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POLITICAL AND SOCIAL CONFLICT IN LOCAL DEER MANAGEMENT

by

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Political and Social Conflict in Local Deer Management

Abstract

Overpopulation of any species, including white-tailed deer, has the potential to cause damage to ecosystems and social conflict. To solve the problem of overabundant deer and prevent it from recurring, communities must work together to come to a solution. However, deer management is highly contentious and provokes deeply held emotions among many different groups of people. The different underlying conceptual frameworks that motivate the various participants and how these frameworks lead groups of participants to conflict with each other were analyzed in order to understand why deer management in Iowa City is such a controversial issue.

Introduction

There is an ongoing dispute over deer management in Iowa City. On the surface, it may look like a simple disagreement, with one group not wanting large pests eating their landscaping and another looking to steer clear of hunting within city limits. However, the issue is actually much more complicated. It touches on a range of issues, including environmental protection and disease prevention, what counts as ethical and justifiable killing, and where a person should place themselves in an urban ecosystem. The controversy is further complicated by assumptions about demographics of involved

groups such as education level, political orientation, or insider/outsider status, which aligns roughly on an urban-rural spectrum. Significant community relationships with the environment and with large mammals such as white-tailed deer encourage local political conflict, polarization, and intense emotional reaction in Iowa City. The combination of simple disagreement, assumptions about identity traits and associated biases, and conflicting, deeply held ethical frameworks have resulted in a social polarization in the community that prevents members from working together towards the common goal of developing an ecologically sound and mutually agreeable wildlife management plan.

I will begin with a brief overview of North American deer and deer management and issues that can arise from overpopulated herds, followed by a discussion of what “overpopulated” means. This discussion will be followed by a description of the controversy surrounding deer overpopulation in Iowa City that first began in 1996. I will then describe the methodology for the study, including recruitment and demographics of the participants. After the description of the research methods, I will discuss findings from the study, focusing on how different groups of participants form relationships with deer and the environment, understand different ethics for killing deer, and demonize the conflicting factions. This study found that while the different groups of participants largely agree over many issues, such as environmental protection, the controversy was motivated by strong connections to deer, disagreement over a few deeply held, conflicting values, and a general unwillingness to listen to each other.

Background

White-tailed deer, the only native North American deer species left in Iowa (Nelson 1997, 15), are named for the bright white undersides of their tails that they raise like a flag when running away (Cambronne 2013, 6). They are arguably one of the most adaptable mammalian species in the world, having evolved as early as five million years ago (Fletcher 2014, 145). During that time period, they have survived a large mammalian extinction and multiple global climate changes and species introductions (Nelson 1997, 14). In the early 20th century, white-tailed deer were nearly hunted to extinction partially due to market hunting, leading to massive changes to game management and North American hunting culture alike (Fletcher 2014, 154-159; Cambronne 2013, 110-113). With dwindling deer herds, the ideal of “fair chase” combined with the recognized need for conservation became a cornerstone for ethical hunting in the United States (Posewitz 1994, 105-112). Deer herds quickly returned over the course of the 20th century and are now adapting extremely well to anthropogenic climate and landscape changes. White-tailed deer especially love farmland and the suburbs, and as their population grows, they will even occasionally find their way into urban areas (Frye 2006, 107-108).

Iowa City is not, by any means, the first or the only community to confront a significant controversy over deer management. Issues with deer overpopulation and urban deer conflict are widespread in North America. While not well studied in the social sciences, there are a few key ethnographic studies related to North American deer management whose insights are broadly applicable to this project. In an ethnography on deer hunting in Vermont, Marc Boglioli examined the identities associated with a rural

lifestyle and the relatively understudied issue of meaningful Euro-American relationships with the environment. Two important insights arose from his work that are applicable here. First, people from rural areas had significantly different experiences and identities than those in urban areas. These experiences and identities are not just contingent on where one lives but also on how some lifestyles are more conventionally rural than others. Conflicts can easily arise as urban and rural identities and understandings of the environment clash. Second, non-indigenous relationships with the environment were consistently undervalued. By failing to recognize meaningful non-indigenous relationships with the environment, anthropologists perpetuate the “noble ecological savage” trope that confines many indigenous people to common stereotypes and reinforces a false Western-indigenous dichotomy (Boglioli 2009, 31-48). Instead, anthropologists should aim to understand how not just indigenous, but other groups of people, interact meaningfully with and understand their role in the environment.

Another project in 1991 by Jan E. Dizard pertained more specifically to white-tailed deer management. Conflict arose over how to address deer overpopulation in Quabbin Reservoir near Boston, Massachusetts. After attending management meetings and interviewing multiple people, Dizard was able to build a model for how people understand themselves in an ecosystem. He placed people on a spectrum, with inherent rights for the environment on one end and responsibility for taking care of the environment on the other. Those that recognized wildlife as having inherent rights were also generally opposed to lethal deer management and took a “hands-off” approach to nature. Alternatively, those who understood their role as one of taking responsibility for

the environment were much more actively involved in management (Dizard 1999, 131-154).

This attitude of taking responsibility for the environment can be traced back to the changes in North American hunting culture that occurred in the 20th century as game animals were hunted to the brink of extinction. As a response to declining wildlife populations, market hunting was prohibited and environmental attitudes of hunters were altered through public campaigns and game management strategies to make them the first conservationists, concerned with rebuilding and protecting wild species. A key figure in this ideological shift was the wildlife ecologist and philosopher Aldo Leopold. Leopold was himself a hunter, who wrote multiple works promoting conservation and ethical interactions with land and the environment. His best-known work was the book *Sand County Almanac*, in which he developed his idea of a land ethic. This land ethic is a code of moral responsibility to the environment in which human relationships with nature are intertwined and inseparable (Leopold 1949, 221-226). Leopold's work has continued to be an important source of inspiration for hunters and non-hunters alike in relating to the natural environment.

When the population of any particular species crosses a certain threshold, it can have serious consequences for other species that share the same environment. Species that occupy similar niches as white-tailed deer, are eaten by the deer, or rely on similar species as those harmed by deer for survival. All these species suffer when the deer herd is overabundant (Cambronne 2013, 142-144). The ecological carrying capacity of a population can be defined as how many individuals the environment can sustainably support (Odum 1971, 183). Because of the extremely adaptable nature of

white-tailed deer, as deer live increasingly more often among humans, a different type of carrying capacity also needs to be taken into account: the social or cultural carrying capacity (Ellingwood and Spignesi 1986, 42-45).

While any given environment may be able to support the nutritional requirements of a certain number of deer (the ecological carrying capacity), that number may exceed the limits which the people living in that environment find acceptable (social or cultural carrying capacity). Too many deer can cause a range of issues for human communities, from major problems such as vehicle collisions and disease to less pressing matters such as landscape damage. In most cases, both the ecological and the social carrying capacity are an issue, but one usually predominates (“Frequently Asked Questions” 2020).

Deer Management in Iowa City

Iowa City has been facing issues related to white-tailed deer overpopulation since at least 1996 (Dulek 2018). Most of Iowa City and the surrounding area would be classified as either urban, suburban, or farmland, so the first issues that brought deer overabundance to light were social in nature (White Buffalo, Inc. 2010, 1; DeNicola 2018, 2). Complaints were filed by homeowners with the City Council of Iowa City, primarily over deer eating their gardens, their landscaping, or both (DeNicola 2018, 2). In 1999, deer-vehicle collisions increased to a reported 103 collisions before a deer management plan was agreed upon (White Buffalo, Inc. 2010, 3). Not only are deer-vehicle collisions almost always fatal for the deer, but they also cause serious damage to the vehicle, and can seriously injure or kill the people in the car (Frye 2006,

139-143). Following the complaints and collision statistics in both 1999 and 2018 were concerns that allowing the deer herd to continue to grow would result in the spread of deer-related diseases in Iowa City. These diseases include both those exclusive to deer, such as chronic wasting disease (CWD) and epizootic hemorrhagic disease (EHD), as well as diseases that could spread from the deer to nearby domestic livestock, such as bluetongue, and diseases that go through both deer and human populations throughout its life cycle, such as Lyme disease. All of these diseases were seen by some as potentially posing a risk to the Iowa City community, but community members were more concerned about Lyme disease and officials were most concerned about CWD.

Lyme disease is a bacterial illness caused by the bacterium *Borrelia burgdorferi* and spread by ticks--primarily deer ticks. *B. burgdorferi* spends part of its life cycle growing in the blood of white-tailed deer, which do not seem to show any symptoms of the infection. The ticks on the deer pick up the bacteria as they suck the blood, then continue to pass this pathogen on to humans as they latch onto them for a new blood meal. In many other areas of the United States, the number of deer ticks, the vectors for Lyme disease, has risen along with the population of white-tailed deer (Nelson 1997, 146). Although there has not yet been evidence of this trend in Iowa City, the goal of wildlife management and public health officials is generally to prevent the disease from increasing. However, because Lyme disease is spread by ticks and manifests in humans, there has been some confusion among some in the general public over how it is related to deer (Iowa City Deer Friends 2020a).

Despite these frightening symptoms, chronic wasting disease (CWD) is arguably more worrisome. Less is known about it and it is fatal in all cases (Cambronne 2013,

16). Even worse, it is a prion (misfolded protein) illness, like mad cow disease, which under the right conditions and after a very long incubation period has the potential ability to transfer to humans in the equally fatal form of variant Creutzfeldt-Jakob disease. While scientists have not found any evidence yet that CWD can transfer to humans, they are not completely clear on the matter. Understandably, the Department of Natural Resources (DNR), hunters, and anybody who eats or comes into contact with deer are very worried. When a hunter shoots a deer, the head is frequently tested for the disease, especially if the meat is being donated or if the deer is from an area where CWD is known to be present. It has not yet been found in the Iowa City herd, but the DNR hopes to prevent it from spreading here. The best-known method to prevent spread is to keep deer levels low (Stone 2003, 66-68).

Disease, deer-vehicle collisions, and overbrowsing are the primary social problems caused by the white-tailed deer overpopulation in and around Iowa City. However, the overabundant deer herd does not just cause social issues. In areas of native Iowa landscape, ecological consequences abound. There are not many of these areas in Iowa City or the surrounding land, as most of it has been developed into the city, residential space, or farmland. Some, however, remains, or is being rebuilt, in protected areas like city or state parks. In Iowa City, the most notable of these places is Hickory Hill Park. Officially established in 1967, Hickory Hill Park is home to 185 acres of oak savanna, prairie, and hiking trails open to the public, and is managed by the volunteer group called Friends of Hickory Hill Park (Hirokawa 2003, 1-2). It is also home to plenty of deer whose overbrowsing, or eating everything available, prevents the oak trees from regenerating, helping other trees to take over the ecosystem. Because deer are

particularly attracted to the branches of young seedlings, trees grow slower and rarely reach growth levels of trees in areas where the deer herd is not overpopulated (Cambronne 2013 144-149; Frye 2006, 59-65). The same deer also love to eat the young plants that sprout up in the freshly burned prairies, stopping the prairies from regrowing. In an area where the native landscape is one of the most threatened in the world (tallgrass prairie is among the most endangered ecosystems, due largely to farming), deer pose a huge ecological threat (Côté et al. 2004, 125-130).

Despite the issues relating to both social and ecological carrying capacities in Iowa City, the overabundant deer herd has caused more tangible problems amongst the people than it has for the environment. In both 1997 and 2018, Iowa City decided to manage deer to reduce the conflicts between deer and humans, although native ecosystems benefited as well (Dulek 2018). Iowa City first began managing deer via yearly sharpshoots in 1999 and continued through 2010 (Fruin 2018, 2). Sharpshooting, also called culling, is a wildlife management technique that involves hiring highly skilled marksmen (such as former military personnel) who bait the deer at night, use spotlights and nighttime goggles, and carefully shoot the deer in the head. If the head cannot be accurately hit, the sharpshooters often do not take the shot. The goal is to kill as many deer as possible, and they aim mostly for does and fawns, which are most responsible for the growth of the deer herd (White Buffalo, Inc. 2020c, 1). Because of its highly specialized nature, sharpshooting is very expensive for a city to implement, costing a minimum of \$270 to as much as \$525 per deer (White Buffalo 2020a). Iowa City originally contracted with the United States Department of Agriculture (USDA) for sharpshooting in 1999. However, due to a federal lawsuit filed by multiple animal rights

organizations that alleged that the USDA had violated the National Environmental Policy Act, Iowa City immediately ended its contract with the USDA and began working with a private management company called White Buffalo, Inc. (Dulek 2018).

After completing its contract with Iowa City in 2010, White Buffalo conducted surveys that confirmed the deer herd was below target size but suggested that the city continue to manage the deer herd in some way to prevent the herd from rebounding (White Buffalo, Inc. 2010, 3). Despite this recommendation, however, Iowa City left the deer herd alone for the next eight years. Between 2010 and 2018, the deer herd increased rapidly from less than 25 deer per square mile to an estimated 57.5-80 deer per square mile due to lack of hunting pressure (DeNicola 2018, 2-6). Multiple complaints were again registered with the city, primarily over deer browsing in yards or gardens, and deer-vehicle collisions began to increase (DeNicola 2018, 2).

In response, City Council drafted a deer management plan, supported by data from a survey of the deer herd conducted by White Buffalo. To continue with its deer management plans, the city had to comply with standards set by the Natural Resource Commission (NRC) and obtain their approval, so the city proceeded to petition the NRC for permission to manage its herd through sharpshooting. Since 2010, the NRC had moved away from using sharpshooting for deer management unless CWD was present, since it is extremely expensive and there are other, cheaper options available that give local hunters more opportunities to hunt. Iowa City's proposal was promptly denied, as the NRC wanted them to meet additional requirements not proposed in their original petition. These requirements included identification of the carcasses, whole transportation of the deer, no field dressing (removing the deer's internal organs),

freezing of the meat in individual containers, testing of all deer one year of age and older for CWD, removal of all antlers (which were to be given to conservation officers), use of non-toxic ammunition, and implementation of an archery hunt (Natural Resource Commission 2018a, 4, 43).

The city easily implemented all of these requirements except the archery hunt, which they did not believe there would be public support for (Fruin 2018, 1-2). To gauge how the people of Iowa City felt about deer management, as well as to educate the community about deer overpopulation and management, City Council held a public forum. Multiple groups of people showed up to voice their concerns. By far the biggest group was made up of retired homeowners who felt as though they could no longer garden or landscape in their yards because of the damage caused by deer. Other groups included those who had hit deer while driving, members of the Iowa City Deer Friends (a local animal rights group), and local hunters (*Iowa City Deer Management Public Forum 2018*). Unable to reach a consensus, the city again petitioned the NRC for a sharpshooting program with all of the requirements except the bowhunt, and were again denied (Natural Resource Commission 2018b, 4-5).

Urgently needing to manage the deer herd, and knowing that the NRC would likely allow sharpshooting in conjunction with an urban bow hunt (Underwood 2019), City Council approved a deer management plan that included archery hunting: one year of sharpshooting to quickly reduce the deer herd and four years of a bow-hunt of unspecified length, if necessary. The goal of the city at this time was to primarily manage the deer herd through one year of sharpshooting and ongoing nonlethal means such as deer-proof fencing, deer resistant gardening, changing traffic laws to prevent

deer-vehicle collisions, additional educational activities to increase awareness of the deer, and banning deer feeding (Dulek 2019a). They were again denied by the NRC, mainly because the plan did not include enough days of bow hunting to effectively manage the deer herd (Natural Resource Commission 2019a, 3). City Council met again and approved a plan that stipulated five years of a minimum 30-day and maximum 100-day archery hunt following sharpshooting (Dulek 2019b).

After finally getting approval for culling by the NRC (Natural Resource Commission 2019b, 3), the sharpshoot took place in March 2020 with minimal social upheaval and significant deer herd reduction, taking 500 deer and bringing the deer population below the target of 25 per square mile (White Buffalo, Inc. 2020b, 3). The culling primarily took place in areas known to be heavily populated by deer, such as Hickory Hill Park, neighboring cemeteries, other public recreation areas, and even some areas on the University of Iowa campus (White Buffalo, Inc. 2020b, 2). These places were all closed to the public prior to and during the shooting. The sharpshoot mostly went smoothly, with only one incident. On February 4, 2020, White Buffalo accidentally left a deer carcass in Oakland cemetery. The carcass was subsequently found and reported by one of the members of the Iowa City Deer Friends. The incident was posted online and received a fair amount of attention from Iowa Citizens (Frary 2020). While many people were offended, the incident had no effect on the ongoing sharpshoot or on future archery hunts.

The first of four archery hunts began on October 1, 2020. Bow hunters, who had to be licensed and pass specific testing by the city, were assigned to specific, undisclosed residential areas to hunt. There were multiple rules for the archery hunt to ensure safety

of both hunters and non-hunters and the efficacy of the hunt. These rules included consent from owners of hunted residences, shooting only downward from elevated stands, retrieval of every arrow shot, and following all DNR hunting procedures and Help Us Stop Hunger (HUSH) food drop-off guidelines. All stands within city limits had to be at least 150 feet away from any public property (including areas such as roads or sidewalks) or buildings, unless owners allowed hunters closer (Diersen 2020).

There were no major complications with the first urban bow hunt, but it did not have a good turnout. Iowa City had hoped to keep the deer herd in check by taking 75 deer each year, but at the end of this first year, only 3 had been taken. About a month before the urban bow hunt was to begin, the Iowa City Deer Friends announced that they were petitioning the local courts to put a stop to the hunt on the legal grounds that the deer herd had already been brought below the target density as stated by the city (Grace 2020). They cited not just the lowered deer numbers, but also claimed that the archery hunt posed a public safety risk and violated the constitutional rights of Iowa City residents (Breese 2020). Using crowdsourcing and outside donors, they were able to cover legal fees by raising over \$4000 (Iowa City Deer Friends 2020b). In order to avoid further problems, the Iowa City Police Department postponed advertising the urban bow hunt until the legal issues with the Iowa City Deer Friends had subsided and after the archery season had already started. This significantly delayed the hunt and decreased the turnout. Other issues inhibiting the success of the urban bow hunt included limited access to hunting land within city limits, the ongoing COVID-19 pandemic, and potentially the hostile attitudes towards hunters that were prevalent in Iowa City. The most significant of these factors was access to hunting sites, as Iowa City did not allow

hunting on public land and thus hunters had to either own their own land or make connections with homeowners who would allow bow hunting on their property.

This study will attempt to address the controversy that has enveloped deer management in Iowa City by focusing on how those involved connected with deer, how they understood the role of humans in an ecosystem, and their conflicting frameworks for ethical killing of deer. These issues informed an analysis of the demonization and exclusionary attitudes that amplified this controversy and made finding a solution much more difficult.

Methods

Literature Review

This study began with an intensive literature review on the history of wildlife management and hunting in North America, with a focus especially on, but not limited to, white-tailed deer. Accompanying this literature review was a thorough reading of any City Council records or documents and viewing of any recorded City Council meetings relevant to the deer management issue in Iowa City, as well as a review of some similar records in nearby cities, such as Coralville and Cedar Rapids, Iowa, that have also confronted issues with deer management. During the process of collecting literature, local news was monitored for deer management related material.

Recruitment

Recruitment of interview participants began by contacting established institutions or organizations (such as City Council, the DNR, or White Buffalo, Inc.) through email.

Working through organizations, I was able to protect the privacy and interests of some of the individuals I hoped to recruit by avoiding contacting them directly. The goal was to have at least one representative informant from each group involved in the deer management controversy.

This study used snowball sampling, in which the first informants were asked if they knew of anybody who would be interested in participating in the study. Since this did not result in a participant from every faction relevant to the deer management controversy, I collected names from City Council meetings or the news to find more informants. Again, these people would be initially contacted via email or forwarded our contact information by a city official, then asked later if they knew of any other person interested in participating.

Interview Participants

Interview participants were divided into three basic factions. The first faction was made up of those actively involved in managing the deer herd, such as archery hunters participating in the urban bow hunt, White Buffalo, Inc., and the sharpshooters themselves. The second faction consisted of those who supported lethal deer management but did not directly participate in the management process, including most City Council members, homeowners negatively affected by deer overpopulation, and scientists at the DNR. The third faction was made up of those who were extremely opposed to lethal deer management, primarily animal rights activists and members of the local group Iowa City Deer Friends.

Throughout the data collection process, a total of eleven people, representing each of these three groups were interviewed. Representing the group actively involved in managing the deer herd was one employee at White Buffalo, Inc., one bow hunter who had participated in the first urban hunt, and a police officer in charge of managing the urban bow hunt. For those in support of lethal deer management but not directly involved in the management process, I talked with a former City Council member, a homeowner who also did conservation work at a nearby park, and three scientists at the DNR. And to represent the group explicitly opposed to lethal deer management, I interviewed three active members of the Iowa City Deer Friends.

It is important to acknowledge the demographic distribution of participants. Every person interviewed was a white adult, usually with some explicitly stated level of higher education. The gender distribution of informants was also not balanced. Out of the eleven people interviewed, only four were women. Of those four women, three of them were explicitly opposed to lethal deer management. This sample of participants implied a relationship between gender and opposition to lethal deer management, but our sample was not large enough to draw any conclusions about the gender composition of the various factions, nor was accounting for such a correlation the goal of this project.

Interviews and Analysis

Each informant participated in at least one semi-structured interview. Some of these interviews were recorded with permission of the participant. Recorded interviews were subsequently transcribed and coded for information on environmental perspectives, ethical killing frameworks, personal connections with deer, emotional

reactions to the controversy, and demonization of other groups involved. Data from unrecorded interviews was similarly categorized on these themes. Because many of the participants could potentially face numerous social consequences for participating in this study, their names, occupations, affiliations, and any other identifying information was kept completely anonymous in data collection, analysis, and writing.

Public Forums

To replace the participant observation made impossible by the COVID-19 pandemic, I also kept track of various discussions on the public hunting social media site *lowawhitetail Forums*. On this site, which is completely open to the public, people can post questions, comments, and multiple types of media under a large range of discussion threads (or start their own). While the site is certainly meant for white-tailed deer hunters in Iowa, many of the members came from out of state, and a large number of the discussions also center around landscaping, hunting of other animals, or outdoor equipment. The threads that were kept track of pertained specifically to deer management in Iowa City. There were three of these threads, titled “Iowa City Urban bowhunt,” “Iowa City deer population control,” and “Iowa city deer hunt,” in which hunters discussed their opinions of the local Iowa City deer management controversy. These public forums provided a unique insight into this community that could not have been otherwise possible without participant observation.

Discussion

There was a large amount of emotional involvement in this controversy. While this came particularly from those advocating for non-lethal management and those advocating for an urban bow hunt, frustration was expressed by all groups involved. Each of the groups involved had significant commonalities and disputes with all of the other groups, which created a very complicated issue. What may have seemed at first like a relatively straightforward issue turned out to have quite an emotional impact on the community.

Complaints about deer overpopulation came largely from residential areas in Iowa City. Many of those present at public input meetings were older or retired community members who were mostly upset about deer eating their gardens or landscaping. These people had found a meaningful occupation and connection to the environment in gardening or landscaping and had had the products of their time and efforts continually ruined by deer overbrowsing. They were understandably very frustrated and upset with the overpopulated herd, and wanted a solution.

The City Council of Iowa City not only had to field these complaints and arguments against management, but they also had to figure out how to effectively manage the deer herd. The City Council members were unanimous in wanting to pursue sharpshooting, but were denied permission to sharpshoot by the NRC unless they also allowed an urban bow hunt. No City Council member supported an urban bow hunt because of concerns the community would not support it, as well as worry over public safety. According to one former Council member, it took them approximately six months of going back and forth between the NRC and deliberating on their own until

they finally just broke down and asked what the NRC wanted. Members of the City Council had a lot of frustration to deal with when it came to handling this issue, both with the community and when negotiating with state departments.

The most clearly emotionally involved group in the controversy were those who also had a deep connection with deer. Their connection to these animals is assumed to be one of the main driving forces behind their intense reactions to the issue. The members of the Iowa City Deer Friends were very upset at any idea of deer being hunted or killed intentionally. They were angry that anybody could value plants over deer, or were extremely frustrated that people were unwilling to learn how to live alongside the deer herd. The bow hunters, on the other hand, were very upset at both the city's push for sharpshooting and the Iowa City Deer Friends' reactions. They thought sharpshooting was a ridiculously expensive way to manage the deer population, when it could instead be done by hunters while raising funds for the DNR. As for the Iowa City Deer Friends' reactions, the bow hunters regarded them as highly misinformed and exclusionary. The Deer Friends' comments, as well as the city's push for sharpshooting and reluctance to consider the idea of an urban bow hunt, was a very frustrating if unsurprising reaction in the eyes of the bow hunters.

Personal Connections to Deer

A common thread in many of the different groups of people at odds with one another was how much they cared about or had a personal connection with deer. This was especially obvious in two groups that were most blatantly opposed to each other: members of the Iowa City Deer Friends and bow hunters. Other people, such as City

Council members, DNR employees, and proponents of sharpshooting also expressed an emotional connection to deer, but more as an appreciation for deer or animals in general than as specific, highly emotionally charged memories that they had experienced.

The three members of the Iowa City Deer Friends who participated in this study all had very different reasons behind their intense emotional connections with deer. Two cited reasons that seemed to relate more to their careers in academia, while the third recounted very personal encounters with deer. The academic connections to deer ranged from one science professor who appreciated deer biology and family structure to an English professor who saw deer more symbolically, referencing poetry and commenting on their gracefulness and beauty. The third person's personal connections with deer were very emotional for her to recount. One story involved a family of deer that lived and took care of each other in her backyard, the different members of which she could all tell apart. Another story took place on a snowy night, when she saw a three-legged buck that she recognized looking in through her window. She went out to her back porch, and they stared into each other's eyes for a while. She described the experience as magical. These, to her, represented significant and definitive emotional encounters with deer.

The bow hunters on the public forums had a somewhat different connection to deer. Part of this connection came from routinely spending many hours watching deer from hunting sites or on trail cameras, observing and learning about their behavior as part of hunting. Another aspect came from the process of taking the life of another being

and consuming it, which for many hunters created a close and unique bond that could not well be understood without having actually experienced it.

The hunters interviewed included a hunter who worked for the DNR and one on the police force. They expressed frequently how they cared a lot about deer. While never explicitly stated, it was also implied that they had a great deal of respect for deer, and in particular their instincts and ability to survive in the wild. One of the bow hunters described a very personal experience while hunting in which he felt that the deer had essentially presented itself to him to be shot:

[The buck] just kind of stood there, and he stood underneath me for a while, and partially you kind of feel like . . . oh my God. I am right here, twenty feet above you, and you have no idea that I am here. But I was wondering, I think they kind of know. But he just stood there, and just stood there, and just stood there, and I just didn't have a good shot. He was facing straight away from me and there was a tree right down in the center of his back . . . I couldn't put an arrow on this . . . I have to wait for you to take a step. And then he stepped out, and I shot him . . . And when I got up there and saw him . . . he was blind in his right eye, his right eye was all gouged up and like swollen shut. . . . Then this is like the perfect buck to take because you're an older buck, you're clearly not the dominant buck anymore, you're blind in one eye.

As with the one member of the Iowa City Deer Friends, this was a very personal story that showed he had a very intimate connection with deer.

Many of the community members who attended the public input forum held by City Council also showed a concern for or appreciation of the deer. The phrase "I love seeing deer" was repeated by many of the people that spoke at the meeting. One person, who frequently visited Hickory Hill Park, said that seeing deer "adds to a quality of life that I enjoy here . . . I walk every morning, [if] I get to see deer, I consider it a very good day . . . it's just a delight" (*Iowa City Deer Management Public Forum 2018*). While some of those who expressed that they appreciated deer were advocating for non-lethal

methods, many others that showed a connection to deer supported some type of lethal management. Oftentimes, these people also showed concern for the health of the deer in addition to a general appreciation. The first person to make a comment expressed this concern:

My biggest concern in watching the deer this year that have come through my yard is that the does seem to be much thinner and the fawns are small. This time of the year, the fawns are usually bigger than what we're observing right now . . . even though we've had a lush summer and spring, and there's a lot to eat . . . I am concerned, though, what might be happening with the herds. (*Iowa City Deer Management Public Forum 2018*)

Almost every person who took the opportunity to speak at that particular meeting expressed that they cared for the deer in some way, whether that was a concern for their health and wellbeing or just generally enjoying the presence of some deer in Iowa City.

Environmental Perspectives

A unifying factor among all the different groups fighting over deer management was a wish to protect the environment. Every group expressed care for nature, ecology, or the environment in some way. This care was not always explicit, but was oftentimes implied.

Those who explicitly spoke of protecting the natural environment and caring about ecology were typically involved in some sort of wildlife biology or ecology occupation. These occupations included careers with the DNR and White Buffalo, Inc. as well as volunteer positions at a large local park. People who occupied these positions talked at length about their goals of protecting local ecology, restoring native landscapes, and protecting ecosystems from deer overpopulation and overbrowsing.

They almost invariably viewed humans as taking an active part in ecosystems, whether that was by managing them or just by existing within them.

Less explicit comments on expressing care for the environment and nature tended to focus on a person's past or why they cared about animals. For example, many members of the Iowa City Deer Friends took time to talk about their involvement in animal rights advocacy and what brought them there. While most of this narrative was focused on reducing the suffering of animals, they would also oftentimes mention more environmentally focused aspects such as sustainability, observing wild animals in their habitats, and preservationism. Others outside of the Iowa City Deer Friends frequently commented on loving spending time outdoors in their youth, whether that was alone, with family, or as part of a local group such as the Boy Scouts. Many hunters also mentioned frequently in hunting forums how much they love spending time outdoors or in nature now, showing indirectly a continued care for the environment. The one bow hunter interviewed who participated in the first year of the urban bow hunt and who was not involved in an environmental occupation, repeatedly emphasized that he was taking part in managing the herd out of a sense of responsibility to do what was best for the environment as a whole. The advanced local ecological knowledge exhibited by many hunters also showed a careful and attentive approach to local ecosystems.

Ethical Killing Frameworks

Nobody observed or interviewed for this study wanted the deer to have a bad death. Everybody involved with the issue seemed to agree that the deer should be killed humanely and ethically, if they were to be killed. But what exactly did that mean? For

different groups, a humane and ethical death meant something different, and this came to be an important point of contention in the controversy.

There were two conflicting frameworks for a good death at play here. The first was a utilitarian ethical framework, which assumed that the quickest and most painless death was the most humane, and therefore preferable to any other type of killing. This framework came out of the normative ethical theory of utilitarianism of maximizing happiness and promoting wellbeing, so following this logic, minimizing pain, suffering, and fear at death is most sensible. White Buffalo's culling method falls along utilitarian lines, and this ethical killing framework also permeated the beliefs of those on City Council. It was also a common sentiment for members of the Iowa City Deer Friends, who adopted this framework if deer had to be killed by humans.

The Iowa City Deer Friends generally opposed killing of deer by humans, however, and their point of view was that a natural death was the best death. A natural death meant dying due to lack of resources, exposure to the elements, disease, non-human predation, or any other cause that did not directly or intentionally involve people. While this perspective may have initially seemed like an entirely separate framework for ethical death, This could be viewed as a distinctly utilitarian viewpoint paired with culture-nature dualism. Culture-nature dualism assumes that natural environments are qualitatively separate from human-made environments. Those who wanted the deer to die a natural death essentially removed humans from having any rightful place in a natural environment beyond that of an observer. Those who had this perspective described themselves as taking a "hands-off" approach to nature. Because humans are assumed to be unable to participate or interfere responsibly in an ecosystem, any

situation in which people cause the death of deer is understood as wrong. And indeed, past human involvement with natural landscapes or participation in ecosystems has oftentimes had catastrophic consequences for other species present.

Examples of this history can be seen all over the world, and taking caution so as not to disrupt an ecosystem is important. Humans did not originate from a world in which nature and culture were separate, and that the vast majority of human history shows humans living as part of an ecosystem without the culture-nature dualism. Culture-nature dualism is instead a Eurocentric ideology that has been imposed on much of the rest of the world. Whatever ideology we may subscribe to, we still can never be fully separate from an ecosystem. As living organisms, humans are all dependent on the consumption of other species, which ties us into a very broad and complex ecosystem. Acknowledging the lack of separation between the natural and artificial is important so that humans can recognize dependence and impact on other species.

An interesting finding was that those who supported the deer dying a natural death also unanimously supported sharpshooting if forced to choose a lethal management method, which follows a utilitarian framework. Dying a natural death and the utilitarian framework are directly at odds with one another. One (utilitarian) uses as much human involvement as possible (putting the deer at a disadvantage) to provide the quickest and least painful death, while the other (a natural death) limits all possible human involvement but prolongs suffering (through starvation, hypothermia, disease, etc.).

Intentionality possibly plays a large role in this juxtaposition, because those that are generally in favor of a natural death are those who are also advocating for

non-lethal methods such as sterilization or relocation. While these methods, and in particular relocation, are called “non-lethal,” they still usually result in the death of the deer due to stress or infection (Nelson 1997, 160-165). However, the intention is not to kill deer. The intention is to keep the deer alive, just elsewhere or with the inability to reproduce. Similarly, with allowing the deer to die a natural death, the intention is to just leave deer alone to do whatever it is that deer do, not to kill them. If they die, then that is just what happens in nature--that was not the intention. The intention was never to cause pain, suffering, or death. This shifts the blame for suffering away from humans and onto uncontrollable factors. With the utilitarian framework, the intention is to kill the deer with as little pain and suffering as possible, even if that is not necessarily always feasible. Going by this logic, it makes sense that those in favor of a natural death switch over to favoring sharpshooting as a next best option. Members of the Iowa City Deer Friends followed a distinctly utilitarian ethical framework that placed greater importance on the human intention of causing harm to another living being than the suffering that actually occurred.

The second conflicting framework was a fair chase framework, used primarily by bow hunting proponents. This framework holds that an ethical and humane death is one that gives the deer a reasonable chance to get away, with no unfair advantages to the pursuer. An important part of the fair chase framework is also taking good shots to minimize non-lethal injuries and ensure a quick death, but more importantly, to be a good hunter one must be stealthy enough to get close to the deer and be good enough to outsmart an animal with keen survival instincts. Good shots, it is assumed, can only happen in this context, and otherwise, shots are not supposed to be taken. Another

important part of fair chase is following game laws and promoting conservation (Posewitz 1994, 15-16, 27-31). Following this logic, sharpshooting is starkly opposite of fair chase, which explains why many of the hunters in the online public forums were upset by sharpshooting being pursued.

There is a fourth framework for ethical killing that was not as prevalent in this issue, but was still present and served as a tie between a couple of groups: the framework of consumption and respect for the animal after killing. A key point for the proponents of deer management was that the meat could be kept by hunters or would otherwise be donated to Help Us Stop Hunger (HUSH), a program that distributes meat from hunters to meat lockers for needy people and families. In this way, all of the deer that were culled or hunted (and will continue to be hunted) as part of the deer management program in Iowa City were consumed, either by the hunters who participated in the bow hunt or by people in need of food. The over 500 deer taken did not go to waste, and their deaths had a purpose even beyond maintenance of a healthy ecosystem and reduction of deer-human conflicts. Proponents of both culling and bow hunting were very much in support of this program. Members of the Iowa City Deer Friends never openly advocated for or against it.

While multiple different groups argued about killing deer, it is important to recognize they all agreed that the deer should die humanely and ethically. It was not a difference in wanting a humane death for the deer, but a difference in the definition of what a humane death was that caused much of the conflict. A major problem with defining a humane death is that it is not a matter that can be proven scientifically or

objectively. Every framework for ethical killing has both its advantages and disadvantages.

The utilitarian framework offers an instantaneous and painless death, in ideal circumstances. However, the degree of pain at death is indeterminable with current scientific methods. More difficult to understand is how different species feel pain. We should not apply an anthropocentric understanding of pain and suffering to another animal, because understandings of these experiences are inherently different between species. Even if these assumptions about pain at death in deer hold true, the ideal of an instantaneous and painless death cannot be guaranteed for every individual, especially not when as high of a number as 500 deer are taken. Given that this is the framework used by White Buffalo, Inc., it may also be important to examine their method for culling deer. Because fair chase plays no role in this framework, there are no qualms about using as much technology as possible to raise the advantages of humans in order to cull the targeted number of deer. Thus, sharpshooting takes place at night (when deer are more active), over bait piles (to bring them together), using spotlighting (for better aim and to freeze the deer in place). It is important to acknowledge that these all first lull the deer into a false sense of security and give them almost no chance of escape. However, this technology is used in order to provide the most ethical and humane death possible under this framework, which is to kill the deer with as theoretically little pain as possible.

The fair chase ethic held by the bow hunt proponents theoretically offers the deer an opportunity to escape death, and also assumes that good shots will only be taken from close range and will thus cause death fairly quickly. The chance at escaping death

obviously cannot be quantitatively measured, but the limits that hunters put on themselves, such as not allowing bait piles, only hunting during the day, and following state game laws, do reduce the advantage that technology gives humans over the deer. When shots are taken, they cannot be guaranteed to hit their target, and there is reportedly about a one-out-of-five wounding rate for archery hunting (Gladfelter et al. 1983, 10). When an arrow does hit its target, though, it is highly and quickly lethal. Without spotlighting and baiting, it is not as easily accurate as sharpshooting.

Demonization

Demonization of other groups involved, in which people were portrayed as evil or less than human based on their opinions or identities, was very common in this controversy. It came from multiple sides and was aimed at more than one group. Much of the demonization came as a result of first grouping multiple people into one general category, slapping a label on them, and then extrapolating from that label that those people deserved less respect or were somehow worse than others.

The people that bore the brunt of the demonization were those who were in favor of bow hunting to manage the deer herd. Usually, these people were bow hunters themselves. This group of people faced a good deal of exclusionary and demonizing rhetoric as they attempted to join the discussion on deer management and express their viewpoints. The most extreme demonizing rhetoric came from members of the local animal rights group called the Iowa City Deer Friends. They labeled bow hunters generally as bloodthirsty and sadistic, and assumed that the hunters wanted to hunt just to assert domination over a non-human animal and cause suffering. They said that

hunting “has a sadism aspect,” mentioning a statistic about a certain percentage of the population being sadists and a certain percentage of the population being hunters, and saying, “there must be overlap.” They were implying that many sadists are also hunters. The idea that hunters are asserting domination over animals came partially from a misunderstanding that “hunters prefer to kill does,” which was then related back to the patriarchy and an assumption that hunters want to dominate females. A common and humiliating stereotype of the bow hunting group that was observed among the Iowa City Deer Friends, as well as among others involved in the issue, was the belief that the bow hunters lacked common sense or intelligence. Education was brought up by both interview subjects and in City Council meetings as supporting non-lethal methods, which was framed as progressive. Because hunters were known to vocally support lethal management techniques, these statements indirectly implied that hunters were uneducated.

Exclusionary rhetoric aimed at the bow hunters often came from assumptions regarding the political affiliations of the hunters and a wish to protect the so-called “liberalness” of Iowa City. Since Iowa City is one of most politically left-leaning communities in the state of Iowa, a commonly observed sentiment at City Council meetings was that this city is a progressive oasis in a conservative desert, while the bow hunters were seen as invaders of sorts who wanted to disrupt that. These sentiments were based entirely on an imagined bow hunter population, as most of those who were attempting to participate in the discussion of deer management actually were residents of Iowa City themselves. This exclusionary rhetoric caused bow hunters to avoid situations in which they would be the minority and forced to interact with those

who did not want them there. Thus, bow hunters were disproportionately underrepresented at City Council public input meetings, and their voices were more or less drowned out by those who were deemed more welcome to attend. Those who did get up and speak at said meetings often faced a lot of backlash.

Hunters on the public forums commented frequently on feeling excluded from these conversations and the hostile attitude towards hunters in Iowa City. These observations were often expressed as extremely hesitant or downright negative responses to those pushing for Iowa City hunters to attend City Council meetings to share their views, where they were sure they would not be welcome. The bow hunter who had participated in the first year of the urban bow hunt felt similarly that the attitudes towards hunters in Iowa City were hostile. He said he found this attitude most prevalent in “the [news] articles and in the City Council minutes,” and also implied by his statement that he hoped to raise awareness in Iowa City that “hunters are real people.”

The bow hunters being criticized in Iowa City did have some powerful allies, however, which were the DNR and the NRC. In particular, the DNR was advocating for an urban bow hunt. However, their push for archery hunting earned them some negative connotations from citizens of Iowa City. Although not at the level of the demonization that the bow hunters experienced, the employees at the DNR were assumed to just be pushing the urban bow hunt because they would make money from it and please their (hunting) constituents. In short, they were assumed by many opposed to bow hunting to be neglecting their job of managing deer properly, perhaps because of the already very negative attitudes towards bow hunters present in Iowa City.

The hostile and exclusionary attitudes towards another group were not just directed at bow hunters and their advocates. A noticeable amount of condescending and humiliating rhetoric was observed being used by bow hunters directed towards members of the Iowa City Deer Friends as well, in which they were portrayed as ignorant animal rights fanatics. These comments, however, generally seemed to be more reactions to being excluded and dehumanized in the first place, and thus differed greatly from comments made by other groups about the bow hunters.

Nonetheless, there was a lot of hostility directed at different groups throughout the controversy. While some of it happened behind closed doors, much of the more commonly accepted sentiments (such as those directed against bow hunters) was said publicly and without fear of consequences. Bow hunters and their advocates were clearly unwelcome in Iowa City and knew this to be the case, and thus reacted defensively.

Conclusion

There were multiple points of agreement between conflicting groups in this controversy over deer management. These points of agreement were arguably more numerous than points of contention. However, the very specific issues they did disagree on were highly personal and emotional, and ones they were unwilling to compromise, leading to a high level of polarization as groups continued to talk past one another. The more polarized the controversy became, the less groups seemed willing to recognize any amount of similarity between them. Demonization increased, particularly of those in the political minority (the bow hunters), and there was a corresponding backlash. The

demonizing rhetoric increased the political polarization and made the groups involved less likely to work together or understand each other's viewpoints.

Assumptions about conflicting identity traits between the groups also complicated the issue. Specifically, hunters were assumed to come from outside of Iowa City, have a more rural identity and lifestyle than the urban Iowa City people, have a lower level of education, and be more politically and socially conservative. While many of the hunters on the public forums did live on the outskirts of Iowa City, this fact alone did not necessarily make them any more rural than any of the other groups involved, as they oftentimes lived near the edge of the city as well. Instead, the identities assigned to hunters were used to label them in a derogatory way.

The specific issue at the heart of the conflict was what made for an ethical or humane death for the deer. The different groups could agree that the deer should die humanely, just not on what exactly that meant, and they were unwilling to change their views on this. There was also some less explicit disagreement on how people should interact with the environment. As was expected, the bow hunters, their advocates, and some of the others actively involved in management called for taking responsibility for the environment, in the tradition of the last century of North American hunting and echoing (sometimes explicitly) the words of Aldo Leopold. Meanwhile, those who had more of an animal rights advocacy perspective generally wanted to remove humans from the ecosystem and leave nature alone. This dichotomy was similar to Dizard's findings in the deer management controversy at the Quabbin Reservoir in Massachusetts who found that those opposed to lethal management also tended to advocate removing humans from the landscape, while those in favor of lethal

management tended to take an approach of responsibility when it came to the environment (Dizard 1999, 134-151).

Analyzing the controversy over deer management in Iowa City from a perspective of conflicting ethical killing frameworks, different attitudes towards interacting with the environment, and biases towards assumed demographic or identity factors can help the community to better understand the intense emotional conflict that came out of this controversy. A more thorough understanding of how and why people disagree so strongly over these types of issues may allow communities to approach similar situations more compassionately and with more sensitivity in the future, making it easier to come to a good solution to a common problem such as how best to handle increasing numbers of deer in urban areas.

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