IDENTITY, GENDER, AND TRACKING

THE REALITY OF BOUNDARIES FOR VETERINARY STUDENTS

Jenny R. Vermilya

IDENTITY, GENDER, AND TRACKING

NEW DIRECTIONS IN THE HUMAN-ANIMAL BOND

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For the animals.
For the students who shared with me their stories.
And for me.

CONTENTS

PREFACE

This book is an ethnography that provides thick description of participant observations that span over four years of fieldwork. I use 42 in-depth qualitative interviews with veterinary medical students to explore the experience of being in an educational program that tracks students based on the species of nonhuman animals they wish to treat. Specifically, I examine how tracking produces multiple boundaries for veterinary students. The boundaries between different animal species produce consequences for the treatment of those animals; this has been well documented. Using a symbolic interactionist perspective, my research extends the body of knowledge on species boundaries by revealing other consequences of this boundary work. For example, I analyze the symbolic boundaries involved in the gendering of animals, practitioners, and professions. I also examine how boundaries influence the collective identity of students entering an occupation segmented into various specialties. The collective identity of veterinarian is one characterized by care; thus students have to construct different definitions of care to access and maintain the collective identity. The tracking system additionally produces consequences for the knowledge created and reproduced in different areas of animal medicine, creating a system of power and inequality based on whose knowledge is privileged, how, and why. Finally, socially constructed boundaries generated from tracking inevitably lead to cases that do not fit. In particular, horses serve as a border species for veterinary students, who struggle to place them into the tracking system. I argue that border species, like other metaphorical borders, have the potential to challenge discourses and lead to social change.

Over the same amount of time it takes to finish veterinary college, I interviewed these veterinary students throughout the course of their lives *as veterinary students*: on their study breaks over coffee, in their empty classrooms, on their barn duty as they cared for animals. Thus, we did not just talk about their experiences; they also showed them to me. My own background pursuing the veterinary profession before changing direction and becoming a sociologist granted me a unique standpoint in our conversations. What I came to observe was that veterinary students operate within larger structures that shape their own

understandings of their professional identities, their gendered roles, the knowledge they hold, and the animals they attend, ultimately learning how to construct boundaries around each. Boundaries they constantly work to draw, maintain, and even sometimes cross.

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Numerous individuals helped to make up my support system throughout this fieldwork, data analysis, and writing process. I wish I could thank each of them here by name, but there are simply too many to count. So I will have to limit my acknowledgements to the most significant contributors to this final product.

First and foremost, I would like to thank my mentor, Leslie Irvine. She is the reason not only that I pursued a doctoral program but also that I decided to pursue sociology and human-animal studies as a career. She kindly took the time to respond to my inquiries about her field, even though I was an unknown undergraduate student living across the country. As I changed direction, deciding to no longer pursue veterinary medicine as a career, she helped me to realize that I could still do meaningful work with animals. After I became her graduate student, she guided me through the research process and tirelessly provided detailed feedback on my writing. This book has benefited greatly from her efforts to help me become a diligent sociologist. I thank her for her work for the discipline of sociology, for her students, and for all other animals.

Second, I would like to thank the other sociologists and human-animal studies scholars who helped me along my way: Patricia Adler, Amy Wilkins, Isaac Reed, and Harold Herzog. Each of them stimulated this project with thought-provoking questions and suggestions for new avenues of exploration.

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Fifth, I would like to thank my family. My husband, Eric Hardies, lovingly supports me in all the ways, including being an equal co-parent to our toddler, Benjamin, who is younger than this research project. As a gender scholar who

has studied professions, and as an academic who identifies as a woman myself, the feat of this finished book within social structures that do not always support women and their work does not escape me.

And last, I would like to thank those in the veterinary profession, who work within complicated boundaries every day and who indeed do as much as this book will tell you about, and more.

PART 1

THE BACKSTORY

1

BOUNDARIES, SOCIAL CONSTRUCTION, AND TRACKING: AN INTRODUCTION

ALTHOUGH WHAT WE CONSIDER DIFFERENT SPECIES OF ANIMALS STEMS IN part from biology, the difference is also the product of social construction.[1] The category of species has real consequences for the treatment of animals and for the humans who interact with them. These consequences play out prominently in the profession of veterinary medicine and reveal themselves in what is referred to as a tracking system used in veterinary training. Briefly, tracking allows veterinary students to specialize in particular areas of animal medicine and focus on specific species.

This project uses tracking systems in veterinary medicine as a case study in the creation and maintenance of, as well as the changes to, the boundaries surrounding different animal species. By using veterinary medical education as a site to understand the manifestation of boundaries, this study contributes to several bodies of literature. Specifically, it engages with the literature that analyzes the maintenance of specialty knowledge and the resulting privileging of such knowledge. It also adds to the research on collective identity work done by animal caregivers, revealing how boundaries, borders, and cases that do not fit within boundaries can separate this work. In addition, by providing a gendered analysis, it enhances the understanding of each of these instances of boundary work.

In this chapter I first introduce the literature on boundaries and borders. I then explain how, in this research, the social construction of species will constitute a

particular type of boundary work. I go on to describe how the tracking system in many veterinary colleges represents similar divisions, then conclude by presenting the goals and questions for this research project.

BOUNDARIES AND BORDERS

Abundant research in the social sciences examines the related concepts of boundaries and borders. Informed by the literature outlined here, I use the term "boundaries" to refer to the invisible lines veterinary students create and maintain around species, medical practices, knowledge, identities, and gender. I use the term "borders" to refer to the spaces along or close to the boundary lines that students admit are characterized by unclear ambiguity but also flexible potential for changeability. In doing so, I build on the work of Eviatar Zerubavel (1991), who describes boundaries as the "mental fences" (p. 2) that we place around geographic regions, temporal distance, historical events, ideas, groups, and other phenomena so that they seem similar, contiguous, or somehow related (see also Zerubavel, 1996). Along with others in the boundary literature, Zerubavel argues that clear, objective lines do not exist around any domain or "slice of reality" (Ashforth et al., 2000, p. 474; see also Michaelson & Johnson, 1997; Nippert-Eng, 1996a, 1996b). As he puts it, the "islands of meaning" that result from the boundary creation process "are not part of nature" (Zerubavel, 1996, p. 442). He defends the flexibility and ambiguity in social life and challenges the notion that boundaries are essentialized truths. Similarly, Barbara J. Morehouse (2004) describes borderlands as "spaces where the everyday realities of boundaries are played out" and "where cultural identity, sheltered by the boundary, becomes blurred, mixed, creolized" (p. 19). While bounded spaces can appear well defined and securely enclosed, borders along those boundaries can often be ambiguous and unclear. Morehouse (2004) and other scholars who focus on social and collective identities study how boundaries create differentiation between us and them (Brubaker & Cooper, 2000; Jenkins, 1996). People create collective identities through a process of internal and external definitions; individuals must internally distinguish themselves from others through a sense of belonging to their group, but external others must also recognize this distinction in order for a collective identity to emerge (Jenkins, 1996). Henri Tajfel's (1982) classic work on social identity

theory made in-groups and out-groups important social psychological concepts. He noted that in-groups discriminate against out-groups to improve their own self-image. Similarly, Robert Merton (1972) used the term "reference groups" to describe how groups use one another to compare and contrast characteristics to evaluate themselves.

This study contributes to and extends these fields of thought by introducing in-groups and out-groups that exist within a larger in-group. For example, I will show how the specialties in veterinary medicine provide enough difference for veterinary students to discriminate against one another, even though they still consider themselves unified under the title of future veterinarian. In this way, boundaries assist in the creation of identities, while borders can allow for new variations of identities to exist.

Extensions of the use of boundaries in creating different categories and subsequent identities focus on the consequences of these differences. For instance, work on geographies of exclusion examines access to resources associated with membership in certain groups (Sibley, 1995). Boundaries around group membership not only distinguish and separate categories but can contribute to inequality that comes from defining difference and attaching value to those differences. This inequality becomes particularly clear in class, ethnic and racial, and gender and sexual categories. For example, Pierre Bourdieu's (1979/1984) work on class boundaries focused on how cultural capital—the knowledge of the culture of the dominant class—awards privilege. The boundaries between those who possess varying degrees of cultural capital help shape the different social classes. Fredrick Barth (1969) similarly used a relational approach with ethnicity. Instead of defining ethnicity simply as shared culture, Barth claimed that we define ethnic membership in opposition to the perceived identities of other ethnic groups. Therefore, we define ethnic difference by understanding the boundaries of different groups and our own relation to them. Gendered categorization also relies heavily on boundaries. The unconscious, but constant, boundary construction of the binaries of masculine and feminine helps explain gender inequality (Ridgeway, 1997). When gender falls in a border zone, such as when individuals violate gender norms or when ambiguous cases exist outside of the binary system (e.g., intersex or transgender individuals), stigmatization and punishment follow (Epstein, 2006; Norton & Herek, 2013). Here, boundaries and borders lead to inequality.

From a functionalist perspective, boundaries serve to organize bodies of knowledge. Specifically, scholars have studied the creation of professions and academic disciplines through this boundary work; further, they have recognized how these boundaries create additional divisions between experts and laypeople (Abbott, 1981, 2014; Collins, 1979; Foucault, 2002; Sarfatti-Larson, 1979). Others expanded this notion of institutionalizing difference and alternatively suggested that boundaries not only act as dividers but also can act as communication interfaces in the form of *boundary objects* (Bowker & Star, 1999; Star & Griesemer, 1989). Boundary objects can be material objects, organizational forms, conceptual spaces, or procedures. They can facilitate exchanges across communities; in this case study, for example, they can facilitate exchanges across subfields within animal medicine. The concept of boundary objects has broadened the conversation on boundaries and borders to include not only distinction and exclusion but also connection and inclusion. Coordinated social action can occur through the bridging across boundaries that boundary objects provide, and potentially lead to social change.

Human-animal studies scholars have applied the border metaphor to explain how constructed boundaries shape and influence human-animal interactions. Geographers Jennifer Wolch and Jody Emel (1998) use the concept of the border to examine how "permeable border zones of metropolitan regions inhabited by both people and animals" represent "zones of potential coexistence" (p. xvii). For example, the category of city-dwellers can include both humans and wildlife. As geographers, Wolch and Emel "examine cases of negotiation/struggle over sharing space" (p. xvii). In their research, borders are physical places, whereas I additionally situate borders in human cultural thought. While the physical places animals reside affect their use by humans, the border spaces that they occupy in the human imagination are a result of much more than simply physical location; they have to do with constructed social meanings. Importantly, places on the margin "are never simply locations. Rather, they are sites *for someone* and *of something*" (Shields, 1991, p. 6; emphasis added). Similar extensions of animal geography focus on the social definitions of animals and their additional placement in human imaginings (Philo & Wilbert, 2000).

Each of these schools of thought on the subject of boundaries and borders, including those that investigate collective identities, the consequent inequality, the social organization of knowledge, and human-animal relationships, contribute to this study of the consequences of boundaries and borders in the field of veterinary medicine.

BOUNDARY WORK AND THE SOCIAL CONSTRUCTION OF SPECIES

> *I was much struck how entirely vague and arbitrary is the distinction between species and varieties.*
>
> — CHARLES DARWIN (1859, p. 48)

Human-animal studies scholarship that focuses on the role of boundaries in the social construction of species is particularly applicable to the ways that veterinary medicine also performs boundary work. To begin, the designation of species connotes not only a position in taxonomy but also how humans regard the beings who occupy that position. What humans understand as distinct species are actually matters of debate. Biologist Ernst Mayr (1942) first noted that scientists use different "species concepts" to place an animal into a species category. Species concepts represent the differing interpretations of different biologists, consequently creating a "species problem" that states that taxonomy is not entirely objective (Hey, 2006; Pigliucci & Kaplan, 2010). Thus, we socially construct animals in the academic discipline of biology, and then we further construct them when we place social value on species categories. In analyzing the attribution of social value on species, Arnold Arluke and Clinton R. Sanders (1996) termed the resulting hierarchy "the sociozoologic scale." They argue that "'being' an animal in modern societies may be less a matter of biology than it is an issue of human culture and consciousness" (p. 9).

Although some scholars (see Singer, 1975) have attributed placement in the hierarchy to consumption practices, the sociozoologic scale categorizes animals according to whether humans designate animals as morally good or bad. The animals considered best fall just below us on the sociozoologic scale. We grant these animals a nearly human status, and we describe some of them as companion animals or pets (Bryant, 2007; Gardyn, 2001; Veevers, 1985; Vitulli, 2006). We expect companion animals to be subservient to us, to provide us with love and affection (Tuan, 1984), and to adjust their behavior to fit into human spaces (e.g., becoming housebroken). Good animals also include those used as tools in research laboratories, on farms and ranches, or in occupations such as those involving therapy. We do not see these animals as family members, but they still have a collectively defined, instrumental function within society (see also Cassuto, 2007; Wilkie, 2005). We construct animals within the tools category as either scientific data or food (Arluke, 1988; Phillips, 1994; Ryder, 1975; Thompson, 1983; Vialles,

1994; Wilkie, 2010). Using them in these ways requires that they "be deanthropomorphized, becoming lesser beings or objects that think few thoughts, feel only the most primitive emotions, and experience little pain" (Arluke & Sanders, 1996, p. 173). This requires using language that designates the animal metaphorically—that is, referring to them as supplies or assigning them numbers instead of names (see also Dess & Chapman, 1998; Phillips, 1994).

Animals considered problematic in human society rank below the good animals on the sociozoologic scale. Bad animals appear to serve no positive role in society through companionship or as some type of tool, such as the pigeons so common in cities (Jerolmack, 2008). Some bad animals considered vermin invade spaces designated for human use. Others, such as the freak, blur the boundaries of human and animal. Freaks most famously existed in carnival sideshows, where exhibits displayed humans with animallike features as anomalies and subjected them to ridicule. Finally, demons fall at the bottom of the scale, depicted as the predators and fiends who serve no purpose other than malice. For example, we have demonized the pit bull breeds as the most vicious of dogs, as though these breeds are inherently malevolent and wicked.

Some species can shift statuses, making the transition from good to bad, and vice versa. For example, some protected exotic species previously were dangerous animals, such as the big cats who perform in circuses, magic shows, and even car commercials. Harold Herzog (1988) has noted how mice can be pets, wildlife, pests, tools in research, or food for predator species kept as pets, such as snakes. Moreover, individual animals can shift statuses within categories. For example, farmers sometimes name their cattle and sheep, and sometimes a favored animal will gain the status of pet (Wilkie, 2010). They might later eat them or send them to slaughter. Thus, the status of petted livestock is often transitory. Animals so designated can regain their instrumental status as commodity.

Consistent with these observations of boundary crossing on the sociozoologic scale, in my fieldwork I witnessed a case where an animal transitioned from tool to companion. One of the veterinary students I interviewed took me on a tour of the large animal teaching hospital[2] barn while he was on duty. In one stall lay a dairy cow named Meadow. Her owners, who viewed her as a companion animal, had named her. They had purchased her from a rancher after seeing her injured in a field. The injury left no option except amputation of her hind legs, making her unprofitable for the rancher. The new owners rescued her and turned her into a pet. Meadow was at the teaching hospital because she had just undergone a rare surgery. She received prosthetic hind legs. I learned that this type of procedure,

while perhaps more common for small animals (i.e., companions), was unheard of for large animals (i.e., tools).

The barn tour also introduced me to a large beef steer, just a few stalls over from Meadow, whose owner admitted him for a gastrointestinal problem. He had no name, which did not surprise me, as he would go to slaughter in a month. Because he had no appetite and, consequently, was losing weight, he was becoming a bad investment for his rancher owner. She brought him to the teaching hospital in hopes that she could see a return on her investment. I asked the student why the animal was there if he was going to go to slaughter anyway. He told me that the steer still had a chance to bring a profit for his owner. The U.S. Department of Agriculture prohibits animals who cannot stand on their own, or downed animals, from going to slaughter. If none of the procedures started to work, then the steer would be euthanized. I asked if they could try other procedures, but I learned that the cost made them prohibitive for an animal who was going to slaughter anyway. The owner could justify the expense only to the point where the money would be returned by the price the steer fetched at market.

These two animal cases revealed much about boundary crossings. Unlike the steer, Meadow illustrated the blurring of the boundaries between large and small animals, or between tools and companions. While she and her neighbor, the steer, belong to the same species, we construct their statuses in completely different ways.

Veterinary training has a classification system that mirrors, but modifies, both taxonomy and the sociozoologic scale. Veterinary education and practice revolve mainly around animals assigned to the good categories. Bad animals usually do not receive veterinary care. Further, although veterinary education focuses on good animals, the subdivisions of companion and tool mean that even these animals have differing social definitions. Although veterinary medicine considers some animals as patients, the distribution of care differs in accordance with the constructed meanings of these subcategories.

BOUNDARY WORK AND THE SOCIAL CONSTRUCTION OF SPECIES IN THE TRACKING SYSTEM

Veterinary medical education in the United States, Australia, Canada, and the United Kingdom often uses a tracking system that separates large animal and small animal medicine (Hooper, 1994; Willis et al., 2007). "Tracking" is the term used by the veterinary profession and by the participants in this study to indicate

species specialization.[3] Current societal constructions define most large animals as food and small animals as companions. In the U.S., students take courses such as anatomy, physiology, immunology, pharmacology, and pathology during the first two years of a veterinary medical program. Then, they may declare the small animal or large animal track and receive training specific to those species. This is the most basic application of tracking; some veterinary programs in the U.S. (e.g., the University of California, Davis) use tracks that are even more specific (e.g., food animal and equine; Klosterman et al., 2009).[4] Although this research primarily focuses on an American veterinary college that uses the basic tracking model, tracking exists elsewhere in the world in varying capacities. Programs that use tracks that are more specific could see exaggerated consequences of this boundary work and could be the focus of future research. The track usually influences, but does not determine, the practice a student will ultimately pursue. A license to practice veterinary medicine does not specify whether the holder focused on small or large animals, although most veterinarians do limit their practice to one or the other.

At the particular veterinary college I primarily studied, students choose either the small animal, large animal, or mixed/general track in their third year. The names of these tracks are misnomers, however. The small animal track focuses on generally smaller species, but the more defining characteristic is that most of these species are companion animals. The small animal track mostly focuses on dogs and cats, but exotic companion animals, such as birds, reptiles, pocket pets (e.g., rabbits, hamsters, and guinea pigs), fish, and ferrets, are in the subfield of exotics and zoological medicine. If a student wants to work in exotics or zoological medicine, they may declare the interest, but the official track is small animal.

The large animal track generally focuses on larger species. But here, too, the term is misleading; some dog breeds can be just as large as or larger than sheep or pigs. The more defining characteristic is that most of these species are in production (i.e., they are considered tools used for consumption or by-product, such as sheep's wool). Species in the large animal track include cattle, horses, sheep, goats, alpacas, llamas, domestic and pet pigs, and wild ruminants. Whereas small animal medical training considers the individual animal as a patient, large animal medical training stresses using a herd health approach. The students I spoke with described herd health as a collective treatment practice. Instead of caring for individual animals, the entire herd constitutes the object of care. For example, a herd health approach might require culling a sick animal to prevent the spread of disease to the rest of the herd.

Although horses are physically large animals, the equine hospital at the veterinary college I primarily studied stands distinct from the agricultural animal hospital. If a student has an interest in equine medicine, they may declare that interest within the official track of large animal. Finally, the mixed or general track allows students to take a variety of small and large animal classes of their choosing. When I describe my conversations with veterinary students, I use the terms "small animal" and "companion animal" interchangeably; the same holds for "large animal" and "production animal." I do this consciously to stress the drastically different constructions of these animals and to illustrate their socially defined roles. Although I use the term "production animal" as opposed to "animals used in production," I acknowledge the criticism of reifying these constructed categories. I choose these particular terms to minimize wordiness, to reflect the discourse veterinarians and veterinary students *actually* use to talk about these animals, and to avoid more politically freighted terms (e.g., agricultural or farm animals) that do not exactly portray the animals' lived experience.

Although many applaud the tracking system for its efficiency in training students for particular areas of veterinary medicine (Willis et al., 2007), support for tracking is not universal. Critics argue that it might detract from a comprehensive foundation in veterinary medicine (Klosterman et al., 2009; Walsh et al., 2009).

RESEARCH GOALS AND QUESTIONS

This study examines the role of the tracking system in producing and reproducing boundaries between species, resulting in differential social and moral consequences for animals and people.[5] These boundaries not only distinguish between small animals, or companions, and large animals, or tools, they produce consequences for the valuation of knowledge specific to those animals, for the treatment of those animals, for the collective identity of veterinary students, and for the animals who fall along the marginalized borders of these categories.

In analyzing the construction and consequences of species boundaries, this study contributes to the social scientific literature on human-animal relationships. Much of this scholarship to date focuses on companion animal relationships with humans (see Gardyn, 2001; Irvine, 2004; Vitulli, 2006). Work on human-animal relationships with production animals is increasingly coming to the forefront (see Cassuto, 2007; Ellis, 2013, 2014; Wilkie, 2005). Also, wildlife and animals in captivity are often subjects of research (see Jerolmack, 2008; Philo & Wilbert, 2000;

Wolch & Emel, 1998). However, studies have not yet focused on sites where two or more categories of animals exist. Thus, veterinary medicine provides a unique space in which to witness and analyze these social constructions side by side.

By examining veterinary medical education at the institutional level, I also contribute to scholarship on the sociology of knowledge. The analysis of how veterinary medical education shapes veterinary students' perceptions and treatment of their animal patients sheds light on whose knowledge is privileged, how, and why. In addition, by examining how an occupational identity can be collectively shared across a profession with subdisciplines (tracks) that are almost antithetical to one another, this study informs sociological questions about occupations and professions. By investigating the ambiguous cases within the tracking system and how veterinary medical education addresses species that do not fit the tracks, I contribute to interdisciplinary research focusing on marginalized positions. Furthermore, throughout this research I have recognized that the boundary work that occurs in veterinary medical education's tracking systems is largely gendered. Using a gendered lens to examine boundaries contributes to the scholarship on the gendering of occupations and identities. Finally, I extend the contribution of this research beyond human-animal relationships by making connections to other hierarchical social constructions that have consequences for different groups, such as those characterized by race, class, and gender.

2

A SOCIOLOGIST AT VETERINARY COLLEGE: RESEARCH METHODS

THIS IS AN ETHNOGRAPHIC RESEARCH PROJECT THAT PRIMARILY DRAWS ON qualitative in-depth interviews and participant observation within the context of veterinary medical education. The research spans the course of four years and provides an up-close account of the experiences of veterinary medical students in the educational system known as tracking, described in the previous chapter. Tracking separates veterinary students into distinct specialty areas, similar to majors. I argue that the different tracks create distinct experiences for the students. These differences ultimately illustrate the nuanced and varied social processes involved in veterinary medical education. These include socially constructing nonhuman animal species, attaching differential value to the related areas of knowledge, creating a collective professional identity, negotiating the fit within the constructed boundaries, and managing gender within an increasingly feminized field. Needless to say, the students I met and came to know throughout this research encountered more in their educational endeavors than just learning anatomy and biology. During our interviews we often discussed difficult topics and, consequently, I took care in my methodological approach. In this chapter I first explain how I gained access to the setting and describe the participants. I then explain how I collected and analyzed the data. Finally, I discuss my own positionality throughout this project by providing a reflexive account of my standpoint and how it not only brought me to this topic but also shaped my research goals.

OVERVIEW AND GAINING ACCESS

This research focused primarily on a veterinary college in the western United States that offers a tracking system for its students, henceforth referred to as Foothills Veterinary College (FVC). After collecting preliminary data there, I did also interview students from a variety of veterinary colleges spread out across the U.S. While I ultimately was able to capture detailed stories from a range of settings, FVC was the site where I observed firsthand many of the experiences students described. Ethnographies are often critiqued for this single-site or limited sites field study approach; however, it is this intense immersion in place that gives ethnography its greatest value. The in-depth interviews provided much rich detail that helped me to unpack the realities of these students, but being present on a campus performing ethnographic participant observation allowed me to distinguish any inconsistencies between their words and their actions. In *For Ethnography*, Steve Herbert, a geographer, makes the case that ethnography is underutilized in his discipline; his argument is that in studying place, ethnography is extremely valuable since it "is also different from surveys and interviews because it examines what people *do* as well as what they *say*" (Herbert, 2000, p. 552).

I chose the particular program at FVC for the simple fact of accessibility. Its proximity to me made it convenient for me to spend adequate amounts of time there. I also had the good fortune of knowing a gatekeeper, my academic mentor, who had also conducted research at this college and therefore could direct me to people who might help me gain access to students (Harrington, 2003). After gaining approval from my university's Institutional Review Board (IRB), I contacted the dean at FVC to introduce myself and my project and to ask for his blessing in reaching out to the student population. Although his approval was not a research requirement, I did want to extend the courtesy and provide transparency for the college's administration so that they knew of my intentions should they hear about my research from any students (Murphy & Dingwall, 2007). This initial contact proved fruitful, and the dean even gave me the email listserv addresses of the different cohorts of veterinary students so that I could contact them.

Data collection took place in two major phases. The first phase, which began in 2009 after I received IRB approval and introduced myself to the dean, went smoothly. I experienced few of the struggles that researchers who study vulnerable or difficult-to-reach populations encounter. I was pleasantly surprised that I was welcomed onto the FVC campus and given the assistance of the listserv

addresses. This resulted in initial conversations with 20 veterinary medical students, which ultimately amounted to less than half of my final pool of participants. Consistent with the grounded research approach I employed, our conversations ranged widely because of the broad questions I brought to the students (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1997). Not quite knowing what would end up being the focus of my analyses, I mostly allowed the students to shape the direction of our talks (Holstein & Gubrium, 1995). This was extremely beneficial as it raised numerous significant themes that I explored in more detail later in the research.

After completing the first 20 interviews, I paused in the fieldwork to analyze the interviews and the field notes I had made thus far. I began to think analytically about the data and make sociological sense of hours of conversation and observation (Becker & Geer, 1960; Coffey & Atkinson, 1996; Lofland et al., 2006; Ritchie et al., 2003). During this time, I received a fellowship from the Animals and Society Institute, which allowed me to develop my ideas with scholars who approached human-animal studies from various disciplines. This experience greatly shaped my emerging analytic process and pushed me to make the case for why sociology is helpful in understanding human-animal relationships within the context of veterinary education, rather than simply describing what happens within that social setting. The fellowship resulted in my first sole-authored publication using this data, which ultimately became Chapter 5 in this book.

The first phase of the research helped me design a more thoughtful approach to the second phase (DeVault & McCoy, 2006; Silverman, 1997; Stewart, 1998). I returned to the field and began phase two of data collection with a more refined research agenda. The second phase did not prove as smooth as the first, however. Whereas the first phase was exploratory and thus felt more casual, open-ended, and enjoyable, I focused the second phase more explicitly (Prus, 1996; Puddephatt et al., 2009), pushing interviewees to discuss topics in greater detail. Some of these were simply topics to which students had previously given little thought, such as instances of inequality in their education, whether around gender or area of practice, which I examine in Chapters 3 and 6 (DeVault, 1999; DeVault & McCoy, 2006; Hawkesworth, 2007). Others, however, were quite heavy and uncomfortable, for the students and even for me (Sanders, 1998). For example, the topic of death was an important one to explore. It showed me how the students managed their own participation in the killing of their patients and how they attached different definitions to the act of killing, whether in the form of euthanasia, its linguistic roots meaning "good death," or slaughter (Herzog et al., 1989;

Sanders, 1995). I found that the approach to death influenced the respondents' construction of their identities, which I discuss in Chapter 4.

The second phase was also logistically less smooth because FVC then had a new dean. Unlike his predecessor, the new dean did not roll out the red carpet for me. My previous run of good research luck seemed to have come to an end. This dean felt that the students were already the focus of so much research inquiry that he would prefer them not to be involved in yet another study. To be sure, veterinary medical students endure vast amounts of research, largely survey-based and quantitative, and conducted by the veterinary community itself (see Hooper, 1994; Klosterman et al., 2009; Walsh et al., 2009; Willis et al., 2007). I tried to explain that this was a very different kind of project, one not done with this population before, which could provide greater insight into their experiences. Despite my best effort, I did not receive the same blessing the previous dean had given me, nor did I receive access to the email listservs. Nevertheless, because the dean's approval was not a required step in my research but more of a courtesy, I moved ahead with the second phase of data collection.

I ultimately conducted in-depth, qualitative, semi-structured interviews with 42 veterinary students at various levels in their training. In the first phase I used three strategies to recruit participants. First, as mentioned, thanks to the dean I sent emails to the cohort listservs. Second, the presidents of the various veterinary student clubs emailed their members on my behalf. These clubs provide opportunities for like-minded students and professors to meet and learn more about specific topics. For instance, the Bovine Practitioners Club offers students interested in working with cattle a chance to gain more experience in that area. I obtained the presidents' email addresses from the contact information listed on the club websites. The club presidents proved essential in recruiting participants, especially in the second phase of data collection when I did not have the listserv addresses. And third, I recruited students through posted advertisements around their campus (see Appendix A). The ads probably garnered the fewest participants. The personal emails from members already within the veterinary community, such as the club presidents, proved much more successful in legitimizing the study (Harrington, 2003).

The number of participants in ethnographies is intentionally lower than in quantitative studies such as survey research. Due to the in-depth methodological approach of ethnographies, larger sample sizes do not garner the sort of data that ethnographers are typically seeking. Qualitative studies with larger participant pools and quantitative studies with huge datasets provide great insight

into larger systemic patterns and trends. But they can lack the nuance of how those processes form, how they operate, and how they are maintained. This is why smaller, more focused methodologies are helpful. Ultimately, the research questions should drive the choice of method. For this study I was interested in observing and analyzing the process by which veterinary students managed the tracking system in their education. To get at questions around professional identity formation and maintenance, socially constructed meanings around scientific knowledge and different animals, and how gender works to shape everyday realities, I needed to step into their shoes for a long period of time. An ethnographic approach pushed me to spend that quality time to dive deep into their world. While I remained a researcher, an outsider, I got as close as was possible.

A larger sample size would have spread my attention too thin and detracted from the rich time I was able to spend with these participants. A smaller sample size, though, would have been insufficient. I stopped at the number that I did because at that point I had reached what qualitative researchers call *saturation*. Saturation refers to the point when the data no longer offer new theoretical explorations nor add to the development of the conceptual ideas already found (Charmaz, 2006). While this point is challenging to operationalize, there are attempts to provide direction on when and how researchers know that they have reached an adequate sample size. Qualitative scholars often settle on at least 20 and not much more beyond 50 in a qualitative sample (Vasileiou et al., 2018). While this range is debated and still does not provide a quantified metric to answer the "how many?" question for qualitative researchers, the few boundaries that have become institutionalized at least provide a guide. For example, an editorial from the *Archives of Sexual Behavior*, upon noting an increase in qualitative submissions to the journal, put forth a policy for authors drawing on grounded theory and in-depth interviews to have a minimum of 25 to 30 participants in order to reach saturation (Dworkin, 2012). The number I settled on fits well within all of these recommendations and is in line with similar ethnographic studies. But, moreover, this sample size allowed me to go in-depth with my analyses without being overrun with data; and, ultimately, it demonstrated saturation in my conversations with students when I could actually anticipate certain responses that I kept hearing from them. My hope, nonetheless, is that more research can be done to address the limitations that smaller sample sizes and limited field sites inevitably bring. After presenting the data and analyses in Chapters 3 through 6, in the Conclusion I discuss in more detail what the limitations of this study are and what they mean for our understanding of this topic,

along with recommending areas for future research. Ethnographies can often serve as a great launch point for further inquiry by revealing realities that, previously, we did not even know were there.

While I was getting this rich, nuanced data at FVC during the first phase of data collection, I was indeed concerned about whether the location of this study not only influenced but also limited my conclusions. Studying students at first from only one specific veterinary college raised questions about the applicability of my claims to the wider population of veterinary medical students. To access students from other programs within the U.S. without undertaking extensive travel and without taking away from my ethnographic attention at FVC, I took advantage of a veterinary training program at the clinic of the local humane society. Because of its reputation in the growing specialty of shelter medicine, students from across the country come to this clinic to do externships. Although this setting allowed me to access students from different veterinary colleges across the country, because its population consists of dogs and cats, the interviewees I recruited there were small animal students. Nevertheless, my major goal in these interviews was to see whether and how their responses differed from those of the students at FVC. Because veterinary colleges from other regions of the U.S. use tracking in different ways, the student externs allowed me to examine the differences. The humane society provided me with the email addresses of these students; I contacted them before they arrived for their externship and asked them to participate in my study, and the administrators at the humane society validated my research (Harrington, 2003). Although I did not interview an overwhelming number of students from schools other than FVC (14.29% of the participant pool were from other veterinary programs), my conversations with them did provide some preliminary insights, which I incorporate into Chapters 3 through 6. Ultimately, I noted few substantive differences across the veterinary programs; participants largely echoed the same broad discourses about animals, medical knowledge and treatment, identity, and gender. I believe that differences in geography do matter, however, and in the Conclusion I suggest future research inquiries.

Although I did not compensate my participants for their time, I usually bought them coffee or other food or beverage, since we often met at coffee shops near the veterinary teaching hospital. The students seemed to appreciate this small gesture, and it even became part of the pitch they would use when they emailed their cohort mates on my behalf. For example, emails would usually state

something along the lines of "Jenny is really interesting to talk to, and she even treated me to a coffee!"

Although many interviews took place at local coffee shops, I also often met students at the veterinary teaching hospital, either in empty classrooms or even in the barn while they were on duty to check on the animal patients there. In this way I could see the students in their own environment (Atkinson et al., 1999; Denzin & Lincoln, 1994, 2002, 2008). This prompted further questions about what they were doing, how they interacted with actual animals who were just as present in our interactions as the two of us were, and whether what they said and what I witnessed them doing were in sync with one another. I recorded all interviews with participants' informed consent and kept recordings and transcriptions confidential. All names I use here, or in any presentation or other written work based on this research, are pseudonyms.

DESCRIPTION OF PARTICIPANTS

The students came from diverse regions, but mostly from the United States. Many planned to practice in different parts of the U.S. once they graduated. Their ages varied somewhat because of some nontraditional students pursuing veterinary medicine as a second career, but most were in their 20s and 30s. The majority of participants identified as women (N = 35), consistent with the demographics of veterinary medicine.[6] The majority were white (N = 36), which also coincides with the demographics of the profession (Elmore, 2003). Of the participants, 6 had declared the small animal track, 3 the large animal track, and 10 the mixed track. Of the undeclared students in the first and second year of study, 5 were considering the small animal track, another 5 the large animal track, 11 the mixed track, and 2 remained undecided.

These numbers represent more diversity in specialties than exists in the profession. For instance, in 2020, only 1.7% and 3.9% of total private veterinary practices were food animal exclusive and food animal predominant, while 66.8% and 8.4% were companion animal exclusive and companion animal predominant (AVMA, 2020).[7] Mixed animal practices constituted 5.4%, equine practices made up 5.6%, and 0.5% and 7.8% represented other types of practices and practices in which species were unspecified (AVMA, 2020). Overwhelmingly, companion animal exclusive practitioners constitute the majority of practicing

veterinarians. However, this research represents significant numbers of students in the other specialties; half of the participants were pursuing or interested in pursuing a mixed animal practice. This diversity helped the analysis, since I was able to access students who worked with all the different species in veterinary medical education.

QUALITATIVE INTERVIEW PROCESS AND ANALYSIS

After asking the year and track of participants, I followed a conversational style in the interviews I conducted (see Appendix B for the interview guide). We first discussed the history of their relationships with animals. Then, I inquired about their experiences in veterinary school, with the tracking system as the guiding topic. I initially asked broad questions: What made you decide to become a veterinarian? What past experiences do you have with animals? Then I asked them to explain the tracking system in their own words, which opened up the conversation to how we categorize animals. For example, I asked: Can you walk me through the key milestones of veterinary education? Which species were present in these key teaching moments? By asking questions such as these, I was able to get the students to tell me the stories of their lives with animals. I encouraged them to speak about the experiences they found most important or salient to them (Holstein & Gubrium, 1995). Thus, I was less interested in facts or truths and more interested in how they constructed their realities through narratives (Maynes et al., 2012).

Overall, the students were willing and even eager to talk to me. Several pointed out that the topics we discussed were interesting and sometimes even provided a learning experience for them. I conducted the interviews myself and personally coded the transcriptions, using emergent inductive techniques (Becker & Geer, 1960; Charmaz, 2006; Coffey & Atkinson, 1996; Lofland et al., 2006; Naples, 2003). I read the transcriptions repeatedly until I recognized recurring themes. I then coded the transcriptions, looking for these themes. Consequently, the themes revealed subthemes and I further refined my analysis. For instance, once I realized how important the definition of horses was to the students, I focused my examination on the instances in which they discussed this species and equine medicine. Writing descriptive accounts for every mention of horses enabled me to pull out the main ways they discussed these animals. I was able to limit my biases as well as possible by using this inductive method (Strauss & Corbin, 1997).

RESEARCHER ROLE AND REFLEXIVITY

I had an insider/outsider role in this particular setting that had the potential to create bias. Specifically, I had once been a student in an undergraduate animal health program that would have allowed me to bypass a bachelor's degree and go directly to the training for the doctorate of veterinary medicine upon admittance. My time in this program, along with working in various veterinary medical clinics in preparation for a career in the field, gave me particular experiences and knowledge that proved helpful in navigating the research setting I discuss in this book. However, when I began this study, I worried that this background would either generate bias on my part or create a barrier between the participants and me for I had left that pathway toward veterinary medicine before completing the animal health program and before applying to a veterinary college. It was then that I began to pursue the social sciences instead. My decision to change career directions was multifaceted. Ultimately, I became more interested in understanding *why* we treat animals in the way we do rather than learning *how* to treat them. In part, too, my decision was influenced by the fact that I did not like inflicting harm on animals to learn to heal them, and I feared the students would take offense if they presumed we held differing ethics. Therefore, in the beginning, I did not discuss my own experiences unless directly asked about them; if asked, I was always honest. Those who became aware of my history did not seem insulted by my choice to leave the field, as I had feared. Instead, those who questioned me about it seemed intrigued that someone with their similar background was doing very different work with animals; in some cases, this even bonded us in a way.

I did allude to all participants that I knew more than the layperson about veterinary medicine because I could speak in their own language using proper terms, I did not recoil at the description of invasive medical procedures, and I knew enough about veterinary school protocol that I did not appear surprised by some of their revelations. In this way, my insider/outsider status benefited my study. Other scholars have grappled with the insider/outsider dilemma and have used it to the advantage of their research. Patricia Hill Collins (1986) reflected on her own marginalized status as a Black woman in academia and used this outsider within status to contribute to Black feminist thought, a field that would be missing if not for Black female intellectuals in these unique positions. Robert Merton (1972) wrote on insider and outsider knowledge and the claimed advantages of each perspective: outsiders can claim detachment and better objectivity, but insiders can claim that only they have access to the particular knowledge

concerning their group. By using the role-playing approach, I was able to use my role as "one of you" with the veterinary students and gain access to greater information because they could reveal their dilemmas to someone they felt had experienced the same complexities (Harrington, 2003).

In an effort to extend my reflexivity to the larger macro-level structures that sociologists typically address, I would be negligent if I did not admit my own standpoint regarding gender and race (McCorkel & Myers, 2003). I am a white woman, a member of the largest demographic in veterinary medicine currently. My own raced and gendered identities influenced my entrance into veterinary medicine, as they had for many of my participants. For instance, veterinary medicine is composed mostly of people who look like me, thereby creating a certain level of comfort within this setting. Consequently, being a white woman was another insider status I could claim in the field. Because I looked like many of my participants, or at least looked like the norm, my interest in their field appeared unremarkable. Thus, my race, my gender, and my background in veterinary medicine all helped privilege me as an insider with this particular population.

My standpoint as a white woman with experience in veterinary medicine also influenced the questions that initially interested me, which stem from the feminist methodological tradition that places issues of power and inequality at the forefront of research (DeVault, 1999; Hawkesworth, 2007; Naples, 2003). Before I began this research project, I worked with sociologist Leslie Irvine on a study of women veterinarians (see Irvine & Vermilya, 2010). The profession has dramatically become numerically feminized in recent decades, with women now making up the majority of practicing veterinarians. Our research focused on how women understood the experience of feminization in their own careers. This project inevitably primed me to think about gender as I began my own research. Aside from *researching* gender, however, I considered it an important social structure for my study largely because of my *own* gendered experiences in animal health. While an undergraduate in the animal health program, I leaned toward studying large animal medicine. As I discuss in Chapter 6, men still dominate this area, which consists of fewer practitioners than the female-dominated area of small animal medicine. This distribution allows for the perception that the field, as a whole, is feminized, even though one of its two dominant areas is still composed mainly of men.

As a woman interested in large animal medicine, I often found myself surrounded by men: my fellow classmates and my professors. I vividly remember informal deterrents in the form of jokes and conversations embedded into our

education that effectively dissuaded many women from staying in this specialty. Specifically, women's physical size was constantly the focus of skeptical comments questioning our ability to do the work involved in large animal medicine. I am 5′3″, and my height was used as a reason for why I should consider a different line of work. Even as I performed the duties of a large animal student, these discourses about women's physical abilities were commonplace during my time in animal health. I have one memory that illustrates this discrimination well. During an animal lab that took place outside the classroom at one of the barns on campus, my professor instructed us to select a sheep to flip. This involves placing the sheep in a submissive sitting position that then allows a veterinarian or owner to conduct an examination, trim hooves, or shear the wool coat. Once one learns this technique, it is relatively easy to perform. It does require a certain amount of strength, but all the able-bodied students in my lab could eventually perform this task after being shown how, regardless of their size and gender.

As a student who flipped her sheep successfully on the first try, I was extremely proud of myself, and I thought that this would end the discriminating comments, especially since most of the other women in the lab also successfully flipped their sheep. However, the gendered discourse persisted and eventually made the women in the large animal classes the outsiders, and—if they *could* keep up—the exceptions. Keeping up also made for a tougher road for women to walk as many of us felt we had to work harder and be smarter to have a chance at being seen as equals. My participants also experienced this gendered discrimination, and their descriptions and interpretations of it appear in Chapter 6. In short, my own experiences in animal health led me to assume that gender mattered in this way for the students I met, which I ultimately found that it did, but because of my experiences, I did not reach this conclusion as inductively as I did the other major themes that I present here.

I turn now to presenting the data from this research study (Chapters 3 through 6). Often, I use the direct words from veterinary students themselves. Short explanations from them are embedded into my writing, either as paraphrases or, if in quotations, as direct quotes. Longer excerpts are also included and are offset from my writing. These short and long quotes from the students are included to give them their rightful voice. I often chose to keep the slang terms they used and even some of the pauses and inevitable stumbling that we all do when we are in conversation with one another. I do paraphrase and attempt to clear up confusing passages for you, the reader, but I wanted to also present the moments I spent with these individuals as realistically as possible. Our conversations were

not always easy ones. The moments of reflection or struggles for finding the right words, to me as an ethnographic interviewer, are just as important as the words themselves. To begin, let us start with the focus of most educational settings: knowledge.

PART 2

THE STORIES

3

TREATMENT DISCOURSES AND THE PRIVILEGING OF KNOWLEDGE

In order to examine veterinary college as a social institution, it is essential to remember that this is an institution tasked with educating those it serves. Thus, knowledge is at the center of the boundary work in veterinary medical education. What is there to know? About which animals? And how does that influence treatment? Stephanie, a first-year mixed student, told me how these questions do not have simple answers:

> You end up with these huge discrepancies in viewpoint within the class, but never define what the word "treatment" means, or what the word "animal" means to them. And so you have these vastly different ideas of what words mean, but we never talk about what it means to relate to an animal. And which animals, and why. And how that influences the way we see them.

To tell the story of knowledge production in American veterinary programs, understanding the divisions created by tracking is a necessary first step. For example, students who choose the large animal track, who primarily work with animals used for food production, learn to value the collective over the individual. For economic reasons, they must consider herd health, rather than the health of individual animals, in their treatment decisions. In contrast, students who choose the small animal track, who primarily work with companion animals, consider the animals as individuals with sentimental value and will go to great lengths to treat them, depending on what the owner is willing or able to pay. Whereas small animal medicine has entire specializations, such as oncology or ophthalmology, large

animal medicine has little room for specializations. Large animal practice focuses more on basic care, and practitioners do not even consider certain procedures routinely performed on companion animals for animals used for production.

In this chapter I analyze the discourses that students in the small and large animal tracks use to speak about one another, and how the resulting images then shape their ideas about veterinary competence. Using the different tracks in veterinary medical education as models for knowledge creators, I show how the social construction of subject matter (in this case, animal species) shapes the (socially constructed) value of those who hold the knowledge. In doing so, the analysis addresses how the consequences of boundaries, introduced in Chapter 1, manifest in discursive strategies. The discourses used by veterinary medical students to draw boundaries between small and large animal knowledge serve to maintain the differences in specialty knowledge, along with differentially privileging the knowledge holders.

Following in the tradition of the symbolic interactionist-informed study of boundaries (Zerubavel, 1991), I argue that the social construction of knowledge produces boundaries around different bodies of knowledge (Berger & Luckmann, 1967; Hacking, 1999). The boundaries help organize social thought, but they also attach unequal value to the different bodies of knowledge. Boundaries around knowledge organize academic disciplines and, consequently, create experts, who understand this knowledge, and laypeople, who do not (Abbott, 1981, 2014; Collins, 1979; Foucault, 2002; Sarfatti-Larson, 1979). Veterinary medical education constitutes a case study not just of how boundaries exist between experts (veterinarians) and laypeople (the public) but also of how boundaries exist *within* the discipline of veterinary medicine. The boundaries around the different animal health specialties produce further discrimination between the different groups of veterinary students. Further, as Arthur Fine (1996) proposed, scientific knowledge is a product of human social constructions and therefore susceptible to interpretation, cultural context, and historical influence. Thus, the differential value of large and small animal scientific knowledge and practitioners stems from cultural constructions of the different species they treat.

TREATMENT DISCOURSES

The history of veterinary medicine supports the distinction between species. According to historian Susan D. Jones (2003), horses were the most valuable animals in society when "animal doctoring" became an established profession toward the latter part of the 19th century. Jones relates that animal doctors suffered a lowly

beginning, falling near the bottom rung of the social status ladder. She writes: "The duplicitous 'cigar-chomping horse doctor' and slovenly 'cow leech,' both stereotypes of animal healers, derived from the images of drunken grooms and vulgar farmhands" (p. 11). At the turn of the 20th century, leaders within the profession mobilized to shed these disparaging stereotypes and, gradually, veterinarians developed a professional identity (Greene, 2010). At its beginnings, however, veterinary medicine was not an esteemed profession. At that time, we seldom treated pets as patients, and so the value we currently place on the profession for its ability to care for companion animals did not exist in veterinary medicine's early history (Jones, 2003). Originally, most veterinary patients were animals valued for their production or capacities, either as workers or as food. Legislation aimed at ensuring a clean, reliable food supply meant that livestock replaced horses as the primary patients in the early 20th century. Since then, veterinarians have increasingly treated pets and other animals having no economic value. Today, the majority of veterinarians specialize in the practice of small animal medicine. Thus, the territory of the profession has shifted dramatically. The economic and social value of different species has become more complicated, and the treatment discourse surrounding small and large animal training reflects this complexity.

When I first began talking to veterinary students about tracking and their education, they made clear to me that the different tracks involved learning very different approaches to animal medicine. These different treatment discourses justified the very different procedures large and small animal veterinarians use in their work and, for veterinary students, they justified the different types of knowledge they were learning about different species.

HERD HEALTH IN LARGE ANIMAL MEDICINE

The dominant treatment discourse that students employed compared large and small animal medicine using the language of "herd health." The term refers to the approach in large animal medicine that focuses on the collective, or the herd, as patient. Veterinarians see treatment that benefits the herd as medically sound and ethical. Individual animals could be culled (killed) to ensure the health of the herd. For instance, if one animal had a disease that would be too expensive to treat and could threaten the health of other animals in the herd, that animal could be culled at the advice of a veterinarian charged with medically caring for the animals. Herd health came up often in my conversations with students as an accepted and even noble treatment practice in large animal medicine. Emily, a fourth-year mixed student, described the approach:

> If they are [a part of an] agriculture population, there are different questions and different medical approaches that you need to take than on the individual animal. And, in fact, the individual animal doesn't matter. It's the health of the herd that actually matters. And you're going to lose some of them. To a small animal person, you know [they say], "We don't lose anybody. We have to save everybody." Well, it's for the good of the whole herd and the good of the fact that they need to produce such and such for the people to survive.

Emily also suggested that small animal students might not understand the herd health approach because the individual animal is more emphasized in small animal medicine. Other students brought up the purpose of the animals in large animal medicine as reason for the herd health discourse. Angela, a fourth-year small animal student, reminded me that "it's not about saving the animal. It's about making the animal usable." Large animal medicine is not about taking extreme measures to extend the life of animal patients. Ensuring the usability of animals as products is at the heart of herd health.

The discourse of herd health also made sense to the students as a practical approach. Because herds involve large numbers of animals, caring for the collective constitutes a reasonable course of action when facing a mass of patients that size. Ashley, a third-year small animal student, told me: "You don't want to risk the health of the rest of your herd if you're concerned about 100 animals. You'd rather that one not get everyone else sick." The numbers mattered for these students. For them, it was simple math to know that the herd health approach made sense when treating large animals.

Since most of the students described large animal medicine as a numbers game, they inevitably also brought up the animal production industry that shaped large animal medical practice. For instance, John, a second-year large animal student, admitted, "I think it makes sense. That's just the way our food system is set up and stuff. It's all about money, I guess." The adherence to economic constraints and demands in the animal production industry influenced medical decisions around large animals. Their use as products affects their value, which is primarily economic, as opposed to the emotional value that pets can provide. Elizabeth, a second-year student contemplating whether to declare the large animal or mixed track, described treating large animals more as being a part of a business than being involved with a family. She said that the human-animal relationship in large animal medicine involves owner and product, while the relationship in small animal medicine exists between friends or even family members. She explained the different values the animals hold in these relationships:

> I think economic [value] definitely just because the animals are part of a business. Whereas if you're deciding whether or not you're going to treat your 12-year-old Golden Retriever who has osteosarcoma with chemotherapy, the animal has more sentimental value. So obviously economics tie into that because the treatments are expensive, but I think it's just, you know, the way that society uses those animals for different purposes.

One explanation the students regularly supplied for why large animal students were more apt to accept the business side of their medical practice was that many large animal students grew up within the agricultural industry. Students frequently described a pattern of rural students who grew up on ranches declaring the large animal track. For these students, this familiarity of how the world of animal production works helped orient them into medically treating large animals and utilizing herd health as a viable treatment practice. Danielle, a second-year student who had yet to decide whether to declare the large animal or mixed track, was one such student. She told me:

> I come from a livestock production background. So, herd health makes sense 'cause that's how you treat your herd. I mean if you have 1 sick cow, you're not going to put hundreds of dollars into it to try to save it when you have 90 other cows that are healthy. So, I understand that.

Erin, a third-year mixed student, while not having grown up on a ranch herself, also connected students' backgrounds with the economics issue:

> They [large animal students] all grew up on cow-calf operations. And so, to them, money is the reason that they have animals. And animals are an economic issue for them. Two of my friends have never had indoor dogs or cats. They're working animals on the farm. They're mousers and herding dogs and they don't come inside. And so they do have a hard time with the vet students who are taking out extra thousands of dollars in student loans to pay for a knee surgery for their dog or anything like that.

In her explanation of how large animal students are socialized into seeing animals as economic assets, Erin also alludes to how large and small animal students struggle at times with understanding one another's perspective.

The differences between herd health and more individualized care usually led the students to juxtapose the treatment of large animals to the treatment of small

animals. They would use examples of medical procedures that veterinarians routinely perform on small animals to stress that those procedures would never be used on large animals. Leigh, a first-year student who was still undecided about which track to select, used the example of a CT scan:

> You do talk about an individual cow and what this individual one would mean. But money is a lot more of a concern with that, and it's more of treating them so that they can get by versus treating them with the highest tech stuff that will make them live forever. 'Cause you just kind of go into it knowing, well, nobody's going to pay for a CT scan for their cow. So what can we do that's affordable and reasonable, in that perspective?

Additionally, students would use examples of diseases that veterinarians would or would not treat in different species. For instance, many students brought up cancer. Brooke, a fourth-year mixed student interested in pursuing wildlife medicine, hesitated as she explained:

> We just . . . we just don't . . . you know we don't talk about cancer treatment for food animals. Or you know surgeries that you might do on somebody's pet that you'd never do . . . you'd never spend that kind of money on a food animal.

Ashley connected the treatment of diseases like cancer to economic considerations:

> I think there are different considerations you have to take into account as far as finances and maybe how much you're willing to treat a food animal. If a cow got cancer, you're not going to put them through chemo like you would a dog. So there are different considerations you have to take into account based on the animal's use or their job. So I think that's a big difference. So I think that's kind of taught that there's only so far you would go with certain animals depending on the client's wishes.

Tracy, a fourth-year student interested in pursuing shelter medicine, added that even when practitioners take steps to save an animal in large animal medicine, the reason is not the same as in small animal medicine. She explained:

> If you're dealing with a production problem or a valuable animal because it's genetically valuable, your goals are very different when communicating with

> the client, and in terms of, well, are we saving this animal 'cause we want it to live and [have] a good quality of life, or are we saving it so that we can harvest the ovaries? Like, you just don't have the emotion there if you want to harvest ovaries in the cow who's dying. And you would never talk about a dog or a cat like that in most small animal settings.

So again, students would typically frame herd health and different medical approaches by using economic constraints, decided upon by the clients, as justification. And they would usually describe this approach by juxtaposing it against the extremely different medical approaches taken by small animal practitioners.

Although the herd health approach largely causes large animal practitioners to treat the collective herd over individual animals, it also makes preventative medicine the focus of their care, instead of primarily intervening when a medical problem already exists. Lisa, a third-year mixed student, described some of the treatment protocols in large animal medicine:

> You're talking about nutrition. You're talking about vaccination protocols. You're looking at the different aspects of their environment and their housing, so that you get an overall healthy herd. And while you do—if there are specific ones that are ill, you do treat them or try to treat them—but they're often looked at more in the context of, well, if this one has pneumonia, well, how'd they get it? Why isn't anyone else getting it? And is anyone else at risk? Is this going to become an outbreak? So the medicine, in some ways, is very different because you have to be able to look at, and sort of treat, a thousand animals at a time and there's just no way to individually treat those for the most part, unless they're specifically ill.

The focus on preventive care in herd health changes the types of procedures large animal students learn. Some skills are dismissed as unnecessary uses of their time and energy. Emily, the fourth-year student we met earlier, agreed that this makes sense:

> So that's why large animal veterinarians need to stop pushing the technical skills that they learn as veterinarians to palpate a cow, to do a cesarean section every once in a while. Because those are technical skills that somebody on the production facility could learn how to do. The veterinarian is not coming in just when things are bad. The veterinarian is there to help the producer make more money, you know? So, then the producer's happy to pay the veterinarian. It's not

> that there's a catastrophe happening and he's already lost money and he needs the veterinarian to save his sick animal. It's preventative health, right? This is your herd. They're going to be producing more if we do this to their nutrition. Or this is the price of grain right now. And it's better if you start feeding this other one, but make sure you don't overdo it because everybody's going to end up with this particular disease. So I think economics do heavily influence the large animal side of things a lot. And for large animal veterinarians to not be aware of that is just—they're leading themselves down a bad road. They need to be aware of those things.

Later, I will analyze how these differences in students' education lead to differing valuations of their knowledge and even themselves as veterinarians.

INDIVIDUALIZED CARE IN SMALL ANIMAL MEDICINE

The contrast to herd health in large animal medicine is the individualized care that is the focus of small animal medicine. The driving force behind seeing small animals as individuals instead of a collective herd is that their social status is that of pet, companion, or even family member. Cathy, a fourth-year mixed student, recalled one professor making this distinction. "He would say meat belongs on your plate, in the fridge, in the freezer, or walking around in the pasture," she recalled. "It doesn't belong beside you with a bow on it. So that was a very different attitude than our small animal people who are, like, this is someone's child. Cherish it." This understanding of the social status of small animals might lead one to believe that money, then, is no object in small animal medicine. Brooke implied this when she told me:

> I think people have a very different perspective. You know, a food animal is an animal that is being raised strictly for production purposes. And there's a financial . . . there's just kind of a line there that you know at some point it's not worth putting in more than the animal's worth in treatments. Whereas, you know, for some people, there's no limit for their pet for what they're willing to do. And even though that animal might not be objectively worth very much, people are typically willing to put in a lot more than whatever that number might be.

However, economics factors into small animal medicine, too. When students described small animal practice, they did not dismiss the topic of money.

Instead, they framed the financial constraints of large and small animal practice in different ways. For large animal practitioners, they work on patients who represent a business for their clients, so they readily discuss economics in terms of cost-benefit analyses. For small animal practitioners, they work on patients who embody emotional relationships for their clients, but their clients face financial limitations on what they are willing and/or able to spend. These limitations can vary from client to client in small animal practice. For some, it is the limitation of their income and their other financial obligations to their family, their home, or their own health. For others, the limitation stems from seeing their pets as not worthy of the same health measures as their other family members or themselves, so that even while they have emotional connections to their companion animals, they are still seen as different from humans and therefore deserving of different standards of health. For example, Stephanie, a first-year mixed student, acknowledged that small animal students may not consider finances as readily as large animal students but that it is still something they must face:

> But you know they [small animal students] tend not to think of financial restraints as much. Or that we have the medicine to be able to do this; we can fix it and that kind of thing. But they don't necessarily take into account we may not want to fix it. It may not be in our best . . . in the best interest of the owners, of . . . the animal itself.

In reality then, small animal practitioners have to manage a wider variety of human-animal relationships in their medical practice than, perhaps, large animal practitioners do, as they operate in the same structured business model dictated by animal production. Overall, though, education in small animal medicine focuses on the individualized care of animal patients and certainly does not use herd health in its discourse.

THE PRIVILEGING OF KNOWLEDGE

The differences in large and small animal medical education lead to differences in the valuation of that knowledge. Just as the U.S. Supreme Court found years ago that "separate is not equal," similarly here, the separation of the dominant areas of animal medicine inevitably leads to one being privileged over the other.

SPECIALIZATIONS: THE PRIVILEGING OF SMALL ANIMAL KNOWLEDGE

Small animal knowledge emerged as veterinary medicine's privileged form of knowledge throughout my conversations with students. Small animal medicine is highly specialized because we consider small animals more socially valuable and owners are often more willing to pay for procedures that extend beyond basic care. This has opened the doors for veterinary medicine to have training in dermatology, cardiology, and oncology—but only for small animals. These forms of specialized knowledge allow small animal students to claim superiority over large animal students. One way they claimed this was by describing small animal specialties as exciting new discoveries in medicine. "The focus is always on small animals," noted Brooke, "and I feel like there's a lot more specialization and more just kind of groundbreaking treatments in small animal than there are for food animals, or to some degree equine."

Brooke also alluded to the fact that small animal medicine is the primary focus of their education. This privileges small animal knowledge as all students, even large animal exclusive students, are expected to know how to treat small animals. John, a large animal student, explained: "When we did our anatomy class, we learned anatomy of the dog. And then we had some equine and bovine limbs and stuff to work on as well, just to learn the differences." Courtney, a first-year mixed student, also brought up this bias in learning anatomy:

> So curriculum-wise, or what's required, last semester with our anatomy class, everything's dog and horse focused for 90% of the semester. And then, the last two weeks, they sped through a bunch of little exotics. The entire class had to dissect a rat, a pigeon, and a rabbit. And it was very brief, very superficial, information. Not at all to the depth that the dog and horse were done.

This privileging in the curriculum did vary across schools as some programs focus more on particular species. For instance, students attending veterinary colleges in rural areas with greater access to livestock had more experience with large animal medicine, and students attending programs in areas closer to the thoroughbred racehorse industry experienced more of a focus on equine medicine. Cathy described her program as a "really equine-heavy school":

> First year, it doesn't matter. Everything's well balanced. Second year, we get our farm animal experience. But it's like half the semester. So not as much

> emphasis. And then third year, we get a large bulk of equine and small animal medicine. So they kind of glaze over . . . there's some public health, but it's not as highly emphasized. There's some exotics, but it's not as highly emphasized.

Regardless of the variations across veterinary programs in different regions, ultimately, every student I spoke with described a greater emphasis on small animal medicine. And much of this emphasis was institutionalized through their educational requirements. Ashley explained:

> I don't get any large animal unless I choose one as an elective. So I feel as far as Boards, that puts me at a little bit of a disadvantage 'cause I don't get any of that hands-on experience with the larger animals. Whereas the general and the large animal track are still required to take small animal. I mean, I think I would appreciate maybe one equine rotation, just to be a little more balanced. But at the same time, like, I'm never going to work with horses. And I would rather focus on what I'm going to do.

For Ashley and other students who might want to acquire large animal knowledge, they were structurally barred from having access to it. While they could *choose* to learn it, the lack of *requirements* to learn it dissuaded most of them since they would rather maximize their exposure to the type of medicine they would ultimately use in their careers.

Even when their courses presented large animal knowledge, many students reported that attendance was low on those days. In a conversation with Courtney, she became quite passionate about this issue; understandably so, since, as a mixed student, she was interested in learning about all of the different species. She explained that only about 30% of the first-year students show up to the required food animal class "because of that separation of interests":

> The majority of the people that are strongly interested in cats and dogs do not usually come. And this past Thursday, we all were looking around and it was literally 30 or 40 students out of 140 in the class. And it's really disappointing to some people—including myself—that the rest of the vet students aren't equally interested, even though it's not cat or dog.

I asked whether there were repercussions for students missing class. She said there were none, and everyone was responsible for learning the material on their own. I then asked whether it was easier to learn the material by going to class,

and whether that was incentive enough for students to attend, since the board examinations would test them on all of the species. She said, "I mean, it's given to them in notes that they have in their electronic files of sorts. So, I'm sure they study it before the boards, and then they forget it afterwards. And I'm not just assuming that. I've heard people say it." Courtney's explanation mirrored what many other students said. Danielle, for example, told me:

> I know a lot of people who are just going to be small animal trackers don't think that they need to learn anything large animal. We had a food animal class freshman year where the people who consistently showed up were the people that didn't need to be there. Like, all the large animal people consistently showed up because we knew how important it was to be here. But none of the small animal—not none—I mean a lot of small animal focus students, never showed up because they're like, I don't need to know this. And they were the ones who needed to be there because this is where they're going to get their education.

Large animal course topics reaped low attendance in classes, largely due to the lack of interest in large animal medicine among small animal students who did not feel that it would be applicable in their own careers.

Another reason for the low attendance on large animal days seems to stem from the dramatically different ideologies of the different tracks of animal medicine. Courtney brought up this theme:

> There are absolutely large animal people that think small animal people are just kinda nutsy. And vice versa. I give a lot of people a hard time about not going to that one class [the large animal class] and try to find out why they aren't. And one girl who is a vegan went to the first class and then decided she can't stand the teacher and his opinions, so she doesn't go anymore. So I think that's a perfect example of she doesn't get where he's coming from, and he doesn't know that she doesn't come.

Animal welfare, animal rights, and consumption practices came up often in interviews with students as contentious examples of how and when large and small animal medical perspectives clashed. The students largely described these moments in privileged ways, however, saying that usually it was small animal students who objected to learning large animal medical practices. This is understandable, but large animal students rarely objected to learning small animal medical practices in the same way. Brooke addressed this difference:

> I definitely think there's animosity. A lot of the small animal people definitely . . . like never want to have anything to do with a large animal. And I think the large animal folks a lot of times maybe don't want to do very much with small animals but are a little bit more willing to do a little bit of that, or get a little bit of exposure to it because they see some use in it, but I think get frustrated a lot with how many diagnostics small animal people [perform], or even some of the treatments that, you know, seem absurd.

The different ideologies of the two dominant areas of animal medicine pave the way for this contention between small and large animal students, but the contention is demonstrated in different ways for students due to the privileging of small animal knowledge.

One explanation often given for why large animal students did not object as often to learning small animal material was that, although large animal veterinarians are regularly asked to treat small animals throughout their careers, small animal veterinarians are rarely asked to treat large animals. "I don't know if they just assume that if you're large animal, that farm dog or cat, you're gonna have to look at," noted Ashley, "and no one's necessarily going to bring their horse to your clinic if you're dogs and cats." She later emphasized this again: "Professors always say that, too. Like, oh, even if you're strictly equine, don't worry, you'll get that pregnant dog that'll come in." It seemed as though this was a practical explanation given to the students from their educational institution regarding why small animal knowledge is both more valuable, and more applicable, for *all* students.

The privileging of small animal knowledge extends beyond how the students discuss and experience small and large animal medicine in their education. It also includes how the greater veterinary community helps reinforce this idea. Erin told me how the veterinarians she worked with while attending school treated her differently, depending on their specialty. She described her job at a medical supply company:

> They make lots of suture and surgical supplies and they have a lot of veterinarians working for them. And I felt like the small animal surgeons who worked for them, they were very much more about quizzing me about my knowledge, and if I knew a disease or a process or an answer to one of their questions they were impressed with me and "Oh, this is a good student," whereas, especially my first and second year, I was abysmal at my hands-on skills. And the large animal surgeons would have me do hand ties. It's a surgical technique where

> instead of tying your suture with instruments, you do it with your hands 'cause it can be a lot more secure and you can get into the places [better]. I was awful at it. Could not do hand ties. And I think they didn't really trust me very much, 'cause I didn't have that innate ability to do what a veterinarian can do.

Erin described how skills are valued differently within the small and large animal specialties. Because small animal practitioners value book smarts over street smarts, their skills are more often privileged and valued in the institution of education, which mostly follows the book smarts model, even though street smarts can be as useful, if not more so, in the field.

Some of the posturing found in small animal medicine could come from a desire for legitimation. Students routinely emphasized that they were just as skilled and knowledgeable as human medical students are, and yet veterinary medicine did not receive the same amount of respect as human medicine. However, when I added tracking to the conversation, I found that the respect given to veterinarians could vary based on which area of animal medicine is under review. For instance, Erin noted:

> A lot of the small animal people are kind of struggling to have that respect in our society. When I tell people I'm going to vet school, they're like, "Oh, is that a two-year program? Oh, that's so great that you wanna help animals. Is that something you do right out of high school?" And you're like, "No. It's the exact same thing as medical school, except that you're doing it on eight species instead of one."

I asked her if this was a struggle that large animal students also experience. She said:

> The large animal people, they're more rural and they usually are given respect as a veterinarian 'cause you can go out and [save] a family's livelihood [, which] is their cattle or their sheep. And they are really trying to scrape by and when they have a dystocia or something and you're able to come out and deliver a healthy live calf and save the mother, that's a huge economic benefit to them. And they really appreciate that. And they really appreciate your saving their economic viability for that year. And so, I don't know. Maybe they're just not as competitive. They're not as worried about that respect aspect when they graduate.

In sum, while some of the small animal knowledge privileging comes from the perception of the field as more exciting, intellectual, and complex than large animal medicine, some also comes as a defensive strategy to combat perceived disrespect that small animal students and practitioners endure.

PRACTICALITY: THE CORNERSTONE OF LARGE ANIMAL KNOWLEDGE

Although students privileged small animal over large animal knowledge, large animal students still claimed some superiority over small animal students. Small animal students could claim power and privilege through the constructed definitions of small animal knowledge as more specialized and, therefore, requiring more complicated skills, which dominate the bulk of their education. But large animal students could claim that their skills and knowledge were much more practical and better suited for the specific work required in large animal medicine.

When students described the practicality of large animal medicine, they referred to the emphasis of hands-on training because large animal practitioners want their students to be ready in the field. For instance, Erin told me about the skills taught in her food animal medicine class the previous semester:

> Our professor took a long time to explain: "This is how this surgery is done. You will take your suture, you're gonna place it here. And when you reach across the animal, you're hoping you'll feel the kidney. And if you don't feel the kidney, don't go for it. Come back, replace your suture, try again." Things like that.

This differed from the small animal classes, Erin said, where she described it as "Here's a disease, here's the proper physiology behind it, here's how you treat it." She continued:

> Both tracks do try to give you an idea of what you're gonna treat and practice and what you're gonna refer to the specialty practices and the specialists. But I do feel like more emphasis is put in the large animal on what they think you can do and actually truly explaining to you how you're gonna do it. Whereas I think in small animal medicine it's much more "let's make sure you have the knowledge."

Students used the practicality discourse that emphasized hands-on experiences when talking about large animal medicine, which they would usually contrast to small animal medicine, claiming that small animal students were less adept at having this practical perspective. Leigh stated:

> Yeah, yeah, I think it would be harder for the small animal people who are really used to . . . like your animal is your life. And not getting that . . . sometimes there are other things you need to consider than just that one animal and how it affects other animals. Whereas I feel like for me, having some amount of large animal experience allows me to look at things from just a different shade. Where if something happens with my dog, I can see, okay, well let's take a step back and see what's worth treating and what's not and stuff. And not a lot of small animal people can do that as well, but you just get a different perspective, I guess.

Similarly, Cathy noted that this difference between small and large animal medicine actually caused small animal students to be almost irrational, in her opinion, and not just impractical:

> I definitely see that the small animal people are a little more neurotic about details. About client interaction. They're a lot more—I'm trying to think of a good term for it—but like fluffy love I guess. They're really like, "I understand that dog is your child and I will do everything in my power" . . . you know? They're really obsessive over costs. They're really super-obsessive with the care of their patients.

The reason for the emphasis on practical, hands-on training in large animal medicine is threefold. First, the economic side of large animal medicine prompts veterinarians to approach treatment from a practical, business-oriented standpoint. Large animal practitioners routinely weigh costs and benefits when making decisions for their patients. Cathy described the practicality of working in animal production:

> Production is production. You're focused not on "can I heal Bessie the family cow?" It's "I have 5,000 head of cattle. What can I do to recommend to this farmer to keep their overall health?" I found the farm animal lectures, and vets, and their kind of curriculum to approach things in a much more practical,

> money-produced way than the small animal med, which is "we need to save everything at any cost." The human-animal bond is really emphasized in small animal. We actually have a course on that, discussing the human-animal bond. But it's always small animal.

Because money is always a consideration in large animal medicine, students approached treating large animals in a practical way because their clients would be neither able nor willing to pay for the procedures that would benefit an individual animal. Danielle recalled learning exciting procedures in her small animal classes that would not apply in her future large animal practice:

> I guess when we're learning different small animal practices like the endoscopy or when we're in our surgery class, we're learning about plating bones when they break a leg and stuff. And I really respect the science behind this. It's really cool. But is it practical? I can't see anybody that I know spending that much money on their animal. And so it's just a personal thing for me.

While Danielle attributes her observation to a personal opinion, albeit one grounded in a ranching background, this emerged as a pattern in how students discussed the practicality of large animal medicine and economic constraints.

A second reason for the practical, hands-on training in large animal medicine has to do with setting. Large animal practitioners often do their work in isolated areas, which limits their ability to rely on outside help. Consequently, they need the skills to take charge of most situations on their own. As Erin noted:

> In large animal, you're out in the field seeing a horse with a laceration, or you're out at a slaughter plant looking at a carcass, or you are out at a farm looking at some goats, and so you just have to rely on yourself and your skills more, perhaps.

And in describing the rural characteristic of practicing large animal medicine, Danielle told me that no one would do a procedure, such as an endoscopy, in the area in which she grew up. "I mean, we could barely get people to come in annually for a wellness exam," she said. "So I appreciate that we're learning all of it," she added, "but depending on where I'm at, it may or may not be practical." For Danielle, the rural environment, where large animals mostly reside, is qualitatively different from the urban environment, where most small animal

practices exist. In many urban areas, small animal clinics can be almost as plentiful as Starbucks, which seemingly exists on every street corner. In rural areas, large animal veterinarians routinely drive long distances to reach their clients' ranches. The sheer size of the animal patients and the impracticality of moving them make transporting them difficult. Students also described a different mentality of clients in rural areas; because they are isolated in many ways from others, they have a more independent way of taking care of their needs. The identities of rural people today still exemplify the idea of rural independence, even though it remains largely a myth (Jellison, 1993). However, many livestock and horse owners do attend to their animals' needs themselves and might actually be trained and equipped to do so. Therefore, as Danielle mentioned, it might be difficult for large animal veterinarians even to convince their clients to call upon their services for anything other than critical cases.

And third, students reported that large animal veterinarians typically use students to assist them, instead of relying on accredited veterinary technicians as small animal veterinarians do. Erin told me that one actually receives a lot more hands-on training even as a pre-vet student in large animal medicine. This is because large animals do not have as much emotional value for their owners and, therefore, allowing a novice student to help a veterinarian is common. Erin explained: "When you have 10,000 head of cattle, they're gonna let you vaccinate, maybe even do some of the surgeries or scrub in on a C-section or something because this isn't someone's beloved [pet], you know?" Combined, economics, setting, and early training justify the practical, hands-on approach of large animal medicine.

COUNTERING THE PERCEPTION OF LARGE ANIMAL PRACTICE

Although large animal students can claim practicality as a strength that small animal students might lack, at least from their perspective, they still have to fend off attacks to their approach to animal medicine. Stephanie described the camaraderie that large animal practitioners experience because of having to defend their practice of medicine:

> The food animal side of things, from even some of the professors that I've encountered, again pretty strong sense of defensiveness when you approach certain subjects, which is a shame. They've been attacked on certain things, or other people not in the profession—lay people—have believed things that they've read that may not be the best source. And they then attack, whether

> it's food animal managers or something like that, or veterinarians—and in response, they are very defensive when you ask them questions.

Stephanie referred to large animal practitioners having to defend themselves from attacks against working within animal production, which is a controversial area on which the public is deeply divided. But other defensive strategies that large animal students and veterinarians employ revolve around their practical approaches to treating animals. Ashley discussed how communicating with clients poses an issue for large animal students because they are not used to attending to clients' emotional needs. Foothills Veterinary College (FVC) offers communication classes where actors pose as clients and the students practice their interaction skills. Ashley said:

> I've noticed some differences between small and large in those classes. It's kind of touchy-feely. And getting at the client's emotions, and where they're coming from. And in my experience—in the small groups that I've been in for that class—the large animal people tend to have a little more difficult of a time with that 'cause they feel like maybe with their clients it's not so much touchy-feely. It's kind of get in, get out. Get what needs to be done.

Here, the communicative skills of large animal students come under scrutiny. Similarly, Emily brought up the ability of large animal students to manage the diagnostic demands that exist in small animal practice:

> I think sometimes large animal, strictly large animal students, don't see the point in everything that they do on the small animal side. Small animal side is more and more like human medicine in what we offer and all the tests that we run and everything. And having to justify the expenses to the client. They just get a little overwhelmed sometimes.

In my conversations with veterinary medical students, they often raised these threats to the skills and abilities of large animal students. While large animal students claim practicality as a strength, they struggle with defending themselves against attacks that it makes them uncaring, poor communicators, and easily overwhelmed by complexity.

The practicality of large animal medicine, however, does accommodate different personality characteristics. Students regularly described their large animal

professors as more laid-back and even as comedians, compared to their small animal counterparts. Because large animal students construct the work as more realistic and less by the book, the serious attitudes found among small animal practitioners could be absent from large animal medicine. Angela shared an anecdote about one of her large animal professors:

> He's just this old-school dude, farm animal vet, that would give us a situation like, well, this cow blah-blah-blah. Something's not right with the cow. And he'd say, "What should we do?" And we'd give suggestions or whatever. And he'd be like, "Yep, send it to the Golden Arches"—talking about McDonalds. "Cow needs to go get slaughtered," you know, in a very joking kind of way. It seems like a lot of the farm animal people have the more of a, I don't want to say, sense of humor, 'cause the companion animal professors do, too. But I guess more of a gritty sense of humor, if that makes sense.

This story illustrates how large animal practitioners, working within the world of animal production where their patients are routinely killed and where economic constraints limit their medical decisions, often make light of situations that others might define as extremely serious. They use gallows humor, or humor that makes fun of life-threatening or frightening situations, to alleviate the severity of their experiences with death. Angela went on to further describe her large animal professors as easygoing, saying, "And so the farm animal people seem to be . . . they're more like the good ol' boys. They're nice, they're great. But they're having a good time and they're not too serious about things." When I questioned her further about how this laid-back attitude translated into medical practice, Angela explained more:

> But I guess, for the most part, the large animal people kind of seem to approach things in a more—not aggressive—but like hands-on, let's go ahead and just slap some sugar on it, send it back home, check on it in the morning and it'll be fine. And then the small animal people are like, oh, well, we need to do blood work. And we need to, you know, do this other diagnostic test, take radiographs, and then we should probably put it on fluids and oxygen . . . you know. Where a lot of the small animal people are probably a lot more detailed and meticulous in what their plan of action is. But I would attribute that to the actual animal you're working with, too, because a lot of the times when we're talking about

> a cow, I would say, you know, just slap some sugar on that uterus, put it back in . . . it'll be fine. Give them some broad-spectrum antibiotics . . . it'll be fine.

Even as a small animal student herself, Angela could see how she could also employ the less serious personality that she sees in large animal veterinarians, if she were working on large animals.

Other students referenced the casual attitude found in large animal medicine. Danielle told me another story about a large animal professor:

> One of my livestock professors was explaining something that was happening in a cow. He's like, "You know what this is called? It's called this. You know why we call it this? Because we're large animal people. We're simple. We say it how it is. We don't need all these fancy names blah-blah-blah-blah-blah."

The simplistic and practical mentality that appeared as a trademark of large animal medicine also serves to disadvantage large animal students and practitioners as working in a "simplistic" area of animal medicine. This characterization frames large animal medicine as not as challenging as small animal medicine, even as it simultaneously allows large animal students to claim some type of privilege over the "too detail-oriented" and even "neurotic" mentality of small animal medicine.

Ultimately, large animal students recognized the privileged position that small animal knowledge holds over their knowledge and skills. However, they nevertheless created discourses around how their sensible practicality made them just as valuable to veterinary medicine. Their colleagues would often turn this strength against them when they would describe the practicality of large animal practitioners as too laid-back or even humorous. Large animal students would then employ a final strategy to combat this threat to their credibility and value: their emphasis on large animal medicine's impact on public health. Tracy explained:

> The faculty who teach the production types of courses and subjects, they sort of have almost a disdain for the small animal side because, to them, they're fulfilling a societal need by being a veterinarian to a dairy cow or a beef cow or whatever. They're feeding the world. Like they're fulfilling a greater good. Whereas small animal, it's just like the emotional thing. And I think that they don't see that quite as being as noble or however you might describe it. So there's sort of a different attitude. I would never hear them say something like that. Like

> they never say, well, that's not worth doing. But I think they're very focused on that noble goal: Help the world, help people.

If large animal veterinarians were helping the world, I asked, then who were small animal veterinarians helping? "Small animal people help the animal's person," she said. Thus, the grander scale of help large animal practitioners provide allows large animal students to combat their lack of privilege around their knowledge. Leigh agreed:

> So many people kind of like pooh-pooh large animal medicine, but most people eat meat. And even if you don't eat meat, there's still some issues. Just from the fact that we raise animals for slaughter, that could affect you. Like the antibiotic resistance—whether or not I believe in that . . . I haven't got that far yet—but it's still really important to understand how the diseases progress and how that can affect herds, and how that can then come back and affect you.

THE PRIVILEGING OF KNOWLEDGE HOLDERS

The types of knowledge held by large and small animal students and veterinarians differ dramatically and, therefore, are valued quite differently. The expertise involved in small animal knowledge is privileged over the practicality of large animal knowledge. But that privilege extends further and is attached to the knowledge holders themselves: the students and practitioners within veterinary medicine. Veterinary medical students spoke about one another in patterned ways, along track lines, as though they equated the tracks with specific types of students.

"THE COWBOY KID AT THE BACK OF THE ROOM" AND THE GUNNERS

Students described their classroom as a mapped territory with its own boundaries and regions, each of which has its own sets of norms and values. When I spoke with Lisa, she noted:

> We live in that classroom five days a week or more. Sometimes you have labs or extra lectures that you go to for clubs that are in the same room on weekends

> and after school. And you're in that room the whole time. And so there's like a whole little mini-culture of the whole room.

I asked if there were assigned seats in the room or if anyone could sit anywhere they liked. Students did not have assigned seats, she said, but added that "people get really angry if you sit in their seat." She went on to explain:

> After a while, you get established seats and no one moves because you'll make someone else angry. In my class, there's the people that sit in the first row, maybe the first two rows. We call them the "gunners." They always want to be on top of everything. I think I've also heard them, from other schools, call them "frogs" or something. They want to know everything. They're almost even sort of neurotic about needing to know the answer to everything and knowing every little detail.

I prompted her to tell me more about the gunners and what gave them that nickname.

> These are like the really type A people. Generally . . . really generally speaking, they're really good academically, but they're not very good with clients. They're not really good with practical surgical purposes. They're usually the people who start dodging cases as soon as you have to be responsible for a life. They're the people who start being like, "I can't do this." So, they're a little bit more . . . less practical.

I asked if the gunners sat up front and were more type A students, then who else was in the classroom? Specifically, I asked her, "Who sat in the back?" She explained:

> As you progress from the front of the classroom to the back, it's sort of a gradation of, like, in the back, they're maybe a little bit less engaged and not as studious. I'm not saying they don't study. I'm not saying they don't do well in classes and can't be highly ranked. I'm just saying that they are a little less, perhaps, engaged in what's going on right that second. They're less, I guess, studious. They're less focused on studies, I guess. On weekends they still go out and ride their horses. They still go out and help their family with their farm. Or they

> go out and volunteer on things. They're a little bit more personable. Which is not 100% true of anyone who sits in these locations, but generally, it's sort of a gradation between the most studious, type A people to more laid-back, a little bit more practical, a little bit more hands-on sort of people.

Lisa's descriptions of the gradation in the classroom sounded familiar. I had heard the same descriptors before from students describing the types of knowledge across the different areas of animal medicine: from detail-oriented and neurotic to practical and laid-back. So I asked her whether the trends of where students sat in the classroom were based on the tracks they had declared. She confirmed:

> Yeah, I'd say, yeah, it's small animal predominantly in the front. And then there's like a mix of large animal in there. And then I feel like it does get more large animal towards the back, but since I'd say 70%–80% is small animal, there's a good deal of small animal people. But I don't know of any of the large animal people who sit in the first three or four rows.

Lisa certainly was not the only student to describe the classroom in this mapped way. I heard her story echoed countless times from other students. Each of their stories revealed several themes about how the "mini-culture" of their classroom reproduced beliefs about how students in the different tracks were different themselves and consequently differently privileged.

MAKING SENSE OF THE MAP, CONTRADICTIONS, AND CONSEQUENCES

Lisa's first observation of who sat in the front of the class brought me to understand that the students saw the gunners as unique students with type A personalities. Erin elaborated:

> The small animal people are much more high-strung. I think that, in general, they're the ones who really considered also going into human medicine and they really made sure they have the perfect straight A, 4.0, and records to get into vet school and they really want to impress the professors and know all the information they need to know to get good grades on the tests. Then, the large animal people, by and large, they sit in the back of the classroom. They

> call everybody in the front "gunners." [Lightly laughs] And they're just a bit more laid-back.

The students typically described their classmates up front as coming from a specific background. Danielle described where these students were from: "I immediately went to prissy. That's not . . . that's not true though. I . . . I'm going to say city folk. Just people who grew up in a city and that's where they plan on being." It was assumed that small animal students were from urban backgrounds and that this different social space is also what shaped them into the type of student who thrives in small animal medicine: type A, studious, and meticulous.

The students described those sitting at the back of the classroom and categorized most often as large animal students as practical, laid-back, and less academically oriented. Small animal students tended to describe their large animal counterparts as rural ranch kids who fell into the work because they grew up with it, not necessarily because of their interest in science. They even had a particular "look." For example, I frequently heard the phrase "the cowboy kids who sat at the back of the room" in my conversations with students. Brooke described this cowboy look: "They're the ones that are in the Wranglers and the Carhartts," she said. "There's definitely an image I think that's associated with the large animal doctors, and I don't really know why that seems to be persistent." John added, "They all sit in the back of the classroom and they're all wearing boots." Discussion of their stereotyped look was usually a comical moment during my interviews; for example, John was a large animal student himself who certainly did not fit the cowboy look, which I pointed out after he made this last statement. The issue of them being less academically oriented was usually a contentious topic to discuss. Emily was quick to tell me that she did not feel that large animal students were less intelligent, but she could see how they could be labeled as such.

> The common sense gene, sometimes, kinda gets diluted the more education you get. [Chuckles] Because you get . . . you decide you have to have some scientific reasoning for everything. When sometimes, it's just very simple. And, you know, you need to step back. And the people who are able to step back a little bit and maybe are a little more simpleminded, you know, that's—is that because they're stupid? No. Is that because they're less intelligent? No. But, I can see how someone might view them as being less intelligent.

Even though she described the large animal students and practitioners as simpleminded, she followed it up by claiming that she did not mean they were less intelligent. It became clear to me in my fieldwork, though, that sitting in the back of the classroom did have the connotation of "less intelligent" attached to it, whether or not students wanted to admit it. Although they would use who was more or less academically oriented as a discursive strategy to explain the differences across the tracks, the students would also insist that large animal students *were* smart and hardworking. For instance, Emily went on to describe how large animal students were involved in different rotations with different requirements and consequently did not work the same hours as the small animal students.

> So, take dairy production sort of rotation where you go out and palpate cows on the dairies. And you leave at like 7, 7:30 a.m. You work real hard all day long. And you get off when it gets real hot—you're on the summer rotation—2, 3 o'clock in the afternoon. And you're done for the day. And you're exhausted. You know? The small animal trackers had to be in around the same time. They had to [begin seeing] their patients by 7 and they might not leave until 8, 9 o'clock at night because they're doing paperwork that's involved. There's no paperwork in the other one that I just described.

I asked her if students sensed some unfairness in how much time each track spends in their rotations. She said:

> There are those perceptions that, in the actual experience of vet school, that the large animal trackers seem to have more time to a certain extent, I guess. I've heard that. I don't know that I necessarily believe it. Because, as a general tracker, I took some of those rotations and I was just as exhausted and I had other things that you can't necessarily compare them head-to-head. That you have to deal with on those rotations that you don't have to—you don't get to be in the air conditioning all day long.

The sense that large animal students do not have to work very hard connects to the idea that their work is easy or simple, that large animal knowledge must not be that difficult. Emily continued:

> 'Cause you go from the inside, professional dress, you know, interacting with clients and bopping around the hospital to wearing coveralls and your boots

> and jumping in the truck and going on a field trip. You know? There are fun aspects of it, but there's some aspects that some of those animal guys would not want anything to do with. Like you're walking around in ankle deep shit for, you know, a whole day. Some people are like, "Whoa. That's not me. There's no way in hell I would ever do that."

Because large animal work is seen as a field trip by many, it is defined as elementary, simple, and easy work—work that does not need to be performed by a particularly intelligent individual—although much of the work is invisible, as Emily notes, such as the not-so-pleasant dirty aspects, which many would not define as easy or enjoyable (Sanders, 2010). So, while students recognized that large animal students were putting in the effort, they still would rely on narratives that framed them as slackers.

Danielle employed another verbal device to explain why large animal students sat at the back of the classroom—and protected her identity in the process. She said, "I'm not saying this to be mean to my classmates, but they're less noticed." Notably, she added the disclaimer to "ward off and defeat in advance" any inclination I might have had to see her in a negative light (Hewitt & Stokes, 1975, p. 3). She did not intend to insult the students who sat in the back but claimed that they did so to avoid being held as accountable as others in class. Ironically, Danielle later admitted that large animal students often had a reason for sitting at the back:

> I know some of my classmates that don't come to school as often because they have other opportunities, like they are doing farrier work. They're working . . . you know. They're doing a job at the same time as vet school. So some of them have to choose between working and going to school, and sometimes they go to work instead of come to school. So if you're sitting in the back, you're not as noticed, I think.

Danielle acknowledged that students might want to go unnoticed so they do not miss outside opportunities still related to working with animals. A farrier is one who attends to the hooves of horses; many students reported working with farriers to gain more experience handling horses and other larger animals. This explanation differs from one that attributes laziness or disengagement to the students who sit in the back. Danielle even went on to say, "We have some very intelligent people that sit in the back of the room." This backtracking was typical in my

conversations with students. They would utilize accusatory discourses that stereotyped large animal students who sat at the back of the classroom as less interested, intelligent, or engaged in the material, and then later contradict these statements, usually by describing an alternate explanation for this behavior and by ultimately admitting that these students were just as smart and just as skilled.

A final discursive strategy students used to demean those in large animal medicine was to focus on the dirty work mentioned earlier. Leigh observed the disconnect between the largely urban small animal students and the mostly rural large animal students:

> From my outsider's perspective, I feel like people who are hardcore small animal view the large animal people as hick-ish and, I don't know, dirty, maybe. I mean, if you're from a city and you're shocked at some . . . I remember a couple people that I talked to here just being like, "I didn't know people really wore cowboy boots to class." What is going on, you know? That's what shocked me. I'd never been around "not animal" people. And I actually met friends who had never had pets and just didn't get it at all and didn't get country people. And that was really a thing. I mean, that doesn't mean all small animal people are like that, but I think there is a group that really has no concept of what that is. And how people are that way and stuff.

Danielle mentioned how the small animal students can find large animal professors difficult to relate to because of their practical approach to dirty work. "Large animal veterinarians hardly ever used gloves up until a while ago," she said. "And that's something that [small animal students] are just like, 'I cannot believe you're not wearing gloves.'" Lindsay Hamilton's (2007) study of farm animal veterinary surgeons shows how large animal practitioners do not share the same sentiments as the small animal or undecided students in my study. She found that large animal veterinarians turned the "muck" (e.g., animal excrement, blood) they worked with daily into "magic," or cultural symbols that help to reinforce their professional identities and bring them a sense of pride and even power. However, when students commented on the disconnect between large and small animal practice, they revealed that large animal students and professors were regularly described as performing a devalued type of work. While practical, hands-on, and requiring skills and knowledge to perform, this work was still viewed as not on the same level as the work required in small animal medicine, which was viewed as more clinical, complex, and ultimately superior.

Yet most of the students repeatedly contradicted themselves in these narratives. When they reflected on the intellect and effort that the large animal students put forth, they recognized why they would sit at the back, for instance, or why their practical approaches were actually more appropriate for large animal medicine. No student I spoke with openly called large animal students anything negative. They chose their words carefully when describing them as less studious and often refined their statements about their intelligence and abilities to make sure I did not assume they were claiming that these students were not smart or equipped. Because I did not share my personal views or judgments with them, I found this quickness at defending their observations curious. There appeared to be legitimate explanations for why large animal students behaved in the way that they did, which had little to do with their intelligence, interest, or engagement in the material. Erin described:

> I mean, there are fewer large animal professors and there are the livestock professors and the equine professors. There aren't neurology, oncology, whatever professors. And so they know the professors better. A little bit more laid-back 'cause they know them, they don't necessarily have to impress them as much. And they . . . they'll go to the small ruminant club or the bovine practitioners club and they'll get to know the professors and they'll learn the hands-on things and stuff. And so they—they're definitely still interested in learning, but they're—if we're going to be horribly stereotypical, they're more laid-back.

Her explanation suggested why the large animal students tend to be less type A than the small animal students. Similarly, John noted:

> Some people don't come to those [large animal] classes just 'cause they feel like they already have a good grasp on it, which can be good or bad. But, yeah, attendance can be low in those classes. Either people have zero interest in it and they know they can pass the exam without going, or they feel like they're already an expert on it, so they don't go.

He echoed the trend mentioned earlier about small animal students missing large animal classes due to lack of interest, but he added that when large animal students are also missing those classes, it's usually because of their knowledge of the material already (e.g., having grown up on ranches themselves). Students also said that large animal students opted out of attending classes to take advantage

of outside opportunities, such as the farrier job mentioned before. They gave this explanation as one reason large animal students sat at the back of the class, as Danielle relayed to me:

> I know some people had producers, or professors that knew producers, that needed help. I've heard what they do is they go to the back of the room, and they'll grab students out because they're the large animal people or more likely the large animal people, and it's easier for them to get out and just go and do these opportunities. I don't know if that's why people sit in the back but it's just been a consequence of them sitting in the back. They may or may not get an opportunity to go and do this cool experience that you wouldn't otherwise.

The students claimed that the belief that large animal students sit in the back and are less involved in learning even influenced instructors' perceptions. As Leigh told me:

> I was talking to my friend about this the other day because in that I feel like there's some sort of bias against the large animal people. So, for example, I was in a small animal nutrition class. And a bunch of people hadn't shown up for some reason. And somebody said something like—it was all on feeding dogs—and the teacher, who was a guest lecturer said, "I know all you large animal people think you don't need to be here 'cause you think you're not going to care about feeding dogs." And most of the large animal people sit in the back row, and they were all there. It was like this bias against them.

Overall, when pressed about the intelligence and skills of large animal students, students overwhelmingly made statements consistent with what Brooke told me. "They got into vet school, which is hard," she said. "They've made it through just like the rest, the small animal people." And John added, "I think everyone kind of understands that if you're in the program you've done what you needed to do to get here. It means something just that you're in the program."

Finally, to round out the typology of students as they were described to me, just as small animal students were assumed to be from urban backgrounds, large animal students were assumed to come from rural backgrounds. Danielle stated:

> Many of my classmates who are tracking large, that's what they grew up with. They're animal science majors, equine science majors . . . That's what they love.

> That's what they want to do. And they know exactly what they want to be doing. But I also see that with small animal. Small animal trackers—you know they grew up in a small animal clinic. They're going to go back and take over the clinic. And they know exactly what they want as well.

However, the lack of understanding based on differences in background is not present for large animal students in the same way as it is for small animal students. While small animal students sometimes struggle with understanding the reasoning behind large animal medical decisions, students told me that large animal students can mostly understand what it is like to have and care for companion animals. For instance, Leigh told me:

> I think that goes more from the small animal people judging the large animal people that haven't been exposed to that. 'Cause if you're a cowboy, you've definitely seen city people before. I mean, I don't know, maybe you're from somewhere really rural, but pretty much every cowboy's had a dog at some point, whereas definitely a lot of small animal people have never seen a horse or a cow.

Therefore, once again, large animal students are disadvantaged from the lack of understanding that they can at least try to offer small animal students, an understanding that mostly is unreturned to them. For the students I spoke with, this background purportedly shaped large animal students into the type who excels in large animal medicine: practical, realistic, and casual. However, this is not the typology that emerges as privileged in this institutional setting.

KNOWING IT ALL: THE IRONY OF TRACKING AND PRACTICING

In this chapter I have argued that the dominant areas of animal medical education differ in their treatment discourses, which therefore leads to a privileging of knowledge across veterinary medical colleges. Small animal medicine equals complexity, and large animal medicine equals practicality. The value of the knowledge extends to those who hold these different skill sets and consequently shapes how those individuals are valued as students and, eventually, as veterinarians. The boundaries around the different areas of animal medicine, and the different students within veterinary medical education, successfully separate the two main

areas of animal health for the students. The students used these boundaries to explain to me how the species, the medical treatments, and the students in the various tracks differ. The discursive strategies of practicality and complexity function as boundaries between the two tracks, and they influence the perceptions of those who follow the tracks as well as the animals they treat.

Yet the students perceive tracking as an almost inevitable approach to education; to train prepared practitioners, students must focus on particular areas of expertise. The irony of the tracking system is that veterinary medicine requires students to know it all. After completing their education, students must take medical board examinations that test them on all the major species treated within veterinary medicine. As Brooke put it, "Your license is for everything." She then went on to state:

> It doesn't really make a lot of sense to me that everyone takes boards for all animals. But not everyone has the same experience as a senior. And even as a junior. So I don't know if it's a good idea for us to implement a different boarding system where you only get boarded in a certain species. I don't really know what the best answer is for that.

Many students expressed similar dissatisfaction with the current boarding process, but, like Brooke, they did not know what to offer as an alternative. Even though students largely appreciated tracking because it allowed them to focus on what they wanted to study, they recognized that their interests might change. For instance, Danielle explained:

> So I'm just like, well, maybe I just need to learn everything that I can about any species because I have no idea what I might be doing. Also, I've heard from multiple people that as a veterinarian your career changes an average of 10 times throughout your entire career. You never know what you're going to be doing. I know a good friend who left vet school and was 100% dairy. And now he owns a small animal practice. So I guess I don't like tracking for that reason. Because you don't know what you're [going to be] doing.

At the same time, while students saw the expectation, and even the value, in knowing more about all the species, they also recognized the difficulty in doing so. This difficulty lies not just in learning the medicine behind treating multiple different species but also in that switching between species defined in dramatically

different ways is extremely challenging. Ashley reflected on this when she described the path of a mixed animal practitioner:

> I don't know how people do it, but obviously they have almost a foot in both worlds. And I feel like you'd almost have to have experience with both—maybe growing up on a farm, but also having dogs and cats and stuff—to be able to understand where they're both coming from. 'Cause I think I personally have never experienced that, so I would have a difficult time making that switch. I think you'd have to come from experience to be able to switch back and forth.

Tracking allows students to separate the different ideologies surrounding treating differently defined animals. However, this separation creates unequal valuations of these treatment discourses, the knowledge of these different areas of animal medicine, and the knowledge holders themselves. This compartmentalized system then reproduces disadvantage and privilege for veterinary students. Because students must know it all for licensure, however, they indeed share experiences and form a collective identity.

I now turn to an analysis of how the boundaries constructed and maintained through treatment discourse and tracking manifest themselves in what I call a segmented collective identity.

4

LEARNING TO CARE: COLLECTIVE IDENTITY WORK IN THE TRACKING SYSTEM

WHEN I BEGAN TALKING TO VETERINARY STUDENTS, I BROUGHT ASSUMPTIONS with me about what led them to the field and how they identified as future veterinarians. I tried to limit my biases as much as possible, but I had them nonetheless. In particular, I assumed that a desire to care for animals influenced the decision to work in veterinary medicine. My assumption echoed what research on veterinary students has found. For example, Morris (2012) points out that "students entering veterinary school most often mention the 'desire to work with and care for animals' when asked to define the most important reason they want to become a veterinarian" (p. 183). Thus, my assumption was correct—but only in part. The students *did* consistently discuss care, but when I asked them what this meant, to whom they directed care, and how it shaped their personal and professional identities, they showed me a more nuanced identity than one based solely on caring for animals. As I listened to more students, I understood that the identity they described went beyond the individual level to characterize the profession. I began to call this professionalized care *occupational care work* and, at first, thought it might be similar to other "caring professions" such as nursing. However, I found that veterinary medicine uniquely employed occupational care work, which reflected the boundaries within the field, and it was indeed tied to identity.

My interest in collective identity sprang from the fact that veterinary medicine, and veterinary medical education, is highly segmented. As the previous chapter showed, tracking in veterinary medical colleges separates students such that they learn to treat and view animal species in extremely different ways. I first

wanted to know whether a collective identity *could* exist within a profession that was so separated by specialties. To be sure, human medicine has numerous specialties, such as oncology, pediatrics, ophthalmology, and so on, but all physicians practice on the same species: human beings. Veterinary practice is divided along species lines. Nevertheless, veterinary students readily spoke of a collective identity that exists among all of them, a particular type that I call a *segmented collective identity*. However, they did admit that the differences across tracks made it more challenging to claim that collective identity. They described various techniques they used to maintain access to the collective identity of a caring and advocating doctor for animals. These techniques differed across the tracks due to the differing constructions of the animal patients within the tracks and what it means to care and advocate for and treat those different animals.

Veterinary medical students definitely hold to a collective identity of care. However, within tracking systems the tracks represent entirely different careers, and thus the students employ differing strategies to gain and maintain access to that collective identity. I have already established how large animal and small animal medicine constitute different practices under the umbrella title of veterinarian. Consequently, the discourses surrounding care in each domain also differ. Ethic of care theories have previously focused on human caring relationships; when nonhuman animal relationships entered the literature, studies mainly focused on the animal rights movement (e.g., Donovan & Adams, 2007). I use "ethic of care" to refer to the feminine conception of morality, which is concerned with care, relationships, and connection. It offers a more flexible and situated approach to ethics. In using the ethic of care, I build on the work originally begun by Carol Gilligan (1982), who introduced the ethic of care to understand the development of a moral self from a psychological standpoint. For Gilligan, there existed a moral orientation toward care, which required the self to be relational and to make moral decisions based on relationships with others and a sense of responsibility.

Gilligan was met with praise and criticism from feminist and gender scholars. Some praised this new notion of a feminine moral orientation of care that was equally valued to a masculine orientation of justice. Critics, however, considered the theory to essentialize gender differences and link women's and men's morality to biological determinism (see Tronto, 1987, 1993). By attributing gender differences to psychological developments such as morality, one might reify traditional feminine virtues, which historically have kept women in an oppressed position within the private sphere. Gilligan's original proposal has been critiqued and refined, but the evolution of the ethic of care has maintained the

contextualization of ethics. Ecofeminists now connect the oppression of women to the oppression of animals and use the ethic of care to argue for animal rights, recognizing the diversity of animals along with their ability to feel (Donovan & Adams, 2007).

Without engaging with animal rights, veterinary medical students attempt to illustrate how they employ an ethic of care toward animals, even within a relationship that does not always involve caring behavior objectively defined. They also show how they fend off threats to this identity of care through strategies particular to their track. This addition to the ethic of care literature will grapple with the caring-killing paradox in veterinary medicine and other care work (e.g., human medicine). In doing so, this research informs how socially constructed differences shape the definition of care and thus shape caring collective identities (see also Lawrence, 1997; National Commission on Veterinary Economic Issues, 2000; Rollin, 2002).

Here, I will also introduce the concept of segmented collective identity, one that is divided because those who share it engage in very different activities. Indeed, the activities differ so dramatically that those engaged in them could truly claim separate identities. Veterinary students in the tracking system represent a group characterized by a collective identity, even though this group's members are involved in different areas of animal medicine. This identity encompasses care as its predominant feature. The term "care," however, does not adequately describe many of the tasks that different veterinarians perform, which holds particularly true for tasks in veterinary training. For example, Herzog et al. (1989) found that veterinary students had both "morally troublesome" and "viscerally upsetting" experiences in school (p. 183). These included procedures they considered unnecessary or cosmetic, such as tail docking or declawing, and more extreme treatment, especially in the physiology lab. Veterinary students in the study "made a distinction between the treatment of animals in the physiology labs and in the clinic, saying, 'We used so many animals [as part of the lab] and the attitude toward them was that they were disposable items. When we got into the surgeries and clinic, the dogs and cats weren't treated like that at all'" (p. 184). Nevertheless, veterinary students emphasize care in their narratives about their own relationships with the animals they treat, dissect, euthanize, slaughter, and possibly consume.

David A. Snow and Leon Anderson (1987) wrote that identity work is the primary way that individuals craft personal identities. Their study of people experiencing homelessness focused on how this group negotiates identities of self-worth. Similarly, veterinary students negotiate personal identities of caring individuals who treat animals. Others have studied populations that work to

achieve identities that hold dignity and value for them. Erving Goffman (1963) proposed the idea of a spoiled identity in his classic text *Stigma*. He focused on socially outcast groups, such as people who are physically disabled, to illustrate how possessing an attribute discredited by one's society can lead to a spoiled identity. Although veterinarians are not notably stigmatized in Western culture, and the profession has achieved high regard, they do experience threats to their collective identity as caregivers. Therefore, they employ defensive strategies against this threat, and these strategies vary across the different tracks within veterinary medical college.

In this chapter I explore how veterinary medical students define what I call the segmented collective identity—one that encompasses individuals performing quite different tasks. Additionally, I analyze the techniques that students use to maintain access to this collective identity. Because students perform both defensive and strategic identity work, in part, to also validate themselves as real doctors, they demonstrate that they are protecting a professional identity as well (see Freidson, 1986; Hamilton, 2007; Hamilton & Taylor, 2013). In this chapter I use data from my conversations with veterinary medical students to show how they construct a collective identity and distinguish it from others involved in working with and caring for animals. This identity operates at three levels: the personal identity level, the institutional identity level, and the professional identity level. I use the terms "collective" and "professional" interchangeably to describe the segmented identity I found among students in the tracking system. Then, I unpack the discursive techniques they use to defend their connection to that collective identity, regardless of the various tasks performed in their work. I argue that veterinary medicine, with its different definitions of caregiver shaped by its different tracks, can serve as an example of how an identity of care is accessed and maintained in an environment with dual, or even multiple, definitions of caring.

A COLLECTIVE IDENTITY WITHIN THE TRACKING SYSTEM

THE CAREGIVER IDENTITY

When I asked students to describe their role as future veterinarians, they overwhelmingly described caring for animals. Occupational care work was consistently used in their explanations of the job. Patricia, a second-year large animal student, answered my question "What is a veterinarian to you?" by saying:

> Animal caretakers. I think, no matter what field you're going into, what specialty you want to do, I think at the end of it all, at the very center of it, we all went into this because we want to help take care of animals and we want to be able to do that through medicine. That's still the one thing that binds all of us, no matter what your views are, is that we're in this for the animals.

In the interviews, I heard other students use caring descriptors such as "compassionate" or "empathetic" as a prerequisite for anyone entering the field. Angela, a fourth-year small animal student we met in the previous chapter, illustrated this when she stated, "If I was going to use an adjective or something [to describe veterinary students], I would say that most people are caring and empathetic." Gayle, a first-year small animal student, took the compassion for animals a step further and claimed that veterinary students were "a group of people who are called into this profession to help animals, who are typically more compassionate towards animals maybe than people." Stacy, a second-year mixed student, agreed about the need for compassion but added that veterinary medicine requires more. She described students as "type A highly organized time managers," in addition to feeling compassion for animals.

In this way, the students revealed the professional identity outlined by Bernard Rollin (2002). In discussing the roles of modern veterinarians, Rollin found what he described as a "mechanic model" and a "pediatrician model." In the mechanic model, the practice of veterinary medicine views animals as legal property in need of repair. The pediatrician model recognizes animals as patients, sentient beings with quality-of-life issues at stake. As Morris (2012) points out in her study of euthanasia, most veterinarians today adhere to both models. In a way Morris would have predicted, the students also emphasized how their professional role requires advocating on behalf of animals. For instance, after hearing the students continuously describe themselves as caregivers, I also started to use that term in my conversations with them. Some pointed out that the practice of veterinary medicine involved more than just providing care. Many students introduced the term "advocate" to the collective identity. For instance, Stacy explained:

> I think advocate is a better alternative to caregiver. As an advocate, you are thinking like someone speaking on behalf of someone, and that other someone is our animals. Since they can't vocalize or verbalize in English what they're feeling, thinking, and wanting, I think it's definitely a better term.

The status of animals as patients who cannot speak on their own behalf prompted veterinary students to stress advocacy as a part of their identity. Because the human clients are ultimately seeking out their services, and paying for them, the students stressed representing the animal patients as a key part of the job (see also Morris, 2012).

Most of the students wanted me, and the public, too, to understand that they were not just caring for animals but that they had the technical skills and the medical knowledge to do so properly. They emphasized their training and education in being *informed* caregivers, which is why many of them preferred the term "advocate." Jian, a first-year mixed student, put it this way: "I think that, given our time that we've spent in this field and our experience with animals, that vet students have the credentials to advocate for animal rights or animal issues." Many students, however, differentiated between animal rights and animal welfare. The animal rights position promotes the right of animals to not be used for human purposes, such as the right to not be consumed. The animal welfare position promotes the responsibility of humans to humanely care for other animals, even in the course of using them for human purposes, such as continuing to consume animals, but ensuring that we raise them ethically. The students felt that their job was to ensure the welfare of animals and that the rights discourse was not a part of their duties as veterinarians. For instance, Denise, a fourth-year small animal student focused on exotic animals, explained:

> We, as veterinarians, are advocates for animal welfare, which is different than animal rights. That's on a lot of vet school interview questions, the difference between rights and welfare. But you know, basically welfare is that we are all in our profession striving to promote the well-being of animals. You know we're upholding our oath. So we're, you know, trying to prevent suffering of animals. We're trying to promote well-being. We're trying to educate.

This position is understandable since many of the requirements of veterinary training conflict with animal rights. This perspective also echoes an ongoing debate within veterinary medicine (Morris, 2012). Veterinary education routinely uses animals. They cannot provide consent for the use of their bodies for dissection or practicing surgery. Moreover, the production animal industry revolves around using animals for human purposes. The veterinary students seldom discussed the animal rights platform with me. Instead, they focused on animal

welfare, or caring for animals while recognizing their socially designated use by humans. When I interviewed Denise, she explained the difference:

> So a caregiver is focusing on that individual animal or that herd. But an advocate would be doing more than that, in that they would be looking towards the future improvement of animal care. So that might mean being active in politics and legislation and policymaking, or again client education, so that that client can then go forward and improve the care of the animals they have at home or the animals they'll have in the future.

Most of the students took advocacy to the level of acting as a spokesperson for animals. They felt that the general public should consult veterinarians on any issues regarding animal care. While they mostly steered away from discussing animal rights issues, they felt that veterinarians were more informed than anyone else and thus better equipped to speak on behalf of animals. Jian, for example, felt that knowing an animal's biological makeup and how to treat them medically translates into understanding their needs better:

> One of the reasons why vet students go to vet school is because they're trying to understand the language animals live and speak in. And so, by learning their biology and all that stuff, we become closer to them and we become . . . You know, we're different from other people because we're able to understand better what they feel and what they want and what they need.

According to the students I interviewed, the special "knowing" that those in the profession possess makes them better advocates than even the animal's owner, guardian, or whoever spends the most time with the animal and perhaps cares the most for them. Gayle, the small animal student, shared that she appreciated the term "advocate" for this reason:

> I guess I like the idea of being an advocate slightly more because it sounds as though you understand the pet's need maybe slightly more, and are doing what's in their best interest. Maybe compared to a caregiver—you're obviously providing for what they need—but maybe there's more of the owner pressure to say, "This is what I need you to do for my pet." So you're maybe keeping them comfortable while they're at the end of their life, but to be an advocate is really to say this is what is best for your pet.

Ultimately, the students agreed that tracking helped them advocate on behalf of animals. Patricia noted:

> But the great thing about tracking is it allows you to focus on one area to become the best advocate you can for a certain type of animal. Because each species is sort of different in its own way. And so the great thing about tracking is it allows us to be advocates for each species and to have advocates who know a lot about one certain species.

In addition, Courtney, the first-year mixed student introduced in the previous chapter, asserted that advocacy does indeed exist across all the tracks in veterinary medical education by describing veterinarians and veterinary students as "healers, protectors of animals" and stating that "those kinds of collective feelings are there, even amongst different species at different levels." Although most of those I interviewed agreed that all veterinary students advocate for animals in their respective fields, they also noted that they had to do so in different ways because of the different types of work they did on these differently defined animal species. I will return to the discussion of how veterinary students claimed to be advocates after I describe the other part of their collective identity: the title of "doctor."

"DO NOT FORGET THAT WE ARE DOCTORS"

As I was trying to piece together the collective identity of veterinary medical students, I continuously invited them to help me improve my understanding. Ultimately, the collective identity emerged as having three parts: caregiver, advocate, and doctor. The final component satisfied the students who found the first two descriptors insufficient, similar to those who wanted to add advocate because they were not fully satisfied with caregiver as the sole identity. When I added doctor, the students agreed that these three elements together signified a veterinarian, distinct from any other professional. Anand, a second-year undecided student, broke down the different parts of the identity:

> Because you are trying to improve somebody else's quality of life who cannot speak, that's where the advocate kinda comes. The caregiver is the doctor aspect of things. You are still a doctor. You're still treating illnesses or curing illnesses and so I think—if you just use the advocate, for example, you can say somebody

> in the MSPCA or ASPCA is an advocate. You just say caregiver, you can say somebody who has an orphanage for elephants or cats or something is a caregiver. 'Cause they're offering care. They're giving care. I think there might be a term missing. I think caregiver's good, but doesn't . . . I think and advocate's good, but I think you still need a more doctor term. I think doctor is just also good. Caregiver, doctor . . . 'cause, you know, there's a nursing aspect to being a veterinarian as well. And caregiver could be that. But I think you have to put doctor in there as well.

Anand distinguishes among caregiver, one who is taking care of the immediate needs of an animal; advocate, who is perhaps more informed and more organized with more influence to care for animals; and doctor, who has the medical training to care for an animal's health. Using these definitions, an animal's owner can be a caregiver who feeds them each day, and an organization such as a humane society can be an advocate who speaks for animals, but a veterinarian is one who can do both of these things and also has a medical degree that allows them to medically treat animals as patients. Anand went on to distinguish between advocates and doctors:

> The humane society can do that. They're all advocates. They speak for the patients. Or speak for the animals. But being a doctor is totally different 'cause you're not only an advocate, you're not only a caregiver, but you're treating their illnesses . . . improving their health.

Cheryl, a fourth-year mixed student, also separated the work of a caregiver and a doctor:

> I guess when I think of a caregiver, I think more of like hospice care, or like babysitting, or just kind of more . . . not as powerful, I guess. You know, it goes back to that whole thing of we're not an actual doctor—like we're taking care of all these species. We have the education. We have the knowledge. I feel like we should get a better title.

Cheryl touches on another aspect of the doctor part of the collective identity for veterinary students: their desire for legitimacy. Cathy, a fourth-year mixed student we met in the previous chapter, said, "I'd add scientist into there," when I

asked her about the different parts of the collective identity. When the students discussed being a doctor with me, they stressed the science behind the medicine. Denise pointed out that one could be involved in the science of veterinary medicine without advocating for animals, just as one could be an advocate for animals without being a doctor:

> I feel like there's still something different in being a scientist because I feel I can do that without being an advocate for animals. You know, I could be interested in the science, and the diagnostics, and the skills and that kind of thing without wanting to be an advocate for animals.

I heard from Anand the same concerns about legitimacy that Cathy, Cheryl, and Denise had raised. As we talked in the coffee shop, he said, "One thing I've realized is that people lose sight that you are a doctor. So, I say veterinary physician." I had not heard anyone else use this term and made a note of it. He continued: "You know, we have the same curriculum as a medical student, so we should be called physicians at the end of the day, but we're veterinary physicians. We're kind of a specialized physician." He went on to use other terms, such as "surgical physician," "human physician," and "dental physician." "We're veterinary physicians," he explained. Then he added, "We are definitely a doctor that's an advocate for the patient. And I think all doctors are advocates for their patients. All doctors are caregivers for their patients, 'cause that's more the nursing aspect I see." He paused before continuing. Then, using the term that would ensure his professional status, he said, "But I think you have to have doctor terms in there."

Anand's desire for legitimacy intrigued me, and I wanted him to tell me more about it without making him feel judged, so I asked him about his experience with the application process. He recalled, "When I applied anywhere or I talk to people, I say, 'I go to veterinary medical school.'" I stirred my coffee as I listened and tilted my head to the side, using my silence to urge him to say more. "I don't just say veterinary school," he said, "'cause I want people to realize that we're not just . . ." His sentence trailed off and he stammered a bit as he added emphatically, "It's, it's, it's medicine. You're learning medicine. We're learning surgery and we're learning the same stuff human medical students are." Similar to Anand, many of the students claimed to be undergoing the same training as medical students. They also wanted the same respect commanded by physicians. Indeed, some even

went on to state that they were actually *more* skilled in many ways. For example, when I talked with Angela, she noted, "We think of ourselves as equivalent—if not sometimes better [than physicians]."

Because veterinarians do not receive the same accolades as physicians receive, the students emphasized that everyone in the profession truly wanted to be there out of love for the work, instead of for the respect. Cathy asserted:

> We have to care about this profession or we wouldn't be in it. We are overworked, overlooked, and underappreciated by society. And it's all the stuff that we bitch about. We aren't going to get paid enough. Our student loans are too much. People don't really respect us a lot. But we know that we are going to make a difference. We are going to make a difference in animals' lives. It's a good thing and, hey, we all know we're smarter than human doctors, so I think that's there. [Laughs]

The students' jokes about not just being as educated as physicians, but being more knowledgeable, too, are not completely unwarranted. Veterinary medical students learn about more species than human medical students do, and they complete their education in roughly the same amount of time. And still, the lack of legitimacy is present. These veterinary students battle not just the discourse that they are not real doctors but also the public perception that knowledge about animal health is common knowledge available even to the layperson. For example, Patricia told this story:

> We joke there's "Dr. Google" nowadays, that we're all going to have to be combating against. Because people feel like, "Oh, well I can just look this up on the Internet and I can read this." And you will come across the clients who say, "Well I read on the Internet that this treatment is better because . . ." And I think it is about advocating for the animal, that "Well, we went to four years of school to learn about this and while that argument or that article may be valid in one sense, here's the full picture." And letting . . . like I said, just client education about, you know, we . . . You know, "This is the science behind it and this is why I would recommend this over what you read on the Internet."

While human physicians also have to combat Internet diagnoses in their practice, veterinarians have a more difficult time due to their already delegitimized status. The previous chapter discussed the hierarchy of knowledge and its association

with the value of animals. The hierarchy of knowledge, along with the sociozoologic scale, help to explain why human medical knowledge and physicians have a higher social value compared to veterinary knowledge and veterinary doctors; we value human over nonhuman animals. Therefore, for these veterinary students, being a doctor formed an essential part of their collective identity.

MAINTAINING THE COLLECTIVE IDENTITY

THE ANIMAL'S PURPOSE: SHIFTING UNDERSTANDINGS OF CARE

A frequent technique used by the students revolved around the animal's "purpose." They framed this purpose as an inherent one, and typically they acknowledged it as socially determined and variable only when I brought up the point. Ashley, a third-year small animal student we met in Chapter 3, spoke about an animal's purpose in this way when she said that animals are cared for "for their purpose." She stated this in such a simple and straightforward fashion that I waited to ask a follow-up question, thinking she might elaborate more. When she did not, I asked her to tell me what she meant by her words. She continued to explain: "Even though they're going to slaughter, they're still well fed. They're still checked up on by vets. They're on antibiotics if they're sick." I began to see that she used an animal's purpose as a justification for what defines care for them. I asked her whether care was then different for companion animals, who are not slaughtered. She confirmed: "It's definitely different than what you would do in a small animal situation, but yeah, they're [large animal veterinarians] still caregivers." Ashley alluded to a large animal's purpose casually, as though their purpose is common knowledge and mostly indisputable. She also made the argument that even though their purpose is to eventually be slaughtered, the veterinarians working on those animals are still caregivers. Angela also normalized an animal's inherent purpose:

> Well, when you're looking at different species, you approach them differently based on their purpose. And for instance, if you look at a population of dogs, it wouldn't be the same as looking at a population of deer that are rampant with disease and affecting the whole ecosystem. You look at it . . . you can change your perspective from being a big picture thing to a small picture thing and vice versa, depending on what you're working with. So . . . and that kind of allows you to think like, oh, okay, it's for the greater good that this specific individual

> animal has to be sacrificed or whatnot, as opposed to, like, I care about this [individual] animal kind of thing.

Students justified defining both care and advocacy differently depending on an animal's purpose. Cheryl noted, "I think there's different degrees. You're advocating, I guess, for different things. Companionship versus food in a general sense." Distinguishing between the recipients of the care and advocacy that veterinarians provide was important to these students. Cheryl went on to emphasize:

> Just keeping separate the fact that it is a food animal. So you can't just think of the animal. You have to think more of, can I give this cow antibiotics now? Is it going to survive long enough? Is it financially beneficial to give this farmer's cow antibiotics, or should we just send it down the road now?

Because there are restrictions on antibiotic use in animals that enter the food system, large animal veterinarians have to weigh the benefits and costs of treating animals with drugs when they are nearing slaughter. Students interpreted the decision to not treat the animal and send it to the slaughterhouse instead as still ethically sound, and even caring. Cathy agreed:

> That's true because no one's going to deal with a CCL [cranial cruciate ligament] tear of a cow. That cow's just got to walk into the slaughterhouse. But shouldn't we be making sure that that cow's at least comfortable before walking into the slaughterhouse? Or recommending that instead of getting that cow up to the ideal weight that you want it to go to the slaughterhouse, go ahead and do it now because she's in pain? Versus, you know, the dog that tore its CCL and now it needs to go ahead and have that surgery because you don't want to monitor for the next eight years your dog being in pain. But I still think it's doing what's best for the animal, even if it is just sending it to early slaughter.

By defining care and advocacy differently across the different areas of animal medicine, students claimed that each kind of veterinarian cared for these different species according to their purpose. Erin, the third-year mixed student we met in the previous chapter, broke down how numerous different specialty veterinarians are able to do this: "I think that lab animal veterinarians are some of the best at being caregivers. Those animals are giving so much and [the veterinarians] are there to make sure that they are being treated as best as they possibly can and given the utmost respect." I found her example interesting since the

general public likely would not consider animal testing in laboratories as a caring situation for animals. I asked her if she could provide more examples like this. She replied, "Certainly. Also, the food animal veterinarians. They're there to advocate for the animals and make sure that they're being given a great life and a healthy life before being slaughtered." She thought a while and then added, "Horse veterinarians. Sometimes you have to be going up against multimillion-dollar corporations to say, 'No. This animal is hurt. You can't do that.' Or 'I don't think that we should be giving them this drug.' Or 'That's illegal.'" None of her examples challenged the roles of these animals; instead, they simply adjusted the method of care given to them.

Other students acknowledged that the different purposes of animals called for different understandings of caregiving and advocacy, and that the different specialists or trackers might not agree on the definitions. Stacy pointed out:

> I think it [a collective identity] definitely is a possibility and it does exist. But it definitely does depend on how that individual person defines the word "advocate." . . . And then the other aspect is, you know, like do the other sections—like if you're a large animal—would a small animal clinician understand your definition of advocacy versus their definition of advocacy? Like can they agree, you know, like, "Okay, well your definition of advocacy is the same thing essentially as what I'm trying to say is being an advocate"?

Denise complicated this concern further by stating:

> I think it's like an interpretation of what we feel that value means to us. And yeah, and I guess you know part of interpretation I guess is you're kind of deciding who your patient is. And how you're advocating [for] them. So you know in a—again in a production setting—the herd is your patient, not an individual animal. So I think in that way you can still say that even though someone's doing large animal versus small animal, you're still striving for the health of your patient, whether that's one animal or a group of animals. And which again—like I said—the word might mean different things for the individual animal. . . . And then you know we also have clients as well. So you know we have our patient; we also have our clients.

For Denise and many others, interpretation of the collective identity is flexible. If the animal's purpose is in production, in a herd setting, the object of care is the herd. If the animal's purpose is for companionship, within a home, then the

individual animal is the focus. The interpretations become more complex when clients, or owners, enter the scene, for they might also have differing thoughts about the animal and wishes for their treatment.

All of the students saw that one could still show care for animals in what might not appear at first glance to be caring situations—for instance, animals going to slaughter or used in animal industries (e.g., racehorses). Tracy, the fourth-year student who ultimately wants to do shelter medicine, vehemently stated, "Large animal people still would pick out things that they're doing on a daily basis that are giving care. Absolutely." John, a second-year large animal student, used working on a feedlot as an example. "All those animals have an expiration date," he said. "But up until that point, you know, everyone on that feedlot is interested in them being comfortable and happy, and maybe not knowing what's coming." Denise brought up how small animal veterinarians are also involved in seemingly noncaring activities, which they have to reframe as still in line with their identity, by using the example of euthanasia: "By euthanizing that animal, [you are] ensuring that nothing bad is ever going to happen to it in the future because the animal's not alive to suffer. So, I mean, that could be an argument that they are fulfilling the role of advocate as well." Angela also brought up an animal's purpose as justification for veterinarians claiming a caregiver role when the animals endure exploitation in some way:

> I think it's just about putting everything in the right perspective. I have several friends that are large animal or equine, and they just have to think of things as, you know, they have to figure out their own ways to justify them. And some people are more comfortable with understanding that this animal is a racehorse. And its purpose is to race. And that's okay with them. But you know I'm small animal, so I obviously wasn't able to do that as well. So I guess maybe the people that are large animal and food animal are more apt to adjust and be more flexible with how they feel about what determines you as a . . . makes you a caregiver per se.

Angela also admits that she thinks that students in the large animal or equine tracks have a more difficult time claiming the collective identity of care. She acknowledged that they still can access it but have to go about it in a different way than the small animal trackers do. John agreed:

> I guess it's a lot easier to see, like, the cat veterinarian as relating to that identity than the guy out on the feedlot getting his cattle ready for slaughter. So

> you might have to argue for yourself a lot more, to let people understand that you really are there in favor of the animal.

Stacy agreed that large animal trackers could access the collective identity but that it is more challenging for them to do so. She told me:

> I think they can, but I think it'd be a little bit more difficult. I think they would definitely—if you ever get a large animal person here—they might actually use a different term. 'Cause I think, you know, with the whole, you know, business side [for] production animals, it's a different end goal than it is in small animal. So I would think that they would use a different term. I don't think they would use advocate.

I told Stacy that the large animal students I had spoken with did indeed use the same language of advocate and caregiver when they talked about their work. She admitted that she was unfamiliar with what they actually did by saying, "It's not like I go out to the horse barns. I really have no idea what the production animal vets are doing to actually be an advocate. I haven't witnessed it myself with my own eyes. I'm sure it does happen." Stacy, and many other students, had little to no experience with large animals, unless they intended to work on them in their careers. This reflects the emphasis on small animal knowledge in their curriculum, discussed in the previous chapter. The lack of understanding around large animal medicine helps to explain why large animal and equine trackers struggle more with claiming the collective identity.

THE DISCURSIVE STRATEGY OF THE HIGHER PURPOSE

Although large animal and equine trackers find it more difficult to claim the collective identity of care, they can draw on a particular discourse to do so. They told me how large animal medicine has a "higher" purpose: public health and the security of our food system. Tracy claimed that small animal students were thankful for large animal practitioners. "Even though you have someone whose day-to-day job may only involve small animals," she said, "compared to someone who's working with food producing animals, even the dog or cat vet is often glad that someone out there is doing the food production job." I asked her why, and she replied, "Even though they chose not to do that path, they know someone should be doing it, and someone with this education level and skill set that they shared at one point before diverging, should be doing this job. And so I think that brings them

together." She reflected for a moment and continued: "The food animal people have this higher goal, whereas the small animal people are sort of taking care of animals that people love. I don't know if food animal feels that same sense of camaraderie. But I feel most small animal practitioners do feel that." As someone more interested in working with small animals, Tracy acknowledged that small animal students respect large animal students because their work centers on a higher purpose. She noted that large animal students may not feel the same sense of respect for small animal students but pointed out that as a small animal student herself, she has that respect for large animal students. This respect bonds them together in the profession and allows a collective identity to exist. Others acknowledged the complexity of treating different types of animals and claimed that every role is important, even though they are so different from one another. John described it as "an intricate system. We can't all just be the same. There's too many little niches that need to be filled," he said, "but we can all advocate for the animals and we can all be working in the interest of the animal."

Another way students allowed for large animal and equine students to claim the collective identity involved breaking up the identity into its component parts of caregiver, advocate, and doctor and to state that different aspects of the identity are stronger at different times, while the other parts are less emphasized. This is how one can be a veterinarian and still participate in activities such as euthanasia or slaughter. Angela explained:

> I think that no matter what track you're on, those terms still apply for the most part. But the people that work with the large animals and the horses, they do have to adjust to a more industry-driven profession and kind of let that . . . the compassion and caregivingness kind of drop aside a little bit more, and the doctor part rise up a little higher. They have to gauge what they're dealing with, who they're working with, what the purpose of the animal is, and whatnot.

Courtney also brought up the phenomenon of accentuating some parts of the identity while downplaying other parts:

> And regardless of if you're in a public health role via the taking care of puppies, you are gonna be a protector and advocate—what was the third one—a doctor. And your medical skills will be very different if you're treating diarrhea in a puppy versus health in cows for slaughter, but it's a very important medical and ethical role 'cause the vet can be a key person in keeping cows happy

> up until slaughter, and the dogs happy here, and reptiles, birds, everything in an individual's home, or in a herd health kind of relation. And I think it's easy to fulfill that role and goal in any of those. Some are different aspects [and] are maybe stronger at different times in your career. Very few people will be in the exact same position throughout their whole career. There will be some bouncing back and forth between one of those three versus the other.

Ultimately, by citing the animal's purpose, all students across the different tracks in veterinary medical education could validate their identity of a caring, advocating doctor for animals. They admitted that although different students might struggle more with doing this, everyone had access to the collective identity through the usage of this purpose discourse.

TRANSFERENCE OF CARE

Another major technique used by veterinary students to claim the collective identity involved what I call *transference of care*. They would transfer their discourse of care toward something or someone other than their animal patients. This technique allowed the students to avoid defending the animal's purpose as an explanation for the type of care they give to them, but instead to discuss the object of care as something else entirely. For example, veterinary students spoke of caring for the human clients in lieu of always performing what is best for the animal patients.

Veterinary medicine differs from human medicine in that it involves a three-part relationship, as opposed to the doctor-patient relationship that physicians deal with in their work. Veterinary medicine shares this characteristic with pediatric medicine. Veterinarians, like pediatricians, treat patients who are not fully autonomous citizens in society and therefore have representatives—the human clients or parents—who speak on their behalf. The Veterinarian's Oath actually includes humans and public health among the professional obligations. Veterinarians swear to use their knowledge and skills *for the benefit of society* and *the promotion of public health* (AVMA, n.d.). This promise to serve people along with animals poses challenges for veterinarians as they attempt to care and advocate for their patients because their professional recommendations might conflict with the client's wishes. For example, in Morris's (2012) study of euthanasia, she found that veterinarians experience tension and moral dilemmas over ending—or prolonging—the lives of their patients. However, this three-part

relationship can also help veterinarians and veterinary students with claiming the collective identity. Because they can pass the buck to the client, they can engage in seemingly noncaring treatment of animal patients and still identify as caring, advocating doctors. Gayle reminded me that people are a huge part of a veterinarian's work when she stated:

> I think a lot of people, when you're like, "I want to be a vet," it's a lot of times 'cause I want to work with the animal and you forget that the person comes attached to the animal, that you can't treat them without dealing with the person. Or I have a lot of people who hate people. And so I don't know why they're going into this field thinking that they're never going to interact with people. But I think because that's the impulse: I want to be helping animals. And so I think maybe by the time you realize, really, what a veterinarian is, hopefully you understand the human component of that, too.

Because human clients form an integral part of veterinary care, veterinarians can transfer their care from the animal patient to the client and still claim the collective identity of care. Erin described how small animal students can comfort clients when they are concerned for their pets, how large animal students are helping clients by protecting public health, and how exotic students can educate clients to preserve the diversity of ecosystems through the preservation of exotic species. She told me that she heard her small animal classmates regularly claim, "I really got into it for the people. I love going into the room with them when they're so worried about their hamster or whatever and just calm them down and help explain." She then said that other classmates, who were interested in public health, wanted to "help people in general." I asked about her goals as an exotic student, and she replied:

> And then, certainly with me and some of my other exotic people, we want to educate people about these exotic animals, and why they're so important, and why we need to preserve their ecosystem so that our whole world cannot collapse into some, you know, monoculture sort of system.

Some students felt that the transference of care to the client was more prevalent in large animal medicine. Anand explained: "So, cattle people tend to listen more to what the client wants and advocate more in terms of what the client wants to do to the animal. And then, the small animal folks, they advocate for the

pet and they communicate that to the client." I asked him to clarify whom the large animal veterinarian serves. He replied that large animal practice is "more how to please the client, while small animals, I feel like, you're doing more for the patient than the client." However, small animal students argued that they also are ultimately adhering to the client's wishes as well. Stacy described:

> I feel like that's a part of our job description, being an advocate for the animals and making the owner understand and see that point of view. For example, if a dog broke its arm, and the owner's like, "Oh, it's just a limp. I don't want to do x-rays or I don't want to see what's causing the limp," you need to be there and stick up for their animal and be like, "Hey, this can turn out to be something really bad. I highly recommend that we take radiographs just to see what's going on. And then from there we can talk about option plans and then you decide." We have to say what we need to say, and let them know everything that's going on, and give them all the options. And then, as an owner, they can finally choose.

While the students voiced their frustration at times with having to go through clients to care for their patients, they could also affirm their identity as caring advocates for the animals since they do their best at trying to speak on their behalf to the clients as informed doctors. For instance, Ashley simply stated, "I think just making sure they [clients] understand where you're coming from, why you want to do it, gives them all the tools they need to make that decision, but it's ultimately their decision." Further, small and large animal students alike reported having to navigate this triangular relationship in their practice.

The herd constitutes another object of care to which students could transfer their attention. The herd health discourse allowed students to draw attention from individual animals in large animal medicine. By treating the herd as opposed to individual animals, they successfully accessed the collective identity of care. "I feel like you're still an advocate even [though] it may be an advocate of a herd versus an individual," Ashley told me, "but you're still their advocate for what's best for them, whether it's culling the one sick cow. That's best for that herd, and you're the advocate for that." She went on to admit: "Advocate for a herd is very different than advocate for someone's pet cat or pet dog. But I feel like you may have to be a little bit more flexible in how you fill that role, but I still feel like it's a role that all areas [of animal medicine can do]." Cheryl also added herd health to her explanation of what they are caring for. She first described caring for the

client but recognized that in order to care for a large animal producer, one had to care for the herd:

> A small animal vet or companion animal vet, you're speaking for that individual, or maybe that household, depending on what it's coming in for. But then, the food animal vet, you want the best for that herd because you want to see your client succeed. And, at most, you would like to give your client the skills—kind of not to need you in a way.

When students transferred their care to the client or the herd, they usually framed it as a financial consideration for their clients, particularly large animal producers. Ashley referenced these financial constraints:

> You may not always be able to do what you want to do for a case. You know, financial constraints, client decisions, or whatever. And I think you just have to remind yourself, like, you offered the best. Like you did advocate for that client—or that patient—that animal—whether or not you were able to do it. Like you did your purpose. You tried to do your best.

Students could use the issue of money, along with ultimately having to adhere to the client's wishes, as a reason for not doing everything possible at all times. In this way, they remain advocating caregivers who are working within the constraints of what clients ask of them.

Veterinarians serving large animal clients routinely confront financial limitations because these clients have large herds to care for instead of just a few pets. Students regularly brought up considering a rancher's livelihood when practicing large animal medicine. Patricia noted:

> They probably, at the end of the day, don't have the money for that kind of treatment for that one animal. Unfortunately, they've got hundreds of other animals that they've got to think about, so, you know, I'd be like, "You're going to have to cull that animal and you're going to have to euthanize it, unfortunately." Whereas if I'm talking to a small animal person about "Your dog has cancer," chemo's a very valid . . . radiation therapy . . . may be a valid option for that person depending on what kind of money they're wanting to spend. So, you know, I think you would lay out more options on the table for the small animal person, whereas with the large animal person, you're kind of like, "Well,

> I mean, if you've got buckets of money laying around the place and you want to spend it on that animal, go for it."

She went on to state:

> I think when you know you're dealing with a food animal producer and you're advocating care for that animal, if it was meant to go to slaughter, you know, you're ultimately talking about, okay, can you keep this animal in the herd? Is it still safe to go to slaughter? What medicines can we use that will still allow my animal to go to slaughter? You're trying to advocate for that animal's purpose and to make sure that your client, who's a producer, is able to stay in business and able to keep their herd together.

Students described explaining all of the options to the clients and giving them their best professional advice on the course of action that would help the animal the most, but they also described being influenced by the client's standpoint. In particular, students understood that large animal producers had businesses to run and would not save an individual animal anyway, so they usually would not even prescribe individual options. Students discussed this as a practical method that showed that they understood their clients' differing needs, herd health, and the economic realities of large animal production.

Transference of care also extended to a final recipient: the public, who ultimately consumes the products that come from the students' patients. Here, students again highlighted that "higher purpose" in large animal medicine. Patricia pointed out that "food animal producers aren't in it for the money. They're feeding people. They're feeding the world." She said that caring for the client, in this case ranchers, is not just about caring for their livelihood and their families but caring for society. Jian agreed: "For a food animal, you're trying to benefit the humans. So, in some ways, you're advocating for human welfare."

For these students, ensuring the health of animal products is a life-or-death issue, and thus extremely important. Angela bluntly stated, "Well, I think it can be caring about somebody else, I mean if you work for the USDA or whatnot. You're trying to inspect these chickens so that nobody dies." Courtney also brought up the public health roles that veterinarians play:

> [A] vet at a slaughterhouse is doing more food inspection safety, but on a broader scale vets should be and are [doing] those things for the public as

> well. The way vets developed was protecting humans' food consumption. That's where veterinary medicine originally came into the picture.

Courtney pointed out that veterinary medicine evolved out of the need to care for large animals, a history I will discuss more in the next chapter. She went on to emphasize the significance of caring for the health of animals used for human consumption. "I mean, I don't think anyone in the food animal world thinks that they're just fixing this cow," she said. "It's definitely a bigger viewpoint. You are a provider of the general public's health, this animal's health, the world's health."

Students from various specialties discussed transferring care. For example, in describing the roles of food inspectors and laboratory scientists, Angela concluded that they all worked "to benefit society." Courtney discussed how wildlife veterinarians provide care to "a whole ecosystem." Elizabeth described pathologists as providing "a public good." These students, and many others, see themselves as serving a greater good, working for humankind, by being veterinarians.

A COLLECTIVE, DESPITE SEGMENTED, IDENTITY: RECONCILING CARING AND KILLING

In conclusion, I have argued in this chapter that the tracking system in veterinary medical education is characterized by occupational care work despite its specialty differences and, consequently, that this produces a segmented collective identity—not only for the students in this study but also for the profession overall. The identity work involved in maintaining the segmentation—that is, in reproducing the boundaries between large and small animal medicine—produces a hierarchy of knowledge. This hierarchy also applies to those who hold the different types of knowledge. Adding the concept of segmentation contributes to the literature on identity work by showing how actors within one social setting can draw on different resources to create distinct identities.

Although distinct, these identities also share the common element of care. I argue that although the tracks create boundaries, or segments, in the professional veterinary identity, care provides the basis for the collective aspect. All of the students described their work as providing care to animals. Yet many of the procedures routinely performed in veterinary medicine can seem decidedly *uncaring*. Small animal practitioners must often euthanize patients, and large animal medicine involves keeping animals healthy to kill them. Veterinary training

often involves harmful or fatal procedures. Regardless, the students talked about care, believed in it, and considered it important to all veterinarians. By examining how students experience the caring-killing paradox, this study contributes to the literature on the ethic of care. As I discuss in the Conclusion to this volume, incorporating harm into care stretches the boundaries of the care perspective. In particular, the discursive construction of care in the segmented collective identity constitutes a form of boundary work that suggests new ways to apply it.

As a theme in this book, boundary work takes many forms. In the next chapter I bring together elements discussed so far—the social construction of species and the identity work of veterinary students—and examine the crossing and blurring of boundaries.

5

CONTESTING HORSES: THE EQUINE CONCENTRATION AS A BORDER TRACK

AS DESCRIBED PREVIOUSLY, TRACKING SYSTEMS WITHIN VETERINARY MEDICAL education differentiate between large and small animal medicine. Students focus primarily on their choice of animal medicine once they have completed the same core curriculum. This chapter argues that because the categories of large and small animals are socially created, they can change. Some species do not necessarily fit into one or the other category. This generates new discourses surrounding emerging border tracks; these unofficial tracks focus on species whose social definitions make their placement in veterinary medical education's tracking system a site of contestation. For example, horses currently occupy a liminal status. The equine track, neither large nor small, constitutes a border between the dominant areas of veterinary medicine. As with other metaphorical borders, there exists an ongoing struggle to define it. Thus, animal medicine operates not solely on biology but on social meaning, too. Using the equine concentration as an illustrative case, this chapter analyzes the ambiguity of borders, as well as their potential to serve as communicative sites for social change.

In what follows, I first provide a brief history of horses in veterinary medicine to illustrate their shifting status. Then, drawing on interviews with veterinary

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students, I examine how they create and maintain discourses around horses as a species. Finally, I discuss the influence of these discourses on equine medicine and their potential to elicit social change.

HORSES AND VETERINARY MEDICINE: A CO-CONSTITUTIVE RELATIONSHIP

Horses constituted the original focus of veterinary medicine. Joanna Swabe (1999) traces the origin and rise of veterinary medicine, noting that it began with the treatment of horses. In ancient Greece and Rome, animal doctors treated horses because they had such important roles in the military and in the sport of chariot racing. Horse racing later moved to other parts of the world and currently still thrives as a sector in which horses have a status similar to production animals; in racing, horses are regarded differently from animals in other production arenas, but they represent an investment and must bring eventual economic profit.

The first official veterinary college, established in 1762 in France, was devoted to more than just the study of horses, which had been the only focus of animal health for centuries. Indeed, the incorporation of animals other than horses is relatively recent. In the early 1700s, cattle plagues in western Europe called attention to the need to treat other species. Further, with the invention of the internal combustion engine in the early 20th century, the importance of horses rapidly declined. Technology replaced their role as work animals and providers of transportation. The veterinary profession altered accordingly, shifting its focus to animals used for food.

While veterinary *patients* were valued, however, the *profession* was not. It is important to note the significance of categorization regarding animal species. For instance, although companion animals readily receive veterinary care now, horses received it initially because they were *not* companion animals. In American veterinary colleges, as in Europe, the curriculum focused on horses as they were the most valuable animals of the time. Thus, graduates were primarily equine veterinarians. When innovations like the automobile replaced horsepower, horse value fell (Greene, 2009; McShane & Tarr, 2007). Veterinarians campaigned to promote the endurance of a horse economy to preserve the profession. They realized that a large portion of their work depended on the usability of the horse and were intent on trying to maintain its status as a valuable animal in need of veterinary services (Jones, 2003).

Jones (2003) explains that until replaced by technological advances, horses were markers of prosperity and enterprise. Not only were they expensive animals to maintain, but they worked in many sectors—similar to today's standards of a successful business possessing the latest computer technology (Greene, 2009; McShane & Tarr, 2007). With the introduction of motor vehicles, horses became less essential and, instead, became more of a status symbol. This transition happened in cities but also on farms (although more slowly), where horsepower was replaced with mechanical power. This changeover saw the increased incidence of horse slaughter. With decreased profitability of horses as workers, slaughter became a viable option for horse owners to recover money by selling their horses to processors who turned the horses into glue, leather, and dog food. As Jones (2003) states, "Throughout the 1920s more than 200,000 horses were killed yearly on farms and in packing plants" (p. 47). In response, to salvage their usefulness veterinarians urged Americans to eat horsemeat, previously a cultural taboo, during the meat shortage of the early 1900s; consequently, the American horse population decreased by 40% between 1910 and 1930. Recently, the United States Congress banned horse slaughter and, in 2007, closed the last American horse slaughter plants (Cowan, 2013). The ban was, in reality, a ban on federal funding for the required inspections of horse slaughterhouses. Activist support for the ban influenced the legislation. This legislation reflects another change that currently affects the definition of horses. Their status shifted from an animal who could go to a slaughterhouse in the U.S. to one who could not, effectively removing their potential label of food animal completely.

After the introduction of motorized vehicles, with few working horses left, most were in recreational or companion roles (Jones, 2003). Obviously, this affected the veterinary profession; veterinarians felt the threat to their careers. They tried to promote uses of horses and find new niches for them in a motorized society. Additionally, the profession began focusing on other species to broaden their services, thus redefining the role of veterinary medicine and shifting its focus to farm animals. Public health concerns over meat and milk production influenced this shift. Small animal medicine also compensated for the decline in equine practice. The humane movement was gaining power in the U.S. by the 1920s, and petkeeping was becoming more normalized (DeMello, 2012; Irvine, 2004). Therefore, in the cities, companion animal veterinary practices emerged. Jones (2003) explains that "veterinarians found ways to translate pet owners' regard for their animals into specialized care—and expanded their role as mediators of Americans' relationships with their domestic animals" (p. 140). Amazingly,

during the Great Depression citizens were still able to scrape together money to take the family pet to the veterinarian. With small animal practice, veterinarians experienced little competition. Farmers and animal scientists could treat large animals, but small animal practitioners cornered the market regarding companion animals. Initially, companion animal medicine had the smallest patient base and was the least profitable; however, currently it constitutes the largest and most profitable area of veterinary medicine.

In sum, horses in Western society shifted from being the focus of veterinary medicine to having a less significant place in the profession's purview, from being workers to companions, and from being abundant and necessary to being a limited luxury. As my research revealed, today, veterinary medicine is once again adjusting to changing values around horses.

CONSTRUCTING HORSES AS A BORDER SPECIES

I did not initially ask questions about horses in my conversations with veterinary students, but the students continuously brought them up as a topic for discussion. Consequently, I began to pay attention to the species as it seemed essential to understanding the tracking system. Horses are a difficult species to place within the tracks. The students' discourses around horses showed their border status. Four areas emerged as significant themes in the interviews. These themes represent border sites for negotiating the meaning and value of horses: purpose and place, medical practices, economics, and the horse slaughter ban.

PURPOSE AND PLACE

Purpose and place themes concern the related issues of how horses are used and where they live—the "what for" and "where" matters for how students regard horses. Jessica, a first-year student considering the large animal track, said, "When we talk about small animals, we talk about them in a cute way. When we talk about large animals, we don't talk about them in the same sense. Horses are on the fence; you kind of talk about them in the context that you think about them." The purpose of horses varies because they can be pets, like companion animals, or a source of income, like production animals. Alexis, a first-year student considering the mixed track, explained: "There are some people that just have pet horses, and there are some people where the horses are a means of income for

showing or breeding or whatnot." Some students recognized that horses' initial role in the U.S. centered on production, as workhorses or used for meat or other product. Katie, a third-year large animal student focusing on equine medicine, noted, "Even in the '70s I would say, even in the last 30 years, horses were . . . their value was strictly production oriented." The students also acknowledged that horses exited the production arena and now occupy, at least partly, the companion arena. Horses also exist now as pets. For instance, Abby, a second-year student considering the small animal track and focusing on exotic animals, stated, "Horses can be just as much a part of the family as a dog and a cat can." Abby, like many, attributed family member status to pets, allowing for horses to be a part of the family system in the same way other companion animals, like dogs and cats, are.

One noticeable change contributing to this shift is the geographic space that horses now occupy. Horses were present in cities at the beginning of the 20th century, but as work animals. With the invention of the automobile and other technological advances, they largely left the urban scene and existed primarily in rural settings. However, now, with horses used in petkeeping, they live in diverse environments. They reside on farms, in suburban backyards, and in cities. Recognizing this, Katie remarked that "the equine people," referring to students in that concentration, "are from a scattered background because horses can be an urban thing now." Scattered background references the different geographic areas from which students come. She sees a tendency for veterinary students to stick with what they know. Prior experience sways the decision of which track to declare. Many students identified the trend of urban students declaring the small animal track and rural students declaring the large animal track. Equine students represent diverse backgrounds. Because horses now reside in varied geographic spaces, students interested in them come from all over. A student with an urban, suburban, or rural background could have horse experience before coming to veterinary school. In this way, equine students do not have a standardized history because horses do not have a standardized place. Moreover, the students pointed out that regional perspectives differ regarding horses. Jessica said:

> I think it really depends a lot on where you come from, too. Like on the east coast, they're [horses] pets. Then I moved out to Montana and they're looked at much more like livestock. You have to look at people's priorities and realities and they're very different for some people.

Horses live on farms and ranches in a production-based capacity, they live in suburban areas and are used for competitive sports but also used as companions in showing or racing, and horses live in backyards as pets.

In addition to geographic space, social space matters, too. Social space refers to physical places that have social meaning attached. For instance, students pointed out the social meaning of the home versus the outdoors. The private sphere, or home, has the social meanings of family bonds, closeness, safety, and comfort. Although horses have achieved the status of companion or family member, they do not live in the social space labeled the home. "[Horses are] sort of like an extended family, but I think the real big difference is they don't live in a house," explained Sarah, a second-year student considering the small animal track. "So they're removed from where you and your family are."

The interviews revealed that place is significant for the meaning of horses. This could relate to the practicalities of animal size. Horses are physically large animals, which makes living in a house with them difficult. However, Sarah talked about the home with its associated social meanings, not as simply a physical structure. Therefore, whether or not size is the causal factor, horses are in a particular social space. Purpose and place go hand in hand because, when it comes to species, what one is defined influences where one is found, and vice versa.

MEDICAL PRACTICES

At the veterinary college I primarily researched, equine medicine fell within the large animal track. Students could claim their intent to study equine medicine, but it did not constitute an official track. While their program considered them large animal students, they found ways to distinguish themselves as equine students. The equine students I met used their freedom to choose their own upper division courses to select equine-focused classes. Some students from other programs had the option to declare equine medicine as their intended field of study. However, those students still described that in many ways horses are often grouped with other large animals, such as cattle. This typically had to do with the fact that the size of these animals required them to be in close proximity to one another in the teaching hospital barns.

After students continuously spoke of horses as different and not fitting into the large animal track, I asked why the veterinary school still placed them in that

category. Students relied on the explanation that their pairing was simply an old habit. Katie explained:

> Now, we don't even have that many ranches so it's not like everywhere there's a horse, there's cattle. There are a lot of places where there's little urban farms and a lot of horses, but no cattle. I think just historically they've been linked.

For her, the past association with horses and cattle, both as production animals, left a residual connection. Students told me that veterinarians were used to grouping these species together and so they continued to do so. The students also told me, however, that this grouping did not make sense in today's practice. For them, equine medicine is now too different from large animal medicine. Jenna, a first-year student considering the mixed track, pointed out a difference in the medicine:

> I do have to take a step back and tell you that I think that equine medicine I look at just a little bit differently from large animal. And that is considered a large animal. There are some real specialties starting to evolve in equine as well. You can be an equine surgeon, specifically for equine.

For these students, equine medicine no longer fits in the area of production. Yet the historic ties of horses and production animals continue to bind them. For example, Katie and I discussed the expectations of the two kinds of practice. She told me, "There are expectations that you do know how to work on ruminants [e.g., cattle]. If I want to go to Lexington and work in an equine practice, they don't give a crap if I don't know how to test a cow or handle a cow." To which I asked, "But your average farmer . . . ?" "Yeah," she replied, "like you might have to see a cow every now and again. They might ask you. I think there's just an expectation out there. 'What you're a horse vet? You don't know what a cow is?'"

Even the concept of horse has become problematic in veterinary medicine. Katie described, "And that's where the horse [issue] is a problem. Because [it] is now more individual [based], there are not many herds of horses." Katie overlooked the reality that herds of horses still exist in the United States, particularly in the West. Some consider these animals bad animals on the sociozoologic scale since we can define them as vermin encroaching on human spaces (Arluke & Sanders, 1996). Others consider them good animals as they bring forth the iconic images of majestic, beautiful creatures running wild and free on the open

range. Regardless, these contrasting ideas still place wild horses as a contested species, along with domesticated horses. The point Katie tried to make was to emphasize the shift of horses to a status that more closely resembles a companion animal's status. Lately, seeing individual horses as animals owned for pleasure is more common than seeing herds of wild horses. Additionally, with the spread of human settlements in the U.S., open ranges for wild horses are not as prevalent, and so while herds of wild horses still exist, they are decreasing in numbers. This shift surrounding horses has led to their decreased association with production animals, which places them in a collective herd, and their increased association with companion animals, which places them as individuals. Nathan, a fourth-year small animal student, explained: "Equine is definitely making that transition. So they're still dealing with a herd issue, but equine is the mix between the large animals and the small animals." Anna, a first-year student considering the mixed track, confirmed: "I think that the general public has the strongest ties to dogs, followed by cats, and then horses." According to the sociozoologic scale, horses are rising in the ranks as more individualized companions. This transition ultimately impacts the medical practices veterinarians direct toward them.

ECONOMICS

Horses now possess a status close to companion animals, which affects the economics surrounding them. Horses were the most economically productive species at the beginning of the veterinary medical profession. Now that they have transitioned from primarily workhorses to pleasure horses, their economic value varies. Alexis, who had horses of her own, stated, "Anyone with horses will tell you they are not economical to have. You spend way too much money and they do way too little for you." Alexis is expressing what many horse owners experience. According to the most recent estimates from the Colorado Unwanted Horse Alliance (CUHA, 2021), the annual cost of caring for one recreational horse for one year can amount to over $10,000. The total estimate depends on whether one already has tact and equipment and/or needs a place to board the horse. Based on the costs of hay, grain, and supplements and electrolytes, a horse owner could easily pay over $2,000 a year just for feed. By adding the additional expenses of bedding, a farrier to maintain the horse's hooves, deworming, vaccines, veterinary care, insurance, riding lessons, and other horse care products, one begins to see the expense of owning a horse as a companion. Travel back a hundred years and what Alexis told me would be considered humorous. As previously mentioned,

at that time horses certainly did not "do way too little for you." This is no longer the case. Today they are an unnecessary expense, as Jessica briefly described: "Cows, food. Horses, luxury. Dogs and cats, pets." To be sure, her words represent a simplistic categorization of animals. Dogs and cats can also be luxuries, and they can require expensive veterinary care; however, their maintenance costs are less than those for horses.

Although horses themselves are no longer profitable, what is profitable is becoming an equine veterinarian. Even though horses' economic value has declined, their social value has increased. As Anna explained, "Horses are companion animals, too, and that's why there's more money if you do large animal equine versus production animal." Katie agreed: "I think equine medicine is actually more like small animal medicine now, and people are willing to spend a lot on individual horses because they have this human-animal bond." Seeing horses as individual animals with whom humans can bond has led to a consequential increase in their worth—based not on their productivity but on their social status as companions. Further, horses help produce status for humans. As expensive animals, they can serve as living trophies for their human owners. If one is able to care for a horse, then one is assumed to have excessive disposable income.

Nevertheless, a cultural lag exists regarding the value of horses because they are not universally seen as companions (Ogburn, 1957). Katie pointed out the different equine sectors and the different human-animal relationships within those areas. "I would say there's some human-animal bond in showing," she explained. "There is some in racing but it's less so. I think it's more economics." While seeing horses as pets is more and more common, they still exist as work animals or animals who serve as economic investments. Katie later noted:

> The horse thing is so crazy because you can have the owner who doesn't want to spend any money on the horse and wants you to put it down right then as if it were a food animal or just a totally dispensable creature. You can have another one that wants to go spend 300 grand or more.

As previous chapters have described, small animal veterinarians also experience these varied encounters with clients. While this wide range of feelings toward the same species exists in small animal medicine, too, equine practitioners more routinely expect it due to the more pronounced border status of horses. They straddle the line between production animals and companion animals, and the economics surrounding them reflects this. Joanne, a second-year student considering the

mixed track, stated, "They're more of a commodity than a companion, for some people. And then [for] others, they're more of a companion." What this border status means is that horses are "in between companion animal, in between cows to slaughter," according to Sarah. The bounded areas of companion animals and production animals are so drastically different, which complicates the border that emerges around their boundaries. Students situate horses within this border. But residing in a border space has consequences for horses, such as the issue of horse slaughter.

THE HORSE SLAUGHTER BAN

Legislation also reflects the shift in cultural conceptions of horses. Many of the veterinary students I spoke with mentioned the recent horse slaughter ban in the U.S. As previously described, horse slaughter existed earlier in American history, and Americans have had cultural taboos before around consuming horsemeat. Therefore, this issue is not entirely a new one. However, in the past couple of decades there has been a great amount of fluctuation regarding horse slaughter, and in such a short amount of time. This fluctuation is represented in people's perceptions of horse slaughter, but also in laws at the state and federal levels that have either permitted or prohibited it. Horse slaughter is currently in a state of flux because of the variability of our definitions of horses themselves.

Nearly 105,000 horses were slaughtered for human consumption in the U.S. during 2006 (Cowan, 2013). The horsemeat was primarily for European and Asian customers. Present-day American consumers liken the consumption of horsemeat to eating one's pet dog or cat. While we do not currently eat horsemeat in the U.S., we were, quite recently, producing it here. According to Cowan (2013) in a Congressional Research Service Report for Congress, court action effectively closed the last remaining U.S. horse slaughter plants in 2007. This action existed at the state and federal levels. Several states had laws against horse slaughter prior to 2006 (Vestal et al., 2015). In 2007, it was the passing of an Illinois state ban on horse processing that closed the last horse slaughter facility. At the federal level, a ban on horse slaughter was enforced from 2006 to 2011 by preventing federal funding for horsemeat inspections. This effectively kept slaughterhouses from opening and operating until 2011, when President Obama approved a congressional spending bill (Cowan, 2013) that authorized the U.S. Department of Agriculture to inspect horsemeat processing facilities. The lift of the ban was even more short-lived than the previous ban itself, for in 2014, just three short years

later, the ban was reinstated because the spending budget signed by President Obama withheld funding yet again. Not long after, in 2017 under the Trump administration, the ban was lifted once again, although the USDA was quick to remind the public that the lift would not be reflected as quickly in practice, as there were no facilities that met all the required benchmarks to obtain a federal grant of inspection (Derfler, 2017). Currently, in part due to continuous indecision around government spending and inspections, there is no operational horse slaughter plant in the U.S. The social, and legal, debate over horse slaughter has become an annual one, with the executive and legislative branches of government deciding to include or exclude funding in spending bills each year. Although for now horse slaughter has ceased, proponents of animal welfare, animal rights activists, and others in support of a permanent solution continue to support the passing of a federal ban. Most recently, in May of 2021, H.R. 3355, or the Save America's Forgotten Equines (SAFE) Act of 2021, was introduced in the House of Representatives in the 117th Congress of the United States. "This bill prohibits the transporting, receiving, possessing, purchasing, selling, or donation by a person of an equine (e.g., horse) that the person has reason to believe will be slaughtered for human consumption" (SAFE Act of 2021, 2021). Time will tell if we see a more consistent stance on horse slaughter in this country.

The issue of horse slaughter is a complicated one. The legal codes, which seem unstable and wavering, represent the cultural contestation that occurs regarding horses. Horse slaughter is a contentious topic for the public. The veterinary students I interviewed, attempting to emerge from their training as animal experts, often debated this topic in their classes. These students overwhelmingly *supported* it. Some noted how it led to a decrease in horse abuse and neglect. The closing of horse slaughter plants did indeed lead to the rise in instances of equine neglect, abuse, and abandonment (Vestal et al., 2015). Therefore, this concern is a valid one. Alexis explained: "Well, we had a discussion in one of our classes last semester about horse slaughter, and overwhelmingly horse people are for it because since it stopped, there's been an increase in horse neglect." Other students who considered the decisions they will make in their future practice also brought up the ethical dilemmas around horse slaughter. For instance, Angie, a fourth-year large animal student focusing on equine, grappled with the idea of performing "convenience euthanasias." "I'll have a hard time with it," she said, "and I think I'd try to encourage the owner to explore other options, but if that's what they want to do, I'd do it because it's better than having them then decide to stop feeding the horse or something like that and have it be neglected." The ban on slaughter has

not effectively removed slaughter as a potential outcome for American horses. Many horses are shipped to Canada or Mexico, where slaughter is legal (Cowan, 2013). The horses make this journey in, oftentimes, deplorable conditions. They are transported long distances, exposed to bad weather, and provided with inadequate access to food, water, and rest. Many students felt that this was a complex issue about which the public was misinformed. Amy, a fourth-year mixed student, commented:

> Most people made that decision [to end slaughter] based on an uninformed opinion of "Oh, I don't want to see horses go for food. That sounds horrible, like a horrible end for a horse." However, because there is not that option to send a horse to slaughter in this country anymore, they're either being sent to Mexico to be slaughtered or turned loose to starve or just neglected and abused.

Their reasoning behind the link between the end of horse slaughter and the rise in horse abuse and neglect is largely economic. Anna predicted the ban will not last:

> Horse slaughter is illegal, although we used to have horse slaughter and we probably will again because it's not in the American budget to be able to maintain that many wild mustangs and burros, not to mention the families who can't feed that extra mouth and are just turning them out. The American economy is not going to be able to support the horse slaughter ban.

Although horses are increasingly regarded more as individualized companion animals instead of production animals, they still exist in the production world on farms that require them to provide an income. In this setting, horses are considered work animals who bring in further money when they age and are sold and processed into a product such as meat. This creates a complicated situation where horse owners, by necessity, cannot maintain these animals without horse slaughter. When horses aged and were no longer viable workers on the farm, slaughter was a means to dispose of the body and to provide additional income for the farm. Euthanasia of horses costs more than that of small animals because of their size and the equipment needed to bury the body. Nathan explained this process:

> There are no more horse slaughter plants in the states so you have all these people with these old decrepit horses that you can't do anything with. I mean, if

> you use euthanasia solution, you just can't leave them out there because that's a toxin that wildlife will get into and that will start a cascade of death. And burying it, it's more than six feet down to have it be contained, so now with that it's more troublesome to do euthanasia so, I mean, there's still humane ways to go about it. And . . . a bullet to the head under the proper supervision. I mean, you can't just go out there and aim and shoot. There's a specific location that you look for so there's no pain involved. It's quick, it's easy, it's as painless as it can be because it's instant—is the goal.

Nathan's "cascade of death" description carries some merit. The disposal of more horses each year could create environmental problems, such as soil and groundwater contamination (Cowan, 2013). With the option of slaughter taken away, and the inability of horse owners to maintain their aging horses, abuse and neglect has followed. Michael, a first-year student considering the mixed track, explained: "These are working horses, and if they have one that doesn't need to be alive anymore, they can't take that horse and get some money out of it." The price of horses has also been affected by the ban. Vestal et al. (2015) found that the horse slaughter ban reduced horse prices, on average, by approximately 13%. This resulted in a profit loss of about 14%. Lower-valued horses were more affected, consequently financially harming the lower classes with working horses more than the upper classes.

For these veterinary students, a cared-for life ending in slaughter offers a better scenario than a neglected life saved from the slaughterhouse. They consider themselves having a larger perspective on this particular issue of animal welfare. Katie noted, "You have to look at the issue on a big scale. Like a big, big scale. You can't just say, 'Slaughter is bad, therefore no slaughter plants,' and have all these neglected horses." The students often pointed out that those in favor of the ban were typically small animal students and that this debate constitutes a dividing line between large animal, including equine, and small animal students. Alexis experienced one such heated debate. "Most small animal people are against it," she said, "because it's slaughtering horses that are beautiful animals. We had that discussion and all hell broke out. It was horrible." The romantic idea of horses as noble animals reflects the shift toward companion animal status. Michael noted how the public internalizes this shift:

> One of our teachers explained that from what the general public, who voted for [the horse slaughter ban], what they saw were these commercials of these

> majestic horses running and "Do you really want to kill them?" and all that stuff, and media is just not fair sometimes.

For Michael and many others who support horse slaughter, the ban passed because the small animal ideology has become increasingly attached to horses. Supporters believe that this ideology, which considers animals as individual companions, misses the bigger picture, which large animal students understand.

The position on horse slaughter is not simply an individual-level response on the part of veterinary students but is represented in the professional discourse as well. In the aforementioned Congressional Research Service Report for Congress, the American Veterinary Medical Association (AVMA) and the American Association of Equine Practitioners were cited as actively opposing the horse slaughter ban because it did not provide for the maintenance of unwanted horses (Cowan, 2013). Similarly, the American Horse Protection Association (AHPA), which does oppose the slaughter of horses for food, also did not endorse the ban. Its claim was that horse sanctuaries in the U.S. may not have the means or business skills to accept large numbers of horses, and, again, that the bills did not provide support for this problem. The Humane Society of the United States (HSUS) also observed that equine shelters are less established and equipped than cat and dog shelters, which are often connected with local governments. Therefore they argued that distinctions need to be made between these different types of shelters. Considering the cost of horse maintenance described earlier, caring for unwanted horses is an expensive enterprise.

The issue that unwanted horses are being shipped over the borders to Canada and Mexico because slaughter is not permitted within the U.S. is another one that has been taken up by the AVMA (Cowan, 2013), which proclaims that the majority of these horses are being slaughtered for food, in unknown conditions, when they could have been slaughtered here under close U.S. regulatory oversight and without experiencing the long, difficult journey to Canada or Mexico to meet the same fate, perhaps under less humane circumstances. The statements from the AVMA mirror those I heard from veterinary students. Veterinary medical education's institutional influence on the professional identities and personal positions of students helps to assuage some of the confusion that comes with working with a border species such as the horse.

The passionate debate around slaughter is a consequence of the current border status of horses. As contested animals, horses present as a conundrum for veterinary students, who vehemently debate this species because of its perplexing

position in the social structure. Laws and federal regulation, such as those connected to horse slaughter, reflect these moments of transition and social change. As mentioned earlier, in 2006 Congress prevented federal funding for inspections of U.S. horse slaughter, consequently banning horse slaughter completely. I began my research in 2009, and after hearing so much about the horse slaughter ban debates from veterinary students, I focused on the border position that horses occupy. After I wrote an article on the concept of a border species, later the same year (2011) the federal government lifted the ban (see Vermilya, 2012). Since 2014, however, Presidents Obama and Trump have first reinstated and then lifted the ban yet again. And Congress is now considering a bill that might offer a more permanent ban. The story of horse slaughter, while difficult to follow, has not been surprising to me. For a species that is in transition and presents as a puzzling case for veterinary students, this legislation is simply reflecting that complexity.

BORDERS AS SPACES FOR CONFUSION AND ALSO CONNECTION

The border of the equine medical concentration within veterinary medicine is an ambiguous site for veterinary students, and horses are a contested species for them. Although boundaries are invisible lines that distinguish social categories from one another, borders are the spaces surrounding those lines (Morehouse, 2004). Consequently, borders can be confusing, ambiguous zones that consist of overlapping ideologies from different bounded areas. Borders can appear muddled, but they can also help make the bounded areas more defined. Although boundaries separate the small and large animal tracks, made clearer by the equine border track, the border track serves as a space for communication across tracks. In this way, it can be connecting as well as divisive. As a companion who lives out in the barnyard, horses represent a boundary object that bridges the small and large animal fields. They simultaneously maintain boundaries and help break down the barriers to communication (Bowker & Star, 1999; Star & Griesemer, 1989). Horses, as boundary objects, exist in the border space of equine medicine. Currently, horses help students solidify their definitions of large and small animals and maintain the boundary between them. However, boundary objects can also open the lines of communication across these constructed tracks.

Representing a species whose social definition has changed quite dramatically throughout the history of veterinary medicine, horses can facilitate a change in the structure of animal science and in societal views on animals. The issue of horse slaughter provides an example of this social change.

The students' discourses around horses and their placement in medicine, the economy, the law, and social life illustrate the strategic discursive tools of categorization. In each of the themes in which they discussed horses, students revealed that they could categorize horses as companion animals and then later as production animals. When it fit the situation they were describing, they played on the small animal characteristics to portray horses as pets whose owners are willing to pay exorbitant amounts of money to care for them. These characteristics included having family member status and the ability to form a human-animal bond. When the conversation turned to working horses, wild horses, unwanted horses, or slaughtered horses, the students adjusted their language to emphasize the large animal qualities that horses possess. These qualities included being considered income producing and disposable.

The process of grouping seemingly similar things together and separating seemingly different items apart helps us create and maintain boundaries around categories that may actually exist on a continuum. Zerubavel (1996) calls this process lumping and splitting. Lumping occurs when we construct entities as analogous to one another and assign them a label. For instance, we construct apple juice and tomato juice as members of the same group, juices, even though the properties of apple juice and tomato juice are arguably quite different from one another. Splitting occurs when we construct units as distinct and separate them into different categories. For instance, grape juice, while lumped with apple and tomato juice, is split from wine. Both grape juice and wine are drinkable, can be similar in color, and come from the same fruit. However, they are split into different classes: juice and alcohol. While grape juice and wine certainly have different characteristics, so, too, do apple and tomato juice. The significance of lumping and splitting is that they are products of social construction, enforced through language, that help us to decide *which* differences and similarities we choose to pay attention to, and which we do not. Lumping and splitting help us make sense of the world around us through boundary work.

The problem that a boundary object, or border species, presents is that it can bridge categories separated by boundaries. While this benefits communication between groups and allows for more flexibility for items that truly already exist

on a continuum, it also challenges our conceptualizations of categories. Students could lump and split horses according to the needs of the topic being discussed. For example, they could lump horses with small animals to explain their clients' willingness to spend thousands of dollars on them, but they could also split horses from small animals to explain why slaughter, something never considered for pets, is a viable option to care for unwanted horses. The problem emerged when I spoke at length with students about a variety of topics. This caused them to have to lump and split back and forth. People have become adept at categorizing our social reality, so this is not too difficult a task (Zerubavel, 1991, 1996). Further, Zerubavel (1996) states that, although seemingly contradictory, lumping and splitting also occur simultaneously. For example, when we split age cohorts, we inevitably lump people of the same age together. However, changing how one lumps and splits the *same* entity is a unique task, and individuals indeed find this difficult. Asking the students to describe various situations involving horses produced an acknowledgment of the ambiguity of this species. They could not defend a consistent definition of horses. Horses have no singular purpose, place, medical definition, nor economic value.

Horses are an example that not all species fit into these bounded areas, and so we place them in border spaces. In the context of veterinary medicine, horses are the most prominent border species since they have been patients throughout the history of the field. Therefore, they preceded the distinction between farm animal patients and pet patients. When the tracking system began to be widely used in veterinary training, horses were already oscillating between these categories since they never really were made to fit into either. Therefore, within veterinary medicine, horses are the border species that stands out the most. In other settings, different border species might emerge. Instead of being a geographic place or mixed cultural site, here the border space centers on an animal. While human-animal scholars have already recognized animals existing in borders, they tend to focus on a physical place (see Wolch & Emel, 1998). For example, these scholars discuss the border between a forest and a suburban area, where wild animals and humans have a chance to interact in an ambiguous zone. Horses represent an animal within a border space who is not limited to a geographic place. The veterinary students continuously noted that horses are in most places currently; even urban dwellers have access to them. This chapter combines the ideas of animals existing in physical borderlands as well as in human cultural thought. Horses represent an accomplishment of both. They are symbols who reside in

physical socially constructed places as well as occupy socially constructed spaces in our imaginings. Their border status extends further still and characterizes how equine medicine is gendered. The next chapter discusses the gendering of the tracks, with the equine concentration, once again, on the border.

6

GENDERED BOUNDARY WORK IN A FEMINIZED FIELD

AS I HAVE MENTIONED, VETERINARY MEDICINE EXPERIENCED FEMINIZATION drastically, as well as quickly, beginning in the mid-1980s. The feminization of veterinary medicine has actually resulted in the feminization of small animal medicine, leaving the smaller area of large animal medicine largely unaffected. In 2020, veterinarians in private practice who focused on food animal medicine exclusively or predominantly were 75.3 % and 71.6% men, respectively. In contrast, veterinarians who focused on companion animal medicine exclusively or predominantly represented 66.1 % and 54.1% women, respectively (AVMA, 2020). Thus, declaring the profession feminized is not a completely accurate statement. Because more practicing veterinarians are small animal practitioners and more small animal practitioners are now women, there are indeed more women veterinarians. However, I have emphasized thus far how tracking in veterinary medical education and the different specialized areas of animal medicine truly represent very different types of work, so it is important to look at these areas on their own. When we examine the specialties separately, only small animal medicine can be declared feminized, while men still dominate the practice of large animal medicine.

This chapter analyzes the boundary work veterinary students do to reproduce and justify the gendered segregation that exists in the different areas of animal medicine. First, I trace the history of the masculine origins of the profession to situate the status of women within a hypermasculine culture. I then use data from my conversations with veterinary medical students to show how they

understand the feminization in the profession. Specifically, I explore how students reconcile the existence of the gendered divisions across tracks and areas of animal medicine with their beliefs that gender is either unimportant, or important only in the most segregated area of animal production. I also examine how the students construct equine medicine as existing on the border; this concentration, which does not fit fully in either the small or large animal track, also exists on the border of the gender segregation between these tracks. The combination of feminization and boundary work, between both species and track, represents a significant social transformation of the profession and reveals much about the gendered experiences of students pursuing different areas of animal medicine.

THE MASCULINE ORIGINS OF THE VETERINARY MEDICAL PROFESSION

As previously discussed, livestock constituted the initial focus of the veterinary medical profession, particularly the horses whose labor at that time was so essential to the economy. Dogs and cats, the species we now readily associate with veterinary care, were not the profession's focus until the 20th century. Early veterinarians were often failed blacksmiths or farmers (Jones, 2003). The first schools of veterinary medicine in the United States were founded in Philadelphia in 1852 and New York in 1854. Around the turn of the 20th century, a group of graduates undertook the first act of boundary work on behalf of the fledgling profession when they lobbied for legislation to prohibit anyone without a license from practicing veterinary medicine.

Although no *formal* prohibitions barred women from the profession, women nevertheless faced numerous barriers. A large portion of the work of a veterinarian surrounded husbandry, including castration, a procedure deemed particularly inappropriate for women. Moreover, men argued that the barnyard was no place for women and warned that if they set foot there it would cause them to lose their "'delicacy of feeling'—[their] femininity" (Jones, 2003, p. 13). An 1897 article in the *American Veterinary Review* claimed that "veterinary surgery is of all the learned professions the one least adapted for women" (p. 12). As Jones (2003) argues:

> veterinary medicine, born of masculine barnyard culture, most emphatically did not allow for the expression of the feminine nature. The ideal of women

> veterinarians not only violated masculine livestock culture, it also threatened the professional aspirations of veterinarians. (p. 13)

The first woman known to have graduated from a veterinary program is Mignon Nicholson, who received a degree from Chicago's McKillip Veterinary College in 1903. Whether she ever sought a license or practiced is not known. Two women graduated in 1910: Elinor McGrath graduated from Chicago Veterinary College and went on to become a small animal practitioner, and Florence Kimball graduated from Cornell University and practiced veterinary medicine until World War I, when she became a nurse for the war effort. In 1939, veterinarian Margaret W. Sloss, interested in the experience of women in the profession, studied the status of women in veterinary medicine. She sent a questionnaire to each of the 10 schools of veterinary medicine then in the U.S. and sent personal letters to each of the 21 women graduates of those schools (AWV, 1997, pp. 5–11). Sloss found that half of the schools barred women from certain courses, even necessary ones, such as the large animal clinic and surgery. The dean of Kansas State College, R. R. Dykstra, explained why he objected to training women veterinarians:

> We do not encourage women to enroll in the curriculum in veterinary medicine. In fact, we try to discourage them, our reason being that we must refuse admission to many worthy young men, and to accept a young woman with the chances that she will not remain in the profession and to deny admission to a young man, does not seem logical. (AWV, 1997, p. 11)

BARRIERS FOR WOMEN

The veterinary profession created a self-fulfilling prophecy based on stereotypes about women's role in the family as those expected to perform the majority of the domestic labor and childcare, as well as those only providing supplemental income, if any. The consequences of this line of reasoning were seen in the hiring of women. During much of the 20th century, the largest employer of veterinarians was the Bureau of Animal Industry, the governmental organization charged with regulating the livestock, dairy, and poultry industries. The BAI contributed to the ideology of women as merely "temporary" employees by not giving permanent appointments to women veterinarians (AWV, 1997, p. 8). One female graduate of Michigan State University's program in veterinary medicine explained

the dilemma facing women by describing how unmarried women veterinarians would have so much trouble finding employment that marriage seemed a logical solution. The constraints placed upon women seeking employment made following the normative practice of getting married an easier choice to make. Ironically, if a woman veterinarian married another veterinarian, she "will degenerate into an assistant" (p. 10). And if she married someone in another profession, "she will either stop working or her husband will be condescending and patronizing about her little business—you know, like a hat shop—and infuriate her." By the 1940s, the already biased veterinary colleges were "closing their doors more and more tightly against women" (p. 10). And by the 1950s, only 139 women graduated from schools of veterinary medicine in the U.S. (Slater & Slater, 2000). In 1960–1961, the *Occupational Outlook Handbook* stated that of 19,000 practicing veterinarians, "fewer than 5 percent" [<950] were women (Bureau of Labor Statistics, 1961, p. 78). The *Handbook* also predicted "good employment opportunities throughout the 1960s" (p. 79). However, this optimistic depiction of the future would not include women for at least another decade or two (Irvine & Vermilya, 2010). The low numbers of women graduates of veterinary colleges continued until the 1980s. In 1970–1971, according to the Department of Health, Education, and Welfare, women constituted only 7.8% of those who received degrees in veterinary medicine (HEW, 1976b, p. A3).

Two major factors worked against women considering veterinary medicine as a career (Irvine & Vermilya, 2010). The first barrier was the stereotype that women lacked the capacity to study the sciences. Young girls and women were steered away from traditionally male-dominated professions such as veterinary medicine. In a report from the Department of Health, Education, and Welfare (hereafter, HEW), a woman veterinary student recalls how a female high school guidance counselor discouraged her from applying to veterinary college. The counselor directed her to fields considered more suited for women in the 1970s such as dental hygiene and physical therapy. Eventually, a male professor told her to "get those applications out to vet school." "If it wasn't for him," she explained, "I wouldn't even have applied. This was a woman telling me to forget it. And other people, too" (HEW, 1976a, p. 31). An interviewee who graduated from high school in 1979 had a similar experience when a male guidance counselor told her that, despite her love for biology and her excellent grades in the courses, she would never succeed in the sciences. Cases such as these involve not just men reproducing this stereotype about women's intellectual abilities but other women as well, who internalized this ideology and prevented women from considering the profession.

As the data in this chapter will show, contemporary men and women alike rely on similar tropes to explain gendered boundaries in the field.

The second factor working against women was discrimination within veterinary medicine and from others who worked with animals, particularly farmers (Irvine & Vermilya, 2010). The 1976 HEW report revealed that alumni and agricultural stakeholders pressured veterinary colleges to limit the number of women admitted. These pressures were validated through stereotypes that women would not practice once they achieved their degrees, thereby creating a wasted opportunity to enroll qualified men who *would* go on to practice. Most veterinary colleges openly stated in their admissions materials that they did not want women to apply. Others permitted them to apply but would not accept them, or accepted them only if positions remained after admitting all the qualified men.

The discrimination focused on the demands of the work, particularly the physical requirements of handling large animals. Male veterinarians argued that the strenuous nature of the profession made women ill-equipped to practice. For example, in the HEW report a woman veterinarian recounts a male associate's complaints that women were incapable of doing the job:

> I was at a meeting and one guy was very worried about the number of women that were getting into veterinary school and felt that maybe they should talk to congressmen or something to stop this massive influx of women. And he stood up and said: "I have a woman who works for me and every time a leg comes in to be pinned I have to do it because she's not strong enough." (HEW, 1976a, p. 39)

Thus, through the 1970s, a woman's perceived lack of intelligence and physical strength justified barring her from veterinary medicine.

REDUCING DISCRIMINATION IN ADMISSIONS

American colleges of veterinary medicine remained male-dominated until anti-discrimination regulations finally made the preference for men negatively consequential. Demand for veterinary services increased rapidly with the increasingly popular practice of petkeeping. Veterinary colleges could not keep up with the need for veterinarians.[8] The 1960–1961 *Occupational Outlook Handbook* cites the large growth in the pet population, the need to care for production animals

to feed an expanding population, the need for veterinary researchers and teachers, and the need to replace an aging cohort of retiring veterinarians as factors indicating "continued favorable opportunities for veterinarians in the long run" (Bureau of Labor Statistics, 1961, p. 80). To meet this need, veterinary colleges needed funding for expansion and improvement of facilities. Faced with the loss of federal support, veterinary schools began to revise their admissions policies to be more inclusive and less discriminatory.

The first step aimed at curbing race discrimination. In 1966, the Veterinary Medical Education Act amended the Public Health Service Act to include veterinary medical colleges in eligibility for construction, training personnel, and loans to students. Guidelines prohibited discrimination on the basis of race, color, or religion in hiring, admissions, or pay. In short, although the Veterinary Medical Education Act did not include gender discrimination per se, it did address other types of discriminations, paving the way for future legislation. Then, in 1971, the Comprehensive Health Manpower Training Act (Section 799A) mandated that the federal government could not make any loans or grants to veterinary schools unless they received assurances that there would be no gender discrimination in their admissions processes. In 1973 the Higher Education Act contained three provisions that also helped women: it (1) prohibited sex discrimination in federally assisted education programs; (2) amended portions of the 1964 Civil Rights Act to include women; and (3) extended coverage of the Equal Pay Act of 1963 to executive, administrative, and professional employees, including faculty (Irvine & Vermilya, 2010). The threat of federal withdrawal of funds, combined with the growing demand for veterinarians, led the HEW report of 1976 to project a need for twice the existing numbers of veterinarians. By the mid-1980s, women made up half of the entering freshmen classes, and their numbers would increase to 70% in the 1990s (Brown & Silverman, 1999).[9] The feminization of veterinary medicine occurred in just a few decades. In the 2013–2014 academic year, enrolled students in U.S. veterinary medical colleges represented 76.8% women and 23.2% men (AAVMC, 2014).

Veterinary medicine has experienced the highest rate of feminization among comparable health professions. For instance, during the period 1983–2003, the percentage of women graduating from medical schools increased from 28.8% to 45.9% (AMA, n.d.). Since 1988, the proportion of women in dental schools has remained constant at about 35%. Veterinary medicine feminized more rapidly than human medicine, osteopathic medicine, dentistry, optometry, podiatry, pharmacy,

or public health between 1968 and 1975. During this period, enrollments in veterinary medical colleges increased from 9% female to 24.4% (HEW, 1976a, p. 4). Veterinary medicine programs exceeded human medicine in first-year female enrollment in 1969–1970. According to the HEW report, "Changes in the nature of the work have made veterinary medicine seem a more realistic possibility to many women, and these changes have, in reality, made the field fully appropriate to women's full participation" (HEW, 1976a, p. 5). These changes in the work, which deemed it more appropriate for women, surround small animal practice, a topic I discuss later in this chapter.

The number of applicants to veterinary medical schools (and other professional schools) did decline in the mid-1970s. Between 1975 and 1978, the number of applicants to veterinary medical colleges declined by 22%. During the same period, medical school applications dropped 10%, and applications to schools of dentistry declined by 26% (Holcomb, 1980). Analysis of the trend in veterinary medicine shows the largest decline to be among white male applicants (which decreased by 36%). Therefore, the number of men decreased just as the number of women increased. Predictions about increasing employment opportunities for veterinarians have proved true nonetheless and seem to have benefited women, as evidenced by their dramatic numbers in the profession currently. Between 2007 and 2019, the supply of actively employed veterinarians increased from 83,730 to 116,091 (AVMA, 2019). Today, the majority of veterinarians who work in private practice, small animal exclusive settings are women. Men are more likely to treat large animals, either predominantly or exclusively. Men and women are relatively equally likely to engage in equine exclusive medicine (see AVMA, 2019). These numbers have parallels in the training of veterinarians. I turn now to my conversations with veterinary students, focusing on how they understand the segregated feminization in their profession.

"IT'S A MAN'S WORLD": GENDER IN LARGE ANIMAL MEDICINE

When I spoke with veterinary medical students for this study, they were well aware of the feminization of their chosen occupation. While they knew that women constitute the numerical majority, they also knew exactly where to find the limited numbers of men: large animal medicine. Stacy, a second-year mixed student, reflected:

> When you say small animal clinician, I think female right away. And if you say large animal, then I think male right away. And that's predominantly what I've actually seen. Like the couple of internships I've done in the small animal practice, I think there's only been like one male that I've encountered as a veterinarian. Almost all the vets I've encountered on my externships doing large animal rotations have been males.

Similarly, Angela, a fourth-year small animal student we met in previous chapters, noted, "In large animal, it still seems to . . . it's not quite as much of a shift. It seems like there's still a lot of men in the profession." Once I questioned students about the gender makeup of the different specialties, they realized the inaccuracy of the term "feminization." The term applies only to small animal medicine.

When discussing the predominance of women in veterinary medicine presently, the women I spoke with acknowledged the benefits this brought them. Lisa, the third-year mixed student, remembered:

> I feel like it's a bit easier for the small animal side because I'd say there's just a lot more women technicians. There's more women doctors in general. Like, I guess growing up, you know, there's a lot of—I think there's still a majority of male practitioners in my town. But there were women. And it wasn't weird or unusual, or "Oh, don't go to the woman doctor." I don't think that was true for me growing up. So that never seemed like a hurdle for me. And I don't see it as as big of a problem on the small animal side.

Lisa recognized that the normalization of women as veterinarians paved the way for her to be seen as competent. She observed that women in small animal medicine experience little resistance in their battle for legitimacy. However, she also alluded that the same may not be true for those in large animal medicine.

Although the students saw that having more women in the profession provided women the benefit of normalizing their presence, many also realized that inequalities still exist, even in the female-dominated area of small animal medicine. For instance, Cathy, a fourth-year mixed student we met in previous chapters, recognized the disparity in practice ownership when she joked, "More of our male vet students are in large animal, mixed, or equine. Now there are some that are in small animal and, hey, good for them. You all are going to own like 7 practices in 15 years. The three of you!" Although men might constitute the numerical minority in small animal medicine, they still reap power through practice

ownership and, consequently, larger paychecks. Women earn 80% of what men earn 1 year after they graduate, and after 10 years they earn only 69% of what men earn (Bristol, 2011). Even accounting for hours worked, years in practice, specialty area, parenthood, and ownership status did not alleviate this discrepancy. Among men and women practice owners, the salary differential still exists. Women have been found to set lower rates for similar services and to give discounts more often than men. They may also be reinvesting their earnings back into their practice or paying their associate veterinarians and staff more (Bristol, 2011).

The inequality is compounded by the fact that men do indeed expect to participate in practice ownership more often than women. Bristol (2011) found that male veterinary students were more likely to expect to become a practice owner in their career. Consistent with this, Michael, a first-year student considering the mixed track whom we met in the previous chapter, talked about his involvement in extracurricular clubs that prepared him for practice ownership:

> It's called the VBMA, the Veterinary Business Management Association. And it's rare that, I mean, it's a great club but it's a small club because nobody wants to do the business behind it. They have no problem working for someone and making x amount of dollars for the rest of their life. . . . I've also noticed that there's a lot of men in the business because I think that maybe we feel we have to provide.

For Michael, gendered expectations and the male breadwinner ideology pressure the few men in small animal practice to be practice owners. All students, perhaps unknowingly, described how men occupy powerful positions in veterinary medicine. In small animal medicine, while their numbers are low, men are more likely to own their own practices and thus earn more; in large animal medicine, they constitute the numerical majority and therefore have a "boys only" club.

GENDER AND CHOICE OF TRACK

I asked participants whether they thought that gender mattered in veterinary medical education and in their future professional careers. Overwhelmingly, they told me simply, "No." And yet, they then went on to describe extremely gendered experiences they have had working in this occupation. I often would point out to them a gendered example they used and they would rarely recant their

earlier emphatic denials but instead would qualify their answer. For example, Patricia, a second-year large animal student we met in a previous chapter, said, "Ironically, I don't think gender matters, unless sometimes if you're dealing with really old-school food animal producers." Although gender obviously matters in *all* areas of animal medicine, for these students it is so palpable in large animal medicine that the students could not deny that it affected those doing that type of work. They revealed that gender influenced their decisions about the track they would pursue in veterinary college but also their experiences once they were in a particular track.

When I did push the students to explain how gender affected their tracking choices, they relied on essentialist tropes regarding which traits men and women naturally possessed and which tasks they then were naturally better equipped to perform. These gendered ideologies centered around two main themes: caregiving identities, discussed in Chapter 4, and specialty knowledge and treatment discourse, discussed in Chapter 3. This chapter expands those earlier analyses to demonstrate how these themes are gendered. I found that the students used essentialist discourses not just to explain their lived experiences of gender segregation but also to define and reinforce the boundaries that exist in their education and future profession.

CAREGIVING IDENTITIES: CARE AS WOMEN'S WORK

The veterinary students I spoke with repeatedly described women as caregivers. They did this in various ways, the first of which described women's responsibility and desire to care for a husband and children. For example, Patricia reinforced gender stereotypes around women wanting to have families. She told me, "I think women—at least with what I've seen with talking with people, you know, women want to be able to have a family. They want to get married. They want to have kids." I asked her if it was more difficult to have a family in one area of animal medicine over another. She explained:

> You can do that, certainly, as a food animal vet, as a rural veterinarian, but it's harder. It's harder when you're that rural vet because you've gotta be on call 24/7, 365 sometimes depending on where you're working, you know. And so I think that sometimes has to do with that . . . is that women just . . . they wanna . . . they wanna have a job and they wanna have a family and it's easier to do in small animal.

Patricia went on to explain that with an equine or food animal practice, "you're at the service of your client, which means even if you're not on call, your client has your cell phone number." If a client calls in the middle of the night about a sick horse, "you're not gonna say, 'No, I can't come. It's 1 a.m.' You know, you're gonna go, 'Okay.' You know, 'Let me throw on some jeans and my Carhartt and let me get in my truck and go.'" Then Patricia returned to the biologically based stereotype:

> And so I think when you're a woman, and if you have kids or, you know, a husband, you know, it's a little harder. 'Cause you're going, "Aw, but if I want to have kids and I'm nine months pregnant, I don't wanna be . . ." You know, it's hard to tell your clients, "I'm gonna take off for nine months 'cause I'm having a kid." You know? 'Cause, I mean, even though they understand that, they still panic because they think "Oh well, who am I gonna call for the next year when I have that emergency? You know, who am I gonna . . . who am I gonna turn to?" And so, it's not that people aren't understanding that you want to have a family, but it just becomes logistically a little harder, I've seen, to work that.

Patricia's detailed explanation points out the logistical complications that come with working in large animal and equine medicine. These jobs often require around-the-clock working hours, particularly because much of production and equine medicine centers on reproduction, and animals, like humans, do not maintain a schedule in that regard. So, while working with a family might pose difficulties for all women, it is particularly difficult for women in large animal medicine because of the demands of the work. This difficulty is normalized, of course, through the expectation that *women* will perform the majority of the care work within a family. The "second shift" that Hochschild and Machung (1989) termed still applies; women are expected to perform double duty, working both outside and inside the home.

Patricia admitted that men are also capable and even willing to do the care work within a family: "I think with men it's not that they don't [care]. It's not that men like being away from their kids any more than women do." However, she explained that women are expected primarily to do the care labor because of the biological reality that females carry children through pregnancy:

> It's being that nine months pregnant and then, you now, wanting to maybe breastfeed. They feel like they want to be there. They're like, "I carried this

> kid for nine months. I don't want to just pop it out and then say, 'Adios, see you later.'"

I asked her if fathers felt this way, too. She thought about it and said, "I think with a woman, sometimes you feel like you have to take off longer. Because a guy, his wife may be pregnant, but that doesn't mean he's gotta say adios to his clients for nine months." She continued to rely on the pregnancy explanation to justify why women have to be away from their work more than men when a family is growing:

> Whereas women are like, "I mean, I could maybe work for the first three to six months, but that third trimester, I'm sure not gonna be on call." You know? And so I think with women it's just that they know they're the ones carrying the child and they're like, "I don't wanna be putting myself in situations where I'm gonna harm the child." Whereas a guy isn't the one carrying, so they're like, "Well, my wife's pregnant, but I can still be working long hours." And, you know, still just try and work in time to take care of her. There's this difference between the person who's actually got the child versus the person who's like, "Well, my wife's pregnant, and yes, I do have to take care of her, but there's not a living thing growing inside of me."

She acknowledged that men do some of the care work within a family, but they have to "work it in" to maintain their jobs outside of the home. Patricia, like many other students, assumed that men and women have essentially different roles in the family. First, they often took it for granted that women wanted to have families. Second, they did not question that within those families women would perform the majority of the at-home labor, which would mean being physically present for their family rather than their job. And third, because they held the first two assumptions as true, they consequently assumed that this explained why women chose small animal medicine over large animal medicine: the work requirements were more conducive to fulfilling these gendered roles.

Another gendered trope used by the students manifested itself in their image of women as naturally more nurturing than men. Alexis, a first-year student considering the mixed track whom we met in the previous chapter, brought up this stereotype:

> I think, in general, women are maybe slightly more nurturing, maternal, or something like that. And I think that's something that a lot of people with

> companion animals like to see in their animal doctor. For a lot of people, animals are almost like children, so you want somebody that's compassionate.

Alexis points out the nurturing characteristic required of small animal practice. As discussed in earlier chapters, small animal medicine centers around a different type of care—care for individual animals who are often like family members to their owners. Animal health knowledge is not the only thing a client expects to receive when visiting a small animal veterinarian; they also expect a particular bedside manner involving nurturing care.

If small animal medicine has specific gendered expectations, which are typically essentialized as existing mainly in women, then large animal medicine also has expectations that correspondingly apply to men. For example, Michael applied gender stereotypes to practicing large animal medicine:

> It seems like it's easier for guys to blow off something [emotionally] if we're going to euthanize a cow, where the female practitioner might feel pretty bad for a cow. She could be thinking, "Oh, I can save this thing [the cow] but they don't want to pay for it so I guess we got to kill it." You know, that's harder for women, just being more motherly, you know, [having those] characteristics.

Here, Michael portrays women as naturally more nurturing and men as devoid of compassion, able to blow off the death of an animal. This supposed detachment from caring allegedly allows men to do the work of large animal medicine more easily. Slaughter and cost-driven euthanasia are examples of this "harder" work in large animal medicine that sensitive women may not be equipped to handle, according to the students I interviewed. Ironically, however, small animal medicine, too, deals with many tough situations that surround death (Herzog et al., 1989; Morris, 2012). But the students recalled the stories that affirmed their essentialist explanations and ignored anything contradictory.

Another essentialist account the students offered for why caregiving is a woman's job involves emphasizing what is a man's job. Anna, a first-year student considering the mixed track whom we met in the previous chapter, explained:

> When it comes to being a doctor, it a lot of times is a more nurturing role for women to have to go and practice medicine, whereas a man, in general in America, is going to be looking more to be a breadwinner. And there's not a

> lot of money in vet med, unless you're going to a metropolitan city and practice small animal or exotics. A six-digit salary is definitely not in the crystal ball for anyone in the first five years they're getting out, and mainly the ones who are going to be making the good money are the ones who are going to practice business [by owning a practice] at the same time.

Patricia reinforced Anna's statement when she said, "The men feel like, 'Well, as long as I keep working, I am providing for my family. I am doing my role.' Whereas the woman feels like, 'Well, I'm supposed to be the one taking care of the child.'" For Anna, Patricia, and others, just as a woman understands that her place within a family is to provide nurturing and in-person care, a man equally understands that his role is providing economic support through his labor outside the home. These seemingly outdated gender roles remain salient in the minds of the students I interviewed.

GENDERED SPECIALTY KNOWLEDGE AND TREATMENT DISCOURSE

Veterinary students have also essentialized gender through the boundaries around specialty knowledge and treatment discourse. The influx of women into the field initiated changes across the board in veterinary teaching institutions. These changes included more female faculty to serve as mentors, more counseling opportunities that focus on the balance between work and family, and even more space for women in the original gender-segregated locker room (McConnell & Kogan, 2000). Another difference is in the view of animals. Studies show that women in the general public tend to give more empathetic characteristics to companion animals than men do; in other words, more women than men report that they believe pets vicariously experience the feelings, thoughts, or attitudes of their owners (Vitulli, 2006). Female veterinary students more often rated gentle patient care as an important characteristic in defining a successful veterinarian than did male veterinary students (Kogan et al., 2004). One study analyzed veterinary students' attitudes toward animal welfare and whether those attitudes varied across time (Paul & Podberscek, 2000). Students in their later years of training perceived lower levels of sentience among animals than did students in their earlier years. In the same study, female students rated themselves as having significantly higher levels of empathy with animals than did male students. The

study also found a significant interaction between sex and years of training, with female students maintaining relatively high levels of empathy and male students showing lower levels of empathy in later years.

Along with the beliefs regarding the sentience, empathy for, and general care of animals, the human-animal bond practice has emerged within small animal medicine. The bond-centered practice acknowledges the bond between human clients and animal patients. The significance of the bond, and its perceived centrality to an animal's health, reflects the socially constructed status of companion animals in contemporary U.S. society. We now think of companion animals as members of the family, with the ability to participate in close relationships with humans. The bond is a culturally accepted notion, and therefore small animal practitioners have incorporated it into their practice of medicine. The result makes the experience of taking a sick animal to a clinic more akin to taking a family member to a physician than taking a car to a mechanic.

Women overwhelmingly have reported higher levels of preference for and importance placed on the bond-centered practice. Studies of veterinary students show that females attach more significance to the role of the human-animal bond in their lives as well as their careers, and they feel that the bond should be addressed more in their training in veterinary colleges (Martin et al., 2003; Williams et al., 1999). Similarly, female students regard providing emotional care for their grieving clients as more important than do male students, and they feel that training is needed in this area (Butler et al., 2002). In short, women appear to be the major proponents of the bond-centered practice in veterinary medicine. They are not only more likely to implement attention to the bond in their own practice but they also wish to stress its implementation in the training of veterinarians. Female approval of the bond and feminine ideals of nurturance and caretaking give women advantages in small animal medicine, even though the profession may still have a masculine culture (Irvine & Vermilya, 2010).

Similarly, the masculine ideals of strength and a lack of emotionality, combined with men's distancing from the emphasis on the human-animal bond, help men continue to dominate large animal medicine, in ideology as well as in numbers. These gendered assumptions keep men and women in their respective corners of animal medicine. The students I interviewed relied on essentialism to justify this segregation. One frequent essentialist explanation the students used to account for why men work in large animal medicine is their greater physical strength. Second-year student Elizabeth pointed out:

> I mean, you're just working with larger animals. You're working with larger tools, larger instruments, larger amounts of fluids, larger amounts of medications. I mean, you know, larger abscesses. I mean like everything about it is just bigger, and so you definitely . . . you know, you have to use brute force to lift things, and push things, and pull things.

For Elizabeth, the requirements of large animal treatment need brute force, which men have and, apparently, women do not. Courtney, a first-year mixed student we met in previous chapters, relied on biological essentialism to simplify why she preferred to work with men: "And I've done a few things that have been pretty much female teams. We get things done, but there's a lot of things that would be easier if we had a stronger, big man. That's just biology." These veterinary students, so well versed in biology, often relied on biological explanations to understand gender segregation.

The students also gendered other aspects of the work, besides the physical strength needed, as masculine. Along with what the work involved, where one performed it also mattered. As Lisa described, with large animal medicine, "a lot of time the work is harder. There's more accidents. There's more things that can go wrong. It's more outdoorsy. In that sense, yes. It's more masculine." The work involved in large animal practice is very different from the indoor, nine to five work associated with small animal practice. As mentioned before, animal production centers on *reproduction*, which does not always adhere to daylight working hours. And because these animals are, for the most part, physically larger and are seen as tools instead of family members or companions, they live outdoors where anyone working with them is also exposed to the elements. Outdoor hard labor is traditionally men's work.

In our conversations, veterinary students drew on physical and emotional gender stereotypes to explain the gendered boundaries that divide the areas of practice. They relied on essentialist characteristics of men's and women's caring identities, knowledge, and interest in different treatment protocols to explain the gendered segregation across the tracks. Thus, they helped to reinforce the boundaries around men and women in veterinary medicine. Alternatively, the boundaries between small and large animal medicine can help explain why feminization has developed in one area and not the other. I will propose better explanations for the segregated feminization later on in this chapter, but first I will highlight the inconsistency of the students' essentialist discourses.

CONTRADICTING ESSENTIALISM

Although the veterinary students I spoke with used many variations of the essentialist tropes just covered, they also later backed away from these assumptions. They found that many cases did not fit their conceptions of how gender worked. After I pointed out their inconsistent arguments, students admitted that essentialist explanations do not hold up.

The first essentialist ideology usually discredited was the idea that only women can be nurturing caregivers. Angela admitted:

> You know I think some of them [men] are just as compassionate, and caring, and nurturing as some of us women are. But it seems to still be a trend that they . . . more men do the large animal stuff, and so I haven't really seen it as much in the men as with the women. But I definitely have some friends that are male that are very good at, you know, empathizing. And I think they can do it just as well, but they're just not quite maybe not as prone to doing it.

Angela implicitly acknowledged that the concentration of men in large animal medicine provides few opportunities for men to exhibit empathy. Similarly, Cathy recognized men's capacity for empathy but went on to explain:

> I think male veterinarians are more successful because they can distance themselves a little more and [emphasize] the business aspect more. So I think men are more successful at business because they are not as empathetic and willing to be like, "I understand you have five kids, and you chose to adopt this dog. I'm going to help you out and give you a discount." Nope, you're not going to really hear that too often from a male.

Cathy, like many other participants, contradicts herself by using an essentialist explanation of women having more empathy than men and men being successful at business due to their lack of empathy. The reliance on inherent gender characteristics governs how veterinary students understand the gendered differences in their field, even if they can reliably bring to mind contradicting examples.

Another contradiction occurred often when discussing families. Earlier I described how the students assumed that women wanted families and portrayed their desired role as that of the at-home caregiver. For example, Patricia realized:

> You know what? I have heard some of the men talk about it, too, though. About "We're thinking about having kids. Maybe we should have them now? Maybe . . ." Because they—at least the men in my class who are married—they're very much family oriented. So they would hate to miss anything out on their kid's life. And so it's a discussion . . . not as much. And maybe it's just because men don't talk about these things when they're in a public . . . Like, women talk about many things, so they don't necessarily care who's around, whereas men I think sometimes are like, "I'm not gonna talk about this while [people are] around."

It occurred to Patricia that societal expectations constrain men from admitting their desire to be involved in family life outside of the breadwinner role, instead of assuming an essentialist propensity for men not to have that desire at all.

I asked Elizabeth, who had brought up how large animal medicine required brute force, if she thought women could nevertheless perform those tasks. She responded with an enthusiastic "Yeah, oh, I totally think so!" and went on to say:

> I've seen some really badass residents that are shorter than me and they're like these little, tiny, teeny tiny things. And the first time I went out on a dairy visit was with this little girl—not little girl—she was this very short woman. We went out and there was [something wrong] on this cow. And so she and the clinician, they just flipped the cow over, and I mean she was like teeny tiny. But she was just like strong. And it's just like one of those things where it's like when you're surrounded by mostly men, you kind of have to pull your own, and you have to get it done or, you know.

When I directly asked about women's ability to do the work necessary in large animal medicine, everyone could think of women who challenged the stereotype of the weak, incompetent female practitioner. I found it interesting that Elizabeth corrected her language when she first referred to the woman as a "little girl," but then replaced it with "short woman." The participants, men and women both, often used younger descriptors when speaking about grown women in their profession. The link between youth and lack of competence in their discourses has consequences for veterinary students imagining women capable of doing the work in large animal medicine.

But the physical strength of women is not the sole essentialized characteristic used to limit their entrance into large animal medicine. Size matters, too. Lisa recalled:

> Actually it's really funny 'cause we had one clinician come out who was . . . she was tiny. I mean, just to palpate the cows she needed a stepstool and she had a tiny little arm that really didn't reach all the way. But she could still feel the uterus, so she could still do her job.

The students overlooked how size varies within the sexes. They portrayed all women as small and weak, and all men as big and strong. However, they could readily recall strong women and recount how even small women could do the job.

One significant admission that most of my participants made concerned the myth that large animal medicine requires a lot of physical strength. Alexis pointed out, "Personally, I think when you're dealing with a 2,000-pound bull, I don't think another 50 or 100 pounds makes that big a difference." Many of them admitted that a 130-pound woman and a 200-pound man likely have the same chance of controlling an animal who outweighs them by 1,000 pounds or more. Stephanie, a first-year mixed student we met in an earlier chapter, also noted the irony that one working in small animal medicine actually often uses more physical strength on a daily basis than one uses in large animal medicine. She said, "You need 200 pounds to be able to move the gate of a stock or something? I probably end up carrying around more large dogs than you do." Truly, small animal practitioners likely lift more weight throughout the course of their days, attempting to put large dogs on the exam table, for instance, while large animal practitioners have equipment to help manipulate larger animals. As Michael explained, "Large animals are big, but there's certain techniques that everybody can learn to manage it just right." He points out that brute force is not necessary if herding and animal handling techniques are used. Therefore, the idea that strength is necessary to work on large animals is a myth, and various sizes of women and men can still do the work.

Throughout my conversations with veterinary medical students, they routinely relied on essentialist explanations to account for the gendered segregation across the tracks and areas of animal medicine. Yet when challenged, they also contradicted these assumptions with examples that did not support them. When

asked about these assumptions, many students reflected on societal constraints. Ultimately, most students attributed gender differences to socially constructed explanations instead of inherent essentialist ones. I found that essentialist discourses served to define the boundaries in their education. In our conversations, the students largely contradicted their initial postulations for how and why gender operates the way it does in their profession. In doing so, they uncovered better explanations for gender segregation, which I now discuss.

THE GOOD OL' BOYS CLUB

One of the more accurate explanations for why large animal medicine has eluded feminization and the influx of women involves the "good ol' boys club" of animal production. Angela described:

> I know from talking to people that are large animal or equine that there are certain places and certain job offers and such that won't even consider [you] because they know that being a woman—going out in a rural area trying to talk to a 65-year-old farmer cattle-ranch guy, they're not going to listen to a thing we say. I definitely think it's still a big factor in everybody's decisions and how we approach situations and how we're treated.

Earlier I noted how my participants felt that gender did not matter in their experiences in veterinary medicine, except when they gave the qualifier that it might in large animal medicine and animal production. Patricia stated, "Every now and then [you] come across a very old-school producer, maybe pushing 60, 70 himself. And when a female comes out, he's a little taken aback. I think that's really the only situation I've heard of where being a woman has mattered." Lisa agreed that these types of reactions might be unique to large animal medicine:

> I think it [gender] still matters, actually more, more for the large animal side. They still have, like, the really old guy, old cowboy. And not that there aren't really awesome large animal female vets that are well-respected, but I think there's still a bit of a boys club on that side. So especially on the large animal side, new graduates tend to have a harder time being credible for the first couple years out. They tend to make much lower salaries.

The boys club that Lisa referred to has consequences for women that extend beyond just being admitted to not being fairly compensated or being dismissed and ignored once in the field.

The discrimination that affects women in large animal medicine relies on the entrenched stereotypes about women discussed previously. Cathy recalled:

> I've noticed that with mixed animal and with large animal—like farm animal and production—farmers don't want to talk to a 27-year-old girl. They don't want that. They want to talk to a guy that can manhandle that cow into a stock. They're not going to believe that I can pull a calf.

The stereotype that women, no matter their age or experience, are limited in their physical capabilities reinforces the myth that strength is necessary in large animal practice.

Another way that animal production institutionalizes sexism centers around its language. Sarah, a second-year small animal student, used the language of "horsemen" and "cattlemen," likely unconsciously, to gender large animal owners:

> It seems to me that horsemen and cattlemen really know their stuff. Like they do so many procedures to treat their animals before they even call a vet out. Like they really know what their animals . . . what they see all the time and all that stuff. And it's just . . . it seems that if I did really choose to pursue a large animal route, and I'd know the medicine, that's not a problem. But I just feel like there would be shortcomings for not having the amount of experience that the owners have. And it just, I don't know, I guess I'd just be afraid of making a total fool of myself around the owners. [Laughs]

Similarly, Alexis noted, "A lot of times with livestock production the ranch foreman and farm hands you're dealing with, a lot of times, are not white women, so it's kind of nice if you can relate to them a little bit better." These students, through their language, limit the possibility that women can practice in animal production, on ranches, and in large animal medicine. The idea that women do not belong in these areas also intimidates some from entering. They well understand that they do not possess the normative identity. Further, they also understand that the boys club that dominates these spaces is privileged through historical and traditional dominance. The intimidation, along with the discrimination, that women face when trying to infiltrate the good ol' boys club of large

animal medicine serves as an effective push factor, keeping women out of this area of practice.

PROVING YOURSELF

The good ol' boys club works in combination with another deterrent that keeps women from entering large animal medicine. While the hypermasculine club pushes women out of the field, if they manage to make it in, they find that they have to work harder to gain acceptance and respect. This is a stark contrast to the experience of men in female-dominated occupations. Men doing "women's work," while susceptible to having their masculinity and sexuality questioned, reap benefits through higher wages and status (Williams, 1993). The token experience for men and women is very different, as women in male-dominated occupations experience the struggles previously discussed: discrimination, harassment, and pay inequity. Women in large animal medicine have to prove themselves in different ways than men to stay. Patricia explained:

> And sometimes dealing with food animal producers, you gotta be a little … you gotta be a little tougher as a woman and you gotta kinda be careful with how you sometimes, maybe, say things or how forceful you are just because sometimes in the food animal business you do have these old-timers who've been around for a long time. They're very knowledgeable, but they're not used to seeing females out there. So, they're kind of a little skeptical of if you have to say something. You know? And you kinda … you gotta prove your mettle is basically what I've been told.

Elizabeth noted, "The women that do large animal things, they maybe … yeah, they maybe have to not just really prove themselves, but they may have to do a little bit more to gain respect sort of from their male counterparts." Both of these students describe how women have to do more for male clients to see them as experts. Similarly, Patricia reflected:

> You know, they just kinda say, "You know what? You've gotta prove you're capable, more so than a man may have to." But, at the end of the day, if you can prove you're worth your services, then they'll be willing to accept them. That's really the only case where I can think of where being a woman has mattered.

> For the most part, you know, as long as you come out there and you don't . . . You show that you're capable. You show that you're smart. You show that, yes, I did go to four years of school and I learned something. People don't care if you're a man or a woman, as long as you can [do this].

Many of the students dismissed this extra work as inconsequential. They all recognized that women had to do more to get the same respect as their male colleagues, but for the most part, they did not consider this disadvantageous. They accepted that this was the way things were for women in large animal medicine. Patricia described how one has to just accept the job as a masculine one and said that women need to deal with it by toughening up or getting out:

> I think with food animal it tends to be a little more masculine because you're dealing with such large animals that sometimes, I think, you kind of have to get this "you're gonna get down and dirty" attitude. You know? And you're kinda . . . Like, that's kinda the attitude people have. Like you're not gonna be . . . you know, it's not this pristine, clean job. You're out there, you're in the mud, you're gonna be getting your hands dirty. And you're gonna have to . . . you're dealing with animals that weigh 1,000 . . . 2,000 pounds. You're gonna have to be a little tough, you know.

However, the "proving yourself" work that women must do has consequences for them, whether or not they are readily discussed. For example, Stephanie recounted the experience of an acquaintance working on a PhD in wildlife biology. She had been released from her position in her lab. As Stephanie put it, the woman

> had a very difficult time trying to get people to take her seriously. Possibly one of the things that got her let go. There are some similar instances I've run into in the veterinary field, where it has been difficult to either make myself heard or be taken seriously.

I asked her how she managed these instances, and she responded:

> I tend to try to take the track of I'm just curious about things. I'm gonna ask you about all sorts of things. And I'm gonna ask you questions that I actually have very strong opinions on, but by asking you in this kind of way, it just comes off that I'm curious, not that I'm questioning your abilities or your thoughts.

> I would say the majority of people who use that route are women. I think it's still certainly an issue of how you're perceived, not only as a veterinarian but just as a person in general.

Stephanie's method of appearing unchallenging to those who may not respect her is to come across in as nonthreatening a manner as possible by downplaying her own authority and expertise. While women flooded into professions, they often remained excluded from professional work since their roles were defined as supportive and adjunct-like (Davies, 1996). Entrenched gender bias continues to frame women's input as supplemental and not expertise. Although they constitute the numerical majority with the same qualifications as their male colleagues, women in veterinary medicine still experience a lack of authority. Leigh, another first-year student, also acknowledged the difficult task women have of proving themselves. "It's such a catch-22, too," she said, "because you want to act more masculine and have those man qualities but then you get called a bitch for being like that." These women show that there are indeed consequences that come from women having to prove themselves proficient in the field.

Women are not the only ones the students subject to gender stereotypes. Leigh described how men are also typecast:

> I feel like most of the men I've met here—which obviously there's not very many and I haven't been round much—but they're mostly all food animal people. And then the couple guys that are small animal people are very feminine guys. And there's no macho small animal men that I've met, period.

Here, it is important to note that it is not that feminine men are drawn to small animal and masculine men are drawn to large animal, but that the gendering of these different areas of animal medicine allow for more non-masculine expression by men in small animal medicine. In large animal medicine, the hypermasculine culture constrains the men along with the women; however, women are ultimately more disadvantaged by it. They must resist the sexist discrimination within large animal practice and do extra work to prove themselves. This extra work serves as an ineffective pull factor that fails to attract women to this area of animal medicine—if they are required to work harder to stay, they may not make the choice to pursue large animal medicine in the first place. Therefore, the weak pull toward large animal medicine actually strengthens the pull of more women toward small animal medicine.

EQUINE ON THE BORDER . . . AGAIN

Nearly concurrent with feminization, the changing status of horses from tool to boundary object has made the practice of equine medicine a boundary object within veterinary medicine. Horses constitute a boundary object in the shifting terrain of species, and the equine concentration constitutes a boundary object in the shifting terrain of veterinary medicine. Equine private practices are the only large animal focused area that employs women in comparable numbers to men; in 2019, private practices that focused on equine were 54.2% female (AVMA, 2019). As mentioned in Chapter 5, horses border the line between large animal and small animal. Yet horses remain in the large animal sector within veterinary medicine, although their border status is significant when noting the gender variations across the areas of animal health: Equine medicine includes more women than other large animal practices and, consequently, is dominated by neither men nor women. Therefore, equine medicine lies on the gender border, too.

When I asked the students about the feminization of the profession, they would point out that men still constitute the majority in certain areas. Men dominate large animal medicine, but their numbers are also still quite high in equine medicine, too. For example, students recalled shadowing only male veterinarians during their equine training. However, the students were careful to distinguish between equine and production animal medicine. Even though both were grouped under large animal medicine, for the students they were very different. Lisa separated equine medicine as its own gendered track:

> I'd say if we're just talking about large animal, I suppose more masculine. Small animal more feminine. Just off the top of my head. Although equine is an interesting one if we were to separate that out as a different track in and of itself. I guess I think of it as slightly more feminine, but it's more mid-range.

Patricia tried to gender equine medicine and food animal medicine: "It's hard to say, 'cause with large animal you sort of do have this division between equine [and] food animal." She added, "Maybe food animal sometimes can be a little more masculine and equine sometimes a little more feminine, in a way."

Further, the students do not just consider the animals differently gendered based on their social definitions and uses as companion or tool; they also see the practice of medicine and interactions with these animal owners as a gendered

experience. For instance, Patricia noted the need for tact when dealing with horse owners:

> Food animal, I mean, these guys, a lot of 'em, you can just be straight up with them and you don't sort of have to sugarcoat things. Whereas kinda sometimes with equine, depending on who your clients are, you're not gonna be just telling 'em straight. You're gonna be honest, but you kinda have to word it in a way that sounds nicer.

Patricia employs the stereotypically feminine traits of kindness and tact in equine practice because, in her view, horse owners need those elements. Because many owners consider horses more than simply tools, veterinarians bring elements of the human-animal bond previously discussed into their conversations with clients, causing equine veterinarians to sugarcoat certain pieces of information that might be difficult for owners to hear. However, Patricia recognized that not all horse owners require this; again, horses exist on the border of companion and tool and, therefore, practitioners use different gendered approaches in treating and discussing them in different social contexts. Equine medicine exists on the gender border because it still involves masculine work that is dirty, outdoors, and with larger animals, but it also requires the feminine tactics of nurturing toward the animals and clients, common to small animal medicine. Because equine medicine now involves both the bond-centered practice elements of small animal practice and the physical ability required for large animal practice, it attracts men and women more or less equally.

ANOTHER BOUNDARY: SEGREGATED FEMINIZATION

This chapter uses gender to focus on the shifting boundaries within veterinary medicine. I presented horses, and the equine concentration, as a boundary object that highlights shifting definitions of species in the previous chapter. Although the students associated the two main tracks with stereotypical gendered behaviors, the border track constitutes a place where the stereotypes do not apply, thereby highlighting shifting definitions around the tracks and the students. The training in veterinary medicine has long reproduced various boundaries. By not initially admitting women into veterinary programs, the profession enforced a

sex boundary. Through the use of tracking, veterinary colleges enforce a species boundary that separates small and large animals. This chapter demonstrates that, additionally, an occupational sex boundary also exists within veterinary medicine through the segregated feminization occurring for companion animal and production animal practitioners. The combination of feminization and boundary work has indeed represented the social transformation of the profession, characterized by the various types of animal medicine men and women practice. Boundaries within the veterinary profession now distinguish between different animal patients, treatment protocols, and gendered practitioners, transforming the occupation from its original form. This transformation came not from scientific advances but from economic, social, and political factors.

CONCLUSION

INITIALLY, MY EXPERIENCE IN THE INSTITUTION OF VETERINARY MEDICAL EDUcation spurred my interest in this project. Then, the paucity of social scientific inquiry into the colleges of veterinary medicine motivated this research. Up to now, the veterinary community itself has performed much of that examination (see Hooper, 1994; Klosterman et al., 2009; Walsh et al., 2009; Willis et al., 2007). Indeed, veterinary medical education benefits from the knowledge gained through its own research. For example, veterinary colleges adjust their curriculum and policies to address problems uncovered by researchers (Nielsen, 2003; Radostits, 2003), although as this is an institution that influences *social* definitions of petkeeping, animal agriculture, consumption, and public health, the addition of social scientific research is indeed an important contribution.

Along the way, my interest in symbolic interactionist sociology, particularly in human-animal studies, and the study of boundaries fueled my enthusiasm for this research. The growing field of human-animal studies seeks to understand the place of nonhuman animals within society and questions its subsequent consequences. Researchers have extensively studied human-animal relationships with companion, or small, animals (see Alger & Alger, 2003; Gardyn, 2001; Haraway, 2003; Irvine, 2004; Sanders, 1999; Vitulli, 2006). However, research on human-animal relationships with production, or large, animals is less frequent, although increasing (see Cassuto, 2007; Ellis, 2014, 2013; Wilkie, 2005). Moreover, little extant research examines social settings where both types of animals exist. This makes veterinary medicine a promising site in which to examine the social construction of species. The tracking system in veterinary medical education uniquely contributes to this literature because it involves multiple species within the same place.

Studying the tracking system, and the accompanying categorization of species within it, connects human-animal studies with the research on boundaries and borders. I use nonhuman animals and veterinary medical education as a case study for how boundaries can work around different hierarchical bodies

of knowledge, around identities within a segmented profession, around blurred border statuses and spaces, and around gendered constructions within feminized fields. This work contributes not only to the specific institution of veterinary medical education and to the research on human-animal relationships but also to the sociological study of boundaries and their consequences, which apply to a myriad of different social groups and settings. For instance, sociologists study boundaries surrounding groups and settings characterized by race, class, and gender (see Barth, 1969; Bourdieu, 1979/1984; Epstein, 2006; Ridgeway, 1997; Sibley, 1995).

In drawing this book to a close, I will highlight how the major insights of this research contribute to these larger areas of sociological inquiry. I will also discuss the limitations of this study and suggest topics for further scholarship.

COLLECTIVE AND INDIVIDUALIZED DISCURSIVE STRATEGIES

In Chapter 3 I analyzed how the different discourses used in veterinary medical education pertain to the treatment of different species. This analysis can apply to how discursive strategies are used to justify differential behavior toward, management of, and resultant outcomes for various social groups. For instance, by examining how treatment discourses portray nonhuman animal patients either as individuals or as a mass herd, we can understand how decisions such as culling individual animals within a herd constitute acceptable medical practices in large animal medicine but not in small animal medicine. This pattern of individualizing social actors—here, nonhuman animal patients—or grouping multiple social actors into a collective can produce justifications for unequal treatment.

Other social groups that have been defined more as collectives than as individuals include "the homeless," "minorities," and "the poor." The consequences of collectivizing social actors include stripping beings of their individual identity. Just as Phillips (1994) found that numbering instead of naming laboratory animals helps technicians distance themselves from the animals' experience, so, too, does the herd health discourse in large animal medicine help students participate in animal production. This consequence can also produce apathy from the rest of society regarding the treatment of large animals. If they experience differential, unequal, or negative treatment, then it is easier for the public not to care. De-individualizing populations can separate them into parts, rather than whole entities. Animal production centers on grouping individual animals into a mass

herd, and then separating that mass into parts. Adams explains: "As their bodies are dematerialized as whole bodies to service our pleasure from fragmented body parts (leather, fur, meat, objects of scientific study), their suffering is rendered immaterial to assuage our conscience" (Donovan & Adams, 2007, p. 210).

Similarly, feminist critics of pornography note its dematerialization of women through focused shots of particular body parts, rather than the depiction of a whole woman. Adams claims the dematerialization is the first step in "not seeing" the individual victim (Donovan & Adams, 2007). The second step involves ideological construction that trivializes the victim and, therefore, leads to the conclusion that harm to an individual did not occur. The students' claim of the animals' "purpose" is an example of trivializing the reason that they exist. What my research particularly illustrates is that apathy can also be coupled with a sense of justification for treatment—in other words, that people don't just "not care" about this treatment but that it is treatment required and in line with the greater purpose of that particular social group. The third and final step notes that harm is not seen because the individual is so devalued. Large animals are not seen as individuals, in part because their social value is so low compared to small animals. Just as large animals are "meant" to be individually culled for the protection of the greater herd, so too are other disadvantaged populations "meant" to receive differential treatment, which should go unchallenged by the rest of us.

KNOWLEDGE PRIVILEGING: COMPLEXITY VERSUS PRAGMATISM

Chapter 3 also grappled with the privileging of knowledge. In my research setting, the different discourses around the treatment of animals also led to a difference in the valuation of those knowledge bases. In the practices of treating large versus small animals, students learned to adopt a complex medical approach for small animals and a practical approach for large animals. The complexity of small animal medicine came from multiple factors. First, small animals are socially constructed as important individuals with a higher status in people's social lives, as friends or even family members. Therefore, greater efforts go toward saving individual lives in small animal medicine. This push to do more medically for small animals comes partly from the human client, who defines animal patients as significant individuals worthy of advanced medical treatment, similar to that provided to humans. The complexity of small animal medicine also comes from the

profession itself, through greater breadth of procedures utilized in small animal practice. Related to the social definition of companion animals, a procedure such as chemotherapy for a small animal with cancer is accepted as a valid treatment plan as this procedure could ultimately perhaps save a life of a patient deemed individually worthy. The combination of the value placed on companion animals and the technological advances taken for granted in small animal medicine contributes to the complexity of the field.

This complexity leads to the privileging of small animal knowledge over large animal knowledge because of the higher valuation of the patients and the higher volume of the procedures. Large animal knowledge, on the other hand, relies on the characteristic of pragmatism as a way to claim some power and privilege. Large animal practitioners work within a system that relies heavily on a capitalist business model. Therefore, they face economic constraints when making medical decisions for their patients and must be practical about saving lives. They must limit their efforts to maximize the profitability of the animal, who constitutes a commodity or product. Rather than conceding to their lower status compared to small animal students, large animal students described their practical sensibilities as a positive trait within their specialty. In the end, I discovered that small animal students were mostly privileged as having more book smarts, participating in more complicated medical practices, and contributing to society by caring for highly socially valued animal patients. Large animal students, in contrast, while disadvantaged in many ways compared to small animal students, attempted to gain some privilege by constructing themselves as more street smart, using more practical medical approaches, and contributing to society by protecting the nation's food supply and public health.

Examining the construction of boundaries around different bodies of knowledge in veterinary medicine sheds light on how different types of knowledge acquire value and prestige. In doing so, this research highlights the work of Abbott (1981, 2014), who claimed that much of what we know is divided into, and controlled by, a system of professions. Therefore, professions hold immense power. Veterinary medicine emerges as the authority on animals and, therefore, has great influence over their treatment. However, veterinary medicine is also a profession that is divided into different areas of expertise. As in veterinary medicine, other systems of knowledge also manifest separate specialties or subdisciplines, with value allocated unequally among them. Abbott (2014) notes that internal stratification in professions has the potential to disrupt the profession's goal to remain distinct from the public; however, this threat can dissipate in a stable status hierarchy within the profession. Thus, my research builds on the literature

on professions to show that a status hierarchy *can* be challenged within a profession, while at the same time the professionals maintain a unified collective identity separate from the public. My research reveals how disadvantaged specialties use particular discourses to reap power and privilege within a system that holds them as less sophisticated than other specialties. Additionally, the discursive strategies draw on unique institutional ideologies; in the case of veterinary medicine, they include the socially constructed boundaries around different animal species. The discourse of practicality used by large animal students in my study reframes them as competent social actors working with the resources they have. Other disciplines likely use similar reframing strategies by incorporating their own institutional ideologies. For example, in the field of medicine, nurses may rely on a "working on the front lines" hands-on discourse to claim some power over physicians.

EXTENDING PRIVILEGE TO KNOWLEDGE HOLDERS

Chapter 3 examined how the privileging of knowledge serves to privilege its bearers by extension. Because small animal knowledge emerged as the privileged specialty compared to large animal knowledge, small animal students consequently occupied a privileged status. The image of "the cowboy kid at the back of the room" illustrated this well. Through mapping the classroom, students attached value to others based on where they sat and what they wanted to learn. Even as students repeatedly denied that the image of the large animal student at the back of the classroom implied less intelligence or capability, their descriptions inferred those very characteristics.

The derogatory characterizing of the holders of large animal knowledge has deep roots in the field of veterinary medicine. As I discussed in Chapter 3, large animal medicine *was* veterinary medicine at the beginning of the profession. Yet early practitioners were not highly valued. Their barnyard offices and crude medical procedures were deemed as unprofessional, dirty, and rudimentary (Jones, 2003). These valuations have lingered in the profession, and today many of these disparaging traits still tar large animal practitioners.

The process through which those who hold particular types of knowledge gain attendant privilege constitutes an important area of sociological research, especially in the literature on the professions. The boundaries between experts and laypeople result from separating different bodies of knowledge and attaching value to them (Collins, 1979; Kerr et al., 2007; Sarfatti-Larson, 1979). My research

contributes to the understanding of how professions, and the specialties within them, have internal boundaries that further distinguish experts from those unworthy of that title. In other words, although specialists receive the same training, hierarchies emerge in particular professions, reflecting the value placed on a specific type of knowledge, which in turn reflects the value placed on the focus of that knowledge. In veterinary medicine, the boundaries around treatment discourses, specialty knowledge, and the knowledge holders themselves have important consequences for the experiences of those within this institution and for any who interact with them. Many of the consequences are distinct from those of other professions. For example, veterinary medical knowledge informs policy on animals. Thus, which specialty is considered more complex, and which practitioner more intellectual, influence whose advice is adhered to regarding policy decisions. For instance, the horse slaughter ban was influenced by small animal perspectives that place horses as companion animals who should not be slaughtered. Outside of veterinary medicine, expertise in human medicine has shaped policy on mental health, although mental health stands outside many physicians' direct specialization. This is another example of the power and privilege granted to specific professionals.

SEGMENTED PROFESSIONAL IDENTITIES

In Chapter 4 I introduced the concept of a segmented professional identity. This identity exists within an occupation composed of members engaged in activities that differ dramatically. In veterinary medicine, and particularly in veterinary medical education's tracking systems, areas of animal medicine differ so markedly that they represent virtually different careers. Yet students reported that a professional identity did indeed exist and that all students, regardless of track or interests, acknowledged a collective sense of what it means to be a veterinarian. Because all students, regardless of track, tried to maintain a professional identity, I described this unique type of identity as *segmented*.

Segmentation meant that students had to employ different techniques to maintain access to the professional identity of veterinarian. Most notably, they strove to maintain this access to strategically defend their identity. Although Goffman (1963) used the concept of a spoiled identity to describe *individuals* facing stigmatization, I use it to characterize a *profession* facing that risk. Specifically, the profession's identity is contingent on the care its practitioners provide. Because the practice of veterinary medicine involves procedures that arguably challenge notions of what it means to care for animals, the students I spoke with recognized

the risk to their identity. They manifested this recognition by defending their identities as skilled, caring advocates for animals, despite sometimes having to inflict pain or appear cruel.

Using the concept of a spoiled identity in this way broadens the scope of stigmatization. Even esteemed professionals must use defensive strategies to maintain definitions of who they are. Admittedly, this differs from what social outcasts on the margins of society experience. Yet understanding how those with social capital handle perceived threats can inform the study of stigmatization. Further, the concept of segmentation adds nuance that can facilitate research on how internally diverse groups create and maintain collective identities.

OCCUPATIONAL CARE WORK: TRANSFERENCE OF CARE AND LEGITIMATION

In Chapter 4, I described veterinary medicine as a profession identified by the care it provides to animals. I term this as *occupational care work*. Care emerged as the central element of the professional identity for the veterinary students in this study. At the same time, however, they wanted to avoid being seen as "simply" caregivers. My analysis of our conversations revealed a three-part identity consisting of caregiver, advocate, and doctor. Whereas the caregiver aspect jeopardized students' professional authority, the aspects of advocate and doctor helped to legitimize their status as authorities on animal care. They compared themselves to physicians, having received similar training, and even claimed to possess more extensive knowledge because they treated more than one species.

Although the veterinary students did not want to be seen as just caregivers, they regularly insisted that they did indeed care for animals. Moreover, they defended their capacity to care in different ways, depending on the track they were pursuing. I noted two defensive strategies. One involved shifting the understanding of care, as determined by the animal's purpose. The other involved what I refer to as the *transference of care*. By changing the definition of care according to species, students could still call themselves caregivers even if care meant ensuring the well-being of large animals destined for slaughter. Because the socially constructed purpose of large animals is for consumption, the provision of care until death is considered not only acceptable but ethical. However, this standard of care would be neither acceptable nor ethical in small animal medicine.

Transference of care refers to the process through which students redirect their focus of care beyond the animal patient. Veterinary students spoke of transferring

care to the human client, for example, or to the herd. They also transferred care to members of the public, who would ultimately consume some of their animal patients. In this way, students could avoid justifying their caregiving by reinforcing an animal's purpose and instead focus their efforts on their role in a greater good. Redirecting caregiving in this way emphasizes veterinarians' role in society at-large and minimizes the risk of trivializing portrayals as "merely" animal doctors.

Along with the transference of care, shifting the understanding of care allows veterinary students to maintain access to the collective identity within a segmented profession. Because students claim this identity differently depending on the track, they employ various strategies to reach a collective understanding of "veterinarian." By shedding light on the strategic claiming of professional identities, this research contributes to the literature on identity boundaries and how groups distinguish "us" from "them" (Brubaker & Cooper, 2000; Jenkins, 1996). Further, the strategies I discussed broaden the idea of what it means to care and who can claim a caring identity. This can assist future work in the ethic of care tradition (Gilligan, 1982; Tronto, 1987, 1993), as well as research on medical futility, which concerns decisions about lifesaving interventions for the dying or terminally ill (Schneiderman et al., 1994). Physicians must grapple with a similar struggle around their own identities of occupational caregivers when they disagree with their patient, or their patient's surrogate, over the right to decide whether a treatment that could save their life is futile and, therefore, should not be performed. In this way, this study of occupational care work and caring professional identities extends to other professions that also incorporate an ethic of care and, consequently, debate over the definitions of care.

BORDER SPACES AND BLURRED CATEGORIES

Throughout this book I have defined borders, following Morehouse (2004), as "spaces where the everyday realities of boundaries are played out" and "where cultural identity, sheltered by the boundary, becomes blurred, mixed, creolized" (p. 19). In Chapter 5 I discussed how the boundaries within veterinary medical education became most apparent in the prominent border space occupied by the horse. Veterinary students' education around horses emphasized the blurring of definitions of large and small animals, the practice of large and small animal medicine, and the students' own notions of what it meant to be a large or small animal veterinarian. My analysis revealed four main sites that illustrated

the border status of horses: purpose and place, medical practices, economics, and the horse slaughter ban. In each border site, horses constituted ambiguous animal patients with the potential to cross the boundaries between large and small animals and change from companion to tool. The history of horses in veterinary medicine provides ample documentation of boundary crossing. Horses were the first official patients in veterinary medicine, due to their significance as work animals. However, the changing technology of our increasingly industrialized society, coupled with evolving practices of modern-day farming and petkeeping, led to shifts in the definition of horses. The shifts occurred unevenly over time and place. Therefore, in veterinary medical education today, horses exist as a border species within the border track of equine medicine.

The students I spoke with struggled to place horses into their dialogues of their experience in veterinary college; they could not always make horses clearly fit. While their struggle highlighted the ambiguity of horses as a species and their seemingly troublesome and unclear definition, it also allowed more communication to occur around how and why we place animals in these roles in the first place. The students showed me that border spaces, such as equine medicine, could lead to social change regarding the placement of animals, and consequently to social change regarding their treatment. For example, the current contested issue of horse slaughter illustrates the impact of social definitions on the treatment of animals. Horses became boundary objects that can simultaneously reinforce boundaries and help break them down (Bowker & Star, 1999; Star & Griesemer, 1989). As a boundary object, horses can symbolically serve to help human social actors reinforce the boundaries between small and large animals, but they also can serve as communicative interfaces between those boundaries because they carry qualities of both areas at once. Because this type of boundary object is a living being, the case of horses widens our ideas of what boundary objects look like and how they can operate. This can potentially apply to other living boundary objects, such as humans, showing how we can use other people to define and preserve boundaries.

SEGREGATED FEMINIZATION

In Chapter 6 I introduced the concept of segregated feminization. Veterinary medicine now constitutes a feminized occupation, at least in numerical terms. Research has examined the reasons for feminization, the speed with which it has occurred, and the consequences of the transition from a male- to a female-dominated pro-

fession (Irvine & Vermilya, 2010; Lincoln, 2010). However, up to now, research has yet to investigate the gender dynamics within the smaller specialty of large animal medicine, which still consists primarily of male practitioners. Because small animal medicine, the numerically larger specialty, is feminized, the profession as a whole has been widely described as feminized. However, because large animal medicine still mostly draws men, and may even deter women, its culture and dynamics may hold the answers to lingering questions about gender and feminization, both within veterinary medicine and beyond.

When I asked veterinary students how they understood gender and feminization in their education, they largely described gender as unimportant yet also noted the huge gendered difference in enrollment. They framed many of their stories in gendered terms, albeit unknowingly. They used essentialist tropes to explain segregated feminization. Alternatively, I proposed that the push and pull factors within the "good ol' boys club" of large animal medicine explained what either drew or deterred women from that particular area. This hypermasculine specialty made it more difficult for women to enter due to the gendered history of veterinary medicine and barnyard culture. Women were assumed to lack the physical strength to work with large animals or thought to abhor "dirty" labor. I argued that the persistence of a good ol' boys club in large animal medicine better accounted for the gender segregation within the profession.

Although the large and small animal medicine tracks remain gender segregated, the equine concentration emerged as another border space, this time in terms of gender. The ambiguity of this contested site of animal medicine, where I noted the blurred meaning of horses, paves the way for the blurring of gender, too. Presentations of femininity and masculinity exist in this border zone without the same regulation seen in the more rigidly bounded areas of small and large animal medicine.

As a segmented profession characterized by distinct specialties or tracks, veterinary medicine seems to also have boundaries along gendered lines. While boundaries exist around the different specialty bodies of knowledge, around the identity work of those within those distinct areas of specialization, and around the animal species themselves, they also exist around gender for the tracks are gendered due to the work they entail on the animal species they target. Because gender affects all of this boundary work, one cannot understand the valuation of knowledge, professional identity maintenance, or the social construction of species without understanding the pervasive role of gender.

LIMITATIONS AND FUTURE DIRECTIONS

This study primarily focuses on a veterinary college in the western United States, and the college bears the imprint of the geography, climate, and local animal practices of the region. The location of a veterinary program influences the species its students will treat and the social definitions of those animals. However, I tried to counteract these limitations of locality by including participants who came from veterinary programs across the U.S. so that each major region eventually had representation. While these initial inquiries do not allow for generalized claims about the differences across these regions, major patterns and trends remained constant across the different spaces. The outside participants echoed most of the themes covered in this book. However, future research should determine what differences do exist across different contexts.

Another limitation of this study centers on the demographic population available to me. I primarily interviewed white women. Although this category constitutes the greatest percentage of veterinary students today and, therefore, is representative of the veterinary student population, it offers no insight into the experiences of non-whites (see Brown, 2005; Elmore, 2003). While ample research has documented the perspectives of men in many occupations, research has yet to examine men's experience within the now female-dominated profession of veterinary medicine. Studies of men in veterinary medical education would help determine what push and pull factors exist for them. For instance, many of the non-white participants I interviewed alluded to cultural barriers they had to overcome, such as familial approval of the profession as a worthwhile career, familiarity with the practice of petkeeping, and consumption practices that are more normative in their own cultures, such as vegetarianism or veganism. Some of the participants were vegetarian or vegan, including whites and non-whites, and maintained these identities throughout their veterinary training; however, they did admit to struggling morally in their large animal courses, which took the consumption of animals for granted. Future studies on the experience of vegetarian and vegan veterinary students, especially within the tracking system, would establish how they maintain what seem like competing identities. This research would add to the literature on other competing identities, such as those immigrants experience as they attempt to maintain their native cultural identity and acquire a new citizen identity.

These limitations call for more research, not only in the specific institutional setting of veterinary medical education but also in the wider areas of human-animal

studies, specifically those that incorporate sociological theory (see Arluke, 1997). Sociology's focus on stratification, collective meaning making, and social interaction, among other topics, benefits research examining human-animal relationships. In particular, boundaries constitute a growing topic of inquiry, useful in studying knowledge, identity, borders, and gender. Research could also examine other social constructions among animals, people, and ideas. The concept of boundary work should be applied further to the newly developed discipline of human-animal studies. Just as boundaries exist in other areas, so, too, they exist around our interactions with nonhuman animals, which constitute a large part of contemporary social life.

And of course veterinary medical education itself could benefit from learning more about boundary work. As a site where much boundary work takes place, either formally or informally, veterinary programs could better prepare their students for walking the challenging lines of these bounded spaces. Human medicine has increasingly incorporated the social sciences into its curriculum, and it is my hope that veterinary medicine follows suit. Veterinary colleges should strive to move beyond simply offering ethical courses for students to grapple with moral decision-making, but they should also offer courses on how ethical boundaries are decided upon, the historical and social context that brought us here, and the cultural nuances students will encounter in their practice with different animals, clients, and social institutions. And as one of the more intensely feminized professions that currently exists, veterinary medicine also has a responsibility to examine how gender operates—especially as it often does so in unequal ways.

When I began this study, I thought that veterinary medical education would reveal itself as an institution that shapes student perception of animals. Further, I thought that tracking served to differentiate those perceptions, leading students to believe contradicting ideas about species. In part I indeed found these predictions to be true. However, gradually, the students I interviewed made me realize that more boundaries existed in veterinary education than simply between species. Also, I discovered that the creation and maintenance of the boundaries is not just an institutional influence, mandated by the profession, but that students themselves are involved in boundary work. The effect of this discovery shifted the research to a symbolic interactionist approach, which helped me understand that the boundary work in veterinary medical education is interpersonal, as well as institutional, and is multifaceted to reflect the vast diversity in our relationships with animals.

APPENDIX A: ADVERTISEMENT FOR PARTICIPANTS

Vet Students Needed

Jenny Vermilya, a sociologist at the University of Colorado, is interested in interviewing veterinary students to learn more about their experiences in veterinary medical education and its tracking systems.

The meeting will be . . .

- at a time and place convenient for you
- kept confidential
- greatly appreciated!

Interested? Have questions?

Please contact Jenny at

[redacted]

or at

[redacted]

Your thoughts and experiences matter—
please take the time to share them.

APPENDIX B: INTERVIEW GUIDE

This interview guide evolved over the four years of fieldwork. The questions on collective identity, border species, and feminization were asked only after those themes emerged in the initial phase of data collection.

These questions were also not used as a rigid structure in the interviews; my meetings with students were conversational, allowing them to discuss what they felt was most important. This approach helped to build trust and rapport and allowed for more inductive analyses.

INTERVIEW GUIDE

To begin, could I get your verbal consent that I have your permission to record this interview?

HISTORY

- Which vet program are you in?
- What is your year in your vet program?
- In your own words, what is a veterinarian to you?
- What made you decide to become a veterinarian?
- What past experiences do you have with animals?
- What are some experiences you've had with animals in vet school that stand out to you?

TRACKING

- Could you explain the tracking system that is in place in your program?
- Which track are you following?

- What made you choose your track?
- Do you see a difference in the curriculum in the different tracks?
- Do you see a difference in the students who choose different tracks?
- Why do you think the tracking system is in place?
- What do you think about the other track?
- What do you think the other track feels about your track?

ANIMAL RELATIONSHIPS

- What type of species do you mainly work with in school or will work with in your practice?
- How did you feel about the species that you work with before coming to school?
- How do you feel about the species that you work with now?
- Do you think that your view of or feelings toward these animals have changed throughout vet school? How so?
- Can you walk me through the key milestones of veterinary education? Which species are used in these key teaching points?
- Have you ever had to perform any type of procedure on an animal that was difficult for you? And how did you handle this?
- What do you think is the general public's perception of the species that you work with? Can you give some examples of this evidence?

COLLECTIVE IDENTITY

- If you could say that veterinary students have a collective identity, a shared sense of who they are and what their role is, what would you say it is?
- Do all vet students share this identity? Even across tracks?
- If it differs, how so?
- Any techniques for maintaining the identity?

BORDER SPECIES

- Are there species who do not fit neatly into the tracking categories?
- Which ones?
- How are they dealt with?
- Does this affect how students perceive them? Treat them?

FEMINIZATION

- Women currently make up the majority of veterinary students. This was a rapid and dramatic shift. What has been your experience in a highly feminized field?
- Do you think gender matters?
- Are the tracks gendered?
- What about the animals?

Lastly,

- What are your career plans for after you finish your education?
- Is it alright to contact you with any follow-up questions I might have?

And please, if anything comes to your mind that you would like to add, contact me.

Thank you.

NOTES

1. I choose to use the term "animal" when describing nonhuman animals for the sake of simplicity in using this commonly understood term; however, I recognize the complex issues that arise in using this language. For instance, humans are animals, too; thus, contrasting "human" and "animal" as separate and distinct reifies their difference and the consequent superior status of humans. Further, the word "animal" homogenizes a vast array of species into one category, which is also problematic when trying to understand what the term means.
2. Veterinary medicine does not typically hyphenate "large animal" and "small animal" notations, so neither do I throughout this book. Here, however, is an example of how the lack of a hyphen can potentially lead to confusion for the reader. In this sentence I refer to the teaching hospital dedicated to animals in the large animal track in veterinary training. I am not describing the teaching hospital as a particularly large building.
3. The Canadian Veterinary Medical Association defines career tracking as the requirement of all students to complete core courses in the biomedical sciences for one or two years, with the last two or three years designated as "career tracks" with different core courses for each track (Lavictoire, 2003).
4. The name "food animal" is common terminology within the veterinary community, and the American Veterinary Medical Association presents its data using this term.
5. The categories represented by the tracking system relate to a much broader system of animal and agricultural governance that goes beyond and influences veterinary education. The designations "companion animal" and "food animal" influence animal protection legislation, meat and dairy production, and slaughterhouse regulations. For example, the slaughter of a cow is not deemed animal abuse, but the same act on a dog would be.
6. Veterinary medicine has undergone dramatic feminization in the sense of its sex composition but not necessarily in its gendered ideology (Irvine & Vermilya, 2010). In 2010, women constituted 52% of practicing veterinarians (AVMA, 2010). In 2020, women were nearly 64% of veterinarians (AVMA, 2020).
7. Market research statistics from the American Veterinary Medical Association list the 2020 data as the most recent available at this time.

8. There was an alarming shortage in other health professions, such as medicine, dentistry, optometry, pharmacy, and public health.
9. This has occurred internationally, too. In the Netherlands, the percentage of female graduates from schools of veterinary medicine grew from 35% in 1988 to 60% in 1999. In Austria, 88% of the 1998 entering class were female (Rinesch, 1998).

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