Scientific Research Publishing

Open Journal of Philosophy, 2019, 9, 204-222
http://www.scirp.org/journal/ojpp
ISSN Online: 2163-9442
ISSN Print: 2163-9434

To Intervene or Not to Intervene? The Issue of the Liminal Feral Cat

Donna Yarri[1*], Spencer S. Stober[2,3]

[1]Humanities Department, Alvernia University, Reading, PA, USA
[2]Leadership Studies Department, Alvernia University, Reading, PA, USA
[3]Mathematics and Sciences Department, Alvernia University, Reading, PA, USA
Email: *Donna.yarri@alvernia.edu, Spencer.stober@alvernia.edu

How to cite this paper: Yarri, D., & Stober, S. S. (2019). To Intervene or Not to Intervene? The Issue of the Liminal Feral Cat. *Open Journal of Philosophy, 9,* 204-222.
https://doi.org/10.4236/ojpp.2019.92014

Received: January 3, 2019
Accepted: May 12, 2019
Published: May 15, 2019

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/

Open Access

Abstract

The question of what responsibility humans have toward feral cats, if any, is a hotly contested one. Cats can be categorized in a number of ways: domesticated, stray, feral, and wild. However, of all these categories, feral cats are the most marginalized. Thus, they can pose a predicament for humans in terms of how or how not to care for them. Possible responses to this predicament range from leaving them alone; feeding them, but not neutering/spaying them; adopting a practice referred to as "trap, neuter, and release" (TNR), in which humans take responsibility for feeding cats, curbing their populations, and possibly monitoring their medical conditions; and even euthanizing them. This paper will provide an introduction to the issue of animal ethics in general and feral cats in particular; identify an ethical framework with which to address the issue of feral cats; explore the history of cat domestication; utilize a framework with which to examine the relationship of all cats to their environments; consider options for how to deal with feral cats in particular (TNR); explore and analyze data on TNR from the city of Philadelphia; and offer concrete solutions to the issue of the liminal feral cat.

Keywords

Feral Cats, Animal Ethics, TNR, Feral

1. Introduction

The question of what responsibility humans have toward feral cats, if any, is a hotly contested one. Cats can be categorized in a number of ways: domesticated, stray, feral, and wild. However, of all these categories, feral cats are the most marginalized. Thus, they can pose a predicament for humans in terms of how or how not to care for them. Possible responses to this predicament range from

leaving them alone; feeding them, but not neutering/spaying them; adopting a practice referred to as "trap, neuter, and release" (TNR), in which humans take responsibility for feeding cats, curbing their populations, and possibly monitoring their medical conditions; and even euthanizing them. This paper will provide an introduction to the issue of animal ethics in general and feral cats in particular; identify an ethical framework with which to address the issue of feral cats; explore the history of cat domestication; utilize a framework with which to examine the relationship of all cats to their environments; consider options for how to deal with feral cats in particular (TNR); explore and analyze data on TNR from the city of Philadelphia; and offer concrete solutions to the issue of the liminal feral cat.

For the most part, the Western philosophical tradition has virtually ignored animals. Ethics was focused on inter-human relationships, with some lip service given to the fact that we should not be cruel to animals, but primarily because cruelty to animals was harmful to one's life as a virtuous human being. Even going back to the earliest biblical tradition, animals were creatures falling below humans in a hierarchy instituted by God, in which humans were empowered with "dominion" over animals. It wasn't until the late 19th century and early 20th century that some thinkers and activists challenged both the treatment of and thinking underlying our relationship with animals. The publication of Peter Singer's (1975) book, *Animal Liberation*, considered the "Bible" of the animal rights movement, was the first significant book to address specifically animal ethics. Whereas Peter Singer's approach utilized a utilitarian model, Tom Regan's (1983) book, *The Case for Animal Rights*, argued that at least mammals of a certain age had significant rights. In contradistinction to those who argued for improvement in animal welfare in various settings, to paraphrase Regan, he said that "we do not want better cages, we want empty cages." Animal ethics subsequently became a sub-discipline of philosophy for those who focused on how philosophical ideas about ethics could and should apply to animals. Books, articles, and essays proliferated on this subject by numerous philosophers and theologians, who approached the subject from quite diverse perspectives, including utilitarianism, deontology and rights, virtue ethics, feminism, and more recently, empathy. Books, articles, and essays also proliferated on specific issues with regard to the treatment of animals, including topics such as animal agriculture, animal experimentation, animals in entertainment, pet-keeping, etc. And the output continues at a brisk pace. The authors of this paper have long had an interest in animal welfare as well as the environment, and had an experience together which sparked their interest specifically in the issue of feral cats. The story which follows demonstrates how complicated the existence of feral cats can be, even for those who want to help, and how tragic the endings can sometimes be.

Donna (the primary author) lived in an apartment complex for a number of years, and eventually a feral cat came to her back door, ostensibly seeking food. The female tortoiseshell cat, subsequently named "Mama," usually came alone,

although sometimes she showed up with an orange tomcat. Someone else had created a cardboard home for her and must have fed her, but the cardboard home fell apart from exposure to the elements, and also the former caretaker was no longer leaving her food. Donna then fed her on a daily basis and though Mama kept a safe distance, she was there every day. One day Mama showed up with two kittens, of which one was sick and the other of which was relatively healthy. Donna caught the sick kitten and brought him to a shelter, but he had to be euthanized due to health issues. The other kitten was never caught, but as an adult he sometimes was seen with his mother. The weather was starting to turn cold, so Spence created a cozy enclosure for Mama to keep her warm, and we put it in a secluded wooded area from which she came out to get her food. However, a few nights later, the shelter was taken away by an unknown person, and thus Mama was once again subject to the elements. No attempts were made to catch Mama until she showed up one night with six kittens, all of whom were about two months old. Concerned about the increasing population of kittens, we set live-traps to capture them for spaying/neutering. Donna caught two of the kittens by hand and delivered them to the local shelter, where they were quickly adopted. Mama, the other four kittens, and the tomcat were all caught in the traps and then spayed/neutered. Mama was already pregnant with eight kittens at the time of her spaying, and they were aborted as part of the operation. Mama could not be let go right away, so Spence agreed to feed her and keep her in his garage until she healed. The remaining four kittens were kept in Donna's apartment for a few days, but they were very feral, and could not easily be handled. A friend of ours who lived in the country adopted them as outside cats for critter control. Within a few days one of the kittens died, and the other three escaped from their crate. They were never seen again. Donna continued to feed Mama for about year, but then she moved to a house. However, she continued to buy the food for Mama with which her friend and neighbor fed Mama for about another six months, after which Mama disappeared, never to be seen again. This situation forced these authors to consider more deeply what the ethical implications might be when dealing with feral cats. These include overpopulation of cats with subsequent suffering, potential burdens on those who care for the feral cats, and the impact on the environment and human communities.

The issue of feral animal populations is one that is increasing in severity and numbers, domestically and globally. As more of the world becomes industrialized and urbanized, humans are largely displacing much of the natural environment in which these animals might naturally survive. A book entitled *Feral Cities* (Donovan, 2015) has individual chapters devoted to the different kinds of feral animals found particularly in urban areas throughout the world. Due to encroaching human habitats, loss of pets to the natural environment, and rapidly multiplying litters of animals, the sheer numbers require us to ask what our best course of action might be with regard to these animals. The rest of this paper is an attempt to address how we might best ethically and practically address the issue of feral cats.

2. Discussion

2.1. Ethical Framework

The history of the Western philosophical tradition, in addition to largely ignoring animals, has also primarily focused on theories based on rationality. While we acknowledge that very good work in animal ethics has been done with these theories, which have included inroads in terms of better treatment of animals, we prefer a different approach. Our ethical framework for this paper will be "empathy," in particular, "entangled empathy." We will briefly describe empathy as presented in two recent volumes, and then explain why we think this is a good framework with which to approach this issue. We will then utilize this framework in the remainder of the paper as we consider particularly the plight of feral cats.

Two recent books have challenged rationality in ethics with regard to animals: *Varieties of Empathy* by Elisa Aaltola (2018) and *Entangled Empathy* by Lori Gruen (2015). A handful of philosophers, including David Hume, Arthur Schopenhauer, and Baruch Spinoza, laid the groundwork for an ethical theory rooted in the emotions rather than in reason (Aaltola, 2018: p. 2), but they have certainly been in the minority. The focus on rationality has resulted in what has come to be referred to as the "impartial objective observer," who stands back from the moral situations and plights of others, rather than engaging with them. As Aaltola describes it:

> In Western traditions, rationality has tended to be the chosen method of moral philosophy. It is via detached, neutral and logical analyses that one can discover how we ought to value and act: in order to construct or discover values and norms, one must detach from the lived reality, look at it from afar—governed by the rules of logics—establish the content of morality" (Aaltola, 2018: p. 1).

Empathy, on the other hand, gives us an insight that rationality alone cannot:

> Empathy's merit lies in the way in which it enables mind reading and understanding of others and opens a view into the emotions, intentions, motivations, and experiences of other beings. This has the potential to evoke moral concern in us, as suddenly it is not our own internal worlds that we care for but also those of others—hence, via empathy we may begin to see value in the subjective contents of others and are stirred into action on their behalf (Aaltola, 2018: p. 17).

In the rest of the volume, Aaltola (2018) devotes individual chapters to different kinds of empathy, including projective and simulative, cognitive, affective, embodied, and reflective empathy. All of them are important. Projective empathy has to do with first putting ourselves in the positions of others, trying to understand how they might experience things, and then simulation allows utilizing our imaginations to simulate their experiences (Ch. 2). Cognitive empathy enables us to infer or perceive the mental states of others (Ch. 3). Affective empathy al-

lows us to resonate with others' emotive states (Ch. 4). Embodied empathy, which is most similar to entangled empathy described below, is approaching creatures as mind-body subjects and not just as physical entities (Ch. 5). In particular, "… emotive empathy holds moral potential, for it focuses on and brings forward the subjectivity of others while also motivating moral cultivation" (p. 121). Reflective empathy enables us to perceive the emotional states of others, and then reflect on them in light of our own mentality (Ch. 6).

In *Entangled Empathy*, Lori Gruen (2015) provides a model called "entangled empathy," which she defines as:

> … a type of caring perception focused on attending to another's experience of wellbeing. An experiential process involving a blend of emotion and cognition in which we recognize we are in relationships with others and are called upon to be responsive and responsible in these relationships by attending to another's needs, interests, desires, vulnerabilities, hopes, and sensitivities (Gruen, 2015: p. 3).

Entangled empathy falls within the care tradition as identified by Carol Gilligan, and includes compassion, sympathy, and empathy (Gruen, 2015: p. 37). Gruen distinguishes between sympathy and empathy in the following way: "Sympathy involves maintaining one's own attitudes and adding to them a concern for another," (p. 44), whereas "Empathy … recognizes connection with and understanding of the circumstances of the other" (p. 45). Most important in her understanding, though, is the idea of "entangled empathy," which includes our enmeshed relationships with other creatures, and the fact that these relationships help to mold who we are as people. This position includes acknowledgement of the differences between ourselves and others, while maintaining that we can enter enough into another experiences to engage in action: "Entangled empathy is a process that involves integrating a range of thoughts and feelings to try to get an accurate take on the situation of another and figure out what, if anything, we are called upon to do" (p. 81). She prefers entangled empathy because it reminds us of the relationships of which we are a part, including with non-human animals.

Both approaches to empathy emphasize emotion, particularly an engaged empathy, rooted in relationships which we impact and which in turn impact us, as well as a call to action. Aaltola, in talking about embodied encounters, says:

> This does not mean that we ought to have direct, embodied contact with all those we empathize with. What suffices is that we have some such contact with other animals, which we can use as a platform on the basis of which to approach those we never encounter (Aaltola, 2018: p. 49).

Thus, even if we do not regularly come in contact with feral or even wild cats, certainly our contact with domestic and stray cats can provide insight into other categories of cats. We believe that a more empathetic and relational approach to non-human animals will give us a stronger basis from which to imagine what

they need. Notwithstanding the problem of other minds, which becomes problematic even with regard to other humans, Charles Darwin and his theory of evolution have provided a strong argument for not only the physical but the mental links among all species. Thus, even as we indicated in our narrative above about Mama, it was our concern for another creature's wellbeing that prompted us to take action because we are able to understand what it like to be a living being who is hungry, thirsty, and without sufficient shelter. And then we are able to act. We will now discuss cat domestication in particular in order to better understand how we came to be related to cats in general, and also to explore the phenomenon of feral cats.

2.2. Domestication

The existence of feral cats raises the question of how we categorize them and where they belong. The entire feline species (*Felis catus*) has sometimes been referred to as liminal. The concept of liminality was developed (or at least popularized) by Victor Turner. He describes liminal individuals or entities as "…neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremony" (Turner, 1969: p. 95). We can offer a couple of examples of liminal beings. One is ghosts—they are neither fully dead nor fully alive. They live "betwixt" two worlds. Another example is hybrid animals, such as the mule, which is neither—or both—horse and donkey. In *Zoopolis*: *A Political Theory of Animal Rights* (Donaldson & Kymlicka, 2013), authors Sue Donaldson and Will Kymlicka devote chapter seven of their book, entitled "Liminal Animal Denizens," to a theory of rights for what they consider liminal animals living in cities, such as squirrels, rats, starlings, sparrows, mice, etc. While not agreeing with their idea of citizenship or denizenship for animals, and while they do not specifically address cats, they point out important aspects of liminal animals which can also apply to feral cats. They live in human settlements, neither in the wilderness nor as domesticated animals, often because humans have encroached on their habitat. These animals may sometimes seek us out, though, for the amenities we can provide (e.g., food, shelter). But they are also largely "invisible," which can lead to neglect, indifference, or de-legitimization. "Since we assume that wild animals should live out in the wilderness, liminal animals are often stigmatized as aliens or invaders who wrongly trespass on human territory, and who have no right to be there" (Donaldson & Kymlicka, 2013: p. 211). They maintain that these animals should be considered co-residents with us rather than co-citizens, and that their existence does offer us opportunities for care.

Liminality could certainly apply to feral cats for a number of reasons. They look like domesticated cats but do not live with humans or fully act like domesticated cats. They are treated differently by humans than are domesticated cats. Their behavior is similar to their wild cat relatives (e.g., hunting and stalking). They co-evolved with humans, but it is unclear as to whether or not they have a

natural niche in modern times. Thus, feral cats do not fit neatly into one category.

We can think of cats as existing on a spectrum with regard to their degree of wildness. Domesticated cats and their wild cat relatives are at opposite ends of the spectrum, and in between are stray and feral cats. Domesticated cats, which we now refer to as "pets" or "companion animals," are those which have been socialized to and live with humans. We now know that the ideal time for cats to be socialized to humans is between two and seven weeks, and not usually later than ten weeks, but if it does not happen at that time, it is unlikely that they will ever adjust to living with humans. In rare cases, feral cats who are adopted into the homes of humans can eventually bond to one person, if they bond at all. Stray and feral cats may seem similar at first to the naked eye, but there are differences. Strays were once owned by humans and have lost their homes, but since they have been acclimated to humans, they can rather easily be adopted into homes again (Kreuz, 1999). Strays are those cats that might show up at our back or front door, and desire contact with humans, such as petting, though some of them may be a bit tentative at first. Feral cats are quite different, which gives them their liminal quality. "A cat born and raised in the wild, or who has been abandoned or lost and returned to wild ways in order to survive, is considered a free-roaming or feral cat. While some feral cats tolerate a bit of human contact, most are too fearful and wild to be handled" (ASPCA, 2019). While one can find guidelines on how to tame a feral cat, those few that can eventually reside in a home tend to always be afraid of strangers and bond with only one person. Finally, cats' wild cat relatives are species related to *Felis catus*, but who are actually of different species and are not considered capable of domestication (e.g., tigers, lions). To summarize, then, pet cats and stray cats have been socialized to humans, while feral cats and wild cats have not typically been socialized to humans. To better understand this relationship, it is valuable to consider how domestication might have occurred.

Domestication can be defined broadly as a process by which an association is established between humans and another species. Domestication takes many forms. The microbes among our micro-biome (bacteria and other microscopic organisms living on and within our bodies) may be considered an association that has evolved over time, apparently without our knowledge and understanding until recently. In contrast, the domestication of animal and plant species was more overt, and the degree to which we understand this process varies. For example, it is believed that the domestication of wild grasses was a process that began with the gathering of wild grasses. It was natural for us humans to select grasses with larger kernels (just as we favor super-sized drinks today) and with genetic changes over time, modern-day wheat became one of our many domesticated plants. The domestication of animals was probably a much more deliberate process, particularly since animals can move freely. Charles Darwin described animal and plant breeding by humans (artificial selection) as being somewhat analogous to natural selection by nature (Darwin & Wilson, 2006).

The process of domestication for dogs and cats differs, and may explain why cats are frequently described by their companion humans as being more independent than dogs. Why might this be the case? The literature suggests that dogs evolved from wolves. Dogs and wolves are similar in their social organization (both are pack animals), but wolves rely more on group cooperation for hunting and pup rearing than do dogs (Marshall-Pescini, Viranyi, & Range, 2015). DNA evidence suggests that modern dogs may have evolved from wolves about 27,000 to 40,000 years ago when ice-age prehistoric wolves are believed to have followed human hunter-gathers and the animals they hunted—this could have been an incubator for genetic differences that ultimately led to domestication (Hesman Saey, 2015). Dogs may have emerged as genetic differences accumulated in wolves that favored association with our ancestors. The first human wolf associations probably favored the wolf, particularly since humans and their uneaten prey may have been tasty morsels for wolves, but humans were soon to benefit in mutual relationships that evolved over a long period of time as dogs and humans became the companions they are today (Grimm, 2015). In evolutionary terms, human and dog companionship is long-standing compared to that of humans and cats.

Archeological evidence suggests that the domestication of wild cats began around 3700 BC when early Egyptians associated with wild cats. For example, the skeleton of a wild cat ancestor (*Felis silvestris*) was found among cemetery remains in Hierakonpolis, an ancient settlement in southern Egypt (Egyptians, 2007). Several cats buried with elite Egyptians were found to have bones that are similar to modern-day domestic cats, and includes kittens that appear to have been born at a time other than the normal breeding time for wild cats (Archaeology, 2014). Cats also appear in Egyptian works of art. The graceful form and independence of wild cats, coupled with their effectiveness in rodent control, may explain both their usefulness and our intrigue with them. The capturing and keeping of wild cats may have first occurred in ancient Egypt, and this set the stage for the *Felis catus* (our so-called domestic cat) to emerge as a species among wild ancestors. Wild cats may have domesticated themselves when they invaded early human settlements for an abundant supply of rodents, where they were tolerated for their usefulness as killers of vermin, thus fading in and out of domestication until humans began breeding them about 150 years ago (Podberscek, Paul, & Serpell, 2000). Perhaps when our evolutionary history of companionship with cats is as long-standing as it is with dogs, then cats may lose their independence (or we may favor that independence and it will thus persist as a characteristic of their species). That said, cats can revert to what appears to be a "wild state" and survive without humans, and it is for this reason that feral cats are sometimes viewed as pests when they colonize urban and suburban environments.

There has been little artificial selection in cats, and when free of domestication, they can easily revert to a feral state and live in colonies where their social behavior is similar to that of wild felids (Liberg, Sandell, Pontier, & Natoli,

2000). Just recently, the *New York Times* (Aguirre, 2019) reported that Australia is considering a plan to kill millions of feral cats by distributing poisoned sausages because cats were driving native wildlife to extinction. This is an example of how cat colonies are viewed as a nuisance and steps are often taken to eradicate the population. In contrast, the Italians have decided to make cats a part of their "bio-heritage" by adopting laws to protect cats colonizing ancient Roman ruins in "The Torre Argentina" cat sanctuary located where Caesar was assassinated—even the so-called "cat ladies" who feed them are protected (Bjalobok, 2013). In fact, the Friends of Roman Cats organization sponsors a "Cats and Culture" tour for those who are interested in experiencing this urban oasis for cats (The Friends, 2016).

While cats were mostly appreciated for their rodent-catching abilities early in their domestication, it is clear that humans developed affection and respect for cats with regard to other traits. Pet-keeping is the natural outgrowth of this relationship. Thus, empathy for cats is likely an emotion that developed as humans lived with cats. This was a shift from seeing cats as simply a utilitarian means to a human end, to viewing cats as creatures with whom we could experience relationships. In the cases of the two governments listed above, we do not agree with poisoning two million cats in Australia because they are viewed as "intruders," and believe that the Italian government, with its cat sanctuary in the middle of the urban environment, is a much more empathetic approach.

2.3. The Betwixt and between Framework

We propose our "Betwixt and Between Framework" (BBF) illustrated in Figure 1 as a way to organize discussions concerning the lives of feral cats. The BBF situates the different categories of cats into quadrants framed by the environment in which they live and their subsequent relationships with humans. The BBF is not perfect, but it does provide a way to describe a cat's sense of place so that we

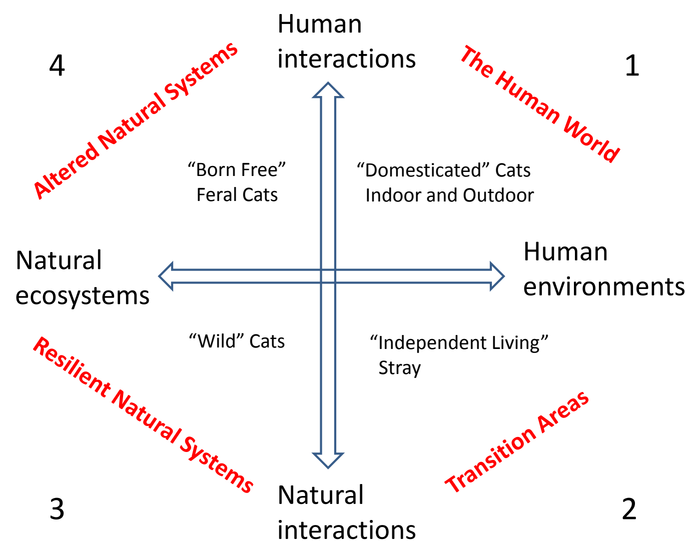


Figure 1. The betwixt and between framework (BBF).

can better explore our "empathy" for, and "entangled empathy" with domestic, stray, and feral cats. The BBF has four quadrants.

The first quadrant is the "human world" (top right), where "domesticated" cats live as pets (or more appropriately as companion animals). They share our homes, both inside and outside. We feed them and care for their medical needs. We have a close and usually affectionate relationship with them. The world of domesticated cats is thus bounded by "human interactions" and "human environments." Our relationship with these cats is empathetic. Aaltola's (2018) six types of empathy—projective and simulative, cognitive, affective, embodied, and reflective empathy—are applicable. We see a cat's world through our eyes and attempt to understand their feelings. Our imaginations simulate their experiences (projective empathy). We infer their mental states (cognitive empathy). Our shared experiences with domestic cats allow us to resonate with their actions (affective empathy). Some of us may even grow to share emotive states with our companion cats (embodied empathy) and to then reflect on their emotional states in light of our own feelings (reflective empathy). Perhaps Gruen's (2015) "entangled empathy" may be the most appropriate description of our relationship with domestic cats.

The second quadrant is "transition areas" (bottom right). This is the world where stray cats exist. They live independently as domesticated cats who strayed from their human home or who are descendants of domesticated cats. Stray cats may interact with humans (e.g., feeding), but these interactions are usually on the cat's terms. To us humans, stray behaviors may appear wild-like. The extent of their wild-like behaviors may depend on how long these cats have been straying, their past experiences with humans, and their proximity to the natural and human environments. The world of stray cats is thus bounded by "natural interactions" and the "human environments." Our relationship with these cats is empathetic (probably less so for those who see stray cats as a problem). Aaltola's (2018) perspectives on empathy still apply. We see the lived experiences of stray cats through our eyes and project feelings onto them, but our imaginations are limited by the fact that we cannot clearly visualize the extent of their lived experience as strays. Strays are free to roam and reside in places unbeknownst to us. Our actual interaction with strays may influence the extent to which we can infer or perceive their mental states and our ability to resonate with their emotive states. Even when human interactions with strays are limited, positive human experiences with domesticated cats may cultivate caring human behaviors.

The third quadrant is "resilient natural systems" (lower left). This is where the truly "wild cats" live. These are the animals, such as lions and tigers, which have no real contact with humans; they do not live within the realm of human interaction or the human environment, except for zoos and when humans foray into their environment for hunting or other activities. The ancestor of *Felis catus*, they are not domesticated and need to stay in their natural state, if at all possible. The world of wild cats is bounded by the extent of their "natural interactions"

with humans who reside in or adjacent to "natural ecosystems' (e.g., the "wild"). Aaltola's (2018) perspectives on empathy may apply to our relationship with wild cats, particularly when we imagine how they experience the world (projective empathy) and then attempt to understand their mental states (cognitive empathy). We might make an effort to avoid projecting human-like traits and emotions onto wild animals, but human empathy for domestic, stray, and feral cats can help us to project empathy to wild cats.

The fourth quadrant is "altered natural systems" (upper left). This is primarily where feral cats exist. They are essentially "born free" of human interference, for the most part. Feral cats retain much of their wildness and independence, although in some cases they may rely on humans for some of their needs. Feral cats often live in colonies apart from humans, while stray cats tend to be solitary, and roam in areas where humans live. The world of feral cats is thus bounded by the extent of their "human interactions" (which includes the world of stray cats) and "natural ecosystems' (the wild). Humans may care for both stray and feral cats, but feral cats are unique in that we perceive them as more independent. They usually resist close human interaction. The colonies are often out of sight, and for the most part out of mind for humans. We may be more likely to project wild cat behaviors on feral cats. That said, they are descendants of domesticated cats and we therefore project empathy to them based on our experiences with our companion cats—perhaps this is why we extend care when it is entirely possible for feral cats to survive on their own. Human interaction with feral cats may be limited, but our empathy is not. We struggle to decide whether feral cats are better off with or without human intervention, and we will address this question in our conclusion.

2.4. Options for Dealing with Feral Cats

Scientific studies suggest that cat colony densities of one hundred cats per square kilometer are probably limited to urban areas, although unsubstantiated estimates of 14,000 cats per square kilometer have been reported in Rome (Liberg et al., 2000). The size of feral cat colonies is probably limited by the availability of food. Available prey (and the danger of being eaten) will surely limit the size of a colony in the wild. Colonies in urban and suburban areas have additional food sources such as vermin, food waste, and tasty morsels via the generosity of humans. A video documentary entitled "City of Wild Cats," narrated by Sir David Attenborough (n.d.), provides details of the social life of the feral cat colony mentioned above located in Rome. Attenborough describes a mating season in the life of Caesar, the king of cats in this colony, and his queen, Mina, who with her daughter, Livia, and other females, form the backbone of this colony. These cats live among the Roman Forum ruins and the colony is guarded by males marking their territory with scents, although roaming Rome for food is not uncommon. These cats remind one of leopards when hunting small animals with stealth, but there is not enough natural prey, so the cats must rely on visitors

(local and foreign) to bring them food. Caesar and Brutus compete for Mina, and the consequent litter appears to have progeny from both suitors. Raising a litter of kittens can be challenging, but the shelter of a den (frequently shared by related females) is comforting and protects the kittens from males who sometimes kill them. Mina soon leaves the den with her kittens and as they grow more independent, they get separated from her. Mother cats lose their maternal instinct in a few days if separated from their kittens. This was the case for Mina, but the kittens survived with a little help from their aunt who was caring for kittens of her own, and the colony survived.

As heartfelt as this story may be, feral cats are often considered to be a "problem," especially by those who do not have a love of cats. There are serious issues with regard to their behavior, including nuisance behaviors on neighboring properties and wildlife issues. Behaviors that many consider to be a nuisance are urinating and defecating on someone's property, digging in gardens, upsetting pet cats, making loud noises when mating and fighting, carrying flea infestations, and providing disturbing observations of dying kittens and cats (Humane Society, 2019). Wildlife issues attributed to feral cats are competition with native predators for prey, carrying diseases that can spread to wildlife (Guttilla & Stapp, 2010: p. 482), and hyper-predation, which is preying on species to the point that their population is unsustainable (e.g., lizards, insects, small mammals) (Longcore, Rich, & Sullivan, 2009: p. 889). Concerns about decreasing bird populations abound, both with regard to feral and stray cats, and also for pet cats who are allowed to go outside. The book *Cat Wars*: *The Devastating Consequences of a Cuddly Killer* (Marra & Santella, 2016) focuses on the harm to bird populations, particularly by feral cats, and argues that the world would be better off if there were fewer free-roaming cats.

As a result of these problems and the large numbers of feral cats, several options exist for how to treat them. One option is to leave them alone. This is usually practiced and/or advocated by those who either do not like cats, or by those who believe that feral cats are essentially wild cats who should fend for themselves without interference from human beings. Another option is to only feed them. This is often done by caretakers who feel compassion for feral cats but who do not have the knowledge and/or resources to address spaying and neutering. Both of these options ignore the problem of cats propagating out of control, and the second option only makes this more likely to happen. A third option is to euthanize them, and this is usually advocated by those who believe either that it is more humane in the long run, or because it will protect birds. This is the position of The American Bird Conservancy. Concern with this option is the prioritization of birds or other animals over cats, and the perhaps unnecessary and cruel practice of euthanizing healthy animals. A fourth option is to kill, and possibly eat them. While some cultures do this, this option would be repugnant to most people in the United States. The fifth option is trap-neuter-release, usually referred to as TNR, and this option has gained the most interest in recent

years.

TNR includes humanely trapping community cats, spaying/neutering them, sometimes vaccinating them, surgically removing the tip of one ear (so that they are easily identifiable as having already been fixed), returning cats to their territory (Humane Society, 2019), continuing to feed and monitor their health, and re-locating them to another territory only as a last resort (Alley Cat Allies, 2014). Optimum TNR requires that humans who capture and release these animals will provide ongoing food and medical care. It can result in simply one cat being cared for (as in the case of Mama), or a whole colony of cats. Both authors have a colleague whose father drives forty minutes twice a day to feed a colony of approximately twenty cats. Obviously, this can be a large commitment in terms of money and time (not to mention the increased carbon footprint). Colonies of cats usually require multiple individuals to provide care due to the size of the colony, and the subsequent resources of time, money, and food required. It is possible to spay/neuter cats and just leave them to fend for themselves, but many TNR advocates strongly recommend ongoing care and responsibility.

There are pros and cons to TNR. The most important argument for TNR is the prevention of additional litters, so it ultimately keeps the population down, which most of the other options exclude (except for euthanasia). This was something that the authors were concerned about in Mama's case. Second, it enables cats to have a relatively safer and healthier life (as opposed to leaving them alone or euthanizing them). They just need to fend for themselves rather than for litters of kittens. Finally, committed colony caretakers can help to ensure that they have a good life. However, the cats will persist and so will some of the concerns. First, TNR will not prevent feral cats from killing birds and destroying gardens. Second, the caretakers may be unable to monitor the health and population with changes over time. Cats may die, but others may join the colony. Cats can get sick without the caretakers realizing it. Third, caretakers may come and go—this happened with Mama. The lack of caretaker continuity can impact the wellbeing of feral cats, who have come to depend upon the caretaker for resources. Fourth, one may not be successful trapping all of the cats in the colony. Just one cat not spayed or neutered can contribute to more kittens being born, especially if new cats join the colony. Fifth, the estimated time for extinction of a TNR colony may be over a decade (Guttilla & Stapp, 2010: p. 483). Thus, even with spaying and neutering, adults cats will be around for a long time. Sixth and finally, those who oversee TNR colonies, especially in public settings such as at office buildings or colleges, often face strong opposition from others in the community. Many people do not want cats in their shared work space, even if others are responsible for them. Notwithstanding the concerns raised, we believe that intervention for feral cats can be justified and our position will be more fully developed below.

2.5. Data from Philadelphia

One of the questions that are raised with regard to TNR is if it actually works.

Organizations such as the American Association for the Prevention of Cruelty to Animals (ASPCA) and the Best Friends Animal Society (BFAS) are concerned with animal welfare. In August of 2004, animal welfare leaders from across the nation met in Asilomar, Pacific Grove, California, to seek common ground among varied perspectives on how to reduce euthanasia of "healthy and treatable" companion animals in animal shelters across the United States. The team set forth their goals in a report entitled The Asilomar Accords (2004). Animal shelters were soon to adopt the 2018 Asilomar live release rate of eighty-five percent as a benchmark for success. The city of Philadelphia, Pennsylvania, is an example. The Animal Care & Control Team of Philadelphia (ACCT Philly) maintains an extensive database of outcomes for animals entering their animal shelters. **Table 1** illustrates some of their statistics for dogs and cats entering shelters in 2018 (ACCT Philly, 2019).

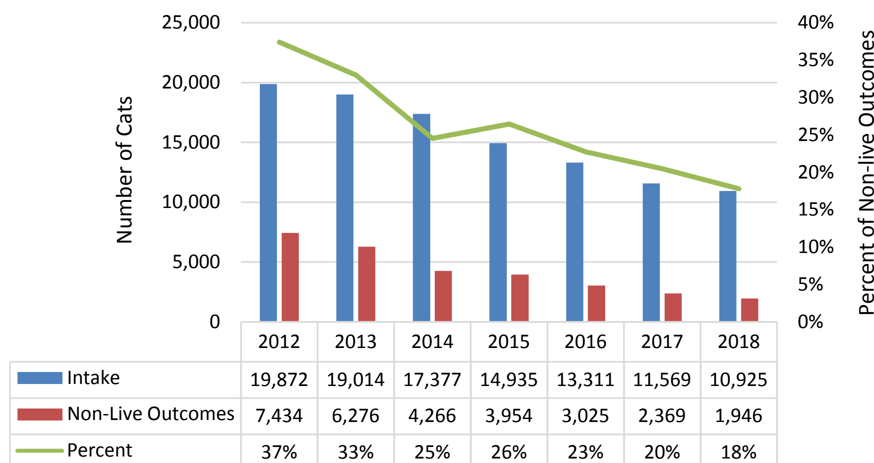
Table 1 indicates that Philadelphia deals with more cats than dogs. Live release rates include adoptions, transfers, return to owners, and TNR for cats. The report indicates that transfers are to "Rescue" (without details), so it is possible that the actual number of live outcomes may be lower than reported. That said, the high number of spay/neuter surgeries suggest otherwise since it would not make sense to spay/neuter animals before euthanasia. The City's 2018 live release rate meets the recommended Asilomar live release rate of eighty-five percent (calculated as the number of live releases divided by all outcomes minus owner intended euthanasia). The fact that ACCT Philly includes the Asilomar goals with their annual report is evidence of their desire to increase live outcomes. **Figure 2** illustrates the City's significant strides in this area. The "non-live outcomes" rate for cats entering City shelters was thirty-seven percent in 2012 and declined to eighteen percent in 2018. This large decrease in cat intake is evidence that their TNR program is working.

Two to three million cats enter animal shelters every year in the United States and more than half of the cats are euthanized (Levy, Isaza, & Scott, 2014). The vast majority of cats entering Philadelphia shelters are spayed/neutered, and this may explain the large reduction in cats entering City shelters (10,925 cats in 2018, down from 19,872 cats in 2012)—research supports this observation (Levy et al., 2014; Spehar & Wolf, 2018).

Table 1. Outcomes for cats and dogs entering city of Philadelphia Animal Shelters.

2018 City of Philadelphia	Cats		Dogs	
Shelter intake	10,925		5908	
Live release	9237	85%	4679	79%
Non-Live Outcomes	1946	18%	1147	19%
Trap-neuter-return	2230	20%		
Total spay/neuter surgeries	7172	66%	1825	31%

Note: Dataset available at http://www.acctphilly.org/about/statistics/. Live release data includes adoptions, returns to owner, transfers and TNR.



	2012	2013	2014	2015	2016	2017	2018
Intake	19,872	19,014	17,377	14,935	13,311	11,569	10,925
Non-Live Outcomes	7,434	6,276	4,266	3,954	3,025	2,369	1,946
Percent	37%	33%	25%	26%	23%	20%	18%

Figure 2. Non-live outcomes by year for cats entering city of Philadelphia Shelters. Note: Dataset available at http://www.acctphilly.org/about/statistics/.

3. Conclusion and Practical Suggestions

The existence of feral cats poses many complex issues. The key question we are considering is whether or not feral cats are better off with or without human intervention, and if intervention, then what kind of intervention should there be. There are many people who intensely dislike or are indifferent to cats, and there are many who love and are devoted to cats. Many of the latter have domesticated cats as pets, and the multi-billion dollar pet industry attests to the great care many of them receive. However, even the cat lovers are divided as to the best way to address the feral cat "problem," if indeed it even is a problem. Many cat lovers are happy to feed strays who show up on their doorstep, particularly if they are affectionate. But what about the feral cat, who is more aloof from humans and quite independent? And while we may want to help by feeding the individual feral cat, are we prepared to feed the colony of cats resulting from uncontrolled mating? Our answer to the question of intervention is rather nuanced and related to the actual environment in which the feral cats are living.

Drawing upon the ethical framework of empathy, the BBF we developed regarding different categories of cats and their environments, and the data from the city of Philadelphia, we have developed several guiding principles as well as concrete suggestions on how best to co-exist with feral cats. We will now address the guiding principles. First, feral cats who reside in or near resilient natural areas should be left alone. They are used to living in an environment without humans and are thus able to manage on their own. It is true that outside cats in general live a much shorter life than cats living indoors as pets, but all cats do not need to be pets. If they live in accordance with their nature, admittedly in a nature that is "red in tooth and claw," then they should be allowed to do so, just as other wild animals do. Nature will take care of the breeding of cats and subsequent birth of kittens, with the environment providing—or not providing—the resources necessary for the appropriate population size. Second, we do

not consider feral cats to be "intruders" into the ecosystem (albeit some consider them to be an invasive species). While feral cats living near human habitats (such as in urban or suburban areas) may become nuisances to some people, they are essentially descendants of their wild relatives who unfortunately have lost much of their original habitat. Thus, their nuisance behaviors exist because while they are operating out of instinct, we humans have deprived them of their natural environment. Since we have ultimately created their environment with our human habitat encroachment, we should bear some responsibility towards them. We can still empathetically understand their plight, partly because of our experience with domestic and stray cats, and even our own experiences as human beings. Third, and the most problematic, are the feral cats living near humans, whether this includes the human world, the altered natural world, or transitional areas. In these situations, we think that certain conditions should exist for TNR to work. Any feral cats amenable to handling could be considered for adoption, but ideally by the person feeding them, with whom they have some kind of relationship, thus avoiding the stress of being surrendered to a shelter. In this case, they would live in the human world as domesticated cats do. Individual cats or a colony of feral cats could be trapped, neutered, and returned, but it would be ideal if there were a caretaker/s to continue to care for them. While medical care might be optimal if a feral cat could even allow itself to be captured again, we think that it would be sufficient for colony caretakers to simply provide food and water. In that case, they could live comfortably in transition areas, halfway between the human environment and natural interactions. Fourth, we think that the kind of human world a feral cat would be returned to makes a difference. Releasing a feral cat in a suburban or rural area would be more ideal than in an urban area. Again, if there was some kind of safe way for the cats to be cared for in an urban area, or at least reasonably free from human cruelty, then it could work, but it would be much more difficult for the cats. In this case, having human caretakers is preferred. Finally, we do not advocate euthanizing feral cats. We think that this is a last resort unless they are clearly unadoptable and exposed to significant danger and/or suffering. Thus, euthanasia would be utilized not to remove a nuisance, but to provide a "good death," when life may not be worth living.

We also have some practical suggestions. First, we recognize the burden on caretakers, particularly those maintaining feral cat colonies, and think this needs to be addressed. Even in the case of Mama, her situation of relying on humans for food was made more precarious by the fact that her first caretaker stopped feeding her, and eventually the second one moved. If not for the third caretaker, Mama would have had a much more difficult life. And if we did not intervene with spaying and neutering, the cat colony of Mama and the tomcat would have risen within a year to a population of twenty, and even more when the kittens began to reproduce. Since most feral cats live in colonies, often multiple caretakers are needed, but caring for a group of cats with regard to food, medical

care, and overall monitoring has both time and resource implications. Therefore, we suggest that local animal shelters and organizations partner with those who work with cat colonies. This is already done in some cases where organizations may provide free or very low cost spaying and neutering for cat colonies—which is a big help—but it does not resolve the issue of continuing care. Organizations and individual cat caretakers working together could mitigate some of the problems associated with continuing care for a cat colony.

Second, we think that municipalities should take more responsibility for the stray and feral cats in their communities. One of the things that has happened recently in the city of Reading is that the animal organization tasked specifically with animal control for the entire Berks County area has tried to get individual municipalities, whose communities they service, to contribute funding, but most of them have refused to do so. This makes the situation difficult for those trying to help, which includes both caretakers and organizations. Recently, in the town of West Reading, there was a small colony of feral cats whom neighbors were feeding, and a local politician recommended euthanizing all of them. One of the residents, who knew about the statistical success of spaying/neutering programs, was able to challenge the politician, so no action has yet been taken.

This brings us to our third and final suggestion. There needs to be greater education for citizens on the plight of, possible solutions to, data collected on, and ethical theories associated with the ethical treatment of animals. This probably needs to be spearheaded by animal organizations, in conjunction with animal activists and professional ethicists. We have learned so much over time about the nature and behavior of numerous animals, including cats, but unfortunately, the average citizen may be unaware of the complexities of the situation, although they might have a nuisance feral cat in their yard digging up their plants. Drawing upon empathy as a tool with which to approach fellow living beings as well as practical steps to reduce feral cat populations without euthanasia is a worthy goal.

To even locate the liminal feral cat, in both our thinking and in our environment, is not an easy task. How to address the feral cat population, therefore, does not allow for simple solutions. We often minimize the effect that human habitat and development has on many animals, but in this case feral cats. If these animals were able to live in a natural environment without undue human interference, and thereby not create problems for their human neighbors, life would be much simpler and not fraught with ethical dilemmas. But the very concept of liminality allows for no easy niche, no easy category, and no easy answer for how to conceptualize our relationship with feral cats. However, if we begin to view them not as a problem to be solved but as creatures with whom we can empathize and with whom we share our natural world, this would be a big step forward.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Aaltola, E. (2018). *Varieties of Empathy: Moral Psychology and Animal Ethics*. Lanham: Rowman & Littlefield International.

Aguirre, J. C. (2019). Australia Is Deadly Serious about Wanting to Millions of Cats. *New York Times*, 25 April 2019.

Archaeology (2014). Archaeology: Cats Tamed Early in Egypt. *Nature, 507,* 142. https://doi.org/10.1038/507142d

Asilomar Accords (2004). *Asilomar Accords. Saving Lives Not Pointing Fingers*. https://www.americanhumane.org/app/uploads/2016/08/au-asilomar-accordspdf.pdf

Attenborough, D. (n.d.). *City of Wildcats*. BBC/Animal Planet Production. https://www.dailymotion.com/video/x40f33t

Bjalobok (2013). "Feral cats" in Linzey, A., & Tutu, D. (Eds.) *The Global Guide to Animal Protection* (pp. 152-153). Urbana, IL: University of Illinois Press.

Darwin, C., & Wilson, E. O. (2006). *From So Simple a Beginning*: *The Four Great Books of Charles Darwin* (1st ed.). New York: W.W. Norton & Co.

Donaldson, S., & Kymlicka, W. (2013). *Zoopolis: A Political Theory of Animal Rights*. Oxford, New York: Oxford University Press.

Donovan, T. (2015). *Feral Cities: Adventures with Animals in the Urban Jungle*. Chicago, IL: Chicago Review Press.

Egyptians (2007). Egyptians Kept Cats 5700 Years Ago. *New Scientist, 196,* 18. https://doi.org/10.1016/S0262-4079(07)62889-9

Grimm, D. (2015). How the Wolf Became the Dog. *Science, 348,* 277. https://doi.org/10.1126/science.348.6232.277

Gruen, L. (2015). *Entangled Empathy: An Alternative Ethic for Our Relationships with Animals*. New York: Lantern Books.

Guttilla, D. A., & Stapp, P. (2010). Effects of Sterilization on Movements of Feral Cats at a Wildland-Urban Interface. *Journal of Mammalogy, 91,* 482-489. https://doi.org/10.1644/09-MAMM-A-111.1

Hesman Saey, T. (2015). Genes & Cells: Ancient DNA Pushes Back Timing of the Origin of Dogs: Ancestors of Domesticated Canines May Have Split from Wolves as Early as 40,000 Years Ago. *Science News, 187,* 10. https://doi.org/10.1002/scin.2015.187012009

Kreuz, T. (1999). *The Stray Cat Handbook*. New York: Howell Books House.

Levy, J. K., Isaza, N. M., & Scott, K. C. (2014). Effect of High-Impact Targeted Trap-Neuter-Return and Adoption of Community Cats on Cat Intake to a Shelter. *The Veterinary Journal, 201,* 269-274. https://doi.org/10.1016/j.tvjl.2014.05.001

Liberg, O., Sandell, M., Pontier, D., & Natoli, E. (2000) Density, Spatial Organisation and Reproductive Tactics in the Domestic Cat and Other Felids. In D. C. Turner, & P. P. G. Bateson (Eds.), *The Domestic Cat: The Biology of Its Behaviour* (3rd ed., pp. 119-147). New York: Cambridge University Press.

Longcore, T., Rich, C., & Sullivan, L. M. (2009). Critical Claims Regarding Management of Feral Cats by Trap-Neuter-Return. *Conservation Biology, 23,* 887-894. https://doi.org/10.1111/j.1523-1739.2009.01174.x

Marra, P. P., & Santella, C. (2016). *Cat Wars*: *The Devastating Consequences of a Cuddly Killer*. Princeton, NJ: Princeton University Press.

Marshall-Pescini, S., Virányi, Z., & Range, F. (2015). The Effect of Domestication on Inhibitory Control: Wolves and Dogs Compared. *PLoS ONE, 10,* e0118469.

https://doi.org/10.1371/journal.pone.0118469

Podberscek, A. L., Paul, E. S., & Serpell, J. (2000). *Companion Animals and Us: Exploring the Relationships between People and Pets*. Cambridge, UK: Cambridge University Press.

Regan, T. (1983). *The Case for Animal Rights*. Berkeley, CA: University of California Press.

Singer, P. (1975). *Animal Liberation: A New Ethics for Our Treatment of Animals*. New York: New York Review.

Turner, V. W. (1969). *The Ritual Process: Structure and Anti-Structure*. Ithaca, NY: Cornell University Press.

Alley Cat Allies (2014). *Frequently Asked Questions*. 5 December 2014. https://www.alleycat.org/

The Friends (2016). *The Friends of Roman Cats*. 11 January 2016. http://friendsofromancats.org/the-cats-and-culture-tour/

ASPCA (2019). *Feral and Community Cats.* 2 January 2019. https://www.aspcapro.org/feral

Humane Society (2019). *Outdoor Cats*. 2 January 2019. https://www.humanesociety.org/search?keys=outdoor+cats

ACCT Philly (2019). *Animal Control Data*. 26 April 2019. http://www.acctphilly.org/about/statistics/