals' lives and relationships with farmers. I tried my best to listen to and observe what animals were telling me, showing them compassion however I could. These practices entailed holding them, scratching them, talking with them, practicing stillness with them, or staying away from them. I showed animals compassion and care while grappling and sitting with the understanding that relationality and killing are inevitably connected (Haraway, 2008; Shotwell, 2016). Haraway (2008) discusses the impossibility of living outside of killing, given how our multispecies ecologies, as mortal beings, means we live through the use of one another's bodies. As a vegan, I choose to refrain from this consumption, and I took comfort in this during my fieldwork. However, just as importantly, I knew that while not consumed by my body, the animals

I encountered at farms would be consumed by my mind. As I sit here and write this, I think about how an ethics of care both underpins and complicates this consumption and am reminded of what Shotwell (2016) means by impurity. Multispecies participant observation provided me with an opportunity to viscerally experience the impurities of our relationships with food animals. Illustrating these impurities were the feelings of guilt, fear, shame, love, connection, empathy, and grief that took up space within my mind and body as I engaged with animals who touched, challenged, and shaped me.

CHAPTER FIVE

GRASS-FED BEEF FARMERS' UNDERSTANDINGS OF COW WELFARE

In this chapter, I draw from interviews with grass-fed beef farmers to explore their understandings and practices of cow welfare, which address my objective of investigating cow welfare on grass-fed beef farms. Questions that assisted with me this analysis are as follows:

1. How do grass-fed beef farmers understand cow welfare?
2. What environmental, ethical, and economic factors shape these understandings?
3. How do these understandings play out in day-to-day practices of grass-fed beef farming?
4. In what ways do these understandings shape cow-farmer relations and the lives and experiences of grass-fed cows?

These questions guide this chapter by giving structure to the data, revealing cow welfare's nuanced dimensions. I interpret, mediate, and retell the narratives of farmers that encompass their understanding and experiences of cow welfare. While I cautiously approach this process of sharing grass-fed beef farmers' perspectives and experiences in their most authentic form, I acknowledge the subjective role I play as a re-teller of these narratives. In this chapter exclusively, I refer to the animals as "cattle" rather than "cows" to honour grass-fed beef farmers' terminology. I interchange the terms "grass-fed beef farmer" and "farmer," as well as "conventional" and "industrial" beef to refrain from repetition.

Farmer demographics

Two of the 20 farms I visited had two farmers that participated in an interview, creating a total of 22 grass-fed beef farmer participants. Table 1 lists each farm's location, pasture, herd size, and herd types.

Table 1: Farm and herd details

FARMS	REGION (ON)	TOWN	PASTURE SIZE (ACRES)	HERD SIZE	HERD TYPES
Farm 1	Central	Midland	80	75	Dexter, Belted Galloway
Farm 2	Southwestern	Baden	135	110	Limousine, Angus
Farm 3	Southern	Cannington	350	200	Angus, Galloway, Red Devon
Farm 4	Central	Norwood	40	50	Irish Dexter
Farm 5	Southern	Durham	70	65	"You name it, I got it."
Farm 6	Southwestern	Clinton	120	105	Dexter, Angus, Waygu
Farm 7	Southwestern	Gowanstown	169	265	Galloway, Scottish Highlander, Angus, Simmental
Farm 8	Southwestern	Lucknow	65	35	Saler Herford, Angus
Farm 9	Central Eastern	Thomasburg	n/a	24	Scottish Highland
Farm 10	Southwestern	Moorefield	200	70	Hereford, Angus

Farm 11	Central	Keene	300	200	Hereford, Belted Galloway
Farm 12	Southern	Durham	60	50	Canadian Galloway
Farm 13	Eastern	Wellington	n/a	42	Angus
Farm 14	South Central	Collingwood	30	26	Red Angus
Farm 15	Southern	Dundalk	n/a	300	Mixed herd
Farm 16	Southwestern	Tillsonburg	250	220	Texas Long Horn
Farm 17	GTA	King City	500	100	Angus, Hereford
Farm 18	Southwestern	Markdale	n/a	240	Angus, Simmental, Wagyu
Farm 19	Southern	Cobden	65	80	Charolais, Angus
Farm 20	Southwestern	Mitchell	35	42	Devon

The demographic, experiences, and farming strategies of farmers varied, bringing an eclectic mix of experiences to our conversations about cow welfare. Eighteen male and four female farmers participated in an interview. Of the 22 farmers, four were in their thirties, four were in their forties, nine were in their fifties, and five were over sixty. Table 2 outlines the number of years the participants have engaged in grass-fed beef farming.

Table 2: Farmer demographics

YEARS OF EXPERIENCE	NUMBER OF FARMERS
40 and more	2 (male)

31-39	0
26–30 (27 years)	1 (female)
21–25	2 (male)
15–20	6 (male)
10–14	3 (2 male, 1 female)
5–9	6 (5 male, 1 female)
Less than 5	2 (1 male, 1 female)

Equipped with diverse grass-fed beef farming experiences, farmers shared their understandings, knowledge, and practices of cow welfare. I draw on these and unpack the four research questions listed above; responses to these questions, I argue, shed light on cow welfare's nuances and complexities.

How do farmers in grass-fed beef farming understand cattle welfare?

Meeting the daily nutritional, spatial, social, and behavioural needs of cattle

Nutritional needs

Grass-fed beef farmers emphasize that meeting the nutritional needs of cattle is essential to ensuring and enhancing their health, making health a fundamental aspect of cattle welfare. A grass-based diet fulfills the nutritional requirements of cattle because, as ruminant animals, they turn grass into energy and protein. Farmers point out how cattle suffer from stomach and digestive problems when given grain feed, which often occurs in conventional beef farming. "When you finish an animal on grain, acidosis is pretty predictable the longer they're staying on grain." These problems create a need for antibiotics, which grass-fed beef farmers identify as a

weak solution to an avoidable problem. They explain that a grass-based diet prevents issues with cattle health prevalent in industrial farming and that grass-fed cattle do not often require antibiotics, which the conventional beef industry uses as a form of disease prevention.

A grass-based diet is essential for maintaining the digestive design of cattle:

> Most of us in grass-fed contend that the reason we're doing the grass-fed is that cows are ruminant animals; they have four stomachs that were designed to make use of forages. They can handle grain to a certain extent, but you set them up for problems as soon as you introduce grain.

Farmers contend that the biophysical design of cattle makes grass consumption an integral part of what it means to be a ruminant animal. They explain that grass plays an essential role in enabling cattle to live a natural life:

> They're naturally evolved to eat grass, and when they digest it, they digest it slowly. So you can put an unlimited amount of hay out, and the cow will come back in however long that hay lasts. The animal will be fine, as long as they [also] have water and shelter.

This understanding of a cattle's "nature" is rooted in farmers' emphasis on the historical behaviours of wild cattle.[32] "Over eons, cattle have evolved eating a high-fibre, forage-based diet." Grass-fed beef farming allows cattle to "live a life that they were born and bred into historically, grazing and moving from the plains." Thus:

[32] Although grass-fed beef farmers attribute grass-fed cows as living a more natural life, connecting this idea to their understanding of cattle nature and cattle ancestry, I acknowledge the domestication that shapes these animals' lives.

> Cattle are the happiest when they can live out their natural behaviours. The wild ancestors of cattle spend most of their time on grass, [where] their whole daily routine would have been organized around moving to new grass and finding good sources of water and mineral.

Farmers also note the importance of feeding cattle minerals, salt, kelp, and other supplements alongside grass to support their nourishment and welfare:

- I don't use any drugs. If there's any issues, I use homeopathics, probiotics, minerals, [and] gut enzymes. The idea is to just keep the foodstuffs that the animal eats healthy [and] pure so they can digest it, and it supports their immune system and supports them as a healthy animal.
- I give calves sunflower oil, gut enzymes, and vitamin A and D to help them grow and develop.
- The animals eat copious quantities of diatomaceous earth, served free choice along with minerals and salt, instead of being laced with systemic insecticides for parasite control.

Providing cattle with nourishing food is fundamental to how farmers understand cattle welfare. As the environment within which cattle grazing occurs, the pasture represents a spatial component of this understanding.

Spatial needs

Grass-fed beef farmers emphasize the pasture's spatial quality, highlighting this as integral to cattle welfare by stressing that providing cattle with enough space to graze comfortably is essential to their wellbeing. They note that space to move freely is what cattle in feedlots – associated with conventional beef farming – are denied. Farmers emphasize the importance of

space that the pasture provides for cattle, and they stress how grass-fed beef farming allows animals to live out their entire lives within this open space, which many describe as the most natural environment for cattle:

- They're basically given a relatively natural environment in which to hang out.
- I just wanted them to kind of be in their natural habitat kind of thing [to] grow hopefully relatively happy while they're here.
- If you are handling your cattle correctly, you're handling them as much as you can mimic the role of the buffalo on the prairie a million years ago. And that doesn't include housing. I don't think housing is a part of animal welfare. I think animals are uniquely adapted and always have been to live outside. I always say, "When God invented the cattle beast, he didn't invent the barn on the same day." So the point is that if the natural environment is better, then your animal welfare is better.[33]

Farmers see the pasture as a natural environment that cattle can thrive within, and they note how conventional beef farming fails to provide this kind of environment and care for cattle. In industrial beef production, cattle move through several sectors that impact different stages of their lives. Feedlot farming is the last sector of conventional beef farming that cattle pass through before slaughter, spending approximately four to six months in these feeding operations. Feedlot farms are industrial feeding operations that house large groups of cattle for quick and efficient

[33] This natural environment, however, can create dangerous circumstances for cattle, as "grass-fed animals are more susceptible to predators because they are outside all the time. When they're in their own environment, it's up to them to protect themselves." So while the use of electric fencing provides some protection from predators, it is important to acknowledge the predatory conditions that the pasture opens cattle up to.

weight gain in preparation for slaughter. Within feedlot farms, many problems arise for cattle that impact their welfare, and farmers describe these problems in different ways:

- By having lots of space, you're reducing contagious diseases and such things. I mean you pack [animals] into a feedlot, you're creating real opportunities for disease.
- When you are in a confinement feeding operation, you're not kept with the same animals, so it's very stressful. You [also] have a lot of different immunity issues where you'll be exposed to new diseases constantly, and that can cause more stress. And then you have the very unnatural behaviour of being fed grain and eating that in an almost competitive way in some cases from troughs. You spend basically all-day walking in your own manure instead of walking on grass.[34]
- Operations that have thousands of cattle are ugly, and people in the city don't often want to know about these kinds of food operations.

Grass-fed beef farmers argue that the pasture prevents cattle from experiencing the physical and psychological stress associated with overcrowding in feedlots. They explain that grass-fed cattle spend their entire lives on the pasture grazing, and, in this way, they identify it as a critical element of cow welfare.

When cattle spend their entire lives on pasture, they avoid health issues caused by standing in their manure. Grass-fed beef farmers explain how, in contrast to common

[34] However, as one veterinarian notes, there are welfare trade-offs when comparing grass-fed and conventional beef farming. "There is more crowding and sickness in feedlots, and there are more issues with food quality, water quantity, lameness, and animals needing to work harder to find food in grass-fed operations." While grass-fed beef farmers did not express these concerns, and in many ways refuted them by attributing lameness and food quality, for example, as issues with conventional farming, this point is noteworthy because it addresses potential welfare limitations with both types of farming.

perceptions about housing cattle outside in the winter, being outdoors during the winter is best for cattle because barns trap moisture, increasing the animals' chances of getting pneumonia and other bacterial infections. As one farmer noted:

> Cattle actually have to use energy to get rid of heat from the rumen until it gets down to -20 Celsius. So people think you've got your animals out in the winter, but they're actually pretty comfortable out there. And if they have a bit of shelter from wind and trees to get under, it's actually a lot healthier for them. One of the reasons you keep your barn above freezing is so your water wouldn't freeze, but that can create hot, humid air that's good for pneumonia and bacterial infections and all that. And by having lots of space, you're reducing contagious diseases and such things.

Supporting this point, another farmer notes that "high density and keeping cattle indoors is an invitation to negative outcomes."

Farmers make clear that climate and geography inform their choice of which type of cattle to farm, and they describe how these factors impact cattle welfare in essential ways:

- Breeding for one's geographic conditions is critical.
- Environmental conditions are very wet in southern Ontario, and moisture is a determining factor for welfare practices. Moisture produces problems with air ventilation for cows [who require shelter from severe wet conditions outside], and respiratory illness can easily arise with poor ventilation.
- You need to choose and farm a particular breed that can work in the environmental climate you're farming in. Doing this is necessary for making sure the animals can thrive in their environment.

On this point, some farmers, for example, note how Holsteins – the most common cow breed in dairy production – cannot withstand outdoor conditions because the dairy industry has genetically bred them to withstand indoor environments. Some grass-fed beef farmers have barns on their farms to provide cattle with access to a warmer (or cooler) space, but they note that barns should not prevent cattle from accessing outdoors. Other farmers choose not to have barns on their farms because they see it as an unnatural environment for cattle, or they deem it as too costly. However, all farmers stress the importance of planting trees on their pasture to provide cattle with wind shelter and shade from the sun, identifying these means of protection as integral to cattle welfare.

Farmers stress the importance of balancing their pasture size and herd capacity, explaining that this is foundational to grass-fed beef farming and cattle welfare. This balancing act reveals the relationship between cattle and environmental welfare that grass-fed beef farmers reflected on in interviews. For example, farmers point out how overcrowding negatively impacts the cattle and pasture because in overcrowded conditions, cattle over-tramp and overgraze, reducing the pasture's soil fertility. "We can't be and don't want to be packing too many cattle on [the pasture] because they'll just trample it and flatten it, and then it's no good either." When the pasture's vitality decreases, the nutritional health of the cattle suffers because the field can no longer offer nutrient-dense grass. Grass-fed beef farmers emphasize the dual importance of protecting their herds and their pasture because when the welfare of one suffers, the other inevitably suffers. The pasture's significance is, therefore, two-fold: it is the source from which cattle obtain food, and it is the space in which they graze. Farmers highlight the pasture's

role in facilitating this activity and, in turn, reveal another component of cattle welfare: meeting the social and behavioural needs of cattle.

Social and behavioural needs (cow-relationality)

Farmers reveal how pasture grazing creates the social context in which cattle engage in meaningful behaviours such as organizing their hierarchical positions within the herd, what farmers call their "pecking order." Fulfilling this social need is a part of cattle's herd nature, and in this way, farmers deem it central to their welfare.

The herd establishes a pecking order for itself in different ways. Some farmers explain that the strongest and largest animal becomes the herd leader, while others argue that it is the most curious, calm, and/or oldest animal who leads the herd. All farmers agree that the youngest and weakest animals hold the lowest position in the herd and are most protected. One's place within the pecking order dictates their power, which, for example, is manifested in getting the best grass or hay:

> So we have a cow who is definitely the alpha of the entire herd, and she establishes her dominance, I guess, by being, it feels, a bit like a bully. If she wants that bite of hay, she will push whoever out of her way.

Cattle can challenge their leader by demonstrating an eagerness to move up the chain of command. When this happens, the cattle physically battle, often through head butting, resulting in new (or restored) leadership. Battling can be a violent process when farmers introduce males (bulls) to the herd for mating:

> Usually, what happens when we turn a bull out with the cows, the first thing the cows do is beat the shit out of him. They come up with bloody noses and scrapes all over them.

> Because he's newly interested in the herd, he thinks he's all that, and they put him in his place.

As another farmer notes: "When we put the bull in with them, there's always a reconfiguring of relationships." Farmers explain that the alpha, or "boss cow," is the one who leads the herd to new pasture, decides when it is time for the animals to rest, and, by exhibiting a controlled demeanour, keeps the group as calm as possible when problems arise, such as during the onset of predators. When this problem occurs, the strongest of the herd confront predators by forming an outer circle towards them while moving the calves (and weakest of the herd) to the circle's center to ensure their protection.

Grass-fed beef farmers highlight the significance of the pecking order and stress the importance of social bonds and friendships that herd mates establish with one another as a part of their herd nature. Farmers note how buddies walk and sleep beside each other and groom and play with one another:

> So the nice behaviours are in the evening when the sun is going down. They all lick each other, and they all settle down with their mom, grandma, and calf, in the same area. Often, after I move them in the morning, they have like a calm 15 minutes or so, and then something gets them excited, and they run around. They do like a full check out of the new area ... It's not like a stressed run, but it's like forming a herd again, I don't know what it is. So that's interesting.

Farmers commonly see playful behaviours among calves. As one farmer expresses:

> The calves definitely play. They race each other; it's almost like tag. They'll run to the one end, and the one follows them, and the other one starts again. They do it as a pack. They like to play in a small herd.

Farmers, at times, find the calves' behaviour and pack mentality mischievous. For example, as one notes, "Our calves are currently in a little calf gang that runs around and goes through fences." Although these behaviours can pose challenges for farmers, farmers make clear that they are essential to cattle welfare because they allow cows to play and socialize with one another.

As stated previously, grass-fed beef farmers emphasize how grass-fed beef farming allows cattle to graze on pasture together for the duration of their lives, and this ability to stay together is a prerequisite for forming relationships with one another. Allowing cattle's sociality to flourish is essential for their welfare because they become stressed when connections in the herd are severed. The herd's sociality manifests in friendships and, more intimately, in protective bonds between mothers and their calves. Some farmers explain that mothers take turns watching one another's calves while eating, and all farmers note that mothers call to their calves when they wander too far. Farmers nourish the relationships that foster between mothers and calves because, in addition to ensuring their protection, mothers instill essential teachings in their calves. As one farmer notes, "We preserve those ways – the ways they teach their young. So that's kind of important that the cattle beasts have to learn from their mothers how to be cattle, right?" When farmers allow the animals to express their sociality, they are, in turn, providing cattle with *a degree* of autonomy to exercise meaningful behaviours that shape their lives and relationships with one another.

However, it is necessary to acknowledge that in beef farming, cattle inevitability experience the severing of herd relations. The cycle of production that characterizes a food animal's life and death drives the severing of relationships that animals create with one another. A discussion of severing must accompany a conversation about the relationship between cattle welfare and sociality because severing reveals an inherent constraint to welfare. I turn to a discussion of this severing in chapter six; however, I emphasize here the significance that grass-fed beef farmers attribute to fulfilling the social needs of cattle while also acknowledging that they play a role in ending the lives of animals. Farmers make space for both of these realities by emphasizing their purpose of providing cattle with the best experiences as possible while in their care. They identify cattle welfare as an essential part of offering this care and, more specifically, understand welfare as the meeting of cattle's diverse needs.

What environmental, ethical, and economic factors shape these understandings?

Environmental and ethical factors

Grass-fed beef farmers understand the wellbeing of cattle and the environment as connected. Its association with Holistic Management, which I discuss in chapter two, provides a context within which grass-fed beef farmers make this connection. Holistic Management deems the contribution of animals as vital in grassland restoration and in the wellbeing of the environment. This logic is at the forefront of grass-fed beef farming, and, more significantly, it is central to grass-fed beef farmers' understanding and practices of cow welfare. Grass-fed beef farmers make clear that when cows fulfill their natural grazing behaviours, consuming grass while socializing with their herd, they benefit just as much as the pasture upon which they stand. Cows gain nourishment from the land and act as an essential source for its nourishment in return.

In the words of one farmer, “Environmental benefits are both a reason and a result of better animal welfare practices.” Farmers argue that the beef industry’s intensive use of grain feed, as a by-product of ethanol production, represents one way in which the beef and fossil fuel industry entangle, and they see this entanglement as a hindrance to both environmental and cattle welfare.[35] For example, they draw attention to the energy and emissions required to transport feed and dispose of the high density of manure created in feedlot farming. In conventional beef farming, an “uneven distribution of animals and manure depletes the soil of nutrients, leaving it with nothing to recycle.” As a result, “you can’t take care of the soil in a way that makes sense with that high density of [cattle on the] farm.” Liquid manure tanks are used in feedlot farming operations to store manure and, due to problems with run-off, these systems can create soil and water pollution.

Farmers stress how conventional farming’s excessive use of grain feed leads to cattle health problems and explain how feedlots are breeding grounds for disease and infection due to their high concentrations of cows and manure. This, they explain, drives the overuse of vaccinations and antibiotics in the industry. For grass-fed beef farmers, the industry’s excessive use of drugs as a way to combat its high concentration of cattle does not yield good welfare practices:

> To me, the humane farmer is not injecting as a default. It’s important to treat them when they are sick but administering drugs to all animals shouldn’t be the default. That’s the norm in the industry, and it’s not humane or ethical.

[35] In recent years, the production of ethanol for fuel has increased dramatically in Canada, resulting in the livestock feed industry becoming an outlet for large volumes of grains generated as a by-product (inspection.gc.ca). It is not my intention to suggest that ethanol production created the use of grain for cattle feed but that it played a role in creating a market for grain, shaping its intensive use as feed in the conventional beef industry.

As mentioned above, grass-fed beef farmers highlight a connection between cattle and environmental welfare by expressing how the wellbeing of animals and the vitality of the pasture co-shape one another. In other words, they reflect on the environmental stewardship that grass-fed beef farming requires and enables and see their labour as an important contribution to restoring and enhancing the land. Grass "minimizes soil damage, builds soil health, and doesn't require chemical treatments." In addition to this, "it keeps the nutrient cycles much more healthy and gives you an opportunity to sequester carbon in the soil." For grass-fed beef farmers, cattle play an essential role in healing and enhancing the land through grazing and manure distribution. This ecological relationship (connecting cattle and the pasture) is foundational to the welfare of the animals and the environment. For example, as one farmer states, protecting the pasture has "really been the driving impetus to keep upping our game in terms of how we care for [cattle]. We look after the land, and the land will look after us and the animals, and vice versa." This sentiment is shared by grass-fed beef farmers, many of whom deem cattle and environmental welfare a driving factor for becoming grass-fed beef farmers.

Farmers identify the relationship between cattle and environmental welfare under an umbrella of ethical farming practices that encompasses the care of animals, people, and the environment. Beyond caring for their animals, farmers emphasize the importance of providing healthy food produced in an environmentally sustainable way for their customers. They see value in giving their animals the best life possible to give people the best beef possible. Farmers deem transparency and honesty about their farming practices with their customers central to ethical farming. Some also emphasize the importance of working with abattoirs with low-employment turnover, as this, they explain, indicates good labour conditions. Grass-fed beef farmers identify

cattle welfare as one component of ethical farming, which connects their care for animals, the environment, and people.

Economic factors

Grass-fed beef farmers attribute cattle welfare to values they uphold as grass-fed beef farmers that, they explain, contrast those in conventional beef farming. They argue, for example, that industrial beef framers prioritize economic profit over the welfare of animals and the environment, impacting both in cruel and damaging ways. This emphasis on profit, which characterizes conventional beef farming, shapes one way in which grass-fed beef farmers make sense of cattle welfare. Prioritizing profit over welfare poses problems for cattle and the environment because "practices that are geared towards production are often those that are limited in terms of enabling welfare." For example, one farmer explains that when "the scale of agriculture can be too large, and the workload for producers is too massive, animals suffer the consequences because their wellbeing is not prioritized as much as it should be."

In conventional beef farming, "everything is tracked to low costs diets and high daily weight gain. It's all profit motive. It has nothing to do with the animals." Exacerbating this problem, "the industry tries to make an animal fit a system rather than vice versa." In other words, it manages cattle according to the needs of the industry rather than structuring the industry around animals' needs. This management manifests in the diets, health, and confined environments of cattle, all of which, grass-fed beef farmers argue, hinders cattle welfare. For example, the high density of cattle in feedlot operations poses physical and psychological stress for cattle while simultaneously driving the need for administering drugs to cattle, given the prevalence of sickness that arises due to these confined conditions and the use of grain feed they demand.

Cattle sickness risks reducing farmers' profits; so, to avoid this, antibiotic and vaccine use in the industry is prevalent. However, the use of drugs and grain feed, according to grass-fed beef farmers, are benchmarks of poor practices that hinder cattle welfare and health.

Grass-fed beef farmers acknowledge their need for profit to sustain their business while arguing that grass-fed beef farming "is not a 'get rich' business." They make sense of its economic benefits by relating them to the beef industry, noting how, in contrast to conventional beef production, grass-fed beef farming requires fewer costs that, in turn, positively impact cattle welfare. For example, farmers highlight costs in conventional beef farming that they save, such as extensive housing facilities, vaccination, hormone and antibiotic drugs, and pesticide and fungicide chemical treatments. "I mean, should I have more money for it? Probably. But I don't have the cost of the drugs [or] the cost of the big overhead that everybody else does." Echoing this, another farmer states that "I don't have to do the drugs; I don't have to spend the money on any spermicides, pesticides, vaccination programs, and all the drug stuff that everybody else does." Farmers note how growing grass is an inexpensive feed that does not require chemical treatment. Refraining from using antibiotics and vaccinations as a form of disease prevention means that grass-fed beef farmers also avoid the costs of veterinarians, who are legally required to administer these drugs. For grass-fed beef farmers, lower veterinarian bills signify greater cattle welfare, and better welfare, in turn, leads to economic profits.

Farmers discuss how their economic return for grass-fed beef justifies the financial pressures of being uncompetitive with conventional beef prices. They unpack this pressure by noting how grass-fed cattle have a longer life span than conventionally raised cattle because it takes longer for the former to gain the amount of weight desired for processing, referred to as

market weight. In this way, the costs of producing grass-fed beef are higher because grass-fed beef farmers raise cattle for a longer duration:

> So in terms of profit for a farmer that's able to bring their animal to market weight after 15 or 16 months versus 30 months, I mean that's a big difference… We figured out how much it costs to just provide all the basic things for the animal to be alive for 30 months … and think that's a big cost.

Supporting this point, another farmer states that because "the animals don't gain as quickly…we're not pushing things through as quickly. Financially, it costs more to have them for longer." Grass-fed beef farmers express the financial difficulties of this loss, commenting that "they are not receiving their return on investment as quickly as a regular conventional beef farmer." It's "a tough go" because "it isn't easy to make money at it." Farmers explain that they choose a price point for their beef that accounts for their costs, time, and labour. It does not, however, provide them with an abundance of wealth. Grass-fed beef farming "is not a 'get rich' business" because "there is a huge economic barrier to doing it right."

Farmers describe what "doing it right" looks like by explaining that grass-fed beef farming allows them to give their animals the best life possible in the name of producing a healthy and nutritional food product for consumers. They articulate this point in different ways:

- Grass-fed beef farming is more natural and made more sense from the point of view of the cattle [and] from the health standpoint of the cattle. But also, I thought it was a better product I could produce.
- If we don't have our human health, we got nothing. And so that's where I come from in everything I do around here.

- As more information comes out, it appears that grass-fed animals are less likely to be disease factors for E. Coli [and] likely have a better balance in terms of Omega fats.

For grass-fed beef farmers, "better welfare yields better fewer health issues" and "healthy cattle yields healthy beef." As one farmer explains, "that's what we're all trying to do."

In addition to producing a natural (and thus) healthier beef product, grass-fed beef farmers value how their practices allow them to economically sustain their business while improving their land and caring for their animals. A common sentiment shared by many farmers is that grass-fed beef farming positively impacts their lifestyle and ability to improve their land. "It is more natural and regenerative of your land," and:

> That's the reward of doing it. Our reward is not money in the bank from this game. It is seeing how the land improves, the animals grow in a healthy manner, and it all starts gradually flowing in a circle. The better your land, the better the food you raise, and the better the animals will do in that.

Sharing in this sentiment, another farmer expresses that "an economic benefit is that the soil is improving. You might say that's an environmental benefit, but I think of it as an economic benefit that this land is fertile." Grass-fed beef farmers see their economic returns (and the economic benefits of grass-fed beef farming) as a vehicle for sustaining their business, which, in turn, allows them to protect the welfare of cattle and their land.

<u>How do these understandings play out in day-to-day practices of grass-fed beef farming? How do they shape animal-farmer relations and the lives and experiences of cows?</u>

Farmers give animals a degree of autonomy to establish a pecking order for themselves and foster intimate relationships with fellow herd mates that, in different ways, hold value for cattle

and their welfare. Alongside these relationships among cattle, a key component of welfare pertains to the practices and relationships that unfold between farmers and cattle. The different ways that farmers understand welfare take shape through the methods and handling techniques they carry out with cattle, which, in turn, impact farmer-cattle relations.

Low-stress handling

Farmers discuss the significance of what they call "low-stress handling" by describing their use of patience as a guiding principle in their daily interactions with the animals:

- I go slow with them. I don't try to rush them.
- You have to give them time to process things. Our saying around here is, if you want to work cattle really fast, you go as slow as you possibly can.
- You have to do things when it's right. It cannot be done on the human schedule. It has to be done on their schedule, their time. And so, if I want to put a big barrel in the bunk of the barn, I have to wait until they're outside because it's less stressful for them.

Farmers attribute acts of making loud noise and chasing cattle as harmful to their welfare and emphasize the importance of using gates and fencing to guide and move cattle in a specific direction without having to chase or hit them.

At times, farmers need to move cattle from the pasture into apparatuses called handling shoots, which allow farmers to safely perform invasive tasks such as ear tagging, which I discuss in more detail in chapter six. Handling shoots are also essential tools that farmers attribute to low-stress handling. Although these shoots confine cattle by locking their body and head into a constricted position, they prevent the cattle from needing to be chased and pinned down by farmers. In other words, handling shoots limit the amount of stress cattle experience in an

inevitably stressful situation because they prevent the cattle from running from farmers, becoming fearful of them as predatory stimuli.

Rotational grazing

A central way farmers implement low-stress handling is through their daily (or weekly) moving of cattle to new pasture for grazing and feeding. This practice, called rotational grazing, refers to the regular moving of cattle between fields, which farmers divide with wire fencing into separate sections for grazing, called paddocks. Farmers allow their cattle to graze for approximately one to three days, depending on the size of their pasture, before moving them to a new paddock.[36] Rotational grazing prevents overgrazing, enhances grass regrowth (with the help of evenly distributed manure), and guarantees that cattle have continuous access to fresh grass.

Many grass-fed beef farmers move their herds without tractors, as the loud engines create stress for cattle. Walking by foot, farmers move the pasture's fencing and lead their herd to fresh feed. They argue that this routine practice is a direct requirement to ensure their cattle's welfare, and they comment on the labourious nature of this work as an essential part of their farming lifestyle.

Rotational grazing has many benefits. It positively aligns with the nutritional, spatial, social, and behavioural needs of cattle while simultaneously shaping farmer-cattle interactions by revealing food as an important vehicle for fostering farmer-cattle relations. Through rotational grazing, farmers become associated with food. Their presence elicits in the cattle the awareness

[36] Climate impacts how many days cattle remain on pasture before being moved to a new area for grazing. Farmers explain that in the summer, spring, and fall months, rainfall patterns, soil capability, and dry weather conditions determine how long the animals should (and can) graze before being moved to new pasture.

that fresh food awaits them, and in this way, rotational grazing creates a positive and unique role of farmers for cattle. These bonds manifest in the familiarity with which cattle approach farmers:

> It becomes really easy when we're doing the pasture moves because they want to come to us. They're getting a new fresh piece of pasture every day, and it's not long before they say, "Are you here to open the gate for us?"

One farmer describes this work as "affectionate," explaining that "because we're moving them every day, they associate us with food. I have a call – kind of like a song – that I sing them when they move, and they love that because it means they're getting food." A shared narrative by farmers is that their cattle know them and respond to their calls, expressing familiarity and comfort. Many farmers attribute these calls and responses to conversations, illustrating how rotational grazing brings cattle and farmers together by shaping their ability to communicate with one another when moving to new pasture. For these reasons, rotational grazing is more than an agricultural practice of moving cattle because it helps build farmer-cattle relations that, in many ways, impacts cattle welfare.

The relationality of welfare for cattle and farmers

Good handling practices reveal the relational function of welfare for farmers and cattle. Farmers illustrate this relationality by emphasizing how their work is enjoyable and easier when their cattle experience as little stress as possible. Welfare is "…a combination of them and me" because "what's best for the animal [is] what's best for us." Farmers make clear that the calm and content experiences of the herd positively impact their working experiences because it is easier to manage the animals when they are not stressed. Welfare creates a context in which both farmers and animals experience benefits. Highlighting this context, one farmer notes that "the better you

are to cattle, the better they are back to you. So, economically, it's advantageous." Echoing this sentiment, another notes that "most farmers will tell you that if you look after your animals well, they'll do better for you. They'll be healthier, happier, and more productive." Low-stress handling reveals the link between the wellbeing of cattle and farmers, and an essential foundation for fostering this link are the relationships between farmers and cattle that develop in the process.

Observation

Another meaningful practice that farmers associate with cattle welfare is the daily observation of cattle behaviours, which is a good indicator of their welfare. The following definition of cattle welfare nicely captures the significance of observation:

> Being attentive to your animals and picking up their signals about what they're feeling about things. Are they grazing comfortably? Do they have time to sit down and chew their cuds and ruminate? And because we do managed grazing, we get to observe them and monitor how they're feeling about things. Are they eager to come to the new space, but they aren't acting super hungry? That means they got enough to eat yesterday; they got nice full rumens on their side; they have a nice glow; their eyes are bright. So I guess, to me, it's basically about doing a good job looking after the animals.

Farmers explain how injured and sick cattle stand out in the herd, making it easy for farmers to identify animals needing assistance. In addition to inspecting the group for injuries or sickness, farmers carefully observe mothers and their calves to ensure the calves are suckling and getting enough milk. Routine observation also allows grass-fed beef farmers to develop a familiarity with the individual cattle within the herd, providing an essential vehicle for witnessing their traits and, at times, unique requirements.

Genetic selection via cattle breeding

A seasonal practice that grass-fed beef farmers play a role in is cattle breeding. Farmers discuss the relationship between breeding and cattle welfare by highlighting how, via breeding, they can (attempt to) genetically harness and reproduce ideal characteristics in cattle. For example, when male calves are born, farmers evaluate their physique, health, and temperament to determine if the calves will perform well as bulls or if they should be castrated as steers.[37] Farmers strategically select bulls for mating according to their qualities and behaviours, which they argue can become genetically passed on to future calves. Good genetics are not exclusive to males: grass-fed beef farmers note how females with good genetics have healthy and well-adapted bodies for calving and demonstrate docility and good mothering traits. Embodying these traits means that females are attentive to their calves, call out to them when they wander too far, nurture them, and make milking a priority. "Well-suited moms are prone to have well-suited offspring."

Farmers describe how the process of genetic selection via breeding is necessary for managing cattle welfare because it aids them in (re)creating a less stressful herd environment. For example, grass-fed beef farmers note how docile cattle are less prone to being fearful of human contact and new stimuli and are less prone to aggressively engaging with other cattle. Docility, in turn, makes it easier for farmers to manage their herd by minimizing cattle stress while promoting cattle cooperation. By attempting to harness good physique and mothering traits in

[37] This process is a crucial time in a male calf's life because being chosen as a bull or steer shapes the duration of their life; the former will live to produce future generations of calves until reaching their threshold and, thus, expiration date. Steers, on the other hand, are slaughtered between 24 and 30 months of age. Steers, as well, are a valuable part of a farmer's business because is it their meat that makes up the majority of a farmer's sales.

females, farmers try to prevent difficult births and foster a nurturing environment for calves. By practicing genetic selection, farmers aim to minimize cattle stress by trying to (indirectly) instill behaviours that counter stress.

A physical attribute that many grass-fed beef farmers try to genetically manage is cattle horns, which threaten the safety of farmers and animals. Farmers note how cattle swing their heads back and forth as a form of protection when feeling threatened or caught off guard. This behaviour is instinctual, but when cattle with horns engage in this behaviour, they risk harming farmers and other cattle. Cattle with horns can also injure other animals when being shipped to the abattoir because, in this environment, cattle become stressed and can unintentionally jab and pierce another animal's skin. For these reasons, farmers breed hornless cattle in an attempt to eliminate horns from the herd.[38] Calves who develop horn buds undergo a painful procedure called debudding, in which a veterinarian or farmer burns the buds to stunt future growth. Therefore, farmers note how breeding polled cattle allows them to avoid a procedure that temporally and negatively impacts cattle welfare.

Intimate acts of care: Lively encounters and the shipping and killing of cattle

Farmers define their relationships with cattle by noting the enjoyment they experience when interacting with the animals. They highlight the intimate importance of touch as an expression of their care for cattle and the important bonds they establish with them:

- I give each one of them like a body rub basically because they enjoy it and also to see if their body feels normal and if there's any lumps or anything.

[38] Hornless cattle are referred to as polled cattle.

- I can walk up to any of the cows and pet them. We have a bull who weighs 2,800 pounds … when he sees me, he walks over to me and licks me because I walk with him every day and talk with him. So they get to know you. We treat them like a dog and our best friend kind of thing.
- Some of them come right up, and you can pet them. Some are much more friendly than others, and they'll just stand there, and you can give them a back scratch.

These emphases on scratching and talking with their cattle serve as a talking point for farmers in describing their unique relationships with the animals. At the same time, farmers note how they do not pet animals who do not like to be touched, highlighting how abstaining from contact is also part of maintaining good farmer-cattle relationships. Acts of care via talking, petting, and scratching (or refraining from touch) hold value for farmers and cattle, and they shed light on the possibility (and complexity) of caring in the context of killing. In other words, farmers reveal a potential coexistence of compassion and killing by noting the importance of building relationships with cattle through intimate acts of talking, petting, and scratching. These ways of encountering cattle are part of what it means to provide cattle with the best lives possible, despite (or perhaps because of) how food production governs their life and, more importantly, death. Grass-fed beef farmers make space for caring and killing by emphasizing welfare as a fundamental part of giving life and making death. They reveal how this complexity contributes to cattle welfare and how the varied practices, relationships, and experiences that unfold in grass-fed beef farming ground its multidimensionality.

Grass-fed beef farmers openly acknowledge the sentient and psychological abilities of cattle and understand cattle welfare as fundamental to respecting these abilities by providing

the animals with the best life as possible. A significant part of this respect entails minimizing the stress cattle experience when being sent for slaughter:

> I bring them down a day early so they can relax. I bring hay with me. They're the first in line on kill day, so they don't go through the clatter and all the noise and everything. No matter what you do, it's a stressful day.

Another farmer states that:

> We know when they start in the morning, so we know when we need to be there. If we go a little bit early, we hang out with the animal in the back of the trailer, feed him apples and massage him to keep him calm.

Those who hire drivers emphasize the importance of knowing the drivers (or their reputations) to ensure the animals are safely and calmly loaded and unloaded off the trucks, often without the use of electric prods. Most have long-standing relationships with their drivers and consider them friends.

Although grass-fed beef farmers have few options when choosing an abattoir to work with, they note key aspects when selecting one.[39] They explain that good abattoirs give food and water to those held overnight and house the animals carefully to minimize stress:

> So what they do is keep the animals separate. They don't mix the animals when they arrive. So they have their own pen and fresh straw and lots of water. [The abattoir staff] don't

[39] Some factors that reduce a farmer's selection include their proximity to abattoirs and the pressure they may face for not being able to satisfy an abattoir's kill quota. Because grass-fed beef farmers operate on a small-scale, they send individual or small groups of cattle for slaughter; however, many abattoirs prefer larger groups because this provides higher profits in a given workday.

cram their schedule, so when the animals arrive, they're usually able to calm down for an hour or two at most but aren't left there to get bored and anxious.

Another farmer discusses that "having live animals placed in separate rooms from those being slaughtered prevents them from seeing, hearing, and smelling the death of cows." Farmers understand a quick kill as the best way to ensure cattle welfare throughout the slaughtering process because "the animal is shot very efficiently. They're down. It's absolutely instant. And we really appreciate that with our butcher because there is no pain and suffering." "An instant death brings no pain; this isn't necessarily natural, but it is humane." In these ways, farmers emphasize how they attempt to provide welfare to cattle in the last moments of their life. There is a noteworthy point about how slaughter reveals an inherent limit to welfare by posing a challenge to its emphasis on wellbeing. Many farmers acknowledge this intrinsic limitation and discuss the inevitable and unpleasant act of killing animals in the name of food production. They rationalize slaughter as a necessary but unfortunate part of the food business and argue that they do their best to provide cattle with the best life (and death) as possible. I unpack farmers' logic about killing in chapter six by drawing on scholarship in animal geographies and biopolitics.

This current chapter draws on my conversations with grass-fed beef farmers to address the dissertation's core research questions. Reflecting on farmers' discussions about welfare allowed me to examine how they understand and practice cow welfare, unveiling its environmental, ethical, and economic dimensions and how these shape farmer-cow day-to-day relations and the lives and experiences of cows. In the following chapter, I dig deeper into farmers' narratives about cow welfare by exploring them through the lens of animal geographies and biopolitics.

CHAPTER SIX

THEORIZING COW WELFARE BY EXAMINING FARMERS' EMOTIONALITY AND COWS' SUBJECTIVITIES, GOVERNANCE, CARE, AND KILLING

In this chapter, I use the analytics of animal geographies and biopolitics to conceptualize grass-fed beef farmer's discussions about cow welfare and my experiences on grass-fed beef farms. Through my engagement with these theoretical frameworks, I address my objectives of exploring cow welfare's impacts on cows' agencies, subjectivities, interrelations, commodification, and relationships with farmers. In part one of this chapter, I examine farmers' discussions about cow welfare through the lens of animal geographies to investigate how welfare practices impact cow subjectivities and farmer-cow relations. In part two, I (re)explore cow welfare's economic dimensions through a biopolitical framework. I discuss the connection between cows' commodification and killing and theorize how biopolitics shape farmer-cow power relations. An analysis of cow killing often leaves little room for exploring the emotional and intimate bonds between cows and the farmers who take their lives. However, farmers' stories about their cows suggest that caring *and* killing are central to their work. I layer the lens of biopolitics and animal geographies to investigate the intricacies of care and slaughter that complicate farmer-cow relations. In doing this, I call attention to how a deeper understanding of our connections with cows can help us carve out a nuanced understanding of cow welfare. As I make clear, animal geographies and biopolitics frameworks help cultivate a more robust cow welfare analysis.

Part one: Animal geographies

In chapter one, I articulated animal geographies' conceptualizations of animal agency, species relations of power, and subjectivities – all of which inform my analysis of cow welfare and farmer-

cow relationality. In this chapter, I reinforce and expand animal geographies literature on animal agency (Bear, 2011; Collard & Gillespie, 2015; Emel & Wolch, 1998; Fraser-Celin & Hovorka, 2019; Johnston, 2008; McFarland & Hediger, 2009; Philo & Wilbert, 2000; Rutherford, 2013) through my analysis of cow welfare, showing how welfare practices and the human-animal encounters they shape are animated by species relations of power, within which cows exercise agency. I conceptualize cow agency by investigating cows' non-complacency as acts of resistance (Gillespie, 2018; Lloro-Bidart, 2017; Rutherford, 2013) and analyze how welfare practices govern cows in different ways. Here, I discuss how castration, polling, and weaning practices – while providing some benefits to cows – also negatively impact their bodies, relationships with farmers, and interrelations.[40] While I am not suggesting that castration, polling, and weaning are not, in fact, welfare practices, I am expressing that we risk glossing over critical aspects of cow welfare when we take its emphases on care and wellbeing at face value. I conceptualize how welfare practices govern cows' bodies and interrelations and show how cows exercise agency in their relationships with farmers, despite (and in response to) the different forms of governance that shape welfare practices and, in turn, farmer-cow relations.

Cow agency: Non-complacency as resistance

Although grass-fed beef farmers allude to docility as a primary cow characteristic, they also disclose how cows, at times, refuse to remain complacent in day-to-day beef farming practices. Animal geographies reveal how animals assert themselves as agents in their relationships with people by examining their uncooperative behaviours as resistance (Gillespie, 2018; Lloro-Bidart, 2017; Rutherford, 2013). Grass-fed beef farmers describe ways that cows, at times, refuse to

[40] As I discuss later in the dissertation, polling refers to breeding practices in which horns are bred out of cows.

comply with their needs and orders. Illustrating this refusal, one farmer explains that some cows "get a feeling that you want them to do a certain thing, and they don't want to do that. It's almost like they know what you want, and they're going to make sure they don't do it." These behaviours can escalate in severity, posing a risk to the safety of farmers. Some share stories about their dangerous encounters with cows:

- The animals are extremely strong, and the fences will not stop them if they want to charge you.
- If they want to run you over, they're going to run you over.
- I've been kicked, and it hurts. And sometimes, it can knock you right through the air. It doesn't generally happen out of the blue, but there are lots of stories of people being killed by cattle.

These descriptions of cows allude to their agency, making it clear that cows challenge and resist farmers if provoked. Magnifying the resistive nature of the animals are "crazy" cows who farmers explain require careful handling. "Crazy" cows are those who jump fences, charge at farmers, or behave too aggressively with other cows. As I will discuss in part two of this chapter, these cows pose problems to farmers' safety and economic bottom line. As a result, farmers stress the importance of eliminating these animals from the farm. Conceptualizing these behaviours as forms of resistance opens up an avenue for examining the problematic contexts that shape a cow's "crazy" actions.

Cows respond in particular ways to conditions that they perceive as threatening, stressful, or harmful. They express their likes and dislikes and communicate with farmers when their needs or wants are not met. Analyzing cow resistance as an expression of agency demonstrates the

different ways that cows challenge their relationships with farmers. An analysis of cow agency also reveals manifestations of power, highlighting, for example, how welfare practices can negatively impact cows. Taking this further, I analyze how cow subjectivity provides a foundation to investigate the link between the welfare and governance of cows. In this way, I reinforce and extend animal geographies scholarship on animal subjectivity (Bear, 2011; Fraser-Celin & Hovorka, 2019; Geiger & Hovorka, 2015; Tovey, 2003) through my analysis of cow welfare and subjectivity.

I explore farmers' narratives about cow welfare as a context for investigating cows' subjectivities, emphasizing cows' individualities and quirks and how they communicate with and respond to others in day-to-day grass-fed beef farming practices. I also detail what cows taught me about their subjectivities. Learning about cow subjectivities from cows – as research subjects and teachers – entails one way of honouring and taking their subjectivities seriously. This dissertation contributes to the goal of honouring the emotional and social lives of animals who can too easily slip through the cracks of our consciousness given their designation as food. I examine how grass-fed beef farming, as an alternative to industrial animal agriculture, aims to enhance cow welfare, impacting the lives and subjectivities of cows.

Cow quirks, individuality, communication, and responsiveness

Farmers' reflections about their cows speak to the animals' individualities and unique attributes. Their stories reveal how cows make their presence known to farmers in different ways:

- Everyone is an individual, just like your kids. They all have their own idiosyncrasies [and] mannerisms. Some are a little more standoffish and timid; some like to be scratched behind the ears, [and] some like a full shoulder rub.

- They have brains, personalities, character, and so we treat them as such.
- They're not much different from people. Some are super friendly and will come right up to you and lick you through the fence. And you have others that are the boss. The younger they are, the more energy they have. They're great.

Many farmers describe their encounters with cows as expressions of mutual care, interpreting the licks they receive from cows as one way in which the animals show kindness towards them.

The day-to-day practices that farmers and cows engage in provide farmers with a foundation for understanding their cows' individuality. They note, in different ways, how an understanding of their cows' individuality helps them manage the cows with safety and ease.

- When you work with them, you know who you want to go first, who you don't want to be left last, [and] who you do not want to be together. After dealing with them so much, you know who is going to be the pain, who's the treat, and you manage it accordingly as you're doing things.
- You know who is who and whether you can be less concerned about if they're going to be grumpy with you or dangerous.

Farmers acknowledge cows' communicative abilities, making it clear that "we have to listen to the cows [because] they tell us what they need." Cows are "curious but trepidatious, so their initial response to anything that surprises or scares them is to run from it. If it doesn't continue to seem like a threat, they will investigate." The narratives that farmers articulate about their cows illustrate how cows express themselves as individuals with social proclivities, unsettling their status as mere beef commodities.

I saw these narratives animate before me during my fieldwork experiences. For example, I learned from personal experience that Adam, a one-year-old castrated male, enjoyed face rubs and licking my jacket. Faith, a five-day-old female calf, also enjoyed the taste of my coat, as well as suckling on my hand and arm, though I imagine she felt confused or frustrated when these did not yield milk. I observed the cautionary gaze of George, the resilience of cow #1718, who jumped the fence to resist his enclosure, and the contagious curiosity that spread throughout the herds as I entered their space. Some cows followed their curiosity by smelling me first and then licking my hand, while others chose to keep their distance from me and eyes on me. An essential part of multispecies participant observation entails listening to farmers' stories and observing their interactions with cows. It also prompts me to listen to and follow the cows as research subjects who teach me about their lives and relationships on the farm. I paid attention to how the cows observed and engaged me and how they communicated with each other through touch and voice. I watched some cows head-butt one another, others groom each other, and some bellow when their calves wandered too far and when their herd mates jumped fences or had to leave the herd. I paid attention to the vulnerability I felt in their space. While surrounded by the cows, I felt nervous and cautious and wondered how much of their curiosity they were willing to follow. Coupling these experiences and observations with farmers' reflections allowed me to understand the cows as research subjects in my work who, like farmers, taught me about their lives. The subjective and agentic abilities of cows made these teachings possible. We must pay attention to cow subjectivity and agency, as these expose the necessity, fragility, and complexity of cow welfare. When we see cows as subjective and agentic beings, their collective status of beef becomes disrupted, warranting an analysis of their welfare. When we open ourselves up to cows'

communicative and responsive nature, we see how they challenge and/or resist the practices that render them as beef.

Farmer-cow relations of power: Governing cows through welfare practices

Scholars in animal geographies explore power by drawing attention to the problematic ways that animals are managed and dominated in their relationships with people (Birke, 2016; Collard, 2014; Emel et al., 2015; Gillespie, 2018). I engage with this focus on power by examining the control that farmers exert over cows in the name of protecting their cows' welfare. I define this control as governance and investigate two manifestations of governance that, in different ways, constrain the autonomy of cows and impact their lives and experiences.

Bodily governance

Gillespie (2018) traces the governance of cow bodies back to their legal status as live property, alluding to body modifications such as branding, ear tagging, tail docking, nose ringing, artificial insemination, and castration as manifestations of cows' property status. As sites of power-knowledge relations (Holloway & Morris, 2008), cow bodies become manipulated, managed, and made productive in grass-fed beef farming. Akin to Gillespie (2018), I explore castration and ear tagging, as well as polled genetics, as examples of bodily governance. Farmers draw an essential connection between this control and cow welfare by stressing that they manipulate cow bodies to keep the animals safe. I examined this connection in chapter five, where I discussed how farmers strategically breed (polled) cows to enhance their docility, calf-rearing abilities, and safety. Grass-fed beef farmers convey how they aim to facilitate cow welfare by minimizing cows' physical and psychological stress. In other words, farmers reveal how, through welfare practices, they exercise control over cows in their cows' best interest. However, it is necessary to explore

what this understanding of power and welfare evades: In what ways might farmers' control over cows harm the animals' wellbeing? Put differently, in what ways might welfare practices negatively impact cows?

Polled genetics and dehorning as bodily governance

In chapter five, I discussed how farmers breed hornless bulls with females to ensure calves are born without horns.[41] Farmers explain that polled genetics prevent dehorning (or debudding) and help protect farmers' and animals' safety. However, missing from this discussion is a consideration of how polled genetics prevent cows from developing a part of their body that carries value for them. Horns serve several functions for cows related to protection, visual recognition, grooming, scratching, and providing a sense of one's place in the herd (Neff et al., 2016). Horns compensate for cows' limited vision, helping them recognize one another at a distance by their silhouette. They also enable cows to protect themselves from predators. Because grass-fed beef cows live their lives on pasture rather than confined in a barn, being able to defend themselves from predators is essential to their welfare. Horns offer a point of contact for cows when pushing up against one another, and they provide cows with a sense of place in the pecking order (Neff et al., 2016). Cows use their horns to scratch their backs and use the horn tip of fellow herd mates to scratch and clean their eyes (Neff et al., 2016). In these ways, breeding horns out of cows violates their evolutionary development and prevents them from performing species-specific behaviours (Neff et al., 2016).

[41] Farmers who have horned animals in their herd crossbreed horned and hornless cows to expand the herd's polled genetics.

Farmers associate polled genetics with cow welfare; however, in many ways, polled genetics also impede cow welfare. In this way, polled genetics shed light on how cow welfare practices can, at times, defy their own premise. When farmers remove or breed horns out of cows, they impact how the animals behave and relate with one another. Looking at polled genetics through a framework of governance casts light on how the manipulation of cow bodies affects cows' abilities to exercise subjectivity and agency and build relationships with one another (Holloway, 2007). Although farmers understand polled genetics as having a positive impact on cow welfare, as a form of bodily governance, polled genetics manipulate cow bodies by weakening their species-specific abilities, radically altering what it means to be a cow.

Castration as bodily governance

Castration is a necessary part of beef farming because it controls a herd's population size. This form of management is central to grass-fed beef agriculture, given the balance between land and herd size that farmers must maintain to ensure the wellbeing of the pasture and animals. As stated in chapter five, farmers select which male calves they will (eventually) breed based on the calves' physical and genetic makeup. Farmers castrate the calves who they do not see as ideal for future breeding. The majority of farmers I spoke with described castrating males with elastic bands, noting that this approach is the least painful for the animals:

> As far as castrating goes, it seems like there is no perfect option, but it appears that the closest to an ideal is the rubber band before seven days old. Baby calves are pretty stunned for the first few days, and while I'm sure they find the rubber band uncomfortable, I'm confident it's not as traumatizing as it is if done later.

By castrating males, farmers control their behaviours. Farmers indirectly associate castration with welfare by noting how neutering reduces male testosterone and makes the animals less aggressive with one another. This aggression impacts farmers' and cows' safety:

- For a number of years, I was not pinching my bulls. But I did find that they were fighting an awful lot more, so it just got to be too difficult. I did go back to pinching them, and I haven't had that problem again.
- Young bulls are like late teen boys.
- Unfortunately, [castration] is a necessary evil because if you don't castrate, once these bulls get between 10 to 15 months old, they're like out-of-control teenagers. They start ramming each other, hurting each other, breaking fences, and it's just not healthy for them. We made the decision that castration is humane for them. It calms them down.

Grass-fed beef farmers emphasize that decreasing male aggression via castration is a form of long-term welfare, despite the short-term stress and pain it causes for calves.

Farmers make sense of castration as a form of cow welfare. It is essential to acknowledge this connection because it captures how farmers conceptualize their care for (and power over) cows. But it is also critical to assess how castration, as a form of bodily governance, disrupts cow welfare. When farmers manipulate calves' hormones by removing their testicles to curb male aggression, they impact how males experience and express behaviours that carry meaning for them. As a practice that tampers with hormones tied to aggression, castration reduces a male's capacity to exercise strength in the context of threat, fear, or distress. It impacts how males encounter farmers and how they engage with cows in their herd. Via practices of castration, farmers exert control over calves and, in turn, govern how they behave and relate with one

another. Animals establish positions of power among themselves (Hovorka, 2019); however, castration impacts how males may navigate this positioning. Discussions of castration that focus on curbed male aggression neglect how castration affects the ways males form relationships with farmers and herd mates. Examining castration as a form of governance complicates conceptualizing it as an attribute of cow welfare. While farmers castrate males to reduce their aggression, it is necessary to acknowledge how this form of bodily governance limits males' behavioural autonomy.

Ear tagging as bodily governance

Farmers pierce calves' ears with a radio frequency identification ear tag (RFID) that lists a specific number to track the calves as they grow. Ear tags are federally mandated in the beef industry to foster food traceability, as each tag enables an animal's geographical tracking from birth to beef. The Canadian Food Inspection Agency (CFIA) requires that farmers tag all cows before shipping them to the abattoir. Grass-fed beef farmers do not associate ear tags with cow welfare; most see them as an inconvenient but necessary government regulation that they need to abide by to earn an income. There are, however, negative impacts of ear tagging on cow welfare that warrant attention.

As previously noted, Gillespie (2015) explains that cows' legal status as live property renders their bodies governable, and she highlights ear tagging as one manifestation of this control. Ear tags numerically individualize cows while simultaneously signalling the erasure of their individuality. As tools used for tracking the bodies and, more specifically, the flesh of cows, ear tags illustrate how "[a cow's] moment of singularity is also that of their culling" (Buller, 2013, p. 156). Buller explains that numbers influence our perceptions of farm animals as a mass, rather

than as individuals. This reductive understanding of animals, Buller argues, can negatively alter human-animal relationships. The mundane and regulated nature of ear tagging makes its impacts on cow welfare less apparent. Yet, these effects require attention. For example, the process of tagging is physically and psychologically stressful for calves because farmers temporarily take them away from the mothers to administer the tags successfully. As the animals grow, cows often rip their ear tags out, requiring farmers to re-pierce their ears in handling chutes before sending them for slaughter. The (temporary) severing of calves and mothers creates severe stress among the animals, and farmers noted this stress in our conversations about navigating dangerous encounters with mothers. Ear tags signal the regulatory power that farmers exert over cow bodies and how they strip calves from their mothers. Although deemed necessary and routine, ear tagging is a painful experience for calves and a stressful experience for calves and mothers. This (shared) stress is inherently relational.

Relational governance

Weaning as relational governance

Animal geographies pay attention to the different manifestations of power that shape human-animal relations and animals' lives, experiences, and relationships. Here, I explore how farmers' governance of cow bodies provides a foundation upon which farmers affect, manage, and restrict intra-cow relations. I analyze weaning as a form of relational governance, given the severing of mothers and their babies that underpins this practice. Grass-fed beef farmers discuss that weaning is a necessary practice in their work and see value in reducing the anxiety it poses for the animals. They associate the minimization of stress caused by weaning with good welfare

practices and, as a result, fail to acknowledge how weaning, more fundamentally, severs relationships that good welfare practices do not restore.

Weaning refers to the process whereby farmers remove calves from their mothers to prevent the mothers from feeding their calves. When females are in heat, farmers introduce a bull to the herd to ensure that females become pregnant and give birth once a year.[42] The mating cycle of cows guarantees farmers a steady supply of beef for their customers. Grass-fed beef farmers explain that they wean calves to get mothers ready for their next calving season, as mothers who milk for too long can suffer from energy depletion when calving. Farmers (as well as veterinarians) note that older and younger calves can compete for their mothers' milk if farmers do not wean older calves, which jeopardizes the nutrition of younger animals. The annual re-breeding of mothers signals their continuous experience of being separated from their calves. Many farmers wean calves when they are approximately seven to eight months old because "by that time, the cows are probably pregnant again." Other farmers wait until the calves are closer to 10-months-old because, at this point, mothers start to self-wean in preparation for their next calf. "Mothers get to a point where they no longer allow calves to milk them," and in this way, weaning at 10 months "gives the mom the opportunity to [do] it herself." When farmers let mothers play a role in the weaning process (via self-weaning), they give them more autonomy. However, the 10-month mark indicates when farmers separate calves from their mothers (and when this autonomy, therefore, ceases). Farmers engage in different weaning strategies, and they understand cow welfare as a guiding principle when executing these. Interviews with farmers reveal two popular weaning methods: they separate calves and mothers by a fence or

[42] The birthing cycle for female cows is nine months.

by using a “quiet wean” nose clip on calves. The former approach allows the animals to see, hear, and touch noses with one another, and the latter enables calves to stay with their mothers while preventing them from being able to suckle their mother’s teats. Farmers choose methods that create the least amount of stress for the animals; many refer to these methods as low-stress weaning.

Animals establish relationships with one another that hold different meanings for them. Power, connection, intimacy, and emotion are central to these relations (Gruen, 2015, 2016; Gillespie, 2017), and my witnessing of cows and calves during fieldwork attests to the importance of cows’ sociality. I observed mothers and babies interact through licking, suckling, and vocalizing with one another. I saw calves skipping and running in groups and listened to mothers call their babies when they wandered too far. The vulnerability that I experienced in my encounters with mothers and calves served as an indication of their intimate connections. In moments of proximity, mothers signalled to me to keep my distance from their calves, bellowing loudly and/or walking towards me to get me to step back. I took the advice of one farmer who, in alluding to the protective bond between mothers and calves, cautioned me from standing in between the animals. These moments illustrate the meaningful mother-calf relationships that develop on farms. As humans, we are, in many ways, entangled with animals, given our shared vulnerabilities and capacity for experiencing connection, emotion, and intimacy (Bekoff, 2007; Despret, 2016; Fawcett, 2016; Grandin & Johnson, 2009; Haraway, 2008; MacKay, 2019; Lorimer, 2006; 2010). The intimate connection that we experience with our kin provides a visceral avenue for grasping the emotional relationships that cows share with theirs. When farmers wean calves

from their mothers, they sever this connection, governing and restricting a mother's capacity to protect and bond with her offspring.

The use of fencing and nose clips hinders cow welfare by limiting cows' and calves' abilities to nuzzle, nurture, and nourish one another. Weaning violates this connection and, in turn, compromises the social and behavioural welfare of cows. Although fencing and nose clips minimize animals' stress, weaning shatters valuable relationships for cows. Examining this practice as a form of relational governance exposes the traumatic experiences that cows endure in routine, necessary procedures, shedding light on how farmers exercise cow welfare practices by inflicting and (then) managing stress that they pose on animals. In other words, an analysis of weaning as relational governance complicates the association of care and the "quality life" that farmers associate with cow welfare. When we complicate this measurement, we deepen our ability to understand the impacts of welfare on cows' lives and experiences. An analysis of bodily and relational governance deepens our understanding of welfare's impacts on cows' lives and experiences while also revealing how inherent limitations are inevitably built into welfare practices given the harnessing of cows' lives for food.

Part two: Biopolitics

In chapter one, I discussed how biopolitics renders agricultural animals both productive and killable. In this chapter, I explore the biopolitics of cow welfare on grass-fed beef farms to reveal the complex dimensions of human-animal relationality, commodification, care, and killing and, in turn, add to debates in biopolitics literature about the ways that biopower impacts food animals' productivity (Holloway, 2007; Twine, 2010; Chrulew, 2017) and killability (Collard & Dempsey, 2013; Collard, 2014; Haraway, 2008; Shukin, 2009). I analyze how, through welfare

practices, farmers associate a cow's quality of life with their beef quality, articulating a specific kind of welfare-endowed animal capital (Shukin, 2009), and I examine how farmers assign capitalist value to their cows based on their cows' encounterability, genetics, and labour. Here, I extend ways of understanding cows as lively commodities (Collard & Dempsey, 2013) involved in relations of encounter value (Haraway, 2008), expanding the scope through which we understand cows' commodification. Central to this discussion is a consideration of how cows' liveliness complements as well as complicates their commodification. Alongside this, I investigate the narratives of killing for beef vs. welfare that underpin farmers' discussions euthanasia that contrast their (disciplinary) descriptions of culling "crazy" cows.

The biopolitics of grass-fed beef farming

Encounterability, genetics, and labour: The lively commodification of cows

Animal agriculture harnesses life to inflict death, and in this way, it is biopolitical (Rosenberg, 2016). During our conversations about beef farming, farmers often conflated their animals' age with their weight, leading me to reflect on the rendering of grass-fed beef cows as animal capital. In these moments, I thought about how measuring a cow's age by weight exemplifies the closed loop between animal (cow) and capital (beef) that Shukin (2009) alludes to in her analysis. The word "capital" exemplifies this closed loop, as it was originally used to represent a head of cattle (Gunderson, 2011).[43] What is significant about biopolitics (and the system of capitalism that it circulates within) is how it assigns an economic value to animal life *and* death. Exploring the former, Collard discusses how biopolitics harness animal life in the exotic pet trade industry by transforming animals into "lively commodities" (Collard & Dempsey, 2013; Collard, 2014). Lively

[43] This association between "capital" and "cattle" further supports my decision to use the term "cow."

commodities are (nonhuman) living beings whose capitalist value is derived from their liveliness (Collard & Dempsey, 2013). Collard and Dempsey explain that an "exotic" animal's "ability to enter into encounters with humans – to be touched, looked upon, spoken to, and heard – is essential to their construction as valuable, economic objects" (2013, p. 2,687). On the one hand, (beef) cows do not align with Collard and Dempsey's notion of lively commodities because their economic value obliterates their encounterable and social nature. On the other hand, however, my conversations with farmers led me to reflect on how they value their encounters with cows differently. I use farmers' commentary about cows to explore how a cow's social and emotional qualities can broaden the scope through which we understand their commodification and commodity value.

In chapter five, I discussed how grass-fed beef farmers breed cows based on their genetic qualities to optimize their herd's genetic profile. Farmers attribute genetics to cow welfare by noting how breeding cows (based on their genetic qualities) helps farmers manage their behaviour and temperament. Here, I re-explore cow genetics and behaviour as features of a cow's liveliness, which farmers deem central to their commodity value. Discussing the relationship between biopower, genetics, and agricultural improvement, Twine (2010) argues that "the interests of animal scientists in behavioral genetics speaks to the aim of building animal subjectivities into the very anatamopolitics of the animal body and mind" (p. 89). For Holloway and Morris (2008), a cow's liveliness extends beyond their body, where "within genetic techniques, a cow isn't simply a body, but is a body with data…in a network which extends well beyond the body and the farm" (p. 1,718). By emphasizing how cows pass on ideal genetic traits that preserve the herd's instinctive abilities and intelligence, farmers signal how genetic selection

draws on ideas of progress and entangles animals in practices that aim to increase their economic efficiency (Holloway & Morris, 2008). Good genetics create profitable cow herds. If farmers lack what one refers to as "genetic rock stars with excellent performance and carcass traits," they can rent bulls with good genetics to enhance the herd's performance. Although cows are killed for profit, their (lively and) genetic qualities become a part of their commodity status and biopolitical management. When we focus solely on the killing of cows, we lose sight of how their lives are integral to the commodification process, making it challenging to see cows as more than beef.

Farmers associate good genetics with good cows and highlight their encounters with these animals as an enjoyable part of their work. Collard and Dempsey's (2013) notion of encounterability offers a useful lens for examining how these encounters gesture towards a cow's lively features. The following comments of farmers attest to cows' encounterability:

- You do get attached. And quite honestly, I don't know if it's as I get older, but it pulls a bit more when I ship them. It is maybe something that I've gleaned from what I understand is Aboriginal. I try to thank the animals when they go off on the truck. I don't know, but I do have more of a connection like that. And I almost tend to treat them, and I mean not completely, like the dog. I always talk to them.
- You get attached to cows [because] they're almost like pets.
- It's like having a dog.

Drawing a similarity between pets and cows, one farmer states how cows are "responsive and socially interactive. There's something about them when they are honoured in the fullness of their cow-ness that [allows] you to experience them on a different level." For some farmers, the amount of time they spend with cows strengthens the bond they share. "I find that the bond for

us is stronger with our older animals. The longer we have them, the more attached we get." Those who are "usually around for 10 to 20 years, you get to know them, and they get to know you. So when you own a cow for 20 years, you become attached to it." A cow's encounterability unfolds within the context of their commodification into beef, and farmers allude to how a cow's economic value becomes entangled with the social and emotional significance they hold for farmers. Haraway (2008) provides insight here through her analysis of lively capital to describe how, within relationships of domestication and commodification, dogs, as undead, generative, living, and breathing commodities (and consumers of commodities) co-produce what she calls, "trans-species encounter value" in their relations with their domesticators. Encounter value "extends beyond Marx's notion of exchange and use value to detail relationships among an array of lively beings, in which commerce and consciousness and ethics and utilities are all in play" (Haraway, 2008, p. 46). Encounter value provides a context for illuminating animals' encounterability. Encounterability, I argue, sheds light on how cows' lively qualities become a part of their commodification. Yet, it also complicates their commodification, given the social and emotional connections that farmers form with cows as a result of their encounterability.

Cows possess specific characteristics that make (or do not make) them likable to farmers. For farmers, the likeability of cows signals their liveliness as well as their commodity value. "You tend to like the ones that you perceive to be good for your livelihood as a farmer. I have favourite cows, and that is usually because it's such a good a one." Factors that measure a cow's "goodness" include their physical build, docile temperament, and genealogy. Farmers explain that these are "important for making sure cows produce a good end product." Cows who do not promise a "good" product are those who farmers eliminate from the herd. Cows "need to be able

to hold their end [because] they're like employees. If they misbehave, you have to fire them." If a cow misbehaves or can no longer fulfill their role as a productive body, the farmer removes them from the herd through a process called culling. Farmers cull cows who are aggressive, old, have poor genetics, are sick, or are high maintenance (Ruechel, 2006).

> High maintenance cows are not well nourished and have less strength to push their way to the front or center of the herd. They are the first to have calving difficulties or to abandon their young. Their calves are weaker, more sickly, and runty. (Ruechel, 2006, p. 28)

High maintenance cows are also those who can no longer produce calves. As one farmer explains, in these situations, "you retire her. If she's given you X amount of calves, why run her into the ground for the sake of having another calf?" When cows exude these traits, farmers deem them unproductive and no longer valuable in their labour. A cow's labour, in other words, is integral to how farmers make sense of (and commodify) their lively qualities.

Farmers assess cows' lively qualities according to their performance as beef cattle, drawing attention to cows' killing as a central feature of their commodity value. It is not my intention to gloss over this reality. Instead, I use farmers' reflections to explore how a cow's lively and encounterable qualities can expand the boundaries through which we make sense of cows as beef commodities. Farmers reflect on cows' genetics and behaviours and the connections they develop with the animals throughout the commodification process. These reflections offer a glimpse into how a cow's encounterability both complicates and complements their commodification.

A "quality life" = "quality beef": The biopolitics of cow welfare, commodification, and killing

Grass-fed beef farmers highlight the link between cow welfare, commodification, and killing by articulating the importance of giving cows a good life to create a healthy beef product. As I stated in chapter five, minimizing stress is foundational to a good life. Farmers draw a connection between the quality of a cow's life and the quality of their flesh by emphasizing how cow stress yields an inferior beef product:

- Meat quality has a big bearing on slaughterhouse stress.
- We try to handle cattle quietly and gently all the time. Stressing cattle can lead to a bad product, and animals that are shipped to a butcher, if they are very stressed, might not bleed out properly. So you end up with an animal that somehow retains blood in the meat, [which] refers to "dark cutters." It creates a tougher product that doesn't taste good.

The notion of "dark cutters" suggests that humans can see, touch, and consume the texture of a cow's stress.

Farmers attempt to avoid the production of dark cutters by calmly working with their cows, exercising the logic that content, calm, and happy animals produce healthy beef:

- The animals we raise are an extension of our family, which means we believe in raising them in the happiest and healthiest way possible.
- Happier cattle are healthier cattle. They eat more and grow better – the way mother nature intended, so to speak.
- You need to treat cows well for them to produce well.
- [A cow that produces well] yields healthy beef, and that's what we're all trying to do.

- I'm biased, but I'm certainly producing a healthier product.
- The grass-fed and finished beef is a much better product [because] it's much healthier.
- If we don't have our health, we got nothing. And so that's where I come from in everything I do around here.
- I'm more interested in producing beef that is from animals that have had wonderful lives and a positive environmental impact.
- Feeding ruminants forage, and not grain, is better for them, it's better for me, the environment, and for the meat quality.

Grass-fed beef farmers delineate a connection between the lives of cows and the quality of their beef. They argue that, within a grass-fed beef farming model, cows' wellbeing and commodification can coexist in a way that benefits the animals, farmers, and consumers. By emphasizing the relationship between a cow's life (as happy) and flesh (as healthy), farmers outline the economics of cow welfare and put forth the notion that cows can thrive, albeit temporarily, within a system that requires their death. Grass-fed beef farmers make sense of cow welfare as an avenue for producing quality beef, and this logic shapes their economic livelihood. However, the process of euthanizing cows complicates this logic, given that euthanized cows do not yield profit for farmers. Alongside this, euthanization exposes a context in which farmers kill cows to protect their welfare.

Euthanization: Changing the narrative of killing for beef to killing for welfare

The term euthanization is derived from the Greek word *euthanatos*, meaning "easy death." It is "the act of killing sick or injured individuals (such as persons or animals) in a relatively painless way as an act of mercy" (Merriam-Webster, n.d.). Euthanization creates a context in which

farmers kill animals to protect their welfare. As one farmer explains, “euthanizing should not be considered a last resort [because] it’s often the best way to reduce animal suffering, producer anxiety, and vet bills.” The decision of when to euthanize an animal emotionally weighs on farmers, creating an “emotional roller coaster” that many find difficult and draining. “So that’s the emotional part of it because you’re so close to the animals, so when something goes wrong, it hurts.” Farmers euthanize cows if they become severely sick or injured. “Putting an animal down is not nice and certainly is a part of the business that I hate,” but “if there’s any question at all these days, you put the animal down.” Some farmers call upon a veterinarian to euthanize a cow, and others perform this task themselves by shooting the animal. One farmer explained that he shot a calf who had their eye pried out by a raven; another discussed how he had shot sick and injured cows on-site. “I will shoot an animal if it gets sick, and if it’s going to be a week to 10 days before it dies. I don’t like doing it, but it’s the humane thing [because] it’s better for the animal.”

Farmers cannot sell euthanized cows as beef; however, they can salvage them for personal consumption. The term salvage conjures up ideas about saving animals from a wasted death. Illustrating this point, one farmer expresses the emotional labour of butchering her calf’s euthanized body for personal consumption.

> We have these big old tractor things we use for feeding hay to the horses. And we had a calf in the yard who tipped into it. We got her out and thought she was going to be okay, and then she wasn’t. So we put her down on the farm and butchered her ourselves, which was rewarding. It’s cool to know that, instead of wasting her meat and her life, we were

using it. But I can't fathom working in a butcher shop and doing that daily. But yeah, [making] the decision to put her down, those are challenging decisions.

Farmers euthanize cows to alleviate the animals' suffering while knowing euthanization will negatively impact their profits. Salvaging cows' meat for personal consumption alludes to one way that farmers bring justice to this loss.

The term "deadstock" represents the decommodification of cows that results from euthanization. Euthanizing animals is "a part of the business" because, as several farmers state, "if you have livestock, you had deadstock." Deadstock refers to euthanized animal bodies sent directly to rendering plants, which convert livestock carcasses into industrial oils and fats and prepare livestock hides for leather manufacturers. Farmers pay a fee to drivers for transporting deadstock to rendering plants, and these expenses contribute to the economic stress that farmers experience when their cows do not become beef. Younger animals who become deadstock create a significant burden on farmers. "Those are the most disheartening ones. And then the whole financial stuff, like it couldn't have been a cow that was 10 years old, you know, like she paid for herself like five times over." Older females who have produced several calves pose a less economic constraint on farmers if rendered as deadstock because farmers have profited off their offspring and reproductive labour. However, young animals have not yielded any profits for farmers, and in this way, their termination as deadstock is more problematic.

Welfare guidelines are in place to ensure that animals who require euthanization are not shipped to abattoirs (in an attempt to secure profits for farmers) due to the stress and suffering that sick and injured cows experience during transport. One farmer explained that if a lame animal is on the trailer, inspectors will have them immediately stunned or euthanized and

dragged out of the truck. He expressed his frustration with these regulations by noting how they represent good intentions but "are a bit of an overkill." The notion of overkill reflects the economic pressure farmers face due to a cow's de-commodified state. More importantly, it indirectly reveals the necessity of curbing improper (and cruel) transportation to protect animals in need of euthanization.[44]

Welfare practices can be generative or detrimental to a farmer's profits. In the name of welfare, farmers provide cows with a good life and, in turn, create a quality and profitable beef product. It is also in the name of welfare that farmers euthanize injured and sick animals who, as deadstock, do not generate profits for farmers. As deadstock, these cow bodies do not make it to our plates, but rendered into fats, oils, and leathers, become eaten up by other capitalist pursuits. However, for farmers, deadstock's decommodification highlights how their care for and killing of cows can override their economic interests. The emotional and financial hardship of euthanizing cows that farmers reflect on sheds light on the complexities of their relationships with cows. And as I explored in the previous section, these complexities are also evident in the social and emotional bonds that farmers share with cows, as lively and encounterable beings with whom they enjoy working. In these ways, farmers reveal how, within the biopolitical arena of grass-fed beef farming, companionship and killing coexist. However, when these bonds do not exist and cows require culling, farmers make sense of killing through a disciplinary framework.

[44] These regulations, however, create tension between farmers and inspectors given the governing power of inspectors over farmers. As one Canadian Food Inspection Agency Inspector notes, "When you talk to the majority of farmers, they agree that the animal shouldn't go [on the truck] because it doesn't look good for anybody. But on an individual basis, people lack some sound judgement that we'd like to see as a regulatory agency. I would say the traditional producer wants to be left alone. Just like I may not want a tax audit, they don't want somebody seeing how they're loading and unloading."

Cow culling: Disciplinary practices and the killing of "crazy" cows

Farmers express their power over their herd, removing those who threaten its productivity by referring to themselves as the "herd boss." They execute their role as herd boss by culling cows, which they understand as a necessary measure to protect their safety and the safety of cows. Depending on their age, cull cows are auctioned or sent for slaughter. I focus on the disciplinary language farmers use when discussing this process and explore how this disciplinarity impacts the commodification and experiences of (cull) cows.

"Cull cows are cows that aren't measuring up to your standards, so you're getting rid of her." Farmers explain that cull cows exhibit aggression towards farmers and/or other cows; they are the opposite of obedient and good-tempered cows. For this reason, farmers often refer to these animals as "crazy." As one farmer explains:

> It's like just shoot that thing because it's going to get us killed. If you have an animal that is always causing you headaches, there are many different ways that they can be bad for your business. It doesn't make any sense to keep the crazy ones.

Echoing this, another states that "crazy cows are the cows you want to eliminate from your herd." The status of "crazy" suggests that when a cow stands out, their singularity (or individuality) makes them the target of killing power. Thus, Buller (2013) explains that a cow's "moment of singularity is also that of their culling" (p. 156). Through this biopolitical exclusion (i.e., culling cows from the herd population), farmers make clear that "crazy" cows threaten the herd's vitality and, therefore, their killing is (biopolitically) justified.

Cow behaviours that warrant culling include jumping fences and gates, charging, kicking, and excessively challenging farmers in day-to-day practices. The notion of "crazy" reveals how

cows, as disciplined bodies in a system of agricultural governance, refuse to comply with farmers. What this term evades are the reasons that cows may choose to act aggressively. Gillespie (2018) considers how a cow's aggressive behaviour can likely be the result of "a reasonable (and not neuro-typical) response to unfamiliar and frightening conditions" (p. 79). As one farmer explains, when cows are "crazy, like nervous and afraid of you, making your life so much worse," they communicate to farmers that they are experiencing frustration or distress. Yet, the notion of "crazy" glosses over these emotions and reinforces the idea that cows do not have interests that they (rightfully) seek to protect.

The reference of "crazy" alerts our attention to cows who fail to perform as docile and compliant commodities and, therefore, who require punishment:

- Any cow that isn't well behaved doesn't last on our farm.
- If they don't play by the rules, they have to go.

This disciplining of cows is detailed by one farmer, who uses the context of failing to comply with a police officer as an example of when (and why) farmers use physical force towards non-compliant cows. "When someone gets arrested and decides to not comply with the officer, the officer needs to get physical. However, if that person is compliant, the process is easier and doesn't require physical force." Another farmer echoes this disciplinary tone by stating that "animals need to be able to hold their end. They're like employees. If your employee is misbehaving, you have to fire them, even if you like them." This status of "employee" conveys a dual conceptualization of cow as a worker and beef commodity, and the notion of being fired alludes to a cow's punishment for failing to act as a good worker.

Cull cows, like docile and well-tempered cows, become beef commodities, despite their "crazy" behaviours. However, the language with which farmers articulate their commodification is different. Many grass-fed beef farmers describe how "crazy" cows misbehave and, as a result, must be eliminated from the herd. Due to this elimination, cows endure stressful experiences. The process of culling impacts cows' experiences, and their disciplining as "crazy" fuses with this process, depicting a hostile farmer-cow relationship that contrasts the affectionate relationships that I previously discussed. I locate farmers' emotional and disciplinary relations with cows within a network of cow welfare, commodification, and killing.

Linking animal geographies and biopolitics: Explorations of relationality, care, and killing

Literature in biopolitics conceptualizes human-farm animal relations as problematic and does not often consider or explore how care can shape these relationships. I layer the lens of animal geographies and biopolitics to investigate the muddied relationship between caring and killing. Both animal geographies and biopolitics draw attention to power relations between humans and animals. Animal geographies examine animal lives and subjectivities, pushing the boundaries of our understanding of animals and the relationships we share with them. By addressing how animals live meaningful lives rooted in subjective experiences, animal geographies complicate and problematize animals' positioning in human-animal power relations. Biopolitics helps to extend this analysis by investigating the subtle and explicit ways animals are rendered productive as well as killable in power relations. Like biopolitics, animal geographies draw attention to the problematic relationships we share with animals. It also, however, imagines new possibilities for creating more just relations with them (Giraud, 2015; Haraway, 2008; White, 2015), including our

relationships with farm animals (Emel et al., 2015; Holloway, 2002; Porcher & Schmitt, 2012; Spinka & Wemelsfeder, 2011).

Biopolitics sheds light on our relational ontology with animals. Animal geographies extend this analysis by investigating how human-animal relationships can become grounded by a politics of mutual flourishing rather than domination (Rutherford, 2013). A politics based on mutual flourishing has at its core the goal of creating ethical human-animal encounters. Whatmore (1997) argues that heterogenous human-nonhuman networks are always ethical; she contends that our particular relations with animals – which exist within these networks – embody relational ethics. Holloway (2002) contributes to these ideas by questioning how relational ethics are tied to specific places. He analyzes small-scale animal farming as a case study for investigating how farmers develop ethical identities and positionalities in their farming practices and relationships with animals. "Instances of small-scale farming provide examples of relationships in which animal agriculture is bound into moral discourses concerned with re-establishing a more ethical connection between humans, animals, food, land, and nature" (Holloway, 2002, p. 2,056). Holloway argues that the relational construction of farmers' ethical identities depends on specific farming situations and places, suggesting that these identities are mobile and mutable rather than fixed. I extend Holloway's analysis of mobility, relationality, and ethical identities, proposing that the mobile quality of relational ethics enables farmers to make sense of (and space for) caring and killing in their relationships with cows. I investigate the coexistence of caring and killing by drawing on the emotional reflections of farmers. These help to unpack farmer-cow relationality, as well as enrich and complicate welfare's meaning. Interviews with farmers reveal a range of emotions and emotional contexts that convey this coexistence.

Here, I layer the lens of animal geographies and biopolitics by shifting my focus from the dimensions of control and commodification that shape cows' lives to investigate how farmers' feelings of love, attachment, grief, internal conflict, and acceptance underpin their relationships with cows. Layering the lens of animal geographies and biopolitics allows me to shed light on the emotional dimensions of farmer-cow relations to more broadly examine how capitalism's (strong and fundamental) impacts on these relations cannot fully account for the different ways in which farmers bond with, care for, and feel love towards their cows. Carey (2016) compellingly discusses how the notion of care within the animal agricultural industry functions to reinvigorate practices of meat-eating, legitimizing the assertion that animals are cared for to justify (and purify) their killing. Carey signals how care becomes co-opted by the industry, producing a post-factory farm biopolitics, within which caring for animals enables eating them the "right" way. While I see merit in this argument, particularly given the industry's chameleon-like ability to disguise itself as ethical, I worry about its depicting of killing as an antithesis to caring, which risks producing a narrowed understanding of farmer-animal relations as purely unethical. I conceptualize farmers' narratives about love, attachment, grief, internal conflict, and acceptance to reveal the emotionally and economically muddied entanglement between caring and killing. I show how an analysis of this entanglement both enriches and complicates understandings of farmer-cow relationality and cow welfare.

Love and attachment

Grass-fed beef farmers openly acknowledge their cows' killing for profit while also emphasizing their love for and attachment to the animals:

- We love our animals. The cows have been the best therapy I've ever had. They're just such a calming presence to be around. There are benefits way beyond the bank account to what we're doing.
- If you're stressed and your cattle are not stressed, they calm you down.
- I'm hugely emotionally invested in all my animals. I love them.
- If this work isn't emotional, I don't know what is. You love cows, and you get it in your blood, and that's it. I can't live without cows. We collect cow families. So we're very emotional.

These reflections highlight farmers' emotional attachment to cows. I do not think it is possible (or productive) to conceptualize this emotionality outside of capitalism because farmers' reliance on cows for profit is a defining feature of farmer-cow relations. However, just as importantly, farmers' love for and attachment to cows cannot be reduced to the logic of capitalism because they are not solely defined by capitalism.

Farmers express that their emotional attachments to cows make killing them difficult. They allude to these complexities and challenges in the following ways:

- I want to be able to part with them even if I love them.
- That's the heartbreaking thing; you get attached to them. They're almost like pets.
- If you don't [get attached], there's something wrong with you.
- You get more attached to the one you'd scratch and stuff like that [because] they're more friendly.

Grass-fed beef farmers express their enjoyment in working with cows and make it clear that cows give them a sense of purpose and wellbeing. The bonds they develop with the animals have an important place in how they understand their role as grass-fed beef farmers and how they perceive their cows as social and emotional beings, as well as bodies for consumption.

Grief, internal conflict, and acceptance

The emotional connections that farmers have with their cows are most complicated when considering the killing of cows. Several farmers explain how they experience grief when they send their animals for slaughter:

- When we drop off the animal, we're processing, right? We have tears in our eyes and are feeling affected emotionally for a few weeks. So how do we process that? We might take photos on the way home after we drop [them] off, you know, just trying to find a photo of something perfect, like the sun rising that morning. Or writing a poem or something, do you know what I mean? A way to process the grief because that's just what it is. It's a loss.
- We're in tears when they send cows for slaughter and when the animals need to be put down if they're too ill or injured.

While the majority of farmers I spoke with did not make references to grief, they did discuss how they try to prevent themselves from experiencing the emotional weight that accompanies cow slaughter:

- I try to keep the human perspective out of it [because] when you don't … you have a hard time culling your favourite cows.

- I get attached but try to prevent this by not naming the animals because they are all destined for the same thing.

Some grass-fed beef farmers attribute their acceptance of parting with cows to their childhood experiences of animal agriculture:

- We'll all tell you the same story: we're 10, 12, [or] 13 years old and have a pet steer. We fall in love with the steer, and all of a sudden, the steer is gone. You go to your dad and ask what happened, and then he tells you, and you cry. We all went through it, and you just learn to deal with it.
- As a kid, you name them, and dad [tells] you no. So you kind of get it as a kid. There's the odd one that you've bottle-fed, and it's like, I wish I could keep you, but I can't. You got to go, and I'm going to miss you.

With the roots of acceptance firmly implanted, farmers emphasize how they make sense of cow killing as a challenging but inevitable part of what they do:

- It's kind of sad sending off those you got along well with, but it's inevitable.
- I'm still uncomfortable with it, so I'm not around when they truck the cattle off the farm because it's not what I like to do. But it's an unfortunate part of what we do. You got to, I guess, expect it, right?
- This process is hard to describe; it's a given [because] it's the end game. It's not a shock or emotional thing; it's the natural culmination of your involvement with the animal.
- I feel bad sometimes like you should, but it's not so bad that I don't get over it and am not able to accept it as part of what I think is a great thing.

Grass-fed beef farmers are not immune to experiencing stress, sadness, and emotional unease when taking their cows' lives; instead, they explicitly express how their emotional attachment to the animals is a necessary component of their work.

The discomfort that farmers experience when sending their cows for slaughter is grounded in (and alleviated by) a sense of responsibility for the animals, providing them with the best life *possible* – or what Emel et al. (2015) refer to as a "livelier livelihood." One farmer expressed that she copes with conflicted feelings when sending her cows for slaughter by emphasizing her responsibility for the animals. "As long as I am eating meat, and as long as others are eating meat, I feel responsible for trying to give them the best life possible." Other farmers also allude to responsibility as an essential part of coping with their work:

- We've done everything to care for these cattle beasts, and then one day, we put them on a trailer, and we know the finishing line is here. So the only way we can find some relief around that is to say that we've done that with honour, and we're feeding humans with honour. This is our obligation, [and] that gives us some relief.
- The part that I don't like is that we have to slaughter them. I don't like to be involved because I'm emotionally attached to the cows. When we have to ship our 15-year-olds, it's hard for us. So given that there has to be this one unfortunate event in our production model, we want to do it in the best way that we possibly can.

In their reflections about acceptance and responsibility, farmers acknowledge the complex link between life and death and express how they practice care within the context of killing:

- We all have to manage the emotional labour of loss. When you're a farmer, you just have that a lot more often. It becomes a fact of life. You sign on for this when you become a farmer.
- And it's not like, let's try to avoid that pain in life, we can't. [We] come to grips with that. That's just a part of the fabric of life itself. You're going to get attached to them, and it's going to hurt, but that's what it is to be human and alive. You know, it's almost like accepting the fullness of that. That feels real to me versus something served on a Styrofoam tray in the grocery store.
- I haven't completely reconciled with killing my animals; it always makes me sad. It's not something I think I would ever be completely happy about. But when we started this business, and I was going through the emotional processing, I thought a lot about my own death and the people I love and how we are all doing to die … It's not so much death that is a problem; it's suffering. And if we can reduce suffering as much as possible [then], that's what our goal should be.

Farmers conceptualize killing within a cycle of life and death, and they understand their care for and connections with cows as an integral part of this cycle. Built into their acceptance of their cows' deaths is their emotional acknowledgment of the animals and the bonds they share with them. The way farmers commodify cows for profit and human consumption also shapes how they make sense of cow killing. Yet, through their narratives about life and death, farmers reveal the muddied relationship between caring and killing.

The muddying of care and killing expands cow welfare's multidimensionality by revealing the network of power, care, and control that shapes farmer-cow relations. This network provides

a window for exploring cows' subjectivities, their emotional lives, and their interpersonal relations. It also offers a unique way of examining the subjectivities and emotional lives of farmers. Farmers become subjects shaped through their relationships with cows, as "herd bosses" who provide care and companionship while also exercising control over cows' lives and deaths. The complexity of welfare (and the network of power, care, and control that shapes it) is evident in the way farmers care for their cows as emotional beings while also using them for food and their economic livelihood. Greenhough and Roe (2019) provide insight here through their analysis of animal laboratory technologists – as people who both care for and kill laboratory animals. They note how animal technologists are keenly aware of the contested moralities and paradoxes that shape their work (Greenhough & Roe, 2019). Listening to farmers' stories about cows made it clear to me that they, too, were keenly aware of the ethical controversies that shape their work. Central to Greenhough and Roe's analysis is that listening to the stories of those whose work with animals necessitates care and harm provides us with key insight into the challenges, contradictions, and complexities of human-animal relationships and the economic contexts within which they are embedded.

Farmer-cow relationships are emotionally and ethically complex, given how love, attachment, grief, internal conflict, and acceptance function as a part of these relationships. Drawing insight from Haraway (2008), I came to understand how farmers embrace the need for killing cows without deeming cows killable. As I discuss on page ten, Haraway argues that killing animals is not a problem; but making animals killable is. The former warrants us to sit with how killing has a place within human-animal (and other nonhuman) relationships. The latter, however, refers to systemic ways in which animals become rendered disposable and unworthy of care and

respect. Welfare violations that I describe in chapter two, such as severe confinement, physical abuse, mutilations without anesthesia, botched euthanasia, and improper slaughter, exemplify practices within which animals are deemed killable. In our conversations about responsibilities of care and killing, farmers' expressions of emotionality and emphasis on the importance of their relationships with cows highlighted how they conceptualized care as a vital component of killing. This is one way in which I understood how farmers practiced their own ethics of care with cows.[45]

I, too, became embedded in this network of power, care, and control as a researcher exploring these cows' lives and fates. I feel discomfort knowing that I could not save cows from their fate as beef, but I take comfort in bringing attention to their lives and deaths. Navigating this discomfort is emotionally challenging because of the meaningful lives that cows experience that end for human consumption. However, I layer the analytics of animal geographies and biopolitics to move through this process, working towards Gillespie's (2017) call to produce a counter-knowledge to the dominant ways of knowing cows promoted by the meat industry. When we examine and understand cows beyond their status as beef, it becomes possible to question the politics of consuming them or challenge the current systems through which we consume them.

As an assemblage, animal geographies and biopolitics expose cow welfare's complicated dimensions and help to initiate important questions: How might our food system and relationships with food animals change if the emotional connections that many grass-fed beef

[45] The disciplinary ways in which farmers describe "crazy" cows complicates this notion of an ethics of care because, in these instances, farmers describe their relationships with cows in negative rather than positive terms. It is not my intention to suggest that farmers deem crazy cows as unworthy of care; however, the negative feelings that farmers have to non-complacent and aggressive cows does alter their relationship with the animal, complicating the ethics of care I allude to here.

farmers share with cows become a governing model for others in animal farming? How might our relationships with cows change if we see them as more than beef? How might we be, as entangled subjects with cows become transformed in the process? Animal geographies and biopolitics offer valuable tools for unpacking these questions, shedding light on how governance, care, emotionality, and killing underpin farmer-cow relations and, in turn, shape cow welfare. Grasping these relations' complexities goes hand-in-hand with investigating the lives (and deaths) of cows we consume as food. This chapter embarked on this investigation, analyzing cows' subjectivities, governance, commodification, and killing alongside farmers' emotional attachments to cows to unveil critical aspects of their welfare and the intricacies of their lives.

CHAPTER SEVEN

COW WELFARE AND FOOD POLITICS: EXPLORING THE POLITICS OF GRASS-FED BEEF FARMING AS AN ETHICAL ALTERNATIVE TO INDUSTRIAL BEEF PRODUCTION

In this chapter, I turn my attention to grass-fed beef farming as the system in which cow welfare and ethical food practices unfold. I consider how grass-fed beef farming functions as an alternative food network in opposition to industrial beef agriculture. Alongside the benefits of grass-fed beef farming, I discuss its ethical complexities by highlighting the challenges it poses for consumers who, grass-fed beef farmers make clear, exist under the umbrella of care and ethical farming. Furthering this analysis, I address the tensions that surround grass-fed beef farming's representation of ethical alterity (to conventional beef farming) and touch on the economic implications of beef consumption that impact people's and cows' lives. A critical analysis of the food systems we are located within pushes an exploration of cow welfare further, revealing the entangled politics of cow production and consumption that connect farmers and consumers to beef and, more significantly, to the cows they consume. This chapter makes clear that an analysis of the food systems within which human-animal encounters take place adds to our understanding of the ethically complex relationships between people and food animals.

As I detailed in chapter one, debates within critical food studies on alternative food networks expose the tensions, complexities, and politics that shape the agricultural systems through which animals become food. The field's attention to alternative food networks helps build a comprehensive analysis of grass-fed beef farming's benefits and drawbacks for people and cows. This section discusses grass-fed beef farming as an alternative food network by examining how farmers understand their practices as an ethical response to conventional

(mainstream) beef agriculture. As an alternative food model, grass-fed beef farming offers a counter-knowledge to industrial beef farming through its emphasis on locality, environmental sustainability, cow welfare, and direct-to-consumer business. However, I also draw from critiques on alternative food networks to explore problems with grass-fed beef farming as an ethical food production model. Grass-fed beef farmers speak about how grass-fed beef farming operates as an ethical alternative to conventional beef farming, but they also highlight how this alternative can be deceptive. For example, I look at how deception functions in this food sector and how it feeds into a niche market that only some consumers can access. A discussion of grass-fed beef farming's benefits alongside its contradictions highlights the messiness of food systems, paralleling with the complexity that characterizes human-farm animal relations.

Grass-fed beef farming as an alternative food network

Alternative farmers oppose industrial agriculture through their practices and ways of talking about farming (Holloway, 2002), and my conversations with grass-fed beef farmers exemplify this opposition. Some grass-fed beef farmers identify their practices as alternative by emphasizing that their farming style counters mainstream beef production.[46] Farmers address this alterity in the following ways:

- Grass-fed beef farming is an alternative to the current model.
- It is an alternative to how the majority of [beef] is raised in our country.
- For example, 90 to 95 percent of the beef sold in grocery stores is grain-fed.

[46] The majority of grass-fed beef farmers I interviewed did not seem familiar with the term "alternative food networks." For example, when asked if they understand grass-fed beef farming as a kind of alternative food production, many asked what I meant by "alternative." However, upon further conversation, they explained how and why they felt grass-fed beef farming is an alternative to conventional beef farming.

- The mainstream people have to get animals to slaughter as fast as possible. So the only way of doing it is putting grain into them to get the fat on, [but] that's not beef in my estimation.
- Cattle are not meant to eat a lot of grain, so I wish it wouldn't be considered mainstream.

Echoing these sentiments, one farmer explains that grass-fed beef farming is an alternative to the mainstream, given the high abundance of grain that monopolizes beef production in Ontario.

While farmers view grass-fed beef farming as an alternative food network, many also raise the issue that their small-scale practices cannot feed the population like conventional, large-scale beef farming. By drawing attention to this limitation, farmers shine a light on the demand for cheap beef:

- I don't believe you can have a grass-fed operation with hundreds of animals; you can't do alternative farming with those numbers.
- Realistically speaking, I don't think you could get rid of feedlots … and be able to produce enough on the agricultural land that there is to support the demand for beef.
- Industrial production works because there is still a demand for cheap meat.

Grass-fed beef farming does not cater to this demand, and farmers emphasize how their practices constitute an ethically superior agricultural model, given their attention to environmental and cow welfare. Referred to as "the proper way," grass-fed beef farming "is more natural and regenerative of the land." For example, one farmer explains:

> The current model is remarkably unsustainable in terms of the amount of energy required to grow and transport the feed and deal with the waste of those highly concentrated

> feedlots. And in an ecological sense, having animals pasturing and eating hay keeps the nutrient cycles much more healthy and allows you to sequester carbon in the soil rather than creating digestive problems that probably increase methane production.

Another farmer notes:

> The mainstream sources of beef in our country are based on confinement feeding operations that are not environmentally sustainable and don't take enough care of the welfare of animals… I'm more interested in producing beef that is from animals that have had all the opportunities to live out their normal behaviours and have a positive environmental impact.

These combined benefits for the environment and cows "only exist in this way of raising animals, [and] it would be better if more of it existed." The costs of grass-fed beef reflect these benefits.[47]

Grass-fed beef farmers justify their prices by emphasizing the time, labour, and input costs that their practices require. "It's not an easy-go; I can't send them to market and get my money in a week. It's different. In a feedlot, you ship out 10 or 15 animals to the stockyard and get your cheque at the end of the week." Farmers explain that grass-fed cows take longer to reach their full weight, making it impossible for them to quickly make money. Compounding this problem, grass-fed cows' market weight is substantially lower than grain-fed cows' market weight. As one farmer notes, "It takes two and a half to three years to grow the animal to maturity. What's a normal size? Nine hundred to eleven hundred pounds; not sixteen to eighteen hundred pounds." Following this logic, another farmer explains, "We grow the cattle 20 to 25 percent slower than the hormone cattle. So that's more time on feed, more days, [and] your

[47] The farmers I interviewed charge, on average, between 8 and 11 dollars (per lb) for (ground) grass-fed beef.

money is tied up longer. [There is a] huge economic barrier to doing it right." Farmers use their input costs as a determining factor in their price model. They also determine their prices based on other grass-fed beef farmers' price models, suggesting that competition among grass-fed beef farmers shapes grass-fed beef's commodity value. For example, as one farmer states, "We all check out each other's price lines [because] you've got to stay fairly close to where your competitors are." Echoing this, another expresses that "one pricing strategy is to locate your competitors and try to be somewhere in the middle." However, there are differences in pricing that depend on one's marketing and whether they produce grass-fed or grass-finished beef. The following statement unpacks this point:

> My cost of production changes each year, and the more I watch what's happening in grass-fed beef, the more I see prices spreading out – both cheaper and more expensive. The people who are selling more expensive beef are usually marketing the welfare element hard. They're marketing it like Wagyu beef and saying [they] have specific ways of massaging the animals and feeding them lots of apples. So those are the high-end prices based on the experiences the animals had. And then the lower end is people who buy cattle from neighbouring dairy operations and finish them in their field, [producing] unremarkable grass-fed beef that they sell for much cheaper, which is pretty miserable if you ask me.

Grass-fed beef refers to cows who have grazed on grass their entire lives, while grass-finished beef refers to cows who have only eaten grass during their last months of living. Grass-finished beef (although marketed, at times, as grass-fed) is less expensive and, as this farmer suggests, less desirable than grass-fed beef.

Grass-fed beef farmers describe their practices as an ethical alternative to conventional beef farming by discussing their relationships with consumers that differentiate them from large-scale beef farmers. "[Conventional] producers are uncomfortable talking to consumers. They want to be able to ship a commodity to a slaughterhouse and say goodbye and not have to deal with anybody else on the consuming end." The segmentation of industrial beef production makes the industry difficult to trace, weakening the accountability and transparency of people who work in different production chains. Direct marketing to consumers, however, promotes farmer transparency and accountability. It also helps to circumvent the psychological and geographical distance that separates consumers from food animals (and the people who farm them).

Grass-fed beef farmers work directly with their buyers, and many emphasize the importance of having customers visit their farm to see the cows and learn about how farmers raise them:

> We sell all our meat direct to the consumer, so we invite them to come to the farm. We do a big annual open house in May with farm tours and opportunities to see all the animals. We try to be upfront and honest about how our animals are managed, [and] we put photos up on our Instagram to share the experiences our animals are living.

Another farmer notes that she posts pictures of her animals on Instagram so people can make the connection between cute animals and food:

> We've never had it, but if someone asked us what animal their meat came from, we'd be able to tell them your meat was this picture. When I first started doing Instagram pictures, mom was concerned that I would put people off by posting photos of baby animals. But the

customers we want are the ones who can say, you're right, this was a cute baby animal, and I'm still choosing [to eat it]. It lived a good life.

Farmers explain how they try to give their customers an understanding of the animals they consume:

- I tour people around [and] have people come out to see what we are doing.
- They can come and see how the animals live.
- When the customer comes, I say there are no questions that are not allowed. Every question is fair game, and we welcome people to come and meet the animals and ascertain for themselves how [the animals] are cared for.

Farm visits allow farmers to answer their customer's questions about how they raise and farm the animals. Gillespie (2011) argues that "seeing flesh, not as an animal that was once alive, but as meat, allows the consumer to forget what is required to produce meat" (p. 105). However, farm visits offer a way out of this cycle by allowing people to see the animals before their transformation to beef. Alluding to the transparency of this transformation, one farmer expresses that:

> We try and share life on the farm with people so they can have their own appreciation for it. Not only do we want people to agree with the care that our animals are getting, but we also want them to realize the effort it takes. When you're having a steak from our animal, that isn't something that just magically appeared. This was an animal that had to be raised and cared for. As much as we want the consumer to value what we're doing, we also want them to value what's in front of them.

By offering their customers direct experiences with the cows (before their transformation to beef), farmers play a role in opposing the postdomestic forces that shape current human-food animal relations. Bulliet (2005) refers to postdomesticity as the physical and psychological distance that separates people in Western society from the animals they abundantly consume as food, clothing, and other commodities (p. 3). Grass-fed beef farmers unsettle the grounds of postdomesticity by encouraging consumers to experience farm life and the cows they call food.

Critiquing grass-fed beef farming as an alternative food network

In addition to emphasizing grass-fed beef farming's ethical framework, farmers also describe how deception and dishonesty function within the grass-fed beef sector. For example, one farmer explains that:

> There's a lot of bullshit in the industry in terms of food labels, and the government will need to get involved in defining and regulating these terms. I know producers who mislabel their products, and when they do this, they aren't technically breaking the law.

One farmer shares a story that illustrates this quasi-legal mislabelling:

> I was sitting at this conference one time, and the conversation was about natural production and non-drugged animals. This guy – I wasn't supposed to hear him probably – says to his buddy, "I don't have to worry about this because as long as I withhold drugs for 72 hours before slaughter, I can sell them drug-free." Like what the hell, consumers don't know this stuff. And that's what farmers do.

Other ways that farmers discuss dishonesty within the grass-fed beef sector are as follows:

- Some [farmers] are earnest and honest. Some are full of shit. There are certification schemes out there that are sort of industry-driven that are not driving any change on the farm.
- If someone buys an animal and puts it on grass, [they] can call it anything. People are calling stuff grass-fed, but they're still eating corn. That's a problem. It's not certified. But even if it were, people would find loopholes.
- The biggest economic burden we have is cheating [because] probably 80 percent of the meat sold in Toronto is under false labelling.
- There are producers who will label their beef grass-fed even when it isn't.
- Anything can be marketed differently, and all of a sudden, it is alternative.

Farmers cite the false labelling and marketing of grass-fed beef as a deceptive practice that threatens the grass-fed beef sector's legitimacy as an ethical alternative to industrial beef production. These concerns speak to debates within food politics literature that discusses how food certification, labelling, and marketing strategies become key avenues for disguising conventional and industrial food production practices as "local," "organic," and "ethical" (Buck et al., 1997; Johnston et al., 2009; Guthman, 2004). Garcia et al. (2017) discuss how dualities such as global and local, alternative and un-alternative, and ethical and unethical are built on contested, shifting, and assumed boundaries that we use for making sense of our food practices and the food practices of others. Reconceptualizing grass-fed beef farming as boundary work sheds light on how farmers understand their practices as alternative and ethical (i.e., identifying what they are not).

Some farmers make sense of deception by exploring it in the context of organic food production. As one farmer explains:

> In recent history, [grass-fed] has become a trendy notion. Twenty years ago, people scratched their heads at this. But now it's become trendy. It's comparable to the organic movement in some ways. You need to be careful about people who are drawn into this industry to cash in on it. I've had the opportunity to work with organic farmers, and some are borderline criminal.

Echoing this, another farmer states that "certifying agencies are similar to the organic industry. Often they are in the pocket of large corporations, and this becomes a political issue." Issues such as these call grass-fed beef farming's alternative status into question because they reveal how the status of "alterity" can mask unethical practices.[48]

Other critiques about grass-fed beef farming argue that it requires more environmental resources than conventional beef farming (Hayek & Garrett, 2018). While I understand this logic, I worry that this kind of thinking can easily prioritize economic profits over animal welfare, given the way it risks advocating for confinement in the name of environmental sustainability. However, Hayek and Garrett (2018) explain that reductions in beef consumption are the most

[48] Many food scholars expose how the production of organic food provides as an important context for exploring the way in which AFNs produce unjust food systems that become disguised as ethical (Buck et al., 1997; Guthman, 2004; 2007; 2008; Johnston et al., 2009; Raynolds, 2004). For example, Guthman (2004) traces the genealogy of organic farming in California and demonstrates how organic farming is bound to a paradoxical past and present. Paradoxically shaping organic farming's past, Guthman (2004) explores the relationship between the organic movement and the agrarian imaginary it was underpinned by, where the small-scale family-run farm was envisioned as the answer to industrial agriculture's problems. Addressing its paradoxical past, she draws attention to the racialized and gendered history that has shaped this imaginary, arguing that this history too often goes unacknowledged, especially in relation to organic farming. Addressing its paradoxical present, Guthman (2004) reveals how organic farming is becoming increasingly industrialized and globalized while failing to address the social, economic, and environmental problems that are presented as central to its agenda.

critical driver of reducing one's environmental footprint, and I strongly agree with this position. Alongside critiques that dispute claims about grass-fed beef farming being better for the environment, critics of grass-fed beef farming argue that it tricks consumers into believing that they help the environment by eating grass-fed beef (Scott-Reid, 2020).[49] Other discussions about grass-fed beef farming that warrant attention include the way it glorifies farming while erasing the colonial history of farming on stolen Indigenous land (Scott-Reid, 2020). These critiques are an important reminder of the ethical impurities that underpin grass-fed beef farming. Alongside this, they highlight the importance of approaching any food system depicted as ethical with critical caution, concern, and curiosity.

The economic and social politics of grass-fed beef farming

Grass-fed beef farmers shed light on consumers' economic power in shaping food practices, which opens up space for considering the relationship between privilege and grass-fed beef consumption. Farmers speak about consumers' responsibility in using their food dollars to support the right kinds of farming practices, stating that "one's food dollar is a very powerful thing." Because of this power, "consumers are the guiding factor in my production practices." The costs of grass-fed beef "are passed on to consumers in the end. But that's the way it should be. The cost of us raising and transporting cattle properly – consumers have to pay for it, which I think is fine." Alluding to these costs, one farmer explains that "a lot of people want to support things like us, but it's just the affordability of it." Another farmer explains:

[49] Some of these arguments take specific aim at the fast-food chain, A&W's grass-bed beef program (Scott-Reid, 2020; Whelan, 2020). I too am skeptical of A&W's grass-fed beef program, given the scale of its production model and role in the fast-food meat industry. Many grass-fed beef farmers discussed the limitations of grass-fed beef in being able to feed large populations, making A&W's claims difficult for me to trust.

> My clients are families who've made hard decisions about how they want to use their food dollars. I mean, meat is expensive. The questions families ask me tell me that they have concerns about [cow] welfare and the environment and want to know how these issues are being addressed. These people have made an impact on the industry.

Emphasizing the economic role of consumers, another farmer explains that "I would make much less profit if I didn't graze them this way because people who buy beef from us care and ask questions. They are paying a slightly higher price, but it's something that our customers expect." One farmer explains how these higher prices become justified in the context of food crises born out of industrial agriculture:

> One of the economic advantages to this model [became apparent] when the mad cow disease issue was on the front burner for Canadian agriculture. Beef prices took a huge hit, [but] ours did not. We had consumers who trusted our stuff because we hadn't been feeding bovine meat waste to our animals; they were on grass. So it didn't affect us [because] we are not tied into the market price.

Not being tied to conventional beef prices signals one way that grass-fed beef farming operates as a niche market that only some beef consumers can access. Farmers specify how grass-fed beef consumers prioritize their health and environmental footprint and care about the welfare of food animals:

- There's a demand for this in the city, and we've got to work it.
- A large portion of my clients are folks who've struggled, in some way, with their health and turned to grass-fed beef as a solution.
- Consumers are tilting towards wanting a more natural food source.

- [Consumers] feel better buying from farmers with good practices.
- [We] help people feel better about where their meat is coming from and how it's been treated.

Grass-fed beef farming, in other words, operates as a niche market that provides consumers with beef products that make them feel good about their consumption practices. "Niche markets depend on people who can identify, select, and afford niche products" (Buller, 2018, p. 105). Drawing attention to grass-fed beef farming as a niche food market highlights the interaction between privilege and grass-fed beef consumption.

Farmers allude to this privilege when associating grass-fed beef consumption with educated and ethically conscious consumers. "People who have the most knowledge are those who self-educate, and these people come from all walks of life. It's not about class; it's about self-education. Educated consumers have their heads screwed on." Education about food is vital because:

> Everyone is in denial about our food systems. Consumers are in denial because they're not asking the right questions to the right people, and they're putting up with the slop that they're buying off the supermarket shelves. Farmers are in denial because they're not being asked the right questions.

Farmers see education as a force that challenges this denial and builds consumer trust. Some emphasize the importance of educating consumers about grass-fed beef, given that its taste and texture differ from grain-fed beef. "We have to do some education about grass-fed beef's taste and texture and how to cook it properly" because "the first thing [a customer] will tell you is this isn't beef. So I have to say to him, 'Tell your mind you bought giraffe meat because

I know you've never had that before.' It's a mental thing." Farmers educate consumers because "some lack the knowledge about grass-fed beef farming." However, as one farmer notes, "she doesn't have the time for people with supermarket mentality that don't seek education or don't care about our food system." Here, supermarket mentality is presented as an opposition to ethical consumerism. However, it is important to consider how ethical consumerism also functions as a logic easily shaped by market-based technologies that impact how consumers think about food or how they educate themselves about the food system. Providing insight here, Buller and Roe (2014) articulate how market-based technologies such as certification programs, branding, labelling, and pricing enroll animal welfare and animal bodies together into consumer lifestyles, shaping how consumers understand welfare within the context of food markets. In this way, their analysis sheds light on how consumer mentalities about farm animal welfare are not distinct from the supermarket mentality that the farmer above alludes to.

Missing from these descriptions about consumer mentalities and conscientious consumption is an acknowledgment of the privilege that shapes one's ability to fuse consumerism with care. Guthman (2004) articulates how Western society's attention to ethical consumerism is linked to a food system premised on inequality and neoliberalism. To make food systems more just, more attention needs to be directed towards the broader injustices shaped by neoliberal capitalism that enable cheap food dilemmas (Guthman, 2011, p. 194).[50] In a

[50] In this discussion, Guthman (2011) shows how consumerism, neoliberalism, inequality, and cheap labour drive obesity. She shows how obesity is a tool that strengthens neoliberal capitalism by valourizing the role of consumers and processes of consumption, while drawing attention away from unethical processes of production and the role of actors such as the state and transnational corporations (TNCs) who control the means of this production. Guthman argues that it is the production of cheap food that underpins the problem of obesity. Alongside this, she reveals how the production of cheap food justifies the economic devaluation of rural labour, where cheaper modes of labour provide the backbone for cheap food's production. To make a difference in food systems and social justice, Guthman

socioeconomic system characterized by inequality, many people cannot afford to access ethically branded goods. Getting the most for the least (cost) is a capitalist mantra that impedes how people consume; however, this type of consumption is out of necessity for many. The time, money, and ability to geographically connect with grass-fed beef farmers are luxuries that reflect the realities of only some. Privilege exposes how the grass-fed beef market limits its access to people who can afford to "feel better buying from farmers with good practices." As a more expensive commodity than what one farmer describes as "grocery store beef," grass-fed beef represents a niche product only some people can consume. Drawing attention to privilege brings a new awareness to the demand for cheap meat that drives the beef industry's success.

A tension exists between caring for the animals we consume and occupying a particular social and economic position that enables us to provide this care (and see it as important in the first place). Industrial beef farming's emphasis on efficiency and affordability sheds light on its ability to effectively feed families. When we consider Western society's systemic reliance on cheap meat, the privilege of grass-fed beef consumption becomes visible. And for the cows embedded in a food system that renders them as cheap beef, efficiency and affordability violently shape their lived realities. Although all cows in beef farming die in the name of food, those in grass-fed farms experience degrees of freedom that cows in confined farming operations do not. Different values and bottom lines shape the spaces and practices of grass-fed and industrial beef farming and impact cow welfare in different ways. Scholarship on alternative food systems helps make visible the link between grass-fed beef consumption and privilege. Our understanding of

argues that more attention needs to be directed towards the broader injustices that enable cheap food dilemmas. She makes clear that it is the neoliberal capitalist food system that enables this dilemma.

cow welfare increases in complexity when we consider this relationship. What becomes revealed in this process is that changing the lives of cows in beef farming perhaps requires a change in the economic conditions of people who consume beef. It also sheds light on the importance and necessity of people eating less beef. This research's scope does not encompass an analysis of how to address this (relational) problem. However, I intend to shed light on how our economic positionality impacts our relationships with food animals, and an acknowledgment of this positionality thickens the lens through which we see welfare as a messy and complicated practice and discourse.

Alternative food networks literature that takes a reflexive approach in its analyses conceptualizes these food systems as relational and imperfect processes shaped by different ways of knowing and engaging with food. This literature exposes us to how alternative food networks denote spaces of tension, as well as connection. Bobrow-Strain (2012) explains that "we might do well to spend more time thinking about how we relate to others through food and less about what exactly to eat" (p. 196). Taking this point further, I encourage us to think about how we relate to others through our food choices and the systems that feed these choices. I encourage us to reflect on the complicated, diverse, and relational ways we are connected through how we eat and, more significantly, connected to who we eat. Our attention to cow welfare (and its many complexities) assists with this process of reflection, and I hope that this attention can serve as a force in creating new paths for thinking about and relating to those we call "beef."

This chapter examines grass-fed beef farming through the lens of critical food studies to unpack how this food system impacts cows' and people's lives. Literature on alternative food

networks provides essential tools for questioning and understanding how grass-fed beef farming becomes defined as an ethical alternative to conventional beef farming. To carry out an analysis of cow welfare, it is important to step back and critically examine grass-fed beef farming as a food system that impacts (and is impacted by) welfare's meanings and practices. Literature on alternative food networks assists with this discussion because it draws attention to the political, economic, and social aspects of production and consumption that shape cows' lives, how we care for and understand these lives, and the relationships we have with their bodies.

CHAPTER EIGHT

LIVE ANIMAL AUCTIONS AND COW WELFARE: EXPLORING WELFARE BEYOND THE GRASS-FED BEEF FARM

Chapters four through seven explore cow welfare in the context of grass-fed beef farming. In this chapter, I leave the grass-fed beef farm for the sale barn, examining cows' care in the context of their auctioning. Leaving the grass-fed beef farm for the sale barn provides a juxtaposition from the kinds of care I witnessed and learned about at grass-fed beef farms. Most grass-fed beef cows avoid auctioning because, unlike conventionally farmed cows, they often live their entire lives on pasture prior to being killed. Grass-fed beef cows typically weigh less than grain-fed cows and are, therefore, un-ideal commodities in auction rings. Within these spaces, the weight of animals determines their economic worth. This chapter sheds light on extremely stressful moments that most conventionally farmed cows endure, offering a glimpse into sale barns, which have a central role in the conventional beef industry. In this way, this chapter reaffirms the relationship between cow welfare and grass-fed beef farming, detailing the violence of auctions that grass-fed beef cows often avoid.[51]

Most conventionally farmed cows undergo a live marketing process at least one time in their productive lives (Bravo et al., 2019). They may be sold to another farm, sent to an auction market, and/or finally sent to the abattoir (Bravo et al., 2019). Sale barns are a place that many cows, at one point in their lives, must navigate. They are less frequented by cows in the grass-fed

[51] I am not suggesting that grass-fed beef cows never experience violence but that avoiding sale barns is one way in which they avoid violent practices that most conventionally farmed cows do not.

beef sector, given the way it operates outside of mainstream beef production. However, some grass-fed beef farmers reveal exceptions to this, expressing that auctions provide a last resort for earning a profit when their sales are limited or when their beef supply outweighs their clientele demand.[52]

Sale barns, within which live animal auctions take place, are essential places for investigating cow welfare because they play a vital role in the network of beef production. The auction process creates severe stress for animals (Bravo et al., 2019; Gregory et al., 2009), given the way auctioned animals are transported to, and housed in, unfamiliar environments with animals they do not know. Contributing to this discussion, some scholars argue that auctioned animals experience more stress than when delivered directly to the abattoir (Cullinane et al., 2000). Stress, in this context, refers to the behavioural, physiological, and emotional states of animals when confronted in situations that they perceive as threatening (Desiré et al., 2004; Terlouw, 2005). Paying attention to the different ways that animals experience stress in sale barns provides a window through which to examine cow welfare and the auction process.

In this chapter, I unpack the different dimensions of cow stress that I witnessed while attending six cow auctions in Ontario. These include St. Jacobs Animal Auction (Woolwich, Ontario), Brussels Livestock Market (Brussels, Ontario), Ontario Stockyards Inc. (Cookstown, Ontario), Hoards Station Sale Barn (Campbellford, Ontario), Keady Livestock Market (Tara,

[52] At one auction, I watched one cow who had the name "Attina" on her ear tag walk into the ring. Reflecting on my experiences with grass-fed beef farmers, I wondered about the person who named her and what circumstances led to her arrival at the auction, given that most cows who occupy sale barns are assigned numbers rather than names. In this moment, I thought about how any beef cow, despite their previous owner and farm home, can end up at an auction.

Ontario), and Aylmer Stockyards (Aylmer, Ontario). Specific auctions I attended included the selling of “slaughter cows,” “dollar calves,” and “fats, stockers, veal, and cull cows.” I draw from my fieldwork observations at these sale barns and detail how auction practices hinder cow welfare. Auctions are open to the public and therefore offer an excellent avenue for conducting ethnographic research on cow welfare.

During my fieldwork experiences at sale barns, I witnessed different manifestations of violence and cow stress that contribute to my understanding of auctions as processes that harm cows and violate their welfare. I observed violent human-cow encounters, different forms of cow resistance, as well as excessive bellowing and pacing that cows exercised while confined in holding pens and the auction ring. I took note of the drained and injured conditions of cow bodies, which served as an indication of their violent commodification. Alongside this, I reflected on the conversations and human interactions around me as additional avenues through which to identify and understand the commodification and violence that cows endure throughout the auction process.

I analyze these dimensions of violence and stress by first discussing the function and spatial design of sale barns, given the way the latter provides a foundation for enabling the former. As I make clear in this chapter, auctions both spectacularize and normalize cow commodification. This commodification shapes and enables the violence that cows experience throughout the auction process.

The functionality and spatiality of sale barns

Sale barns function by confining and controlling the mobility of animals to efficiently move them through the auction process. Containment and controlled movement are integral to the circulation of animal bodies, as capital, upon which the success of sale barns depends (Collard & Gillespie, 2015). Animals who arrive at the sale barn are destined for a range of uses when they exit the auction ring (Collard & Gillespie, 2015). Some are sent to other farms and/or feedlots, while others are taken immediately to the abattoir. When cows arrive at the sale barn, they are first placed in a holding pen, often with animals they do not know. These moments of confinement are incredibly stressful for animals who are packed so tightly that they cannot move at all (Figure 1). When the auction begins, employees take the cows from their holding pens, weigh them, and then push them through the auction ring, returning them quickly to their original holding pen (or the buyer's designated holding pen) once they have been purchased. The efficiency with which sale barn employees move animals through the auction ring mirrors the fast-paced talking of the auctioneer and the rapid bidding of buyers. The cows are auctioned, both individually and in groups, and are sold per head or per pound (Gillespie, 2018). A digital sign hangs above the auction ring that displays the weight of the cow(s) to assist buyers in their bidding.[53] Collard and Gillespie (2015) outline the function of auctions with clarity and precision, arguing that sale barns are places of capitalist exchange, places of human-animal encounters, and places where animals are displayed and subordinated.

[53] Given that the majority of cows sold in auctions are polled, highlighting a genetic hallmark of their subordination and control, it struck me as ironic that horns were showcased as a decorative piece within a place that valourizes their destruction. Upon further reflection, however, I considered how the horns hung as a symbol of our subordination of cows and control over their natural tools of defence.

Sale barns are designed to facilitate this display and subordination: catwalks are elevated above the holding pens, and stadium-like bleachers give spectators and buyers an unobstructed view of the auction ring (Collard & Gillespie, 2015). Valourizing the all-encompassing view of animals is the "observation deck," which is the area located behind the auction ring where buyers and spectators walk, elevated above the animals, to further inspect them while contained in holding pens. Sale barns are designed for efficiency and volume. Fences provide multifunctionality to these places, as each piece is often hinged and moveable, ready to convert to a holding pen (to contain animals) or a chute (to efficiently move them) (Collard & Gillespie, 2015). In this way, sale barns are designed to tightly control animals and hinder their opportunity to exercise resistance. However, physical barriers in the corners of the auction ring that provide employees with shelter from aggressive cows demonstrate how animals do resist in these environments.

During my time as a spectator at sale barns, I reflected on how auctions discursively function by eliciting a relationship between observation and participation. When cows are pushed into the auction ring, they are put on display in the form of a spectacle, making the act of observing the cows an enjoyable one. Employees hit the cows to ensure their constant movement in the ring, as the auctioneer entices the crowd by fetishizing the cows to aid in their purchasing. Observing cows in these contexts shapes how we view their position (and stress) in the ring as normal (and thus unproblematic) and how we measure their worth per pound. In these ways, when we observe cows as spectators, we participate in the subjugation of their bodies.

The stress that auctions impose on cows is not exclusive to them: sale barns are places in which the subordination of many animal species occurs. During my field observations, I viscerally experienced how all the animals who enter these places experience stress. For example, larger sale barns have several auction rings, allowing for multiple auctions to occur at once. While attending cow auctions, I saw and heard pig, sheep, and goat auctions happening simultaneously. I also saw caged roosters, chickens, and ducks being sold outside the entrance of both large and small sale barns, in the parking lots, as well as directly outside the auction room inside the barns. The vocalizations of these confined animals, which blended with the constant sound of cow bellowing that filled these places, served as an audible expression of how sale barns are places of animal stress and suffering.

Part of the stress that animals experience at auctions stems from the psychological suffering they endure on their way to sale barns. For example, cows experience severe anxiety during transportation to sale barns, as the process of shipping signals their transition from a familiar environment into a dark and loud unfamiliar environment (Terlouw et al., 2008). Upon their arrival, cows are exposed to the new environment of the sale barn. They are quickly handled, often with brute force, without being given the opportunity to adapt to their surroundings (Warren et al., 2010). The added stress of being put through the auction ring compounds the trauma that cows experience (Warren et al., 2010). Cows arrive at sale barns in adverse conditions and then undergo experiences that exacerbate this stress. I considered how these journeys are particularly troubling for calves, given the traumatic severing from their mothers that their auctioning elicits. I reflected on this trauma during an auction, in which I witnessed one calf attempt to suckle from the other calf they were sold with. The interactions

between cows and the people who handle, confine, and violently move them through the auction process increase the trauma and distress that cows experience in sale barns. Sale barns are, therefore, places where the geographical dimensions of power and hierarchy between humans and animals can be seen in stark detail (Collard & Gillespie, 2015).

Violent human-animal encounters

Scholarship on animal welfare and sale barns draws attention to how the improper handling of animals by sale barn workers drives animal stress (Bravo et al., 2019; Gregory, 2008; Gregory et al., 2009; Maria Levrino et al., 2004). Examples of improper handling include pulling animals by their tails, twisting their ears, and excessively using sticks and electric prods to move animals (Gregory et al., 2009). Improper handling indicates the violence that shapes human-cow encounters in sale barns, and I saw many of these handling strategies unfold before me during my fieldwork observations. I witnessed sale barn workers force purchased calves through the auction ring by pulling their legs and tails, and I watched them excessively pull the tail and push the bodies of cows when they refused to exit the ring. Alongside these observations, I saw employees hit cows in their faces, alongside their spines, and on their sides and behinds with electric prods, paddles, and sticks (some with whips at the end of them) as a strategy for controlling their mobility.

Each auction I attended revealed how the only encounters that cows have with people in sale barns occur via prodding, sticking, and hitting. While in the auction ring, a worker consistently hits the animals to keep them walking so potential buyers can evaluate their physical build and movement quality. Showcasing a cow's mobility impacts their economic value, as

injured cows with compromised strength sell for less. When cows refuse to walk or walk in the wrong direction, employees hit them harder. The tools that workers use to control cows impact the level of stress and pain that the animals experience.

Electric prods, in comparison to sticks and paddles, apply more force to cows' bodies, increasing the violence cows experience at the hands of people. This violence manifests in the sudden jolts and vocalizations that cows make when prodded, which are indicative of stress and pain (Grandin, 2001; Rushen et al., 1999; Terlouw et al., 2008). During my visit to St. Jacobs Animal Auction, the largest sale barn I attended, I witnessed workers prod cows while loading them through a handling shoot, through which they were then sorted into holding pens. The cows were contained within a tunnel-like corridor that led to the handling shoot (Figures 2 and Figure 3). While confined within this structure, I watched from the observation deck as workers prodded cows through the gates as the animals attempted to back away from the handling shoot. Their bodies jolted in the limited space they occupied, causing many of the animals to forcefully collide with one another.

I realized during my time at auctions that the size of cows impacts how people handle them. For example, while watching calf auctions, I saw workers physically move the animals by hand, manipulating the calves' movements by pushing and pulling their bodies as a means of directing them into and out of the auction ring. When the calves refused to walk through the narrow passageway out of the ring, workers would also, at times, lift or drag them. These moments juxtaposed the rare instances in which I saw workers scratch the calves' heads as if showing them affection. However, these gestures immediately stopped when the bidding was complete, and the employees forcefully shoved the calves out of the ring. Witnessing employees lift, push, drag,

and pull the calves by hand made me consider how human-cow encounters that do not involve the use of prods and sticks can be just as traumatic for animals. I saw how workers resorted to these tools as a means for controlling the movement of older and larger cows. Watching these encounters was emotionally troubling, especially when cows would stick their heads through auction ring gates and gaze (and, at times, vocalize) towards the spectators (myself included), only to be repeatedly hit by workers until they retracted their heads.

There were also instances in which employees would hiss at the cows while kicking wood shavings that lined the floors towards them to initiate their movement. I reflected on how these strategies, although hostile, provided better welfare for the cows, given that they did not involve physical contact between the animals and the employees. These contactless interactions, however, were drastically outnumbered by the violent human-cow encounters that I regularly witnessed at every auction I attended.

The violence that characterizes human-animal auction relations becomes masked by the entertainment value that sale barns provide for buyers, spectators, and families who enthusiastically watch the animals while socializing and laughing with others throughout the auction process. The entertainment factor of auctions revealed itself during one of my fieldwork experiences as I listened to a parent in the sale barn parking lot excitingly tell their child, “We’re going to see the animals!” I reflected on how the parent and child’s enthusiasm seemed to suggest that auctions provide us with an avenue for connecting with animals. While they do bring us into close contact with cows, the violence that occurs within them illuminates our disconnection from cows as a result of the auction process. This disconnect is made audibly clear in the cow vocalizations that loudly echo throughout sale barns, and these sounds provided an

ironic soundtrack to the exciting exchange between the parent and child noted above. Cows vocalize their stress, making their violent treatment all the more identifiable. They also address this violence by exercising resistance against those trying to subordinate them.

Gillespie (2015) argues that animals demonstrate resistance in auctions via kicking, escaping, biting, and refusing to comply with sale barn employees. She also notes (2015) how these forms of resistance illustrate the violence that animals experience in sale barns; this violence is valourized by the use of pens and chutes, which drastically reduce the opportunity for animals to express resistance. When cows do manage to resist, sale barn employees often resort to improper handling strategies for combatting this and, in turn, amplify cow stress.

My fieldwork observations of cow auctioning attest to the different ways that cows attempt to resist their subordination in sale barns. I watched as cows tried to jump gates and flee the auction ring, and I saw them charge at the people who pushed them in the ring, making the protective barriers in the ring for employees all the more necessary. During one of these situations in which a cow continually tried to charge at an employee behind the barrier, I overheard a spectator acknowledge the cow's aggression and distress by jokingly saying to the employee, "What did you say to her?" The employee responded by saying, "She didn't want to be sold alone." This moment alluded to the severing of cow relations that sale barns give rise to, and it revealed how cows respond to this severing by attempting to fight back towards the people who isolate them from other cows. It also signalled how spectators and employees are aware of this severance and the stress it poses for the animals. It struck me how many cows refused to move when workers hit them, and I interpreted these actions as resistance. The aggression and frustration that these acts elicited in workers further exemplified their resistant quality. In all of

these circumstances, it became vividly and viscerally clear to me that when cows refuse to comply with workers, their bodies are met with more violence. Cows undergo these stressful experiences and make their stress visible and audible.

Vocalizing, pacing, and severed cow relations

Grandin (2001) explains that cow vocalizing can be a sign of distress, hunger, or social calling, and other scholars argue that cow vocalizations attest to the stress that cows experience in sale barns (Bravo et al., 2019; Maria Levrino et al., 2004). The constant cow bellowing that filled the sale barns I attended empirically supports these arguments. These sounds hauntingly assured me that I was in the right place every time I arrived at an auction, particularly when I felt unsure about and unfamiliar with my surroundings. The vocalizations I heard throughout my fieldwork experiences came from cows as well as other contained animals such as roosters, chickens, ducks, pigs, and sheep being sold alongside cows.[54]

I listened to cows vocalize in different situations. Some, especially calves, loudly bellowed while confined in holding pens. Others vocalized in the auction ring, especially after being severed from the cows they were grouped with before being pushed into the ring (alone). Cows were sold individually as well as in groups, and they bellowed when they were moved into the auction ring in groups, only to then be separated into different selling groups for reasons I did not know. In these situations, workers would attempt to sever off one or two cows from the group by pushing them back through the gate (outside of the ring) to be sold next. I watched as these cows tried

[54] At one auction, I also saw caged puppies being sold in the parking lot, suggesting that sale barns are places in which farm and companion animals are sold. Although I felt saddened by the sound of cries that the puppies emitted within the cages, I reflected on how their fate (as companion animals) would likely look very different from the fate of other animals I observed at sale barns.

to stay with their group, demonstrating an unwillingness to move out of the ring. These situations often resulted in the cows eventually moving back in a panicked manner, as workers forcefully got them out of the ring by slamming the gates on their faces, necks, and bodies.

Not only did I hear cows vocalize, but more viscerally, I felt them do this. This occurred at one sale barn in which I walked into the washroom and heard cows loudly bellowing on the other side of the wall. As I listened, I put my ear to the wall and uneasily felt the vibration of the cows' calls. This experience revealed the proximity we share with cows in sale barns while making the human-animal disconnect that characterizes these places all the more apparent.

In addition to bellowing, cows express fear and stress in the auction ring by pacing (Gregory, 2008; Gregory et al., 2009). I saw hundreds of cows throughout my fieldwork observations pace the walls of auction rings while trying to remain as far as possible from the workers who consistently hit them. It is not uncommon for animals to pace in confined spaces as a result of boredom. However, the auction process is extremely loud and quick-paced, and cows spend less than two minutes in the ring before being returned to a holding pen. Therefore, pacing in the auction ring is more likely the result of cow distress, given the violence that cows encounter within this unknown, loud, and quick-paced environment. At every auction I attended, I observed cows pacing and watched how they often put their faces and noses to the auction ring walls and gates as if signalling their desire to flee from these violent environments. When the animals were sold in large groups, they often moved while keeping their faces extremely close together, forming a circle-like shape with their bodies. I questioned if, in these moments, the cows were trying to ease their stress and seek comfort by keeping their attention fixated on one another. It was, at times, hard to differentiate between a cow's pacing and their forced mobility, given that

auction ring workers made it a point to hit the cows if and when they stopped walking in the ring. For this reason, a cow's pacing was most visible when the workers did not use a lot of force to move the animals.

I took note of how the cows who paced the most were those sold individually. While the majority of auctioned cows arrive at sale barns in groups with cows they know, many are removed from these groups when pushed through the sale process. These moments of segregation reveal how the auctioning process severs cow relations, violating the animal's social welfare by isolating them or selling them with cows they do not know. This severing is traumatic for mothers and calves who are sold separately, and the breaking of these bonds was reflected in a sign that hung above one auction ring that read, "Notice to cow-calf buyers and sellers: Cows and calves are not sold as units unless a signed certificate from the seller accompanies them." As I read this notice, I reflected on how the commodification of cows as individual or paired "units" leaves no room for acknowledging the social needs of these animals and the meaningful and nurturing relationships they build with one another. The relational severing that shapes the stressful experiences of auctioned cows can, for some cows, continue to unfold after they leave the sale barn. Illustrating this reality was a pregnant cow in an auction I observed. While standing in the ring, one potential buyer asked the employee, "What am I going to do with the calf?" The employee immediately responded to the man, saying, "Sell it." As I listened to and watched this encounter, I thought about the unfortunate fate awaiting this cow and the calf who will be eventually torn from her and sold.

<u>Drained, injured, and commodified bodies</u>

The physical conditions of cows in sale barns reveal the relationship between their commodification and the violence they experience at the hands of people who manage the auction process. Drained cows arrive at sale barns, and it is often their state as "spent" cows that lead farmers to sell them in the first place. Throughout my sale barn experiences, I observed cows with docked tails, fresh and old flesh wounds, and jagged horns, which suggested that someone had, at one time, improperly sawed them off.[55] "Spent" Holstein (dairy) cows appeared reproductively drained. Their skeletal structures represented their laboured past, and their large utters that hung low to the ground symbolized their broken bonds with calves they likely never got to nurture.[56]

Although sale barns are designed to efficiently control cow mobility, they fail to subdue erratic cow movements that are expressions of fear, panic, and distress. For example, throughout the auction process, cows can easily acquire injuries by jumping, running, tripping, and falling. I observed many of these hazardous moments while watching cows and found it incredibly difficult not to flinch at these sights. I saw cows jump up the walls of the auction ring and watched one get their two front hooves caught in the ring's gated walls. As the cow struggled to free their hooves, one spectator commented that the cow was going to snap their ankles. It is not uncommon for cows to excessively urinate and defecate in the auction ring due to severe stress,

[55] Tail docking is the removal of a cow's tail. It is not a common practice in the beef industry but is occasionally done to prevent injury to and infection of the tails of cows housed in high-density slatted-floor barns (NFACC, 2013, p. 25).

[56] In dairy production, calves are taken from their mothers hours after birth (Gillespie, 2018). Unlike pregnant cows in beef production who spend, on average, 5–8 months with their calves prior to the weaning process, dairy cows are bred continually to maintain their milk production, which is harnessed from the cows for human (rather than calf) consumption. For this reason, calves are severed from their mothers hours after birth, diminishing the possibility for mothers to nurture their babies.

and this creates slippery conditions upon which the animals can injure themselves. I observed these conditions and saw several cows slip and fall, particularly when making a turn and running out of the auction ring. Trips, slips, and falls are indicative of poor welfare in sale barns (Bravo et al., 2019; Gregory, 2008; Gregory et al., 2009; Maria Levrino et al., 2004) and often result in bruising. McNally et al. (2002) argue that as a result of this bruising, cows sold through the auction market are more likely to become "dark cutters" than cows sold directly to the abattoir.[57]

Auctioned animals vary in economic value depending on their weight and bodily features. One sign that I read at an auction alluded to this with precision, stating, "Attention swine sellers, you will make more money for your swine if you have them castrated and tail docked." The same logic applies to cow horns, and it is for this reason that the majority of cows who arrive at sale barns are polled or dehorned. Auctioned cows are often marked with bright paints that provide potential buyers with details about the cows, such as whether they have been sterilized, vaccinated, or castrated. Auction markings illustrate the relationship between a cow's property status and commodification (Gillespie, 2013). I saw these markings on cows' backs, sides, utters, and faces (Figures 4–6). At one auction, I was particularly disturbed at the sight of one cow who had a large, red "X" marked down their face (Figure 7). My feelings of disturbance grew as I watched a worker hit the cow's face with a paddle while shouting loudly at the animal. This was one violent encounter among many that I witnessed during my fieldwork at sale barns.

Human encounters in sale barns

[57] See chapter six, page 149.

The encounters I witnessed between cows and people in sale barns were consistently hostile. The stress and anxiety that cows expressed through vocalizing, pacing, jumping, urinating, and defecating provided me with visible and audible evidence of the violence that they endure in these encounters. The jovial interactions between people that I observed and participated in during my time at auctions gave me additional insight into the commodification of cows in sale barns and the violence that ensues as a result of this. Gillespie (2015) alludes to the connection between human encounters and animal violence in her research at dairy cow auctions by pointing out that the entangled material and discursive (human) performances at sale barns are central to animals' commodification. I witnessed this connection first-hand, as one buyer in the auction stood proudly and proclaimed to the spectators, "I'm a quantity man, not a quality man." Echoing this emphasis on quantification, one spectator told me that the auction had momentarily stopped because "they probably ran out or something." During this brief conversation, it dawned on me how this notion of "running out of cows" signalled the erasure of cows as living beings, replacing their identities as cows with their status as beef commodities.

It became more evident to me throughout my fieldwork experiences how, in sale barns, buyers, spectators, and auction employees do not see cows but instead see commodities. Seeing cows through this lens drives their commodification. More significantly, it diminishes their welfare because, when we see cows solely as commodified objects, we disregard their needs, wants, and value as living, social beings. I reflected on this as I watched spectators and buyers in the auction stands watch the animals while holding calculators in their hands. It was as if the calculating and measuring of cows by their weight drowned out the cows' vocalizations, which in many ways, seemed to be a direct response to their commodification. Auctioneers play an

essential role in this drowning-out process; they fetishize the animals in the auction ring by enticing people to purchase the cows, thus mobilizing the circulation of capital in which the animals become swallowed up. For example, auctioneers enthusiastically comment on the cows by saying statements to the audience such as “smashing set, boys,” “330 pounds on her,” “there’s a good heifer, boys,” “right off the grass, boys,” “he’s just missing his tail, boys,” and “fresh calves here.”

These expressions allude to the fetishization of cows as well as the gendered aspects of auctions; at every sale barn I attended, I took note of how the auction stands were occupied predominantly by young, middle-aged, and older white men. The jovial encounters between auctioneers and buyers mirrored the friendly interactions shared among buyers, spectators, and staff. As I observed the human relations that surrounded me in sale barns, I reflected on the social value of these places in bringing the farming community together. I watched people socialize and laugh with each other, as well as enjoy coffee and eat food together, provided by the restaurant located in the sale barn. At most sale barns I attended, the restaurants were located outside of the auction room; however, at one, a walk-up window to the restaurant was accessible via the auction room. Sale barn restaurants offer spectators, buyers, and sale barn employees a menu of animal products for consumption, and, in this way, they signal an additional avenue through which (deceased) cows undergo further commodification. They also highlight another way that capital flows within sale barns through the consumption of cows, as meals, that people can enjoy while watching the auctioning of live cows.

The sense of community that fills sale barns reveals itself in different ways. For example, during one auction, I observed a Stockyards Café server enter the auction room with a tray of

coffee for buyers and spectators. At another sale, I watched one man walk into the room with *Timbits* and coffees for friends in the stands. These moments of friendly service clashed with the sight and sounds of cows pacing and vocalizing before us, making me reflect on how auctions serve as socially enjoyable places for people and stressful environments for animals. Sale barns are places in which families also congregate. During my fieldwork experiences, I took notice of the families with young children and toddlers that filled the auction stands and thought back to the stories that farmers shared with me about the role of childhood experiences in shaping their perceptions (and acceptance) of cows as sources of food. As I observed young children watch the cows while playing with toys, the distinction between the violence cows endure, and the enjoyment people experience in sale barns became more apparent to me. I reflected on this enjoyment during one auction visit, in which an employee engaged me as I walked into the auction room and told me to "take a seat and enjoy the auction." Akin to this experience was an encounter I had with another man (at a different auction): As I approached the entrance of the sale barn, he looked at me (and my straight-faced expression), smiled, and told me to smile. I said, "Hello," while forcefully smiling as I entered the barn.

When you do not enjoy the auction experience and, instead, survey and question the violence towards cows that characterizes its practices, you can become the target of surveillance. I learned this early on in my first auction experience at St. Jacobs Animal Auction and did not make the same mistake again. Below is a detailed description of what happened:

While sitting in the auction room at St. Jacobs, I saw some people around me with cameras in their hands, suggesting to me that people could use their cameras and phones to document the auction and take pictures of the animals. I looked around and did not see any signs

that forbid this, so I began taking pictures as I watched the auction. I then saw people walk behind the auction ring into an area labelled "observation deck" and decided to follow them to see what the room contained. While in this area, which held catwalks that were elevated above the holding pens containing cows, I continued to take pictures and film what I observed happening around me. I filmed as I watched employees use electric prods to move the cows into the handling shoot and was then approached by an employee who told me the use of phones was forbidden. I apologized and decided to take the opportunity to tell him about my research and report an employee who I saw excessively hitting one cow (marked with a red "X") in the face. He asked me to point out the employee and thanked me.[58] I then asked the man if there was a Canadian Food Inspection Agent present at the auction that I could speak with about my research, and he brought me to the manager, advising me to take up my questions with him.[59] I thanked the employee and introduced myself to the manager, who asked me to follow him to his office because of the noise the cows were making. I immediately felt uncomfortable but proceeded to follow. When we entered his office, he asked me about my research and then urged me to show him the pictures and footage I took. I lied, saying the battery on my phone had died and that I would not be able to show him what I documented. It struck me as strange that the public could observe sale barn violence but not record it. The manager asked me if and how I intended to use the footage, and I lied again, telling him I was not going to use it for my research. It was only after

[58] I saw the employee confront the other employee who I had reported and could not help but wonder if my decision to report this man would, in turn, create further hostility between him and the cow (and/or other cows) he was excessively hitting and shouting at.

[59] Many farmers told me that a Canadian Food Inspection Agent attends the auction to inspect the animals when they arrive and leave the sale barn. Farmers advised me to visit auctions and speak with these agents to get a better understanding of cow welfare practices.

this extremely uncomfortable encounter that he provided me with contact information about the Canadian Food Inspection Agent that I initially inquired about. I thanked him and immediately left the sale barn, feeling fearful about my continued surveillance. This experience of intimidation and interrogation signals how auction-goers are implicitly expected to conform to (the unspoken but collectively agreed upon violent) norms of auction practices by observing these as normal and unquestionable. It, more importantly, sheds light on the violence that animals experience in sale barns and the consequences that one faces if they identify and document auction practices (and the human-cow encounters that ensue as a result of these practices) as problematic.

Ethical and methodological challenges of navigating sale barns

During my fieldwork at sale barns, I reflected on not crying or flinching at the sight of animal violence as a methodological strategy for blending into environments I did not belong in. I learned from my experience at St. Jacobs how easy it is to fail in this endeavour and vowed to conduct myself differently moving forward. On the one hand, when we do our best, as animal researchers, to blend into the (violent) human-animal environments that shape our fieldwork, it becomes easier to access the animals we aim to draw attention to in order to address the problems that shape their lives. However, there are ethical, emotional, and methodological dilemmas of studying and encountering animal violence as a part of our research that warrants attention.

As I mentioned in chapter four, ethical, emotional, and methodological dilemmas have been documented by animal scholars who make clear that ethnographic encounters with animals with whom we share asymmetric power relations are riddled with contradictions and problems, particularly when those relationships are built through animal death, suffering, and

subordination (Collard, 2015; Garcia, 2019; Gillespie, 2018). Collard (2015) identifies how rendering animals methodologically encounterable marks one way that we risk participating in the subjugation of animals. I considered this when observing (and, thus, participating in) the subjugation of cows in sale barns. Gillespie (2018) suggests that we can investigate and shed light on animal suffering in non-participatory ways by building indirect knowledge about their violent experiences without encountering and participating in them as researchers. She explains that taking a non-participatory approach to studying animal death and suffering simultaneously challenges the anthropocentrism implicit in the notion that we are above animals and can, therefore, make their violent experiences a justifiable part of our research endeavours while doing nothing to object to this violence. I see value in non-participatory research with animals and appreciate the way it enables scholars to practice solidarity with animals. Given my experiences at auctions (as well as grass-fed beef farms), I also feel that being with animals in the research process allows you to bring attention to nuances and problems that may have otherwise gone unnoticed. During the time I spent at auctions, I felt shame, guilt, and sadness; however, as Garcia (2019) makes clear, discomfort is integral to ethnographic encounters that aim to bring attention to the violence that shapes animals' lives. Without ethnographic efforts, this violence may slip through the cracks of our consciousness, and it is only by drawing attention to violence can we, as scholars, work towards challenging violence.

Some scholars highlight ways in which we can build less violent relationships with cows in sale barns (Gregory et al., 2009; Warren et al., 2010). These works do not challenge the commodification of cows in sale barns; however, they do offer valuable insight for how to improve cow welfare practices in sale barns, reducing the amount of stress and anxiety that cows

experience through the auction process. For example, Gregory et al. (2009) advocate for auctioning cows in holding pens rather than in rings. This would decrease the amount of cow handling that employees carry out and could, therefore, prevent their excessive hitting of animals. Alongside this, Gregory et al. (2009) note that cow welfare measures can improve in sale barns with the installation of non-slip resin floors in areas where there are high risks of slips and falls. Lastly, Warren et al. (2010) suggest that fewer cows should be sold in an auction cycle, arguing that this would reduce the number of cows who undergo stress and experience bruising.

Gregory (2008) explains that the place of livestock sale barns in society needs to be considered in an open-minded manner, given the value and role of livestock in different communities. As a result of my fieldwork experiences at sale barns, it is clear to me that auctions are socially and economically valuable in beef farming communities, and this causes me to reflect on the ethical (and naïve) implications of advocating for banning these practices. I wrestle with this tension and feel uneasy about making definitive statements about the need for ending auctions. What I do not wrestle with, however, is that auctions require a radical change regarding the management and handling of animals. My time at sale barns showed me how an ethics of care is obsolete within auction practices. For example, the fast-paced and coerced movement of cows in sale barns does not align with an ethics of care because integral to this coercion is the notion that fear, stress, and violence are permissible means for handling and selling cows. My experiences at sale barns exposed me to how cow welfare is obsolete within these places. The cruel treatment of cows throughout auctions demands our attention. The cows who I encountered in sale barns such as Attina, cow #1614, #1648, #1647, #2401, #1679, and #1401,

who audibly and visibly expressed their stress, demand our attention and, more importantly, require our respect and care.[60]

This chapter provides a detailed analysis of cow welfare by exposing practices that greatly hinder it. Using the knowledge I built during my fieldwork at grass-fed beef farms (and conversations with farmers) gave me a deeper understanding of the different ways that cow auctions harm cows. It showed me how normalized, public spaces and practices can be extremely stressful for and violent to the animals pushed through these spaces. Participating in these practices through observation challenged me as a researcher committed to an ethics of care while reinforcing my understanding of how the auctioning processes I witnessed were the antithesis to an ethics of care. Given that grass-fed cows are not as likely (as conventionally farmed cows) to be auctioned, they evade the violence of these spaces. This is not to suggest that their lives are free of violence, but it does shed light on one way in which grass-fed beef farming provides care for cows in a way that conventional beef farming does not. This reinforces the notion that an analysis of cow welfare and grass-fed beef farming is worthy of exploration, and, more urgently, it addresses the violence in sale barns that demand our attention.

[60] This list encompasses only some of the animals, among hundreds, who I encountered at sale barns. It was difficult to see their ear tag numbers given the distance that separated us and the quick manner in which they passed through the auction ring. For these reasons, I was unable to directly acknowledge most of the cows by their ear tag numbers. I am also embarrassed to admit that, at other times, I forgot to take note of their numbers. Perhaps it was the repeated exposure to cows that drove this forgetting. At times, I felt guilty about feeling bored as I watched the auction. Gillespie (2018) comments on this in her research at dairy auctions: "It feels shameful to say it considering the auction's weighty role in shaping the cow's future, but sitting in the auction as a spectator can be incredibly boring" (p. 90). She also notes, however, how this boredom speaks to the abstracting quality of auctions in blurring the singular lives of cows who pass through its space. At times, I experienced this boredom and, more significantly, the shame that it resulted in.

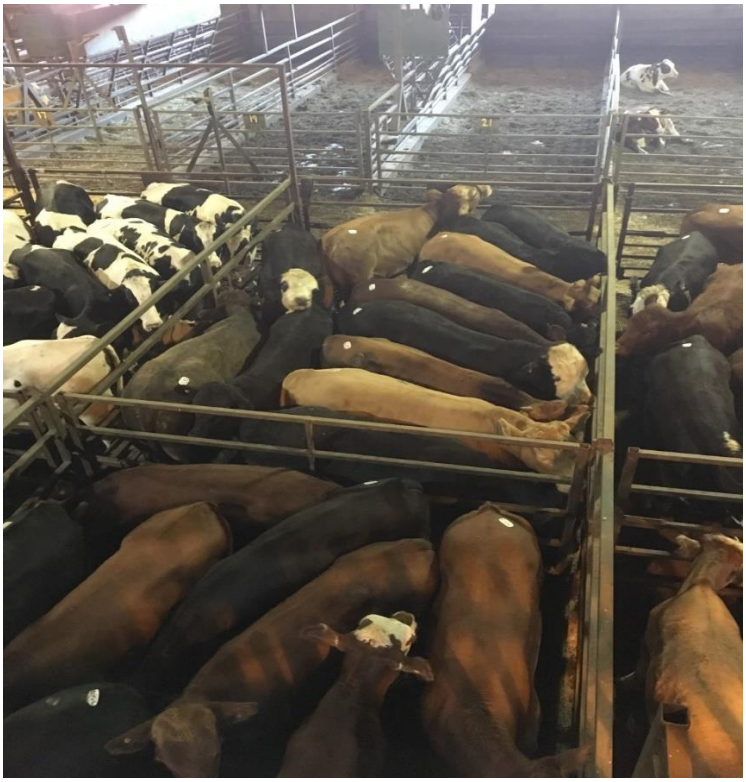

Figure 1: Cows in holding pen at St. Jacobs Animal Auction

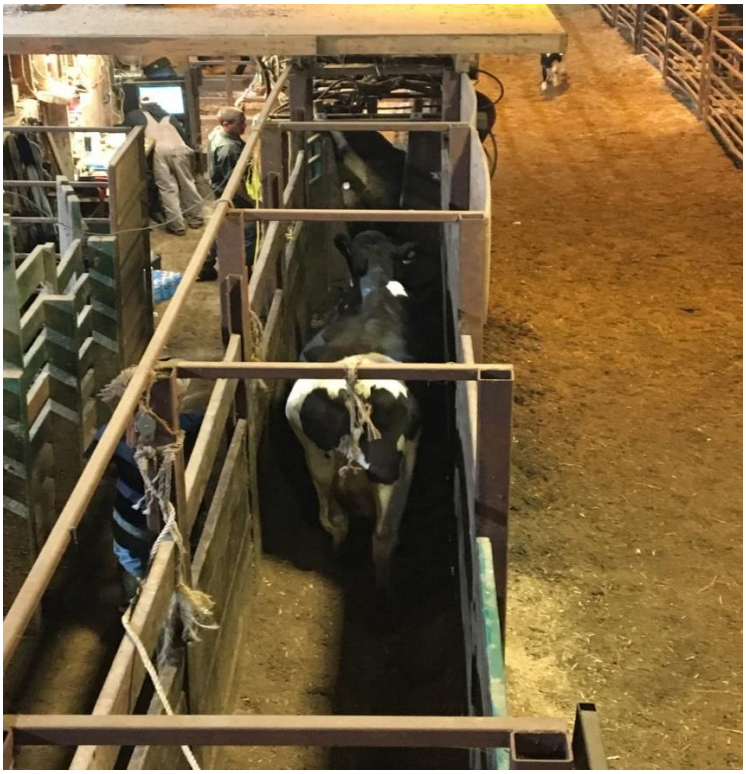

Figure 2: Cows walking into handling shoot at St. Jacobs Animal Auction

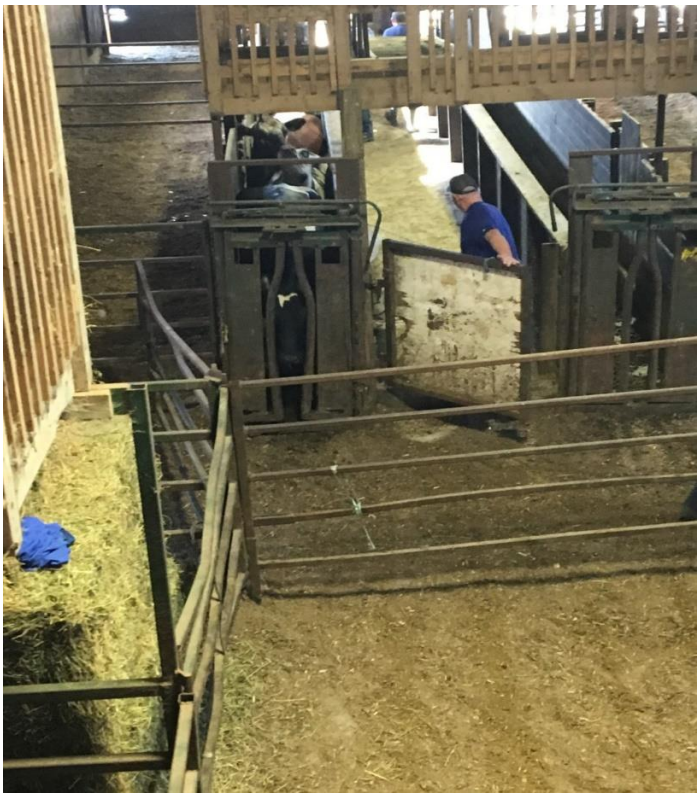

Figure 3: Handling shoot at St. Jacobs Animal Auction. Workers prod the cows as they walk through the shoot.

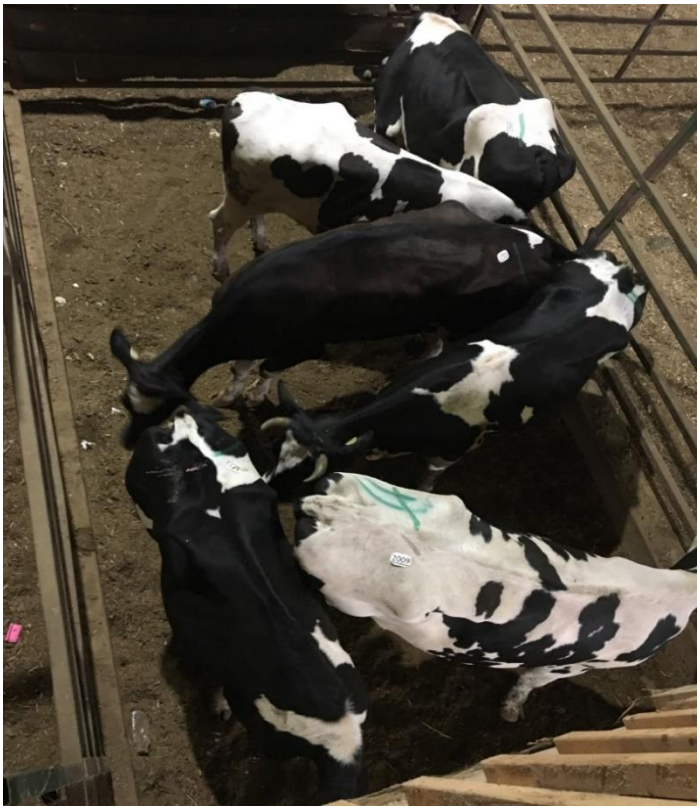

Figure 4: Auction marking on cow's body

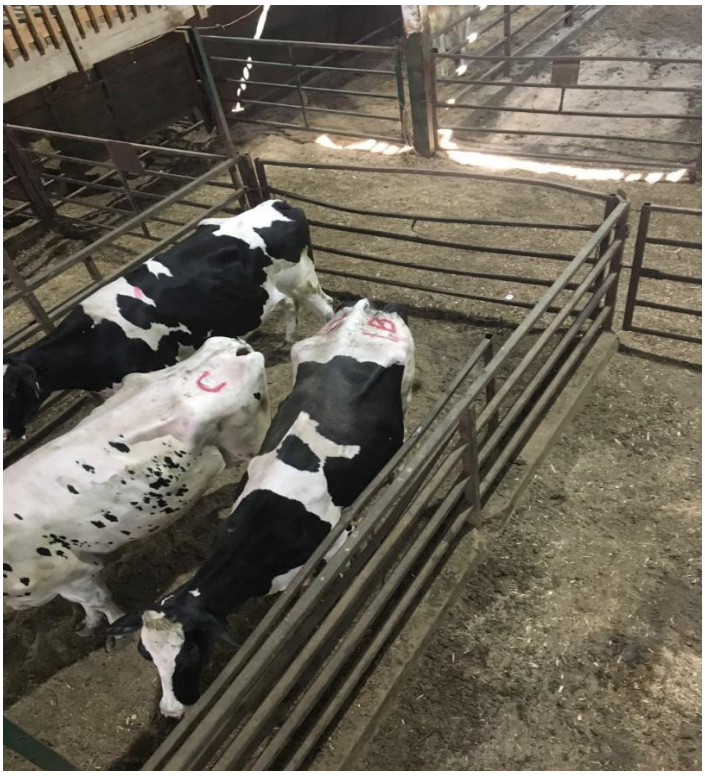

Figure 5: Auction markings on cow bodies

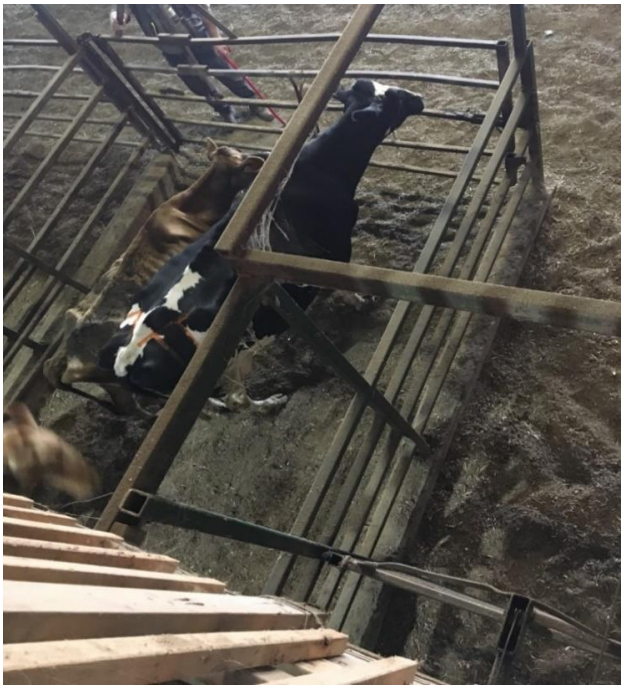

Figure 6: Auction markings on cow bodies

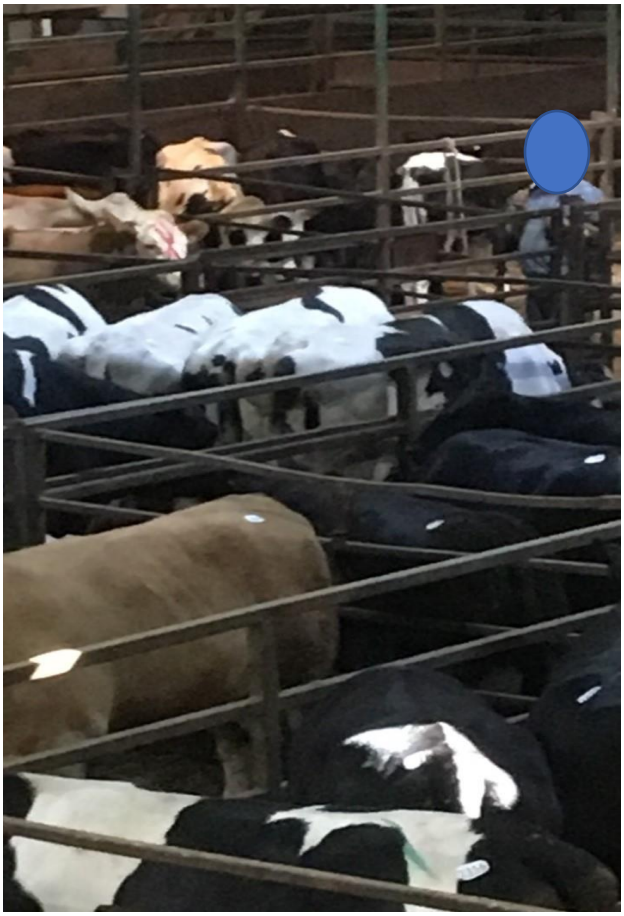

Figure 7: Cow with red “X” down her face standing across from the employee who was shouting at and hitting her in the face with a paddle

CHAPTER NINE

CONCLUDING THOUGHTS

I am grateful for the farmers who shared their stories and experiences with me and for the cows who allowed me in their space, showing me their curious and cautious nature. I often think about the animals I met throughout this research who are now gone, their places in the herd filled by new cows who, too, will become beef. I hope this research serves these animals by highlighting the value of their lives and relationships and their worthiness of our attention. It has been my goal to show how an analysis of cow welfare offers insight for understanding the intricacies of cows' lives and the underlying (human) constructions and processes of valuing and caring for food animals that shape cows' lives. Each dissertation chapter builds upon one another to respond to my research objectives, unveiling the nuances and complexities of cow welfare which, in turn, expand the scope through which we understand animals we call food.

This research reveals the importance of critically questioning and investigating cow welfare, given its impacts on cows in beef production. The Canadian beef industry's codes of practice are economically driven, legally ambiguous, and flexibly enforced, calling into question the effectiveness of these welfare practices for cows. These problems drew my attention to grass-fed beef farming as a possible alternative to conventional beef farming, given its different approach to cow welfare. One of the benefits of grass-fed beef farming is how it allows cows to remain with their herd – on pasture – for most of their lives. Also important is its ability to restore grasslands, signalling a connection between cow and environmental welfare. There are, however, limits to welfare within grass-fed beef farming, given the different ways that stress and governance shape cows' bodies, interpersonal relations, and relations with farmers. Stress and

governance reflect the asymmetrical power relations that underpin any system of animal farming. This disparity has made me question the value of my research and confront the dilemma of working with cows as research subjects. I have learned that farmer-animal relations are emotionally complex. I have also learned that the economic underpinning of these relations deepens their emotional complexities while simultaneously revealing that the capitalist rendering of cows for food always poses constraints on their care and wellbeing.

Farmers assisted me with responding to my empirical analysis of cow welfare on grass-fed beef farms. The knowledges and experiences that they shared with me helped me understand how grass-fed beef farming differs from conventional beef farming, and through our conversations, farmers taught me about their diverse understandings and practices of cow welfare. Although I have no direct experience of working with conventional beef farmers as a means of comparison, I did gain first-hand experience and knowledge about grass-fed beef farming's advantages for cows, farmers, and grasslands, which are significant when it comes to cow welfare. Some of these benefits include eliminating feedlots from cows' lives, thus eliminating stress brought on by unfamiliarity, confinement, and sickness. Farmers discussed the limits of grass-fed beef farming, expressing that it cannot produce the quantities of beef that conventional beef farming generates given the land, water, and time it requires. Farmers told me that the size of their herds and pasture are small in comparison to feedlots, and they, alone, can carry out daily practices of caring for their animals. More importantly, farmers expressed that they greatly enjoyed the size of their herds, as this gives them the opportunity to get to know their animals in ways that conventional beef farmers, who manage hundreds or thousands of cows, cannot. I came to understand how farmers' enjoyment of working with cows shapes their

relationships with the animals and how they think about and engage in welfare practices. This is one way that I make sense of how the size and scale of grass-fed beef farming, in comparison to conventional beef farming, has a positive impact on cow welfare.

Grass-fed beef farming is not about efficiency; it is not about generating high quantities of cheap beef with the least amount of resources in the least amount of time. This logic – of producing the most with the least – does underpin conventional beef farming. For reasons I outline in chapter seven, this logic tends to serve communities who do not have financial (or other kinds of) access to alternative food networks. However, as I also state in chapter seven, this logic is harmful to the animals who are killed and erased in its image. The logic of pushing as many animals as possible through food systems with the least amount of resources and time contributes to animals' disposability and, in this way, underpins the violence and cruelty towards animals that often occurs in conventional beef farming. I am not suggesting that cruelty, violence, and mistreatment never occur on grass-fed beef farms; I am expressing that the logic of efficiency is instrumental to the logic of disposability and the violence it creates. This logic is not present in grass-fed beef farming like it is conventional beef farming.

One way in which farmers make sense of cow welfare is by providing cows with a good life which, in turn, yields quality beef. Farmers explain that there is a relationship between welfare and quality or, in other words, between welfare and the taste and texture of beef. For example, to provide contrast with the quality of their beef, farmers explained how dark cutters are common in conventional beef farming, and they articulated how this is often indicative of cows' stress and poor welfare. Eating the bodies of dark cutters exemplifies Shotwell's (2016) argument that when we consume animals, we consume their suffering. Throughout this research and the

insight it gave me about welfare's inherent limitations and the entanglement of killing and relationality, I feel certain that eating grass-fed beef also elicits the consumption of suffering that Shotwell explains is an inevitable part of what it means to be in relation with others.

I learned about the diverse ways that grass-fed beef farmers understand and practice cow welfare and, just as importantly, I learned about how welfare practices, while necessary and significant for cows, are always limited when it comes to their transformation into food. A critical acknowledgement of this needs to accompany conversations about cow welfare because, when we fail to understand this reality, we risk glossing over traumatic moments and experiences in cows' lives that welfare practices might reduce but do not eliminate.

My empirical investigation of cow welfare on grass-fed beef farms provided context for my conceptual objectives of exploring cow welfare's impacts on cows' agencies, subjectivities, interrelations, commodification, and relationships with farmers. It was also the avenue through which I responded to my methodological objectives of learning from cows as research subjects while taking critical note of the challenges that come with navigating this research process. Throughout the dissertation, responding to these diverse and interrelated objectives allowed me to make several contributions to academic literatures, animal welfare discourse, and questions and understandings of what it means to be in relation with food animals.

The insights I gathered from farmers about their understandings and practices of cow welfare led me on exploration of how welfare impacts cows' agencies, subjectivities, interrelations, and commodification. In the dissertation, I show how the analytics of animal geographies served as a critical lens for revealing these impacts and, through this unveiling, I made several contributions

to animal geographies' agenda of showing that "animals matter individually and collectively, metaphorically and politically, and rationally and affectively" (Buller, 2014, p. 310). I write about the different ways that cows exercise agency and express subjectivity in their relationships with farmers, despite, and in response to, the different forms of governance that shape welfare practices and farmer-cow relations. Furthermore, I conceptualize how welfare practices govern cows' bodies and interpersonal relations, showing, for example, how castration, polling, and weaning affect cows in ways that hinder their agency and subjectivity; they do not, however, erase or eradicate their subjectivities and agencies. Here, I show that further inspection of how welfare practices affect cows' social, emotional, and embodied lives is needed. I respond to this need through my analyses of welfare, cow agency, and subjectivity, and, in turn, speak to different debates in animal geographies scholarship that help to push understandings of animal welfare, agency, and subjectivity further.

For example, I respond to Emel et al. (2015), who, in contending that human-nonhuman farming relations can be more respectful, lively, and considerate of animal subjectivity and intentional agency, encourage animal geographies scholarship that questions and examines these kinds of relations alongside explorations and debates about the eating, use, and killing of farm animals. Addressing this call for scholarship, I illustrate what lively, agentic, and subjective relations between farmers and cows look like, showing how cows exercise resistance, as well as compliance, in their relationships with farmers and express their social, emotional, and individualized identities with farmers and other cows. Alongside this, I reveal the emotional dimensions of farmer-cow relationships which serve as critical knowledge for questions and debates about the production and consumption of food animal because, as I make clear, these

complicate as well as strengthen our ability to have meaningful and challenging conversations about the ethics of farm animal production and consumption.

Other contributions I make to animal geographies stem from the way I locate relationality as a site for learning about individuality. Through my attention to farmer-cow relationships and welfare practices, I detail how cows express their social, emotional, and individualized identities in these relationships. Bear (2011) compellingly advocates for an individual animal geographies, cautioning that we risk losing sight of animals' individual identities when we focus too much on their relationships with humans. While I see great value in Bear's arguments and insights, I disagree that identity becomes lost in relationality because, in my research, I show how farmer-cow relations become the foundation upon which I learn from farmers and cows and cows' individualities, agencies, and subjectivities. Drawing from farmers stories about their cows – and, in this way, responding to Bear's call for learning about individual animals through the stories told about them – I show how relationships are also sites for learning about individualities, agencies, and subjectivities.

My attention to farmer-cow relations and welfare practices as sites for learning about cow subjectivity also contributes to animal geographies scholarship about subjectivity and relationships of power. For example, in his animal geographies scholarship on cow subjectivities as effects and outcomes of agricultural governance, Holloway (2007) draws on Foucault's work on subjectivity and biopower to show that cows become biopolitical subjects through agricultural relations of power. Cows, Holloway explains, are both subjects of and subject to farming relations and practices that govern their bodies and, in turn, produce their subjectivities. Because cow subjectivities are the effects and outcome of agricultural biopower, Holloway critiques the notion

that cows, when seen as beings with subjectivities, are treated better and offered more autonomy in agricultural relations of power. While a biopolitical analysis of subjectivity is helpful for showing the embodied effects of biopower, it fails to capture the emotional and social ways in which cows affect farmers who do, in turn, engage with cows as emotional and social subjects. My research shows the love and affection farmers have towards their cows, which, I argue, does have positive implications for cows' and farmers' lives. More specifically, I reveal that farmers acknowledge cows' subjectivities within biopolitical, capitalist human-animal relations, and I make clear that these relationships and the attention that farmers provide to cows' subjectivities cannot be exclusively defined, as Holloway suggests, through the connected logics of biopower and capitalism.

My exploration of cow welfare and farmer-cow relationships highlight the complex dynamics of cows' commodification, and my attention to these dynamics helped me make several contributions to biopolitics literature about biopower's impacts on food animals' productivity (Holloway, 2007; Twine, 2010; Chrulew, 2017) and killability (Collard & Dempsey, 2013; Collard, 2014; Haraway, 2008; Shukin, 2009; Taylor, 2013; Wolfe, 2013). I reveal different dimensions of the biopolitics of killing that operate within the context of producing beef and practicing welfare by investigating farmers' narratives of killing for beef vs. killing for welfare, drawing on their emotional descriptions of euthanizing sick and injured cows and disciplinary descriptions of culling "crazy" cows. By discussing the relationship between biopolitics and cow welfare, arguing that this strengthens and complicates how we understand caring and killing, I offer an analysis of the complexities of biopolitics that provides an alternative to Shukin's (2009) analysis of welfare as a technology of animal death and suffering that aims to feed capitalism. I

also offer an alternative to Carey's (2013) "post-factory farm biopolitics," in which any notion of respect and care is reduced to disguised violence that aims to encourage killing and consumption. I explore the dimensions of care and killing, both of which I locate in the realm of biopolitics and argue that we need to be open to conversations about the ethical, emotional, as well as violent dimensions of animal commodification and human-farm animal relations because our understanding of these becomes limited when we exclusively focus on violence.

Other contributions I make to biopolitics scholarship stem from the way I show how animal capital (Shukin, 2009), lively commodities (Dempsey & Collard, 2013; Collard, 2014), and encounter value (Haraway, 2008) play a significant role in the biopolitics of cow welfare. While, on their own, these works emphasize the violence of commodification (Shukin, 2009; Dempsey & Collard, 2013) and the making of companion species (Haraway, 2008) rather than food, I bring them together to create a new conceptualization of the biopolitical impacts on cows, in which I show how biopower, and the capitalist system that drives it, does not, on its own, define farmer-cow relations. For example, I conceptualize cows as animal capital by disclosing how farmers equate cows' beef quality with their quality of life, illustrating the closed loop that Shukin (2009) alludes to as a defining feature of animal capital. I adapt Dempsey and Collard's (2013) notion of lively commodities to explore how cows, destined as food, and who do not fit Dempsey and Collard's use of the term, possess lively and encounterable qualities that impacts their capitalist value and, more interestingly, their affects on and relationships with farmers. Lastly, I show how cows' liveliness and encounterability are what enables their participation in Haraway's (2008) notion of encounter in the first place. I do not deny the violence of commodification that Shukin, Demspey and Collard rightfully and necessarily draw attention to, and I do not see encounter

value as being only applicable to companion species. In other words, I argue that, in some cases, the violence of commodification might be an incomplete story about the lives of farm animals and their relationships with farmers because alongside the violence of killing, love, care, and affection can enter into biopolitical relationships between farmers and food animals. In these ways, I expand the scope through which we understand food animals' commodification and welfare. I show how cows' liveliness complements as well as complicates their commodification and welfare, making clear that this has strong impacts on the emotional and ethical nature of their relationships with farmers.

My layering of animal geographies and biopolitics allows me to hone in on the emotional, economic, and ethically rich dimensions of farmer-cow relations, in turn making important contributions to animal geographies and biopolitics literature. I attend to the biopolitical dimensions that shape cows' commodification and killing and also show how love, attachment, grief, internal conflict, and acceptance shape farmers' feelings and understandings about their relationship with cows. My attention to these nuances reveals the ethical complexities of human-animal relationships of power, challenging animal rights and critical animal studies positions that emphasize abolition as a necessity for enacting care for farm animals (Adams, 1990; 1995; Carey, 2016; Donovan, 1990; 1994; Francione, 2000; Regan, 1983; Singer, 1975; Stanescu, 2014; White, 2015). Opening ourselves up to the uncomfortable reality that care can exist outside of abolition breaks down the reductive, convenient, and limited divisions through which we make sense of ethical vs. unethical relations with food animals, and these insights are critical for animal geographies and biopolitics scholars whose work focuses on human-animal relationships of power.

My analysis of the ethically complex relationships between farmers and cows assists in my investigation of the socio-political, ethical, and economic dimensions of grass-fed beef farming, as the agricultural context in which these relationships take place. Here, I add to debates in critical food studies, bringing its scholarship on alternative food networks (DuPuis & Goodman, 2005; DuPuis et al., 2014; Guthman, 2008; Holloway, 2002; Sarmiento, 2017) into conversation with debates about the marketization of animal welfare (Buller & Roe, 2014; Buller, 2018; Gillespie, 2011; Gunderson, 2011; Miele & Evans, 2010; Miele, 2011Shukin, 2009; Stanescu, 2014; Taylor, 2013). Through my analysis of cow welfare and grass-fed beef farming, I offer critiques of ethical food systems and reveal the benefits and drawbacks of grass-fed beef farming for cows, farmers, consumers, and the environment. For example, I bring Guthman's (2008) and Sariemento's (2017) analyses of elitism, privilege, and corporatization in alternative food networks into conversation with debates about the marketization of animal welfare (Gillespie, 2011; Gunderson, 2011; Shukin, 2009; Taylor, 2013). I reinforce understandings of the problems with ethical food systems and animal welfare by showing how deception functions in grass-fed beef farming and how welfare practices, in many ways, hinder animals' agencies, subjectivities, and interrelations. Alongside these noteworthy problems, I show how some people whose lives are committed to alternative agriculture care deeply about farm animals and the processes through which they farm and care for animals as food. While literatures on alternative food networks and the marketization of animal welfare are wonderful and rightfully point out problems with these food systems and their affects on animals, on their own, they risk reproducing jaded perspectives when it comes to thinking about farming models that stand (or claim to stand) in opposition to conventional agriculture. It is in this vein that I adapt DuPuis's

and Goodman's (2005) notion of reflexive localism to show how its principles apply to rethinking the ethics of human-farm animal relations. Reflexive localism aims to dismantle local/global dichotomies by valourizing the imperfections and contradictions embedded in food systems, advocating for open, continuous, and reflexive dialogue (among diverse groups of people) as a means for creating change within food systems (DuPuis & Goodman, 2005). Through my analysis of grass-fed beef farming and welfare, I advocate for a "reflexive relationality" that acknowledges the imperfections, contradictions, and ethical complexities of food systems and the human-farm animal relations embedded in these systems. My contributions to critical food studies literature make clear that the ethics of alternative food networks are as complex as the relationships between animals and people that shape and are shaped by these networks.

Contributions I make to multispecies ethnography, animal welfare discourse, and feminist perspectives on care emerged through my objectives of encountering and learning from cows as research subjects who could teach me about their welfare, while paying attention to the challenges and changes that were brought about when navigating this research process. Responding to these objectives, I extend research on participation observation and multispecies ethnography by showing how animals are integral actors when it comes to teaching us about their lives. I do this by drawing on Gillespie's notion of intimacy (2017) and Gruen's work on entangled empathy (2015; 2016), informed by an ethics of care (Gilligan, 1982; Donovan, 1990), which give insight for building meaningful relationships with animals through acts of observing, listening, and responding. I show how cows' emotional, behavioural, and communicative gestures with farmers and others cows serve as reflections of their experiences and offer us knowledge about their lives and welfare, and this is valuable for scholarship on multispecies

ethnography, as well as animal welfare science. Animal welfare sciences take different approaches to studying farm animal welfare; some focus on the behavioural and affective states of animals (Terlouw, 2008) and the human handling of animals (Bravo et al., 2019; Maria et al., 2004), while other approaches measure animals' biological responses to farming techniques and environments (Bravo et al., 2019; Fraser, 2003). Other means for understanding welfare include analyzing the profound effects that human-livestock interactions have on animals and the people who farm them (Coleman & Hemsworth, 2011). While scientific measures of welfare aim to produce accurate and objective truths about what good welfare means and looks like, there are significant variations and uncertainties among the scientific community about how to measure, assess, and judge animal welfare (Croney & Millman, 2007; Sandoe et al., 2004). As Fraser (2003) notes, economic, political, and ethical values influence scientific measurements of animal welfare, producing the varied approaches to studying welfare that are listed above. Missing from this scholarship on animal welfare are considerations of how an ethics of care can inform farm animal welfare science and discourse. I bring the conceptual and methodological insights of intimacy and entangled empathy into the realm of multispecies ethnography and animal welfare discourse, using them as both lenses and tools for encountering farmers, cows, and cow welfare. Through this process, I cultivate my own and ethics of care, which I offer as an entry point for studying welfare which, in addition to the kinds of research posed above, can push animal welfare discourse into new and meaningful directions by revealing welfare's intimate, social, and emotional dimensions.

It is also through this process of cultivating and forever questioning my own ethics of care that I explore, reinforce, and expand Haraway's (2008) and Shotwell's (2016) arguments about

the inevitable, necessary, and entangled relation between living and killing that underscores our relationships with all living, embodied beings. Haraway explains that responsibility and care are foundational to killing, and we must learn to live responsibly within the necessity and labour of killing. For Haraway, killing responsibly means knowing that we cannot kill with sufficient reason but must kill with felt reason. Sufficient reason reinforces the notion that animals exist solely for human use and are, therefore, disposable (Haraway, 2008). "Felt reason is not sufficient reason, but it is all we mortals have. The grace of felt reason is that it is always open to reconsideration with care" (Haraway, 2008, p. 76). Through my attention to the complexities of human-cow relations and welfare practices, within which care and killing coexist, my research extends Haraway's work by illuminating the economic, emotional, and ethical contexts that shape felt reason. Akin to Haraway, Shotwell (2016) examines the inevitability of killing in relations of living by urging us to consider how complexity, complicity, and impurity constitute our ontological and embodied relationships with all others. Extending Shotwell's analysis further, I show how impurity constitutes our relationships with animals through an analysis of their welfare. Additionally, I provide methodological insight into how impurity shapes the animal welfare research process itself, impacting our positionality and the challenging, painful, as well as wonderful encounters with the animals who we aim to help through our scholarship. It was through the fusing of Haraway's and Shotwell's understanding of life, death, and relationality with my understanding of intimacy (Gillespie, 2017) and entangled empathy (Gruen, 2015; 2016) that my ethics of care took form, becoming a defining feature of the discomfort of care and curiosity that shaped this dissertation's exploration of ethically ambiguous relationships that cannot be described as right or wrong and whose complexities cannot be contained in tidy boxes.

Discomfort made me question by research, but, through my ethics of care, it methodologically gave me access to animals whose lives our warrant our attention. Many scholars emphasize the ethical dilemmas and challenges of encountering the violence of human-animal relations, leading to important questions about whether we should ethnographically encounter violent human-animal relations in the first place (Collard, 2015; Gillespie, 2018). When we do choose to follow these encounters, some scholars discuss the politics of grief and its ability to inspire and mobilize change for animals (Gillespie, 2016; Garcia, 2019). As I have made clear in this dissertation, feelings of grief, shame, guilt, sadness, frustration, and confusion both challenged and guided me throughout my fieldwork at grass-fed beef farms and sale barns. My time at sale barns was exclusively defined by emotional, ethical, and methodological hardship, given the violence that occurs in live animal auctioning. However, my experiences at grass-fed beef farms also brought about moments of happiness, vulnerability, and awe that stemmed from my encounters with and observations of cows, as well as the discomfort that carried me through these experiences. While scholars emphasize the ethical challenges and dilemmas of multispecies research (Collard, 2015; Gillespie, 2018) and the politics of grief that can emerge in this kind of research (Gillespie, 2016; Garcia, 2019), I advocate for more attention to the significance of discomfort as a foundation for grief, sadness, guilt, and shame as well as humility, openness, awe, and happiness. Through my research, I show how discomfort is viscerally important to multispecies ethnography. I offer insight into what discomfort is, what it can teach us, and how it can help us in our attempts of meaningfully reaching animals with the ultimate goal of making their lives better. In connection with this, I describe how curiosity and an ethics of care are the driving forces that lead us into discomforting research settings, within which discomfort makes

us question, confront, and in some cases, change the way we understand our politics, positionality, and research methods. Just as importantly, discomfort brings us closer to animals, helping us shine light on those whose bodies we might consume but whose lives we often fail to think about.

Through my commitment to the discomfort of care and curiosity, I revealed critical aspects of cow welfare. These aspects include an analysis of welfare's spatial, behavioural, social, and environmental facets, alongside its (contradictory) aspects of care, emotionality, disciplinarity, and governance. Rather than leading to definitive answers, perhaps part of the value of these findings is the way they provoke further questions about our food system and relations (with cows). For example, what can an analysis of welfare's diverse dimensions offer to those in conventional beef farming? And how can consumers use this understanding of welfare in their everyday lives? In other words, where do we go from here? This research offers a glimpse into grass-fed beef farming in Ontario; expanding this scope beyond Ontario to explore grass-fed beef farming in Canada can push an analysis of welfare further. Focusing this scope on the conventional beef industry is also necessary, given the industry's often violent impacts on cows and its voluntary, quasi-legal structure of welfare. Although the challenges of this work are significant, it is critical because cows – their lives, experiences, and relationships – are important.

The diversity of mixed emotions that stayed with me throughout the research played a key role in how I cultivated an ethics of care with cows. I grappled with how an ethics of care is both complicated and shaped by curiosity and the feelings of discomfort that this curiosity brings. Drawing insight from Shotwell's (2016) analysis of impurity, I came to understand how feelings of discomfort reflect the impurities that are present in an ethics of care because, for me, part of

practicing an ethics of care meant drawing attention to the agency, subjectivities, and emotional lives of cows while opening myself up to the possibility that care, love, relationality and killing exist in a complex entanglement. Listening to farmers' stories and reflections about welfare and the ethically, emotionally, and economically complex relationships they share with cows gave me insight into how farmers practice an ethics of care with the animals. These complexities prompted me to reflect on how an ethics of care is dynamic and varies according to the relationships within which it is cultivated. I must admit that I still figuring out what my ethics of care with animals entail, but through this research journey, I have learned that it encompasses observation, listening, and being attentive to the different contexts that shape human and animal lives and encounters. This attention must be guided by a challenging of the idea that relationships can be understood as ethically pure, remembering that an acknowledgement of the impurity that bounds up to all others creates pockets of hope and possibility for change. Lastly, my ethics of care entail sitting uncomfortably with the awareness of our contextual and ethically complex relationships with human and nonhuman others in order to figure out the best way to respond with, and care for, those with whom we are in relations.

As a result of my research, I have also learned about how practicing an ethics of care with the people who control and take animals' lives can offer insight for animal scholars aiming to help animals through their scholarship and praxis. Using my research experiences with grass-fed beef farmers as an avenue for navigating industrial animal agriculture, I propose that empathetically opening oneself up to people in animal agriculture (and other animal-exploitive industries) through the exercise of mutual dialogue and respect can help us build bridges to animals rather

than thicken the walls that characterize animals' surveillance and confinement in the animal-industrial complex.

My dad's death (which occurred during this research) provided me with a particular lens for exploring how death impacts cows' lives. Death has entered into this research in multiple ways, and with the recent birth of my first baby, I see now how life has too. I viscerally understand how the bond I share with my baby was emanated in the bonds I witnessed between cows and their calves. Our shared connection as mothers gives me insight into how special these connections are and, more significantly, how traumatic their severing must be. I experienced first-hand the protective nature of cow mothers as they cautioned me, through sharp gazes and loud bellows, to keep my distance from their calves. I deeply understand how the coercion that shapes the weaning process violates this protection. The connections I made with cows and other animals throughout this journey have helped me intimately understand their lives through an analysis of their welfare. I hope this research expands readers' understanding of farm animals, inspiring care and appreciation for animals and critical reflection of our shared vulnerability, worthiness, and entanglement.

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